New Cycle Route Quality Criteria tool

Version 1

Introduction to the tool

The Quality Criteria are based on London Cycling Design Standard best practice guidance, focusing on whether conditions are appropriate for routes to be designed to mix people cycling with motor traffic, as well as recommending an appropriate level of provision for routes with dedicated space for cycling. An accompanying technical note is available which explains the thresholds embedded as part of this tool.

When should I use this tool?

The Quality Criteria tool can be used throughout the lifecycle of a cycle route project before each Stage Gate:
• To assist in the selection of a preferred route alignment and exploration of potential design forms in Outcome Definition alongside other factors including existing conditions, modal and network requirements and stakeholder input
• At Feasibility Design / Option Selection to help identify the range of route design forms and the selection of a single preferred option
• At the Concept Design stage to ensure the design is fit for purpose

The tool features two tabs: one for an assessment of existing conditions; the other for proposed design approaches. Users should apply suitable data inputs that correspond to the design stage and the purpose of the assessment.   Quality Criteria will be reviewed by TfL Sponsors for all cycle routes that are expected to be part of the signed cycle network. All proposals will continue to go through due TfL

General guidance for selecting links and using the tool

A proposed cycle route should be divided into links which comprise a consistent street character. Where there are significant changes in the quality of provision for cycling being offered, such as if there is a long stretch of on-street parking that adversely impacts on cycling, this should be considered as a separate link location. Some pinch-points, such as at bus stop bypasses where a cycle track is temporarily narrowed, may be considered appropriate for the context and should be noted as not being included as a separate link. Main junctions should be reviewed as part of the link. This tool does not provide a detailed assessment of junctions but flags up when a design proposal may not be delivering to a high standard as part of the 'Additional design considerations' and should be further evaluated as appropriate.

Indicative 'green' highlighted tabs show where the input corresponds with an expected high level of provision for cycling, 'grey' where only the minimum level of provision has been attained, and 'red' where the minimum level of provision has not been reached, to provide some visual assistance in comparing data inputs between links.

The tool provides space for data to be input for up to 20 links and users of the tool are encouraged to save

Quality Criteria Assessment - Guidance Notes

		Information on completing the spreadsheet
Data inputs (part 1a) This section is used by the tool to calculate whether conditions are expected to be suitable for people cycling to mix with general traffic. All data inputs are required to produce a valid output presented in Output 1a.	**Is this a one-way or two-way street?**	This selection refers to whether motor vehicle traffic is permitted in both directions or not. It is used to determine how the tool interprets the peak hour motor vehicle flow data described in the next box.
	What is the peak hour motor vehicle flow?	Peak hour motor vehicle flows should be used for the existing assessment, with the peak identified using a 7am to 7pm count on a weekday. Where the peak hour flow is known to fall outside these hours, it is recommended to use the peak hour flow across 24 hours and note the time period used. Two-way flows should be input where a street is two-way and one-way flows for a one-way street, For the proposed scheme, modelled flows should be used where available. The user comments tab should identify whether existing or predicted flows have been used.
	What is the 85th %ile speed? (mph)	85th percentile speed data for a typical weekday should be used. Where multiple locations are collected within a section of road, the highest speed value should be used.
	Are measures proposed to reduce speeds at this location?	This input only applies to proposed design assessments. Where the existing 85th percentile speed is 25mph or more and the proposal is to mix people cycling with motorised traffic, designers should justify what measures will be put in place to provide sufficient speed reduction measures. Speed reduction measures may include: reducing the speed limit to 20mph; installing new infrastructure such as raised tables, raised side road entry treatments, cycle-friendly speed humps, cycle lanes that narrow general traffic lanes; and/or by removing the centreline.
	What is the width of the nearside running lane for general traffic? (metres - include the width of kerbside bays)	The width of the carriageway should be measured across a link of relatively consistent character and width. The nearside general traffic lane width input should cover only a single general traffic lane width where the majority of people cycling would be expected to ride. This width should be measured from the kerb edge to the nearside lane marking, or road centre point where there is only one running lane in each direction, and should include the width of parking or loading bays where present. Where there is a particular pinch-point that is of concern, then it is at the assessors' discretion whether to include this as a separate location for analysis. For one-way streets, measure the full width of the street. Where road markings indicate an area of hatching not designed for frequent vehicle overrun, consider this as unusable space and do not include this as part of the lane width metric.
	What is the width of the kerbside parking / loading? (metres)	Where kerbside activity is permitted, the kerbside parking or loading bay width should be measured. Where only one side of the carriageway has kerbside activity, use this side of the road to highlight the worst case situation. Where parking / loading is temporarily restricted or where parking / loading is not restricted and there are no designated bays but there is frequent kerbside activity, assume a 2m reduced width in carriageway to represent a parked vehicle, up to a 3m width for where HGV loading is expected based on the adjacent land use. Where night time loading is permitted, this may be omitted from the spreadsheet input if the hours of operation do not coincide with peak cycling hours. This should be noted to highlight where this has been incorporated and reference made to the hours of operation. Bus stops are not included within the kerbside activity metric but due consideration is needed in relation to bus service frequency, the design of the bus stop area and the arrangement of cycling facilities to ensure that the layout is fit for purpose and complies with London Cycling Design Standards.
	Turning risk - does the layout fulfil the criteria?	Designers should assess the existing risk to people cycling at junctions. The level of provision required should be determined based on professional judgement using information such as the volume of turning movements, speed, junction geometry and collision data. **'Yes'** corresponds to provision of infrastructure measures that are deemed appropriate at priority junctions that reduce the speed of turning vehicles, such as raised junctions, side road entry treatments and tight corner radii or ways to minimise motor vehicle turning movements through road closures, banned turns, or modal filters on the side road. **'Yes'** also applies to signal-controlled junctions where there is a need for signals such as early release or full separation to be implemented and it is being proposed. **'Yes'** also applies in situations where a cycle route crosses the carriageway and appropriate crossing provision is provided based on traffic flows on the intersecting road, to comply with Figure 5.4 Cycle crossing options in the London Cycling Design Standards. **'No'** should apply where there is a known significant risk and the above measures are not part of the existing arrangement or in the proposed design. Where there is a known risk at a junction that is not being suitably dealt with, it is not considered suitable for cyclists to be mixed with general traffic and therefore selecting this option will return a result that suggests it is not suitable for people cycling to be mixed with general traffic. **'N/A'** applies to situations where there is no existing identified risk, such as a link which does not contain a major junction and no additional infrastructure measures are considered necessary.
	What is the peak hour HGV flow?	Actual peak hour HGV volumes (defined as lorries and trucks over 3.5 tonnes) should be noted in this tab. It may not always be possible to conduct manual classified counts, therefore it is considered acceptable to use radar surveys that classify HGVs as any vehicle over 5.6m in length. Where HGV flows are equal to 50 vehicles or more in any given hour, it is not considered appropriate to mix people cycling with motor traffic.
	What is the peak hour HGV flow as a % of the total motor vehicle flow for that hour?	HGV % (defined as all lorries and trucks over 3.5 tonnes) is calculated by comparing the peak hour HGV flow from 7am -7pm, to the total motor vehicle flow for that hour; i.e. not necessarily the peak hour motor vehicle flow, which may be different to the HGV peak flow. Where there are temporary construction sites that may skew the data, a proportion of the HGV traffic attributable to a particular site should be understood, so that the long term flow trend is used as the basis for identifying the HGV proportion of traffic. If only the peak hour % is known, this should be used and a comment inserted in the user comments box.
	User comments on data inputs	This box should be populated with information relating to the data inputs, such as whether existing or predicted flows have been used, whether there is a significant proportion of kerbside activity and how this is designated through the day, justification for the turning risk criteria selected, and /or any other relevant details on influential characteristics of the location. Where describing a proposed design, it is recommended to note the features of the design that are expected to impact on the criteria; e.g. filtered permeability, kerbside parking
Output 1a	**Are conditions expected to be suitable for people cycling to be mixed with motor traffic?**	This output is based on the relationship of the six design criteria: vehicle flows, speeds, width, turning risk, kerbside activity and proportion of HGVs, to determine whether the conditions are expected to be suitable for people cycling to mix with motor traffic. An accompanying technical note is available which describes the details of these relationships and how the output is calculated, which is embedded as part of this tool.
Dedicated provision for cycling (part 1b) This section is used by the tool to inform a subsequent course of action based on whether existing conditions or a design proposal is broadly in line with the expected on-carriageway conditions for cycling.	**Is a light segregated cycle lane or full separation provided / proposed?**	Users should identify whether dedicated provision for cycling is already provided or being proposed following completion of the data inputs in part 1a. This section is used to inform a subsequent course of action based on whether existing conditions or a design proposal is broadly in line with the expected conditions for cycling. **'Yes'** - for sections of the route which have a proposal for a light segregated cycle lane or additional degree of separation for cycling, such as a fully separated cycle track or shared use footway / path **'No'** - should there be no dedicated space for cycling proposed **'N/A'** - should there be no existing design proposal available

Output 1b	Recommended action	This output identifies the recommended next step for project officers by relating the proposed design approach (part 2) to Output 1a which identifies whether there is a recommendation for cyclists to be separated from general traffic. The full range of automatically generated outputs are as follows: 'Expected to be suitable for cyclists to be mixed with general traffic' – this covers where it is expected that separation for cycling is not required but this does not necessarily mean that some form of separation should not be investigated further. 'Complete Proposed design information (part 2) below' – where it is proposed that cyclists will be provided with a dedicated cycle lane or track, it is suggested to seek further design advice by completing part 2 of the tool. 'Layout improvements recommended' – this situation only arises for existing conditions which are not expected to be suitable for cyclists to be mixed with general traffic and no cycle lane is currently provided. This should be a prompt for designers to consider how to provide better conditions for cycling in these locations. 'Speak to Lead Sponsor' – this situation only arises for proposed schemes where the conditions are not expected to be suitable for cyclists to be mixed with general traffic and no design response for separation has been proposed. This should be raised with the Lead
Data inputs for when dedicated space for cycling is proposed (part 2) This section is used by the tool to identify whether there are potential design issues associated with cycle lane widths or signal design.	**Layout of light segregated cycle lane, track or shared use facility proposed**	This section should only be completed where existing conditions / proposed layouts feature a cycle lane which is light segregated as a minimum (i.e. a mandatory lane with separating objects). Advisory lanes are not considered to meet the Quality Criteria, except where it is appropriate for people cycling to be mixed with general traffic. Contraflow cycle lanes are not covered by the Quality Criteria process and should be reviewed as a separate detailed design consideration. '**One-way**' where operating with general traffic flow in one direction for cyclists. '**Two-way**' where operating as part of a bidirectional arrangement for cyclists. It is assumed that a light segregated lane is the minimum level of provision being proposed. '**Shared use**' where operating as a footway or path that is designed to accommodate
	Proposed width of cycle lane, track or shared use facility (metres)	Measured from the kerb edge to the centre of the painted road marking (or other kerb / path edge as appropriate). This should factor in any reduction in effective widths as a result of features such as light segregation posts.
	Proposed buffer zone width adjacent to kerbside activity where a cycle lane is provided (metres)	Measured from the centre of the painted marking as appropriate. 0m should be input where no specific buffer zone is delineated.
	Does the design provide a cycle early release signal at signal controlled junctions, where needed?	The expected level of intervention for signal-controlled junctions is for a cycle early release signal to be provided, but only where it is considered appropriate to do so, based on a risk assessment. '**Yes**' - should be selected where it is considered appropriate to do so and it is proposed. '**No**' - should be selected where it could be considered appropriate to do so but it is not being proposed. '**N/A**'- should be selected where it is not considered appropriate to do so and it is not being
	Are conflicting movements between cycle traffic and motor traffic separated with dedicated signals for cycles, where needed?	The target level of intervention for signal-controlled junctions is to separate cycles in time with interventions such as hold-the-left signals or cycle gates included as appropriate on the cycle route, to separate cyclists where there is a known conflict issue. This input should also be used to highlight situations where a cycle route crosses the carriageway; in these instances, appropriate crossing provision should be provided based on traffic flows on the intersecting road, to comply with Figure 5.4 Cycle crossing options in the London Cycling Design Standards. '**Yes**' - should be selected where it is considered appropriate to do so and it is proposed. '**No**' - should be selected where it could be considered appropriate to do so but it is not being proposed. '**N/A**'- should be selected where it is not considered appropriate to do so and it is not being
Output 2	**Additional design considerations**	This box will be automatically generated based on the inputs provided in part 2, setting out whether there may be potential issues with the proposals which should be further investigated and improved upon as appropriate. Where the term '**address**' is used in relation to a specific issue, then it is strongly recommended that this design issue is investigated and acted on as appropriate, documenting the reponse in the comments box below. Where the term '**consider**' is used in relation to a specific issue, then it may not be a major issue but should nevertheless be investigated, such as where the lane widths are not meeting the target level of 2m for one-way lanes/tracks and 3m for two-way lanes/tracks. Design issues will be identified in terms of a '**cycle lane width issue**' and/or a '**signal design issue**'.
	User comments on proposed approach	This box should be populated with any further information relating to how the result for Output 1a and Output 2 has been acted on, as required.

Quality Criteria Assessment v1

			Link 1	Link 2	Link 3	Link 4	Link 5
Route information	Route		Caledonian Road	Penn Road	Hungerford Road		
	Borough		Islington	Islington	Islington		
	Project Number						
	Location		London N7	London N7	London N7		
	Length of link (metres)		171	348	614		
	Number of buses per hour (for reference)		25	0	0		
Existing Conditions Data inputs (Part 1a)	Is this a one-way or two-way street?	?	One-way	One-way	Two-way		
	What is the peak hour motor vehicle flow?	?	596	37	78		
	What is the 85th %ile speed? (mph)	?	27	19.9	25		
	What is the width of the nearside running lane for general traffic? (metres – include the width of kerbside bays)	?	6	10	4.9		
	What is the width of the kerbside parking / loading? (metres)	?	4	4	2		
	Turning risk – does the existing arrangement fulfil the criteria? (see Guidance Notes tab)	?	N/A	Yes	Yes		
	What is the peak hour HGV flow?	?	60	1	0		
	What is the peak hour HGV flow as a % of the total motor vehicle flow for that hour?	?	10.0%	4.0%	0.0%		
	User comments on data inputs	?	Peak hour motor vehicle flow observed 21/11/2023; 85th percentile speed observed w/c 24/11/2022	Peak hour motor vehicle flow observed 18/07/2023; 85th percentile speed observed w/c 18/07/2023	Peak hour motor vehicle flow observed 17/11/2023; 85th percentile speed observed w/c 24/11/2022		
Output 1a	Are existing conditions expected to be suitable for people cycling to be mixed with motor traffic?		No	Yes	Yes		
Dedicated space for cycling (Part 1b)	Is a light segregated cycle lane or full separation provided currently?	?	No	No	No		
Output 1b	Recommended action		Design improvements recommended	Expected to be suitable for cyclists to be mixed with general traffic	Expected to be suitable for cyclists to be mixed with general traffic		
Data inputs for where there is existing dedicated space for cycling (Part 2)	Layout of light segregated cycle lane, track or shared use facility, if currently provided	?					
	Existing width of cycle lane, track or shared use facility (metres)	?					
	Existing buffer zone width adjacent to kerbside activity where a cycle lane is provided (metres)	?					
	Does the layout provide a cycle early release signal at signal controlled junctions, where needed?	?					
	Are conflicting movements between cycle traffic and motor traffic separated with dedicated signals for cycles, where needed?	?					
Output 2	Additional design considerations						
	User comments on data inputs	?					

Quality Criteria Assessment v1

		Link 1	Link 2	Link 3	Link 4	Link 5	Link 6	Link 7	Link 8	Link 9
Route information	Route	Caledonian Road southbound	Caledonian Road northbound	Penn Road	Hungerford Road					
	Borough	Islington	Islington	Islington	Islington					
	Project Number									
	Location	London N7	London N7	London N7	London N7					
	Length of link (metres)	171	171	348	614					
	Number of buses per hour (for reference)	25	25	0	0					
Proposed Design Data inputs (Part 1a)	Is this a one-way or two-way street? ?	One-way	One-way	One-way	Two-way					
	What is the expected peak hour motor vehicle flow? ?	596	596	37	78					
	What is the expected 85th %ile speed? (mph) ?	27	27	19.9	25					
	Are measures proposed to reduce speeds at this location? (requires existing speeds to be filled out) ?	No	No	No	No					
	What is the proposed width of the nearside running lane for general traffic? (metres - include the width of kerbside bays) ?	8	8	10	4.9					
	What is the proposed width of the kerbside parking / loading? (metres) ?	4	4	4	2					
	Turning risk - does the proposed arrangement fulfil the criteria? (see Guidance Notes tab) ?	Yes	Yes	Yes	Yes					
	What is the expected peak hour HGV flow? ?	60	60	1	0					
	What is the peak hour HGV flow as a % of the total motor vehicle flow for that hour? ?	10.0%	10.0%	4.0%	0.0%					
	User comments on data inputs (including proposed design features that are anticipated to impact on the criteria)	Proposed design features a light-segregated cycle lane; Peak hour motor vehicle flow observed 21/11/2023; 85th percentile speed observed w/c 24/11/2022	Proposed design features a light-segregated contraflow cycle lane; Peak hour motor vehicle flow observed 21/11/2023; 85th percentile speed observed w/c 24/11/2022	Proposed design features two-way cycling on a one way street without a dedicated cycle lane; Peak hour motor vehicle flow observed 18/07/2023; 85th percentile speed observed w/c 18/07/2023	Peak hour motor vehicle flow observed 17/11/2023; 85th percentile speed observed w/c 24/11/2022					
Output 1a	Are proposed conditions expected to be suitable for people cycling to be mixed with motor traffic?	No	No	Yes	Yes					
Proposed dedicated space for cycling (Part 1b)	Is a light segregated cycle lane or full separation proposed? ?	Yes	Yes	No	No					
Output 1b	Recommended action	Complete Part 2 below	Complete Part 2 below	Expected to be suitable for cyclists to be mixed with general traffic	Expected to be suitable for cyclists to be mixed with general traffic					
Data inputs for when dedicated space for cycling is proposed (Part 2)	Layout of light segregated cycle lane, track or shared use facility, if proposed ?	One-way	One-way							
	Proposed width of cycle lane, track or shared use facility (metres) ?	1.8	2							
	Proposed buffer zone width adjacent to kerbside activity where a cycle lane is provided (metres) ?	0.5	0							
	Does the design provide a cycle early release signal at signal controlled junctions, where needed? ?	N/A	N/A							
	Are conflicting movements between cycle traffic and motor traffic separated with dedicated signals for cycles, where needed? ?	Yes	Yes	Yes	N/A					
Output 2	Additional design considerations	Consider wider cycle lane if cycle flows warrant it	Consider wider cycle lane if cycle flows warrant it							
	User comments on proposed approach ?	Crossing design flow: 150-300 cyclist/hr; 200-450 pedestrian/hr; Carriageway flow estimated from 12-hr count observed 21/11/23: 11268 vehicles per day	Crossing design flow: 150-300 cyclist/hr; 200-450 pedestrian/hr; Carriageway flow estimated from 12-hr count observed 21/11/23: 11268 vehicles per day	Crossing design flow: 150-300 cyclist/hr; Carriageway flow estimated from 12-hr count observed 08/11/2023: 7877 vehicles per day						