



A3 Clapham Road junction with Union Road Safer Junctions programme

Brief

June 2018

A3 Clapham Road junction with Union Road

Brief

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1. Background

Strategic context

Transport for London, as the highway authority, has responsibility for maintaining, operating and improving the Transport for London Road Network in London. This network comprises around five per cent of all roads in London, but carries over one third of all traffic.

The transport network plays a vital role in supporting economic growth, by linking people to jobs, delivering products to markets and supporting domestic and international trade. Transport also promotes social cohesion, by providing access to key services, such as health and education services, shops and leisure facilities.

The Mayor's Transport Strategy sets out a clear commitment to the Vision Zero approach to eliminating road deaths and serious injuries on London's roads. Vision Zero includes a number of programmes designed to tackle road danger reduction, including Safer Junctions.

Safety improvements at specific junctions will be critical to achieving the Mayor's Vision Zero ambition in reducing road danger and following the analysis of the road casualty data, the Safer Junctions list was published in April 2017 and identified 73 junctions on the TLRN with the highest Vulnerable Road User (VRU) collision rate. The list includes:

- 21 junctions which have been upgraded in the last three years,
- 33 at which TfL were already investigating improvements, and
- 19 where investigations would begin.

Over the period 2013 – 2015, 1819 KSIs (all modes) were recorded at all junctions in London. This data was used to identify the sites to be prioritised for study. 46 KSIs were recorded at the 19 new locations which are being investigated as part of the Safer Junctions programme.

It should be noted that the junctions in the Safer Junction programme are also major locations of social interaction and in many cases perform an important 'place' function. Hence design proposals should seek to make these locations more appealing to pedestrians and cyclists, with the aim of reducing road danger throughout the Safer Junction scheme area. This holistic approach will not only drive down collisions, but improve the urban realm, encourage modal shift to walking and cycling, and contribute to wider regeneration objectives.

Examples of interventions that should be considered for all Safer Junctions include:

- New and/or improved pedestrian crossings
- Innovative facilities to separate cyclists from traffic in time and space, and improve existing cycle facilities where they exist
- Wider pedestrian footways, and decluttering of existing footways
- 'Floating' bus stops
- Opportunities to introduce Sustainable Urban Drainage

- Opportunities to introduce pocket parks, improved hard and soft landscaping, and new cycle parking
- A review of street lighting throughout the scheme area, to identify any sub-standard locations
- Measures to reduce traffic speeds (including consideration of 20mph), and ensure those speed reductions are self-enforcing (e.g. through raised pedestrian crossings)
- Measures to bring about traffic reduction through the junction (e.g. traffic lane removal, where practicable and without significant adverse impacts on buses; making roads accessible to pedestrians, cyclists and buses only)
- Opportunities for increased bus priority

In June 2018, the TfL Healthy Streets Portfolio Board approved the Safer Junctions programme budget of £0.5m in 2018/19 to continue work on the 19 junctions where collision investigations began in 2017/18.

Local context

The junction of Clapham Road and Union Road within the London Borough of Lambeth is situated along the A3 corridor. The A3 is a strategic arterial corridor that runs from Elephant and Castle in central London south-west towards the GLA boundary. Within LB Lambeth, the A3 is generally a single carriageway bi-directional, two lane road (with stretches of bus lanes in most sections), Cycle Superhighway 7 (CS7) also runs along the full length of the A3 in LB Lambeth, providing cyclists with an unsegregated cycle lane. Notable exceptions to this are the junctions at Stockwell and Oval where major improvement schemes for cyclists were introduced under the former Better Junctions programme.

The junction has a mixture of local businesses including a pub on the south-western corner of the junction and residences. At the junction, there are examples where the local infrastructure acts as a physical and / or psychological barrier to the movement of people. Generally, the junction is dominated by vehicular traffic. However, in the peak periods there is a heavy cycle flow which exceeds the provision of CS7. Narrow footways, steep gradients to crossing points, street clutter and relatively high levels of pedestrian flows create an environment that not only is unpleasant, but also potentially unsafe.

Union Road forms part of the LB Lambeth road network and provides a link to A3036 Wandsworth Road and A3205 Battersea Park Road. Consequently, this route is frequently used as a local cut-through towards Wandsworth Town.

It is worth noting that closing Union Road to through traffic has been suggested by Will Norman, Walking and Cycling Commissioner for London and this was conveyed to key internal stakeholders by Peter Sadler (TfL City Planning). However, in this situation the traffic displacement could potentially exacerbate collision levels at the junctions to the north and south of Union Road (Jeffreys

Road and Gauden Road respectively). Jeffreys Road to the north is currently not controlled by traffic signals and therefore may not be able to accommodate the additional right turning movements without increased road danger risk. There are also road humps along the length of Jeffreys Road, suggesting that this may not be a suitable route for displaced traffic. Gauden Road is situated to the south of Union Road past Clapham North. This junction is also unsignalised and also suffers from a poor collision record with limited scope for improvements. Any further investigation of closing Union Road must include mitigating measures at both of these junctions.

In the existing road layout, the character of the junction may offer limited opportunities for wide-scale place making features, but urban realm improvements may be feasible to improve the junction's Healthy Streets rating. The recommendation to close Union Road to through traffic could provide opportunities for wider urban realm improvements which will encourage people to spend more time in the area, rather than simply travel through the junction.

Collision Issues

18 personal injury collisions occurred in the 36 month period ending 31st October 2016, of which three resulted in serious injuries (16.6%). This is above the comparative rate of 12.6% for ATS junctions on the TLRN in Inner London Boroughs.

Key collision issues at the junction of A3 Clapham Road with Union Road include:

- 13 collisions (72.2%) involved a pedal cyclist
- 10 collisions (55.6%) involved a vehicle turning right
- 6 collisions (33.3%) involved an overtaking manoeuvre
- 5 collisions (27.8%) involved a motorcyclist (P2W)

- 4 collisions (22.2%) involved a left turning vehicle

Factor	Collisions		Expected Rate (%) ²
	Number	% ¹	
Total	18	100.0%	-
Total	Total per year	6.0	-
	Total per km year	-	xx.xx / xx.xx
	Priority Score	0	-
Injury	Fatal and Serious	3	16.7%
	Slight	15	83.3%
Modal	Pedestrian	2	11.1%
	Pedal Cycle	13	72.2%
	Powered Two Wheeler	5	27.8%
	Bus or Coach	0	0.0%
	Goods Vehicle	5	27.8%
Manoeuvre	Overtaking	6	33.3%
	Right turning	10	55.6%
	Left turning	4	22.2%
	U-turning	0	0.0%
Cond.	Non-dry	2	11.1%
	Dark	5	27.8%

¹ Shading indicates where a collision rate is higher than the comparative average

² Comparative rate is derived from Collision Levels in Greater London Issue 14: 2011 to 2013, comparison table: ATS (Inner Borough)

2. Commission

To appoint Traffic Design Engineering (TDE) to carry out feasibility and concept design. TDE will act as the Principal Designer and carry out all the duties under the CDM Regulations 2015.

The scope of this commission is for TDE to consider the content of the A3 Clapham Road / Union Road collision study report (as supplied Appendix A) together with the comments and recommendations provided by key internal stakeholders at the site meeting (as supplied in Appendix B) and further develop these to:

- Provide feasibility design options based on the potential interventions to reduce road danger, including exploring opportunities to improve cycle facilities, encourage pedestrian priority, reduce traffic dominance and vehicle speeds and where possible introduce urban realm improvements and / or green infrastructure (See also, 'Strategic Context');
- Provide concept design of the preferred option;
- Utilise the results from the base Healthy Streets surveys undertaken by TDE to inform the design;
- Assist the Sponsor to assess the impact of proposals using the TfL's City Planner strategic assessment framework tool;

- Provide designs to TfL Network Performance in order for them to undertake traffic modelling of recommended solutions for the design of all options and to assess local impacts. TfL Network Performance will be commissioned separately by the TfL Sponsor;
- Provide technical input to the Sponsor for the Business Case and other required paperwork in preparation for associated programme and portfolio boards;
- Calculate potential collision savings and other quantifiable benefits which may be derived, such as more walking and cycling; and,
- Provide a detailed Microsoft project programme and cost estimate for TDE tasks related to carrying out the feasibility and concept designs.

In order to adhere to the required timescale, it is recommended that certain surveys required by the LoHAC design team for detailed design may be required to be procured during the concept design stage. All additional surveys required to carry out the design, will require prior authorisation from the Sponsor. TDE to provide specification and quotations to the Sponsor so that separate survey commissions can be agreed.

The design has to be produced and comply with all the relevant design standards and TfL specific requirements.

Figure 1 overleaf shows the geographic scope of the study with the local context.

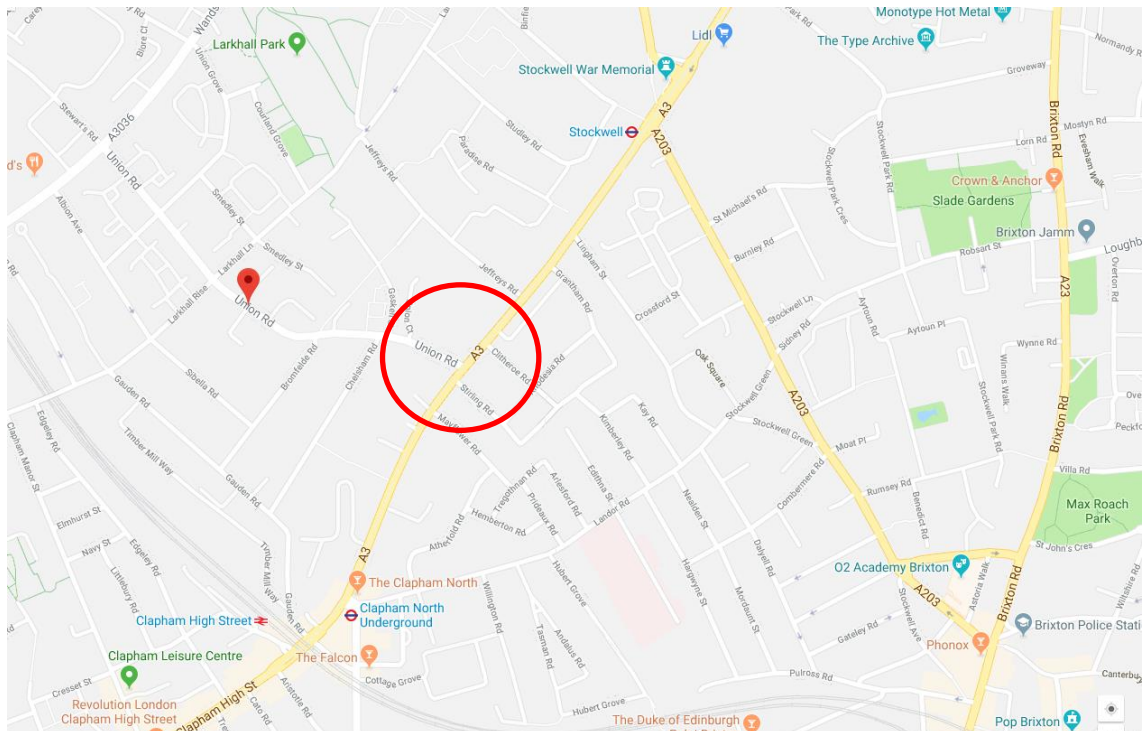


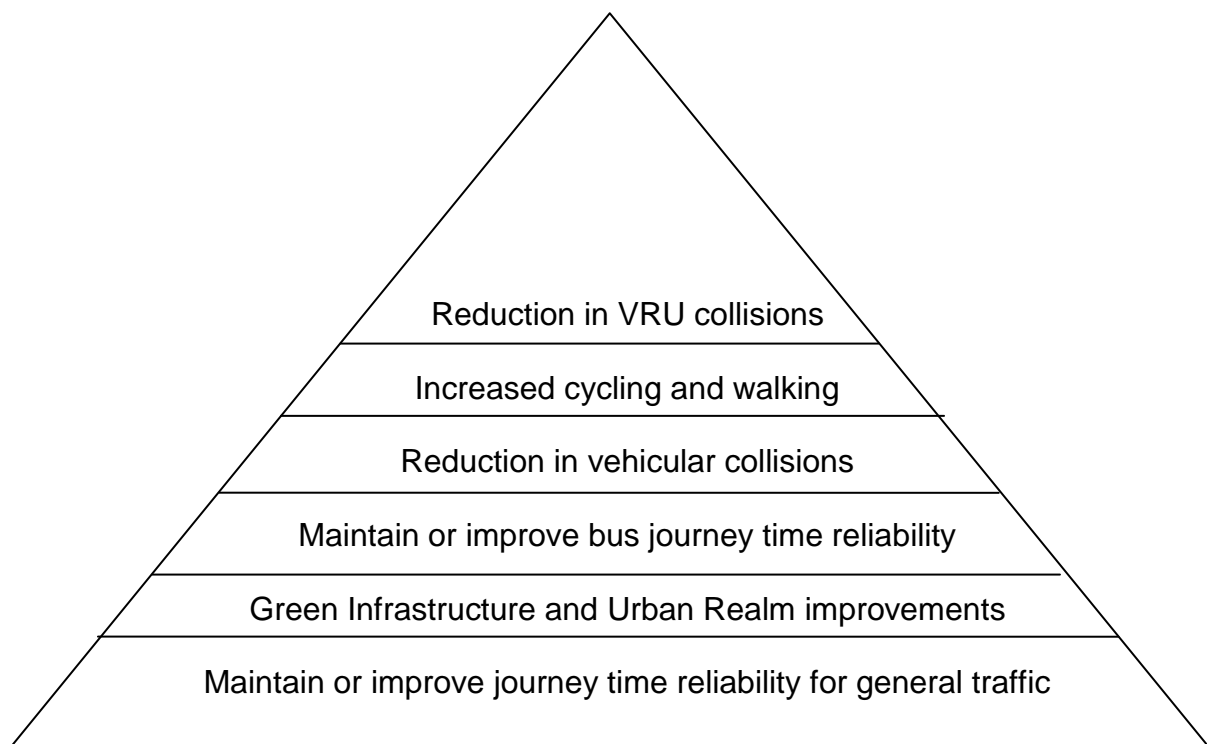
Figure 1 - Network in scope for intervention

Considerations – Safer Junctions Programme Wide

Initial findings from the first collision studies into new locations indicate that the challenges highlighted at some Safer Junction locations may include the need to make trade offs. For example:

- Traffic re-timings of signals and the large impact of changes to traffic across several lanes, but this could impact negatively on the bus network
- Pedestrian behaviour (with no historical record of personal injury collisions) of crossing injudiciously or informally across junctions could be resolved by an all-round pedestrian signal stage
- Side road closures resulting in more stakeholder agreement being needed
- The delay of improvements to a location because of other planned changes or factors

It is accepted that in order to provide a holistic approach to reducing road danger, some design considerations may be in direct contradiction with each other. To assist in the prioritisation of proposed measures, this hierarchy of needs is to be followed:



There are several elements to the Design Strategy for the Safer Junctions programme which should be considered.

Design Strategy - Overarching Principles

- **Highways Infrastructure** – To see significant improvements in addressing collision patterns and reducing road danger for vulnerable road users, meaningful changes and improvements are needed to the highways infrastructure. The provision of direct crossings and raised tables can highlight pedestrian priority and reduce the dominance of vehicular traffic.

For cyclists, direct cycle lanes, tracks, two-stage right turns, left-turn on footway, and early release traffic signals should be investigated, especially where there is future cycle demand. ASLs and advisory cycle lanes are not considered sufficiently transformational for Safer Junctions.

The use of public transport for longer trips should be encouraged by bus priority measures including bus lane extensions and bus gates should also be considered. Wherever possible, impacts to the bus network should be mitigated.

- **Street Makeover** - By encouraging more pedestrians to spend time in the area through enhancing the place function of the site, vehicle dominance in the area will be reduced.

Streetscape and urban realm improvements can design out conflict points while enabling pedestrians to safely follow desire lines. This can include, but is not limited to removal of clutter, introducing pocket parks and green infrastructure (eg. sustainable urban drainage), wider, better quality pavements and cycle parking. This also helps support a number of Healthy Streets indicators including shade and shelter, places to stop, people feel relaxed and clean air, which would not routinely be addressed through traditional highway infrastructure improvements.

Removal of through traffic from selected residential streets can remove key dangerous manoeuvres and provide opportunities for streetscape improvements.

An Urban Designer has been appointed to the Safer Junctions programme to provide technical input and strategic guidance to facilitate the incorporation of Streetscape and urban realm improvements into the designs for this Safer Junction.

- **Safety and Security** – Reduced speed limits, especially 20mph, are known to reduce the severity of collisions and encourage more active forms of transport. A high quality urban environment will in turn result in more passive surveillance to reduce crime and encourage more active forms of transport.
- **Future Proofed** – The pressures on the street are ever-changing and so the design needs to be adaptable to change: flexible on a daily basis and resilient over the long-term. The Safer Junctions programme will need to

respond to any known intensifying role as a focal point for pedestrian, cyclist or motorcyclist activity.

- Innovative – The deliverables need not rely solely on tried and tested measures. Where appropriate, efforts should be made to trial innovative and creative solutions in order to reduce road danger.
- Safer Streets for All – A dimension of the design strategy is to increase motorist awareness of all vulnerable road users. The design should support the provision of alternative modes such as walking and cycling, in particular focussed on shorter trips to local main attractors where there is most scope for increased use, such as nearby town centres and public transport interchanges.

Where appropriate, having a distinct change in the character of the junction may be appropriate to encourage motorists to slow down, especially where cyclists travel and where pedestrians cross frequently.

Whilst additional motorised trips should not be encouraged within the Safer Junctions programme, the safety of motorcyclists should be protected through the design of the individual projects.

- Parking and Loading - Special consideration should also be given to loading and parking along the route and maintaining or improving servicing arrangements. Loading pads which allow for footways to open up during the busiest periods is one approach that could provide for different users at different times of the day.
- Behaviour Change Initiatives – Where possible, if a location is identified which may also benefit from softer road safety interventions, this should be highlighted to the Sponsor to bring to the attention of colleagues in Customer Communication and Technology (CCT).

Safer Junctions Template

Examples of measures which could be included in a Safer Junctions design

Traffic reduction measures:

- Removal of through traffic from selected streets, such as residential zones

Highways infrastructure:

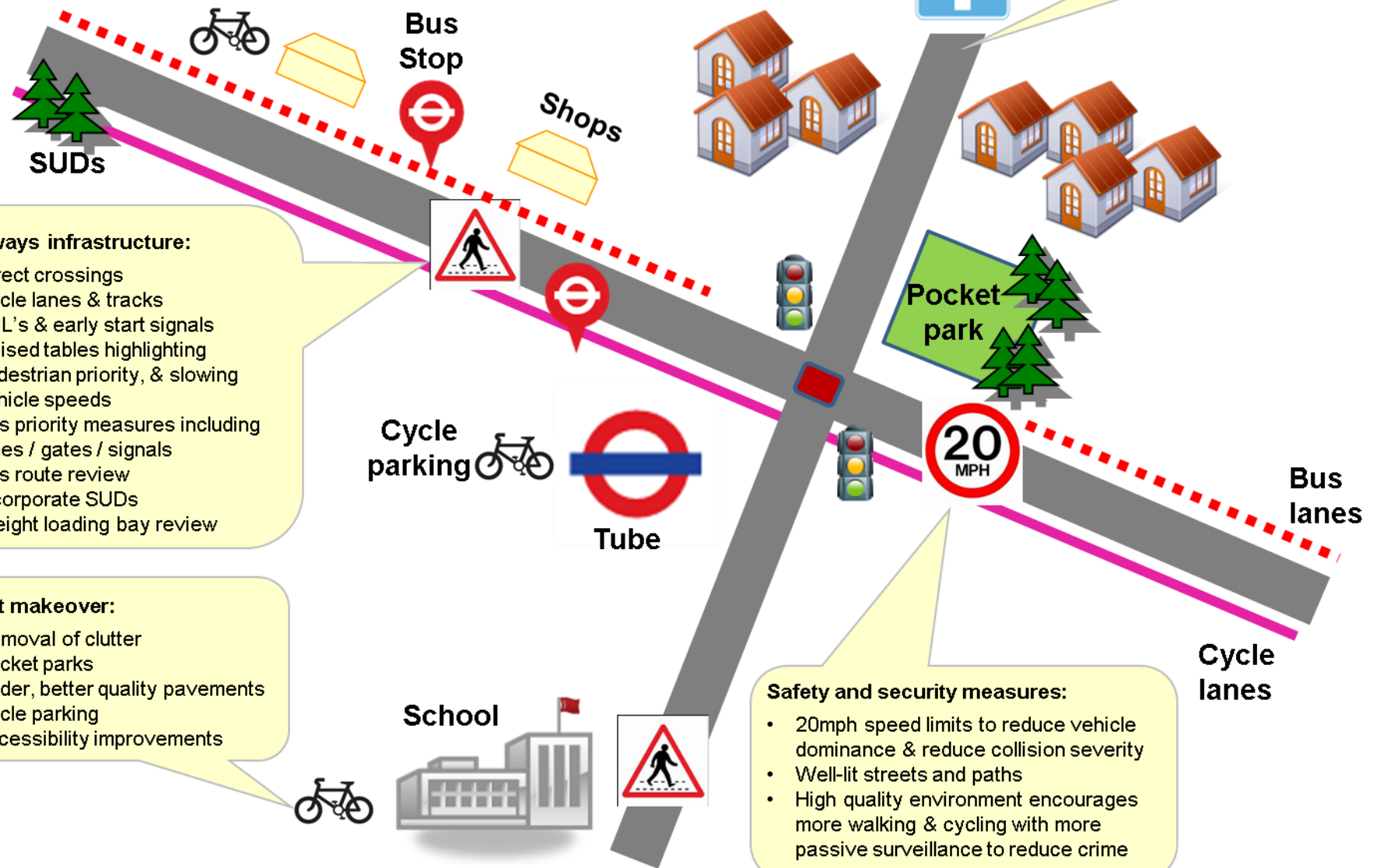
- Direct crossings
- Cycle lanes & tracks
- ASL's & early start signals
- Raised tables highlighting pedestrian priority, & slowing vehicle speeds
- Bus priority measures including lanes / gates / signals
- Bus route review
- Incorporate SUDs
- Freight loading bay review

Street makeover:

- Removal of clutter
- Pocket parks
- Wider, better quality pavements
- Cycle parking
- Accessibility improvements

Safety and security measures:

- 20mph speed limits to reduce vehicle dominance & reduce collision severity
- Well-lit streets and paths
- High quality environment encourages more walking & cycling with more passive surveillance to reduce crime



Other Relevant Investigations

Currently Strategy and Network Development (S&ND) is not aware of any other ongoing investigations or projects at the junction of the A3 Clapham Road with Union Road which TDE should also be aware of. However, other investigations in the wider local area being undertaken which are of relevance to this study are:

- Clapham High Street – S&ND Network Sponsorship project costing over £1m to reduce road danger and improve the urban realm on Clapham High Street between Bedford Road and Clapham Park Road. Construction is expected to take place late 2019/20. This project is currently in Feasibility design with a number of options being considered. Prohibiting turns at the Clapham High Street / Gauden Road / Lendel Terrace junction is being considered, with an alternative route via Union Road. The two projects will need to be closely co-ordinated.

Proposed Measures for Feasibility and Concept Design under this Commission

These proposals are based on the recommendations made in the Collision Study prepared by TDE, comments made at the site meeting of 26th March 2018 and at the post-site meeting involving key internal stakeholders held at the TfL offices at Palestra on 3rd April 2018.

TDE are instructed to investigate and provide feasibility and concept designs, which could include a combination of the following proposals:

1. Right turn from Clapham Road into Union Road (north to west)

Summary: There is a relatively high volume of right-turning traffic. This movement runs at the same time as the A3 northbound movement leading to right-turning drivers seeking slim gaps in the traffic and then turning right impatiently or injudiciously. Northbound cyclists to the nearside may be obscured from view by adjacent vehicles, putting them at an increased risk of being struck.

Proposals: Provide an early cut-off for northbound traffic on the A3 to enable road users to turn right into Union Road unopposed or split-phase the A3 traffic movements northbound / southbound.

Potential impacts: Likely to impact on junction capacity and journey times, including buses and cyclists. Potential impact to traffic will be determined by traffic modelling, which will be carried out by Network Performance (NP).

2. Close Union Road at its junction with Clapham Road

Summary: Will Norman, Walking and Cycling Commissioner for London is keen to see major infrastructure and network alterations as part of the Safer Junctions programme in order to achieve Vision Zero and reduce the dominance of vehicular traffic resulting in a Healthy Street. This junction was

specifically highlighted as having a potential to be closed to eliminate turning collisions and deliver improvements to the local urban realm.

Proposal: Investigate the full removal or a reduction in through traffic in Union Road. Measures could include the full closure of Union Road or restricted movements into or out of Union Road so that access for cycle and buses can be maintained.

Potential impacts: Unlikely to be supported by local residents as access would be diverted via other adjacent side roads quite some distance away. Traffic displacement could potentially exacerbate collision levels at the junctions to the north and south of Union Road. Jeffreys Road to the north is currently not controlled by traffic signals and therefore may not be able to accommodate the additional right turning movements without increased road danger risk. Gauden Road is situated to the south of Union Road past Clapham North. This junction is unsignalised and also suffers from a poor collision record with limited scope for improvements. Closure of Union Road must include mitigating measures at both of these junctions. The impact of traffic displacement will be assessed by the traffic modelling, which will be carried out by NP.

Full closure would hinder cycle connectivity. Partial closure (access for cycles only) may introduce the need for a separate stage in the traffic signal method of control to facilitate the safe movement of right turning cyclists from Union Road.

Full closure would hinder bus routes. Buses currently turn right into Union Road to access Stockwell bus garage.

Closing Union Road would mean that the option of banning turns in the Clapham High Street safety scheme could not be taken forward. Close co-ordination of the two projects will be needed.

3. Left turn from Clapham Road into Union Road (south to west)

Summary: There is a high proportion of cyclists heading north into central London in the AM peak. Vehicles turning left into Union Road are in direct conflict with this cycle flow as there is no physical segregation of the cycle facilities nor separation for cyclists in the traffic signal staging.

Site observations showed that due to the presence of the bus lane on this approach, some vehicles turned left from the offside lane.

Proposal: Extend the nearside northbound bus lane to the stop line at the Union Road junction, forcing vehicles to turn left from the offside lane and giving cyclists greater lane width to assert their position through the junction.

Potential impacts: Cyclists may not expect vehicles to turn left from the offside lane. Robust lane markings and signing will be required.

4. **Shallow capacity of the Advanced Stop Lines (ASLs)**

Summary: Around the junction, not all ASLs may have the recommended depth of 5m to promote cycle visibility. Given the heavy AM peak cycle volumes, the ASLs are already at capacity.

Proposal: Check the existing depth of the ASLs around the junction and increase according to at least 5m, more if cycle volumes require. Investigate the provision of early release from the traffic signals for cyclists.

Potential impacts: May impact junction capacity, including buses. Potential impact to traffic will be determined by traffic modelling, which will be carried out by NP.

5. **Right turn from Stirling Road (east to north)**

Summary: Many vehicles turn right from Stirling Road onto the A3 and then turn left into Union Road, cutting across two lanes of traffic including cyclists. The right turn from Stirling Road is in close proximity to the Union Road junction and therefore vehicles are unable to complete the right turn manoeuvre without either straddling the traffic lanes or entering the northbound ASL.

Proposal: Prohibit the right turn movement from Stirling Road.

Potential impacts: Right turning traffic may be displaced to the Mayflower Road junction. The impact of traffic displacement will be assessed by the traffic modelling, which will be carried out by NP. Also, without physical measures or enforcement to discourage the right turn, some motorists may continue to turn right when they are unexpected to do so.

PPD Elements to deliver in advance of the TDE design

Certain issues have been observed on site and can be delivered in advance of TDE designing the project. These are to be passed to TfL Projects and Programme Directorate (PPD) to rectify.

6. **Steep dropped kerbs south-western corner of the junction**

Summary: There are steep footway gradients on the south-western corner of the junction towards the dropped kerbs at the crossing points on Clapham Road, south of Union Road, and to a lesser extent, over Union Road. This could hinder pedestrians with pushchairs or mobility impairments and reduces the level of pedestrian comfort.

Proposal: Re-profile the footways.

Potential impacts: Re-profiling may not be feasible due to cellars underneath belonging to the public house on this corner.

7. Drainage gulley within pedestrian crossing area

Summary: There is a drainage gulley situated within the pedestrian crossing area on A3 Clapham Road (south-eastern arm) by the western footway. This presents a possible trip and slip hazard to crossing pedestrians.

Proposal: Re-locate the gulley to a position outside of the pedestrian crossing area.

8. Restricted footway width

Summary: Bollards installed at the side roads of Stirling Road, Mayflower Road and Clitheroe Road narrow the footway.

Proposal: Remove the bollards at these locations to increase the effective footway width.

Potential impacts: The bollards may have previously been installed to prevent footway parking or to highlight side roads which may have had an associated collision problem.

Innovative Measures

Where appropriate, efforts should be made to trial innovative and creative solutions in order to reduce road danger. The following measure is to be investigated although it is appreciated that they may require authorisation from the Department of Transport and further off-street trials to assess their suitability on the TfL Road Network. As such, this element of the commission shall be progressed separately, and is outside of the delivery timescales due to the risk of it not being feasible or buildable.

9. Innovative Active Road Studs for northbound cyclists

Summary: There is a high proportion of cyclists heading north into central London in the AM peak. Vehicles turning left into Union Road are in direct conflict with this cycle flow as there is no physical segregation of the cycle facilities nor separation for cyclists in the traffic signal staging. At busy times, the nearside lane is fully utilised by cyclists. The recommendation to continue the nearside northbound bus lane to the stop line will require road users to turn from the offside lane.

Similarly, road users turning right into Union Road frequently seek slim gaps in the traffic to turn right into Union Road. This may be without due care and attention for the presence of cyclists to the nearside of northbound vehicles. Cyclists may therefore be at an increased risk of being struck by right turning vehicles.

Proposal: Provide additional means of highlighting the passage of northbound cyclists through the junction. Investigations into the use of active

road studs should be progressed. These studs have been used successfully in Scotland.

The nearside lane may be demarcated by active road studs, linked the traffic signals. When the northbound movement has a green traffic signal, the studs illuminate as a warning to turning vehicles of the presence of northbound cyclists and buses, but when the early cut-off is activated, the studs are turned off, discouraging cyclists from continuing over the junction on a red traffic signal.

Potential impacts: Active road studs may require authorisation from the Department of Transport and further off-street trials to assess their suitability on the TfL Road Network. Currently use of road studs requires a steady coloured / white light to be emitted to approaching road users. Clarification is to be sought to ascertain if turning the road studs on / off whilst linked to the traffic signals constitutes a non-steady light. If this is considered to constitute a steady light being emitted to road users, then this element of the designed should be tested to ascertain if it is suitable for use on the TLRN Road Network as a trial product as part of this project.

3. Methodology

Identifying potential interventions

TDE is required to produce feasibility designs for each site identified as a Safer Junction site. These may vary in cost for delivery; PPD Commercial should lead on all cost estimating for emerging designs, in collaboration with the Designer. The final interventions are expected to remain within an overall budget of circa £5m (including all design development, project management, sponsorship, communications, and miscellaneous delivery costs).

Early Contractor Involvement will be considered by PPD, in order to inform the cost estimates, and help the designer address risks at any early stage (e.g. in relation to statutory undertakers and procuring necessary surveys).

S&ND will make available any relevant completed studies, which describe issues and suggest solutions. TDE should not rely on collating existing ideas, and will be expected to develop design recommendations independently.

Innovative and creative solutions may be proposed, but non-standard or unapproved techniques will need to be agreed by the Sponsor before significant work is undertaken in developing these options.

The design should address the following issues:

- Improve road safety, focussing on, but not limited to vulnerable road user collisions;
- Facilitating public realm improvements to encourage more people to spend time in the area and maximise the junction's potential against TfL's Healthy Streets indicators;
- Improving local ambience through increasing TfL's green estate. This will also mitigate the exposure of pedestrians (especially children), cyclists and motorcyclists to fumes from stationary traffic and maximising opportunities for carbon capture and sequestration, addressing environmental impacts;
- Improving accessibility and severance issues for pedestrians and cyclists, including cycle parking provisions;
- Journey time reliability should be maintained or improved for buses where feasible;
- In acceptance of the role of Principal Designer, all CDM Regulation 2015 requirements will apply including managing, co-ordinating and programming the feasibility and concept design to include all aspects for delivering the design (i.e. Engineering and Technical Services, Traffic Infrastructure, Network Impact Management, WCAP, Highways Technical Approval Authority, external including contractors for surveys and London Borough of Lambeth etc.). The S&ND Principal Sponsor will send a letter formally appointing TDE as Principal Designer and provide the initial PCI separately.

Feasibility designs

TDE is expected to undertake 2D geometric designs of intervention measures for identified locations. CAD based designs should include/ identify:

- General highway layout (existing and proposed), showing the highway boundary;
- Geometric alterations to the highway;
- Land take requirements, if required;
- Lane definition; and,
- Statutory plant, and furniture affected by the proposals and the implications for the design.

Where unavailable, topographical surveys may be required for the purpose of providing suitable feasibility designs however this should be agreed with the Sponsor prior to commissioning.

Where required, TDE to assist the Sponsor in presentation of the proposals to the Streetscape Design Review Group (SDRG).

TDE, in conjunction with the Sponsor, is to provide PPD with the draft feasibility designs to facilitate construction cost estimates for the project.

Concept design of the preferred option is then to be progressed.

Concept design

The final concept design package is to include:

- General Arrangement drawings showing proposed dimensions;
- Site Clearance drawings;
- Signs and Road Marking drawings; and,
- (where appropriate) Outline Urban Realm improvement designs (in conjunction with the nominated Urban Designer).

A Risk workshop with stakeholders will be arranged by PPD during the concept design stage, and output to be included within ARM. TDE will be required to provide their technical input. The output of this meeting will be a detailed Risk Register and Issues Register to be maintained by PPD using ARM.

TDE, in conjunction with the Sponsor, is to provide PPD with the draft concept design to facilitate construction cost estimates for the project.

Assess impact of proposals using strategic assessment framework

TDE will be provided with a Fingerprint output from TfL's City Planner strategic assessment framework tool for each junction. The attributes of the framework include the following Transport Outcomes:

- Safety – Road casualties and crime levels
- Active – Active travel, current and potential cycling and walking levels
- Green – Air quality
- Space efficient – Freight flow levels and car dependency
- Connected public transport – Improved connectivity
- Accessible public transport – Access inequality
- Quality public transport – Bus performance, demand and provision
- Sustainable, active travel developments – Car dependency and poor connectivity
- Unlocking development – Forecast population and employment growth

Once feasibility designs are defined, TDE should assist the Sponsor in completion of a high-level evaluation of all options based on this assessment framework.

Local Modelling of options

Local modelling will be required in order to undertake the assessment of network performance/engineering feasibility. Separate briefs to Network Performance and Traffic Infrastructure will be issued by the Sponsor.

Public Consultation

As a result of the limited timeframe for delivery, public consultation will only take place where there is a statutory requirement. Where no formal public engagement is required, extensive pre-engagement via TfL CCT will take place throughout the design period to maximise the potential for local stakeholder buy-in.

Where formal public consultation is to take place, TDE is to assist with the preparation of material for the consultation.

Key Study Stages and Deliverables

Stage 1

- Project initiation meeting

- Brief note outlining TDE's understanding of study objectives and strategic and local objectives

Stage 2

Following confirmation of the above with S&ND, the following is expected:

- Design of interventions to feasibility and concept level as specified
- Assess impact of each proposal on a local level for all road users utilising the assessment framework
- Periodic spend profile to end of concept design
- Detailed Microsoft Project plan to end of concept design
- Designer's Response to the Stage 1 Road Safety Audit and TfL Highways Approval Document (HAD) for the Technical Approval process
- Technical input to the TfL Engineering Scheme Impact Report (SIR)

Deliverables

In addition to the common deliverables noted in the next section, the following items should also be provided:

Option drawings

Any option drawings should be produced in line with recommendations made by key internal stakeholders in attendance at the Safer Junctions site meetings and / or wash up sessions.

The Sponsor will select the optimum design option which captures the design objectives within the scope of this commission, based on the hierarchy of needs established earlier in this Commissioning Brief.

Utility Surveys

Utility surveys, e.g. C2's shall be undertaken and subsurface utilities are to be determined with the project area. This shall be undertaken during the course of this task order. During the feasibility and concept design stages, the LoHAC designer is to be available for early engagement activities in order to understand the rationale behind design decisions and to ensure that any surveys necessary to undertake the detailed design are procured in good time to meet the agreed timescales. TDE are to assist in the procurement and commissioning of these surveys.

Road Safety Audit

On completion of the concept design, the Sponsor will arrange for a Stage 1 Safety Audit to be undertaken by TfL's in-house Road Safety Team. The Safety Audit reports shall be received by TDE who shall consider and provide a designer's response in respect of any remedial works or additional features considered necessary.

Construction and Design Management

CDM Regulations 2015 should be considered as part of assessing viability of any design. The S&ND Principal Sponsor will send a formal letter of appointment to TDE and provide the Pre-Construction Information (PCI) documentation.

DELIVERABLES

Common Deliverables	Required?
Project Plan that sets out time and cost details, including project milestones and deliverables.	<input checked="" type="checkbox"/>
Periodic reports to coincide with TfL 4-weekly accounting periods detailing time worked, money spent, and percentage complete.	<input checked="" type="checkbox"/>
Report on work undertaken and implementation recommendations (no report without a recommendation). The Report will include a single page Executive Summary as a forward outlining the Commission objectives and conclusions, and a single page Design Statement outlining the key design parameters and decisions.	<input checked="" type="checkbox"/>

The following will be included in the Report or produced as separate documents:

Common Deliverables	Required?
Appropriate plans (AutoCAD and PDF format)	<input checked="" type="checkbox"/>
Traffic counts – To be discussed and confirmed with Sponsor	<input checked="" type="checkbox"/>
Appropriate Traffic Models giving:	
Base	<input type="checkbox"/>
Options	<input type="checkbox"/>
Preferred option	<input type="checkbox"/>
Signed off TSSR	<input type="checkbox"/>
Topographical survey - To be discussed and confirmed with Sponsor	<input checked="" type="checkbox"/>
Stage 1 Road Safety Audit – To be completed by TfL's in-house Road Safety Audit team	<input checked="" type="checkbox"/>
Stage 1/2 Road Safety Audit combined	<input type="checkbox"/>
Road Safety Audit Designer's Response	<input checked="" type="checkbox"/>
Location of Statutory Undertakers plant and potential implications to design.	<input checked="" type="checkbox"/>
Streetscape Design Review Group (SDRG) approval, where required	<input checked="" type="checkbox"/>
Highways Technical Approval at the end of each stage	<input checked="" type="checkbox"/>
Network Performance (NP) approval	<input checked="" type="checkbox"/>
Consultation documentation (plan, text etc.)	<input checked="" type="checkbox"/>
Summary results of consultation exercise(s)	<input checked="" type="checkbox"/>
Cost estimate for construction	<input type="checkbox"/>
CDM documentation	<input checked="" type="checkbox"/>
Public consultation drawings (where required)	<input checked="" type="checkbox"/>
TMO drawings and schedules	<input checked="" type="checkbox"/>
Environmental Checklist	<input checked="" type="checkbox"/>
Healthy Streets Check (with Sponsor)	<input checked="" type="checkbox"/>
Guardrail Assessment	<input type="checkbox"/>
Design change log	<input checked="" type="checkbox"/>

4. Governance

The S&ND Portfolio Sponsor for Road Safety is accountable for the commissioning of this work and the requirements set out in this brief. A PPD Project Manager has been appointed for early involvement of this project, prior to handover at the detailed design stage. The PPD Project Manager is accountable or responsible for all Health and Safety and Project Management activities as set out in the Pathway RACI matrix.

The S&ND Principal Sponsor (based in the appropriate Network Sponsorship Area Team) will be responsible for stakeholder engagement, decision making, and project governance during design development. They will provide appropriate scrutiny and challenge to the Project Manager, who will oversee the design schedule and cost estimates.

TDE should provide a weekly progress report.

A project Progress Meeting will also take place on a monthly basis. TDE should be available for this and may be invited to attend for part of the meeting. There may be other meetings between the Sponsor and TDE however this will be confirmed / requested over the course of the commission period. Please find attached the governance structure in Appendix C.

5. Timescales

TfL has committed to Will Norman, the Walking and Cycling Commissioner for London, to complete all construction work and Gate 5 approval for site work at this location by April 2020.

In order to meet this deadline, TDE are requested to complete the feasibility and concept design with public consultation as outlined in this brief by 31 December 2018.

Indicative milestones for the final design are:

By end Jan 2019	Feasibility, concept design and public consultation complete (8 months)
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Interim target dates: 10 weeks each for feasibility and concept design stages and four weeks for each Stage Gate sign off.

<i>Early July 2018</i>	<i>TDE to respond with understanding of brief, output delivery programme and fee estimate (one week)</i>
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<i>Mid July 2018</i>	<i>S&ND to confirm commission (one week)</i>
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<i>End September 2018</i>	<i>Feasibility design to be completed with amendments incorporated including Highways TAA submission</i>
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<i>October 2018</i>	<i>Gate 2 sign-off by S&ND</i>
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<i>October – December 2018</i>	<i>Public consultation to run concurrently to the concept design including one month to collate consultation report.</i>
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<i>End December 2018</i>	<i>Concept design to be completed with amendments incorporated including Stage 1 Road Safety Audit and Highways TAA submission</i>
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<i>January 2019</i>	<i>Gate 3 sign off by RSM-S</i>
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By end of June 2019	Detailed design complete (5 months)
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By end of April 2020	Construction complete (10 months)
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6. Appendices

Appendix A – A3 Clapham Road / Union Road Safer Junctions collision study

Appendix B – Summary of site visit / meetings with key internal stakeholders

Appendix C – Strategic Assessment Framework ‘Fingerprint’

Appendix D – ‘Before’ Healthy Streets check

Appendix E - Safer Junctions Governance Structure

Appendix A – A3 Clapham Road / Union Road Safer Junctions collision study



Clapham Road Union
Road Collision Study v

Appendix B – Summary of site visit / meetings with key internal stakeholders



Copy of Clapham
Road jw Union Road (

Appendix C – Strategic Assessment Framework 'Fingerprint'

Table A:
Strategic
Network
Check

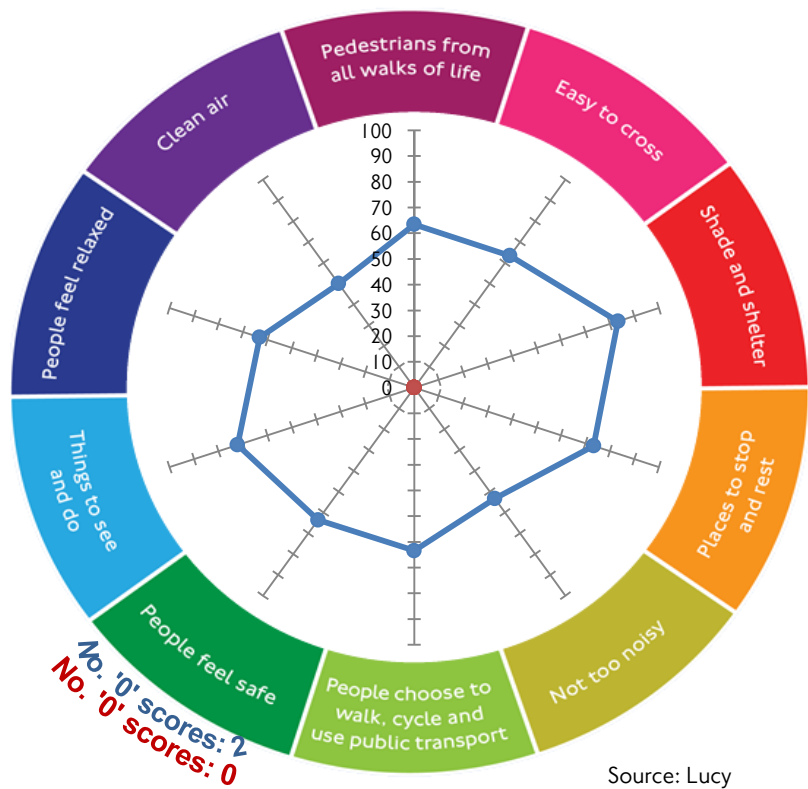
STRATEGIC CHECK	Existing/Committed Cycle Network	Yes	
	Strategic Cycle Analysis - Priority	No	
	Strategic Movement & Freight Network	Yes	
	Bus Network	Yes	
	Bus Priority Corridor	No	
	Low Emission Bus Corridor	No	
	High Patronage Bus Corridor	Yes	
	Existing Major PT Interchange	No	
	Growth & Opportunity Area	No	

Table B1:
Outcome
Scoring (short
version)

AREA OUTCOME SCORING	Transport Outcomes		Score	Importance	Description	V Low	Low	Medium	High	V High
	Active	Current & potential cycling & walking levels	4W High	Highest	ped & cycling demand & potential					
	Safe	VGI and crime levels	4 High	High	accident and/or crime incidence					
	Green	Air quality issues	4W High	Highest	Lowest air quality					
	Space Efficient	Vehicle flow levels & car dependency	4 High	High	High vehicle flows and local car ownership					
	Connected PT	Existing PT connectivity	4W Low	Highest	PT accessibility index					
	Reliable Service	Current & forecast bus demand & bus performance	4W Low	Lowest	patronage & good bus performance					
	Quality Service	Current & forecast bus demand & bus performance	4W High	Highest	crowding & lowest comfort					
	Inclusive PT	Accessibility level	4W High	Lowest	accessibility					
	Growth	Existing & forecast pop. and employment levels	4 High	High	population & employment density					

Appendix D – Base Healthy Streets Check

Healthy Streets Check scores



Appendix E - Safer Junctions Governance Structure

*Please note that members of the Design and Modelling team listed overleaf shown in italics are subject to Transformation and consequently the individuals involved may be subject to change.

Safer Junctions Governance

