Appendix H: Cycling audit tool

Note: Please refer to Appendix H for the Active Travel Act Guidance for a guide on how to use the audit tools.

Cycling route audit

Table 1.1: Cycling route audit details to be completed by the auditor

Cycling audit details	Information to be completed by the auditor
Route ATNM reference	Intentionally blank cell – to be filled in by the auditor
Start/end location audited	Intentionally blank cell – to be filled in by the auditor
Date(s) of audit	Intentionally blank cell – to be filled in by the auditor
Day(s) of week	Intentionally blank cell – to be filled in by the auditor
Time(s) of day	Intentionally blank cell – to be filled in by the auditor
Weather conditions	Intentionally blank cell – to be filled in by the auditor
Auditor(s)	Intentionally blank cell – to be filled in by the auditor
Notes to be aware of (if not captured below)	Intentionally blank cell – to be filled in by the auditor

Table 1.2: Cycling route audit

Key requirement	Factor	Design principle	Indicators	Critical	0 (Red)	1 (Amber)	2 (Green)	Existing score	Comments	Suggested amendments	Revised score (potential if improvements made)
Cohesion	Connections.	Cyclists should be able to easily and safely join and navigate along different sections of the same route and between different routes in the network.	1. Ability to join/leave route safely and easily: consider left and right turns.	Intentionally blank cell.	Cyclists cannot connect to other routes without dismounting.	Cyclists can connect to other routes with minimal disruption to their journey.	Cyclists are provided with a continuous route, including at junctions.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Cohesion	Continuity and wayfinding.	Routes should be complete with no gaps in provision. 'End of route' signs should not be installed – cyclists should be shown how the route continues. Cyclists should not be 'abandoned', particularly at junctions where provision may be required to ensure safe crossing movements.	2. Provision for cyclists throughout the whole length of the route.	Intentionally blank cell.	Cyclists are 'abandoned' at points along the route with no clear indication of how to continue/to their journey.	The route is made up of discrete sections, but cyclists can clearly understand how to navigate between them, including through junctions.	The route is made up of discrete sections, but cyclists can clearly understand how to navigate between them, including through junctions.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Cohesion	Density of network.	Cycle networks should provide a mesh (or grid) of routes across the town or city. The density of the network is the distance between the routes which make up the grid pattern. The ultimate aim should be a network with a mesh width of 250m.	3. Density of routes based on mesh width i.e. distances between primary and secondary routes within the network.	Intentionally blank cell.	Route contributes to a network density mesh width >1000.	Route contributes to a network density mesh width 250 – 1000m.	Route contributes to a network density mesh width <250m.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Directness	Distance.	Routes should follow the shortest option available and be as near to the 'as the-crow-flies' distance as possible.	4. Deviation of route. Deviation Factor is calculated by dividing the actual distance along the route by the straight line (crow-fly) distance, or shortest road alternative.	Intentionally blank cell.	Deviation factor against straight line or shortest road alternative >1.4.	Deviation factor against straight line or shortest road alternative 1.2 – 1.4.	Deviation factor against straight line or shortest road alternative <1.2.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Directness	Time: frequency of required stops or give ways.	The number of times a cyclist has to stop or loses right of way on a route should be minimised. This includes stopping and give ways at junctions or crossings, pedestrian barriers, pedestrian-only zones etc.	5. Stopping and give way frequency.	Access Control not in accordance with guidance recommendation and no objective justification for it's inclusion (see Section 15.3).	The number of stops or give ways on the route is more than 4 per km.	The number of stops or give ways on the route is between 2 and 4 per km.	The number of stops or give ways on the route is less than 2 per km.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Directness	Time: delay at junctions.	The length of delay caused by junctions should be minimised. This includes assessing impact of multiple or single stage crossings, signal timings, toucan crossings etc.	6. Delay at junctions.	Intentionally blank cell – to be filled in by the auditor.	Delay for cyclists at junctions is greater than for motor vehicles	Delay for cyclists at junctions is similar to delay for motor vehicles.	Delay is shorter than for motor vehicles or cyclists are not subject to delay for at junctions (e.g. bypass at signals).	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Directness	Time: delay on links.	The length of delay caused by not being able to bypass slow moving traffic.	7. Ability to maintain own speed on links.	Intentionally blank cell.	Cyclists travel at speed of slowest vehicle (including a cycle) ahead.	Cyclists can usually pass slow traffic and other cyclists.	Cyclists can always choose an appropriate speed.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Directness	Gradients.	Routes should avoid steep gradients where possible. Uphill sections increase time, effort and discomfort. Where these are encountered, routes should be planned to minimise climbing gradient and allow users to retain momentum gained on the descent.	8. Gradient.	Intentionally blank cell – to be filled in by the auditor.	Route includes sections steeper that the gradients recommended in Section 915. of the Guidance.	There are no sections of route steeper than the gradients recommended in Section 915 of the Guidance.	There are no sections of route which are steeper than 2%.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Safety	Reduce/ remove speed differences where cyclists are sharing the carriageway.	Where cyclists and motor vehicles are sharing the carriageway, the key to reducing severity of collisions is reducing the speeds of motor vehicles so that they more closely match that of cyclists. This is particularly important at points where risk of collision is greater, such as at junctions.	9. Motor traffic speed on approach and through junctions where cyclists are sharing the carriageway through the junction.	85th percentile > 37mph (60kph).	85th percentile >33mph.	85th percentile 22mph-33mph.	85th percentile <22mph.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Safety	Reduce/ remove speed differences where cyclists are sharing the carriageway	Where cyclists and motor vehicles are sharing the carriageway, the key to reducing severity of collisions is reducing the speeds of motor vehicles so that they more closely match that of cyclists. This is particularly important at points where risk of collision is greater, such as at junctions.	10. Motor traffic speed on sections of shared carriageway.	85th percentile > 37mph (60kph).	85th percentile >33mph.	85th percentile 22mph-33mph.	85th percentile <22mph.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Safety	Avoid high motor traffic volumes where cyclists are sharing the carriageway.	Cyclists should not be required to share the carriageway with high volumes of motor vehicles. This is particularly important at points where risk of collision is greater, such as at junctions.	11. Motor traffic volume on sections of shared carriageway, expressed as vehicles per peak hour.	>10000 AADT, or >5% HGV.	4000-10000 AADT and 2-5%HGV.	2500-4000 and <2% HGV.	0-2500 AADT.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Safety	Risk of collision.	Where speed differences and high motor vehicle flows cannot be reduced cyclists should be separated from traffic – see table 11.1. This separation can be achieved at varying degrees through on-road cycle lanes, hybrid tracks and off-road provision. Such segregation should reduce the risk of collision from beside or behind the cyclist.	12. Segregation to reduce risk of collision alongside or from behind.	Cyclists sharing carriageway – nearside lane in critical range between 3.2m and 3.9m wide and traffic volumes prevent motor vehicles moving easily into opposite lane to pass cyclists.	Cyclist in stepped track or light separation with 85th percentile speeds over 44mph. Cyclist in painted cycle lanes less than 1.8m width. Cyclist in painted cycle lanes with 85th percentile speeds up to 22mph and flows over 5000 AADT OR with 85th percentile speeds between 22 and 33mph if flows above 4500 AADT) OR between 33mph and 44mph. Cyclist mixed with motorised traffic with 85th percentile speeds up to 22mph with flows above 4000 AADT OR between 22 and 33mph, and flows above 500 AADT OR between 33 and 44mph.	Cyclist in stepped track or light separation with 85th percentile speeds between 33 and 44mph. Cyclist in painted cycle lanes (widths as described within Appendix G), with 85th percentile speeds between 22 and 33mph and flows below 4500 AADT. Cyclists mixed with motorised traffic with 85th percentile speeds below 22mph and flows below 2500 and 4000 AADT. Cyclists mixed with motorised traffic with 85th percentile speeds between 22 and 33mph, and AADT flow below 500.	Cyclists on route away from motor traffic. Cyclists in kerbed, separated cycle track. Cyclist in stepped track or light separation with 85th percentile speeds below 33mph. Cyclist in painted cycle lanes (with the lane at or above Appendix G desirable minimum) with 85th percentile speeds below 22mph and flows below 5000 AADT. Cyclist in mixed traffic with 85th percentile speeds below 22mph and flows below 2500 AADT.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Safety	Risk of collision.	A high proportion of collisions involving cyclists occur at junctions. Junctions therefore need particular attention to reduce the risk of collision. Junction treatments include: Minor/side roads – cyclist priority and/or speed reduction across side roads. Major roads – separation of cyclists from motor traffic through junctions.	13. Conflicting movements at junctions.	Intentionally blank cell.	Side road junctions frequent and/ or untreated. Major junctions, conflicting cyclist and motor traffic movements not separated.	Side road junctions infrequent and with effective entry treatments. Major junctions, principal conflicting cycle/ motor traffic movements separated.	Side roads closed or treated to blend in with footway. Major junctions, all conflicting cycle/motor traffic streams separated.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Safety	Avoid complex design.	Avoid complex designs which require users to process large amounts of information. Good network design should be self-explanatory and self-evident to all road users. All users should understand where they and other road users should be and what movements they might make.	14. Legible road markings and road layout.	Intentionally blank cell.	Faded, old, unclear, complex road markings/ unclear or unfamiliar road layout.	Generally clear road markings and road layout, but some elements could be improved.	Clear, understandable simple road markings and road layout.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Safety	Consider and reduce risk from kerbside activity.	Routes should be assessed in terms of all multi-functional uses of a street including car parking, bus stops, parking, including collision with opened door.	15. Conflict with kerbside activity.	Narrow cycle lanes <1.5m or less (including any buffer) alongside parking/loading.	Significant conflict with kerbside activity e.g. nearside cycle lane <2m (including buffer) wide alongside kerbside parking/loading.	Some conflict with kerbside activity – e.g. less frequent activity on nearside of cyclists, min 2m cycle lanes including buffer.	No/very limited conflict with kerbside activity – nearside cycle lane including buffer exceeds 3m.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Safety	Reduce severity of collisions where they do occur.	Wherever possible routes should include "evasion room" (such as grass verges) and to avoid any unnecessary physical hazards such as guardrail, build outs, etc. to reduce the severity of a collision should it occur.	16. Evasion room and unnecessary hazards.	Intentionally blank cell.	Cyclists at risk of being trapped by physical hazards along more than half of the route.	The number of physical hazards could be further reduced.	The route includes evasion room and avoids any physical hazards.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Comfort	Surface quality.	Density of defects including non cycle friendly ironworks, raised/sunken covers/ gullies, potholes, poor quality carriageway paint (e.g. from previous cycle lane).	17. Major and minor defects.	Intentionally blank cell.	Numerous minor defects or any number of major defects.	Minor and occasional defects.	Smooth high grip surface.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Comfort	Surface quality.	Pavement or carriageway construction providing smooth and level surface.	18. Surface type.	Intentionally blank cell.	Any bumpy, unbound, slippery, and potentially hazardous surface.	Hand-laid materials, concrete pavours with frequent joints.	Machine laid smooth and non-slip surface e.g. Thin Surfacing, or firm and closely jointed blocks (unbituminous) by turning vehicles.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Comfort	Effective width without conflict.	Cyclists should be able to comfortably cycle without risk of conflict with other users both on and off road.	19. Desirable minimum widths according to volume of cyclists and route type (where cyclists are separated from motor vehicles).	More than 50% of the route includes cycle provision with widths which are more than 25% below desirable minimum values.	No more than 50% of the route includes cycle provision with widths which are no more than 25% below desirable minimum values.	No more than 25% of the route includes cycle provision with widths which are no more than 25% below desirable minimum.	Recommended widths are maintained throughout whole route.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Comfort	Wayfinding.	Non-local cyclists should be able to navigate the routes without the need to refer to maps.	20. Signing.	Intentionally blank cell.	Route signing is poor with signs missing at key decision points.	Gaps identified in route signing which could be improved.	Route is well signed with signs located at all decision points and junctions.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Attractiveness	Social safety and perceived vulnerability of user.	Routes should be appealing and be perceived as safe and usable. Well used, well maintained, lit, overlooked routes are more attractive and therefore more likely to be used.	21. Lighting.	Intentionally blank cell.	Most or all of route is unlit.	Short and occasional unlit/poorly lit sections.	Route is lit to highway standards throughout.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Attractiveness	Social safety and perceived vulnerability of user.	Routes should be appealing and be perceived as safe and usable. Well used, well maintained, lit, overlooked routes are more attractive and therefore more likely to be used.	22. Isolation.	Intentionally blank cell.	Route is generally away from activity.	Route is mainly overlooked and is not far from activity throughout its length.	Route is overlooked throughout its length.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Attractiveness	Impact on pedestrians, including people with disabilities.	Introduction of dedicated on-road cycle provision can enable people to cycle on-road rather than using footways which are not suitable for shared use. Introducing cycling onto well-used footpaths may reduce the quality of provision for both users, particularly if the shared use path does not meet recommended widths.	23. Impact on pedestrians, Pedestrian Comfort Level based on TfL's Pedestrian Comfort guide – Section 9.6 of the Guidance.	Intentionally blank cell.	Pedestrian comfort is at Level C or below, or residual width for pedestrians is below those recommended in Section 9.6 of the Guidance.	Pedestrian comfort is at Level B or above, or residual width for pedestrians is as per those recommended in Section 9.6 of the Guidance.	Pedestrian comfort is at Level A, or residual width for pedestrians is above those recommended in Section 9.6 of the Guidance.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Attractiveness	Minimise street clutter.	Signing required to support scheme layout.	24. Signs informative and consistent but not overbearing or of inappropriate size.	Intentionally blank cell.	Large number of signs needed, difficult to follow and/or leading to clutter.	Moderate amount of signing particularly around junctions.	Signing for wayfinding purposes only and not causing additional obstruction.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.
Attractiveness	Secure cycle parking.	Ease of access to secure cycle parking within businesses and on street.	25. Evidence of bicycles parked to street furniture or cycle stands.	Intentionally blank cell.	No additional cycle parking provided or inadequate provision in insecure non-overlooked areas.	Some secure cycle parking provided but not enough to meet demand.	Secure cycle parking provided, sufficient to meet demand.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.	Intentionally blank cell – to be filled in by the auditor.

Table 1.3: Cycling route audit outcome (example)

Score type	Existing score	Revised score
Total score	0	0
Total percentage	0.00	0.00
Not applicable factors	0	0
Critical factors	0	0
Suggested classification	Fail	Fail