Cycling Environment Assessment Tool

Initially just covering links; junctions tool to be developed later. Ultimate aim is for this to be linked to eg cyclestreets so crowd-sourced scores for 'immediate' cycling environments can be assigned to links and junctions in Open Street Map, to power cycle maps and routing engines etc, with a 'future routes' version in eg cyclescape to score proposals. Use the tool online at http://ceat.cyclenation.org.uk/ceat/ or read on for the detailed specifications.

Type of Cycling Infrastructure	Traffic Free Path	Road without Infrastructure	Advisory Cycle Lane	Mandatory Cycle Lane	Hybrid Cycle Lane	Light Protection	High Protection
Speed Limit	20 mph or below		30 mph			40 mph or above	
Motor Vehicles (PCUs/day)	less than 1,000	1,000 to 2,000	2,000 to 5,000		5,000 to 10,000		greater than 10,000
Barriers	none or >1.5m gap	1.2m to 1.5m gap	0.8m to 1.2m gap		0.6m to 0.8m gap		gate or <0.6m gap
Directness	within 10% of most direct route		within 25% of most direct route		within 40% of most direct route		over 40% longer than most direct route
Surface	very smooth		smooth		lumpy		unsealed
Pedestrians	none		few		some		many
Effective Width	one-way ≥2.5m two-way ≥4.0m	one-way ≥2.1m two-way ≥3.5m		one-way ≥1.8m two-way ≥3.0m		one-way ≥1.5m two-way ≥2.5m	one-way <1.5m two-way <2.5m

Output will be a score from 1 to 5. The first three inputs above create a high/med/low **"Separation from motors" rating** and the rest give an **"Effectiveness" rating**, then a score is calculated from these.

Cycling infrastructure types are: Path, None, ACL, MCL, Hybrid Track, Light Protection, High/Full Protection

Shared Paths or Roadways			Dedicated Cycling Space		Protected Space for Cycling	
Traffic-free path	Road with no cycling infra	Advisory cycle lane	Mandatory cycle lane	Enhanced cycle track	By plastic or 2m spatial separation	With kerbs or 4m spatial separation
Path	**None**	**ACL***	**MCL**	**Hybrid****	**Light****	**High or Full**

*ACLs must have parking restrictions to be considered. **Hybrid includes terraced tracks with a 'soft' kerb while Light Protection includes stepped terraced tracks (min 60mm vertical kerb) along with armadillos etc.

Separation from motors. Use values for speed, PCUs and infra to provide a rating from this table:

Max speed	Max PCUs, with each rating's minimum infra requirement				
	1000	2000	5000	10000	any
20mph	Low n/a	Low n/a	Low ACL	Low MCL	Low MCL
	Med n/a	Med None	Med MCL	Med Hybrid	Med Light
	High None	High ACL	High Hybrid	High Light	High Light
30mph	Low None	Low ACL	Low ACL	Low MCL	Low MCL
	Med ACL	Med MCL	Med Hybrid	Med Hybrid	Med Light
	High MCL	High Hybrid	High Light	High Full	High Full
any	Low None	Low ACL	Low ACL	Low MCL	Low Hybrid
	Med ACL	Med MCL	Med Hybrid	Med Hybrid	Med Light
	High MCL	High Light	High Light	High Full	High Full

A High+ rating can be achieved by bettering a High rating's infra requirement by one grade.

Inputs for "**Effectiveness**" rating:

- Barriers: minimum width requirements to ensure high scoring routes accommodate all cycles.
- Directness: within 10%, 25% or 40% of the most direct driving or walking route
- Pedestrian activity: hardly any or dedicated cycle space, some on wide path, some on narrower path
- Social comfort (TBC): day/night ratings for usability
- Surface: sealed or not, smoothness, any steps
- Effective Width: Future-proof, Efficient, Comfortable, Compromised (different widths for 1-way & 2-way)

Effectiveness. Satisfy all conditions in a line from the table below to achieve that rating:

Rating	Barriers***	Capacity 1-way	Capacity 2-way	Directness	Surface	Pedestrian activity
Not acceptable	gate or <0.6m gap	Worse than values below		more than 140% of walking route	includes steps	
Low	0.6m to 0.8m gap	≥1.5m	≥2.5m	within 40% of most direct walking route	non-packed unsealed or includes a small step	< ?? and path width < high capacity
Medium	0.8m to 1.2m gap	≥1.8m	≥3.0m	within 25% of most direct walking route	hard-packed path or unsmooth bitmac	< ?? and path width ≥ high capacity
High	1.2-1.5m gap	≥2.1m	≥3.5m	within 10% of most direct walking route	sealed and smooth	< ? or dedicated cycling space
High+	>1.5m of clear space	≥2.5m	≥4.0m	as above	sealed and very smooth	as above

*** Reduce rating by one grade if any barrier is within 5m of a turn or junction.

Cyclenation groups are urged to only support initiatives that score 4 or above. Some campaigners may seek a score of 5, especially for new developments, and others eg Local Authorities may consider a score of 3 acceptable.

Overall Score:		**Separation from motors** rating				
		N/A	Low	Med	High	High+
Effectiveness rating	N/A	0	0	1	1	1
	Low	0	1	2	2	2
	Med	1	2	3	3	4
	High	1	2	3	4	5
	High+	1	2	4	5	5

Score = 1 (unacceptable) if either factor can't achieve a Low rating.
A score of 5 can be considered a "world class" cycling environment.

Scores can be used when auditing LAs and, if incorporated into OSM, on maps and in cyclestreets routing.

score	map colour	description
-	clear	un-rated links get no colour
0/1	black/grey	unacceptable, should not be mapped
2	red	very poor quality, unlikely to be used
3	amber	has some value but still needs improvement
4	green	good practice, effective and should appeal to all
5	wider and/or brighter green	world class, best practice, built for the future