



GUARD RAILS: PART 2 TfL Assessment Method

Although there is no evidence that guard rails serve any purpose, highway authorities may be reluctant to remove them all, at once. This check helps decide priorities.

Nature of area	Score
Rural	1
Suburban residential	2
Suburban commercial	3
Urban residential	4
Urban commercial	5
Outside schools and transport interchanges	8

Pedestrian activity	Score
No restriction on movement	1
Easily able to pass others	3
Need to adjust speed and direction to avoid contact	5
Need to continually adjust speed and direction	7
Bulk arrivals such as at sports stadium or railway station	9
Queue or shuffle along with those in front	11

Nearby crossings	Score
No crossing	1
Informal crossing place	2
Informal crossing at traffic signals	3
Formal (controlled) crossing: zebra pelican, toucan, etc	4
Staggered formal crossing	5

Crossing use	Score
No crossing	0
Crossing used as intended	1
People cross within 50m of the crossing	3
People cross more than 50m from the site	5

Carriageway width	Score
Less than 3.5m	1
Between 3.5m - 7.0m	3
Between 7.0m - 10.5m	5
Between 10.5m - 14m	7
Between 14m - 17.5m	9
More than 17.5m	11

Inter-visibility	Score
Can drivers and pedestrians see each other?	
Desirable inter-visibility	1
Minimal	3
Less than minimum	5

Inter-visibility	Score
One way road, single lane	1
One way road, two lanes	2
Two way road, single lane in each direction	3
Two way road, two lanes in each direction	5
Two way road, more than two lanes in each direction	7

Speed of 85% vehicles	Score
Less than 20mph	1
Between 20mph - 30mph	3
Between 30mph - 40 mph	6
More than 40mph	9

Peak 2-way traffic counts	Score
Less than 500 pcu's/hr	1
Between 500 - 1,000 pcu's/hr	3
Between 1,000 - 1,500 pcu's/hr	5
Between 1,500 - 2,000 pcu's/hr	7
Between 2,000 - 2,500 pcu's/hr	9
More than 2,500 pcu's/hr	11

Turning movements	Score
No turning movements	1
One turning movement	3
Two turning movements	5
More than two	7

WHICH ASSESSMENT METHOD?

There are at least three recognised assessment methods. This method based on the one used by Transport for London, scores easy to measure criteria that affect how much risk pedestrians take when they cross a road.

If the risks are too high, then guard railings might be necessary.

Other systems attempt to compare the safety record of similar sites which do not have guard railings, or alternatively use common sense and experience.

The Transport for London system is a sensible compromise to be used by anyone.

INTERPRETING THE CRITERIA

The criteria are easy to measure.

- **Pedestrian activity** is the volume of people on the adjacent pavement.
- **Number of traffic lanes** refers to the number of lanes a pedestrian has to cross before reaching the other side of the road, or to a central refuge.
- **Nearby crossings** is the existing provision of crossings.
- **Crossing use** is how people use the existing crossing.
- **PCU's** are passenger car units, where a car or small van is 1, a lorry or bus is 3 and a cycle is 0.2.
- **Carriageway width** is the total of all the traffic lanes (as above).

USING THE SCORES

Scores are assessed for the criteria and totalled.

If the score is below 42 there would be no need for guard railings.

If it is above, then it might be helpful if pedestrians were given additional assistance to cross the road, such as an easy to use pedestrian refuge.

Totals