



Children Friendly Road Infrastructures

Ir Julian TH KWONG
Chairman, Community for Road Safety

Making Road Transport Safer for Children
Third United Nation's Global Road Safety Week
Centre for Health Protection, 9th May 2015

TOPICS

- Pedestrian Crossings and Railings
- Lower Speed Limit Zones
- Cycle Track Safety

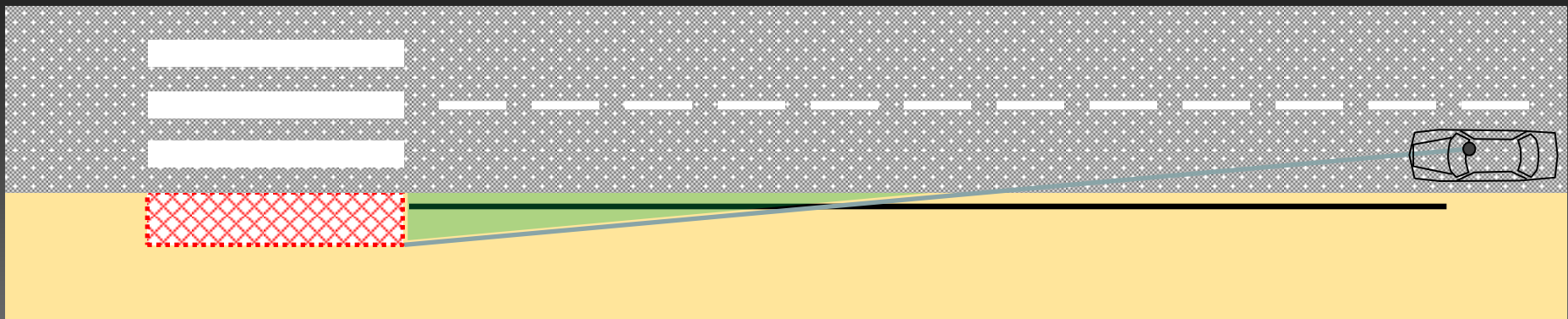
Visibility at Pedestrian Crossings

- Drivers should be able to observe the intention of pedestrians, both on the crossing and over the waiting area of the footpath



Pedestrian Visibility and Railings

- In reality, to obtain the required visibility (50–70m) for 50km/h approach speed, 35 to 63m length of railings have to be of high visibility type
- At present, many high visibility railings are only a few metres in length or simply not provided



Pedestrian Visibility and Railings

- Average height of 6 year old child in Hong Kong : 1176mm (So et. Al, BMC Public Health. 2008; 8: 320)
- Standard height of pedestrian railing : 1000mm

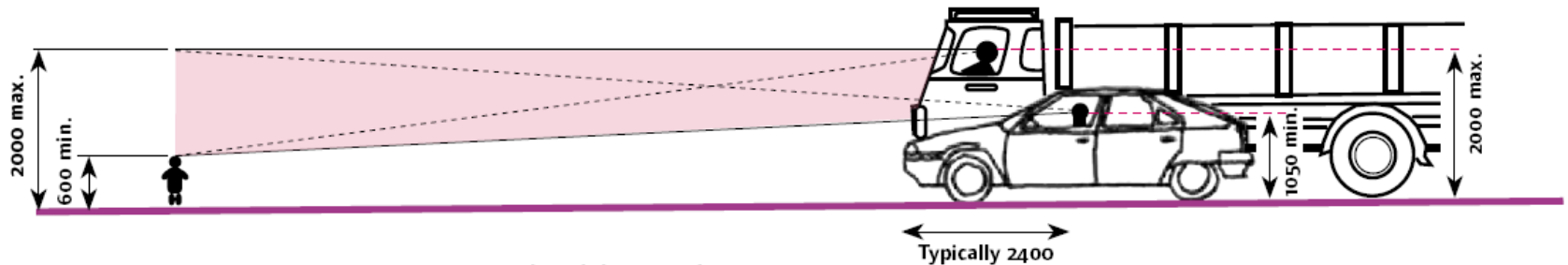


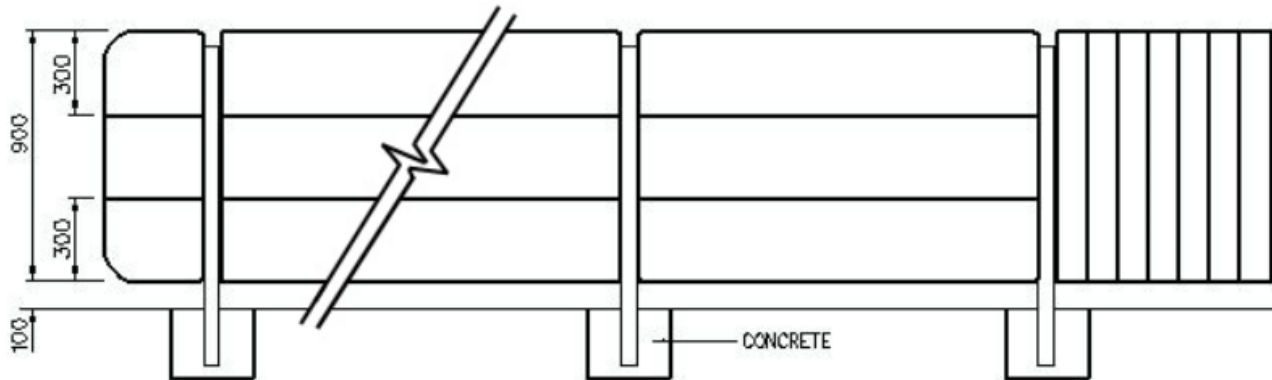
Figure 7.17 Vertical visibility envelope.

Pedestrian Visibility and Railings

- The design manual contains relevant advice but this is often not followed or understood.

3.9.2.13 At crossing points, road junctions or similar locations, it will be necessary to use the detail shown in "Type 2 Railings at Junctions and Crossings" of [Diagram 3.9.2.2](#) in order that the visibility of motorists is not impaired. For similar reason, roadside advertisements, banners and any other objects that will obstruct the visibility of motorists should be prohibited from hanging on the traffic upstream side of the crossing points or road junctions for a length of about 30m.

TYPE 2 RAILINGS AT JUNCTIONS AND CROSSINGS



NOTES : 1. LENGTH OF TYPE 2 RAILINGS AT JUNCTIONS AND CROSSINGS SHOULD BE DETERMINED TO SUIT SITE CONDITIONS AND PROVISION CRITERIA IN PARAGRAPH 3.9.2.13.

Pedestrian Visibility and Railings



TOPICS

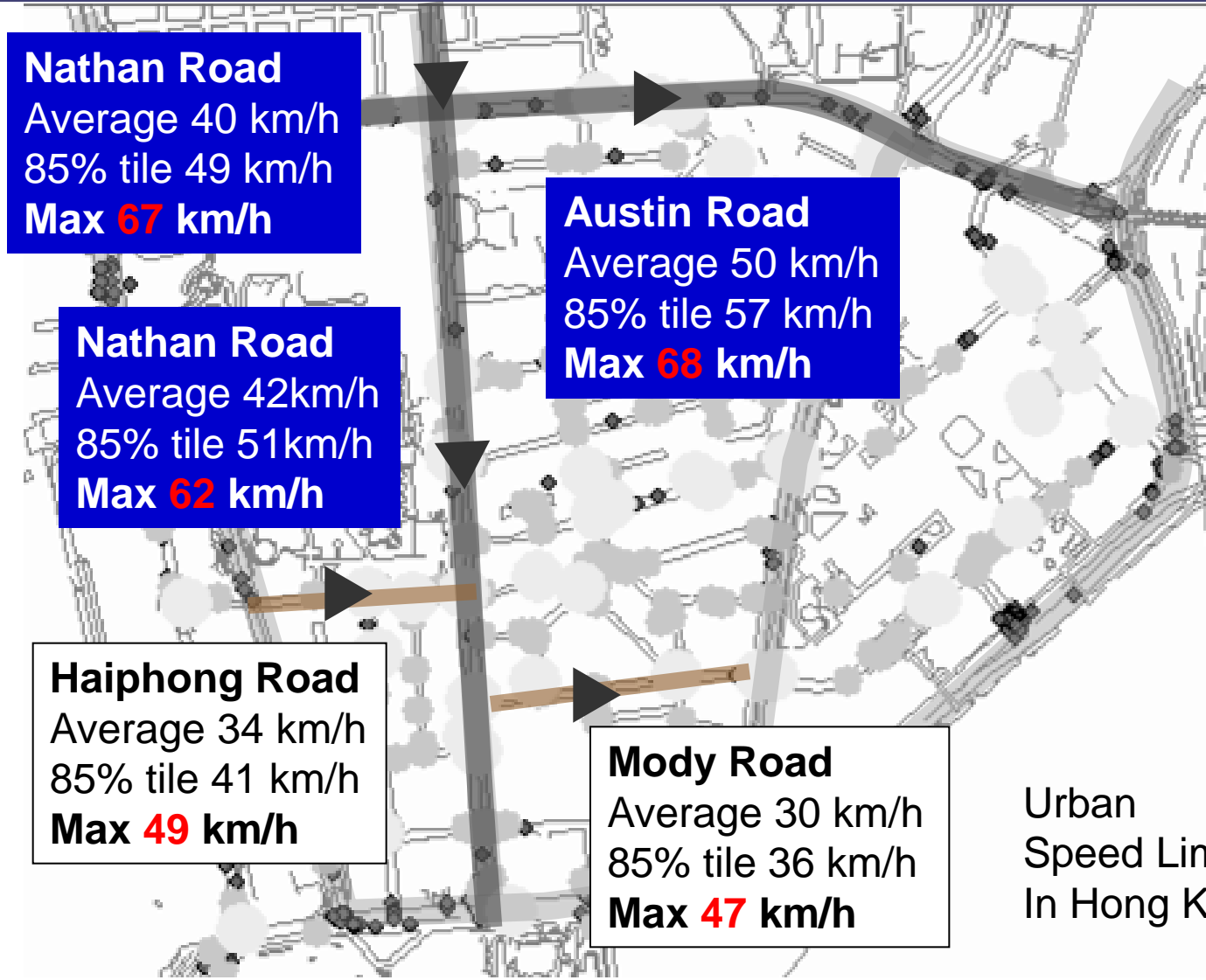
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Pedestrian Crossings and Traffic Speeds

- It would be unrealistic, to assume that pedestrians will always follow rules and be confined to designated crossings on our urban streets
- Crashes are bound to happen with current urban traffic speeds



Favourable Average Speeds but Unfavourable Spread



Nathan Road
Average 40 km/h
85% tile 49 km/h
Max **67** km/h

Nathan Road
Average 42km/h
85% tile 51km/h
Max **62** km/h

Haiphong Road
Average 34 km/h
85% tile 41 km/h
Max **49** km/h

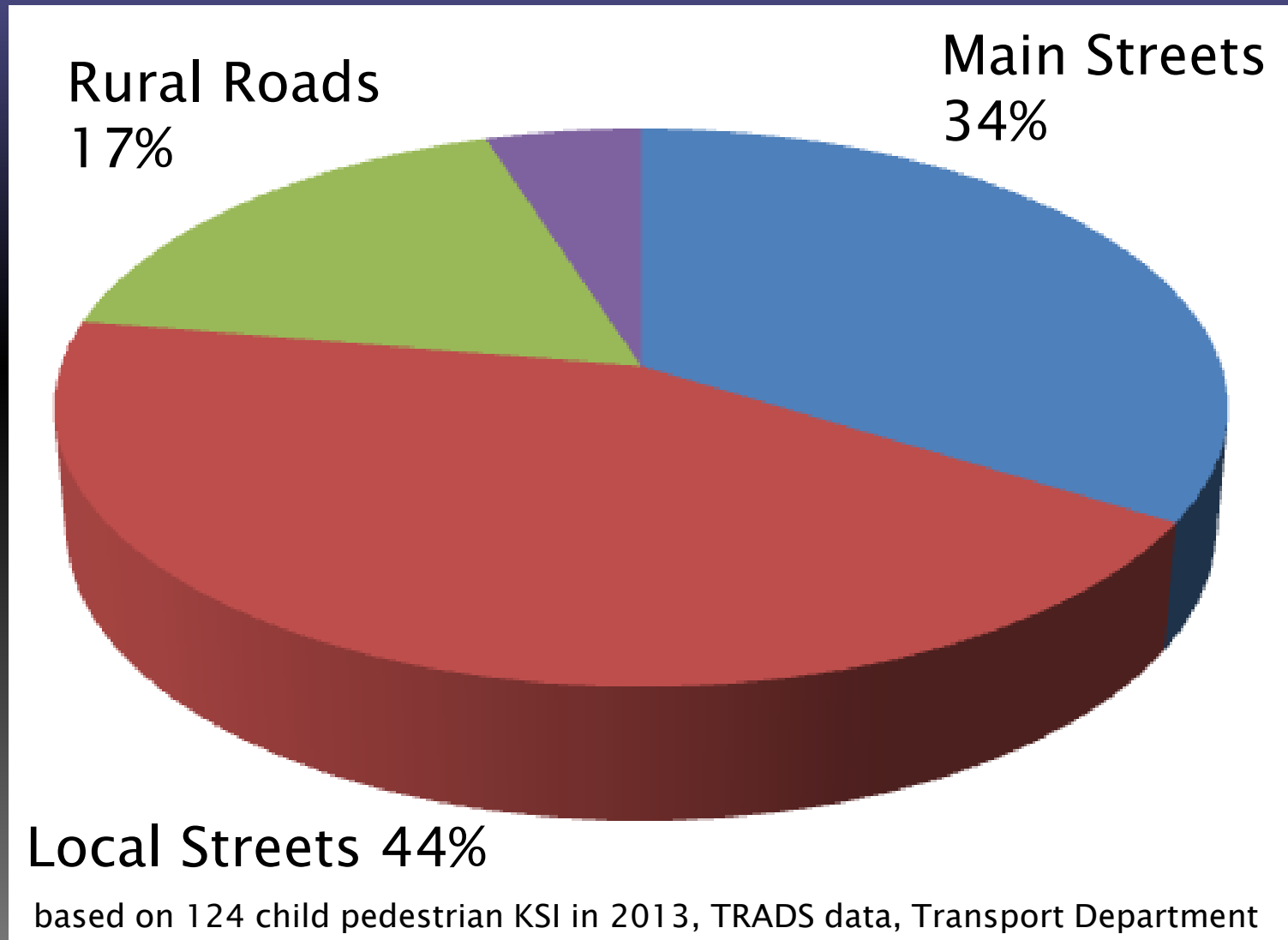
Austin Road
Average 50 km/h
85% tile 57 km/h
Max **68** km/h

Mody Road
Average 30 km/h
85% tile 36 km/h
Max **47** km/h

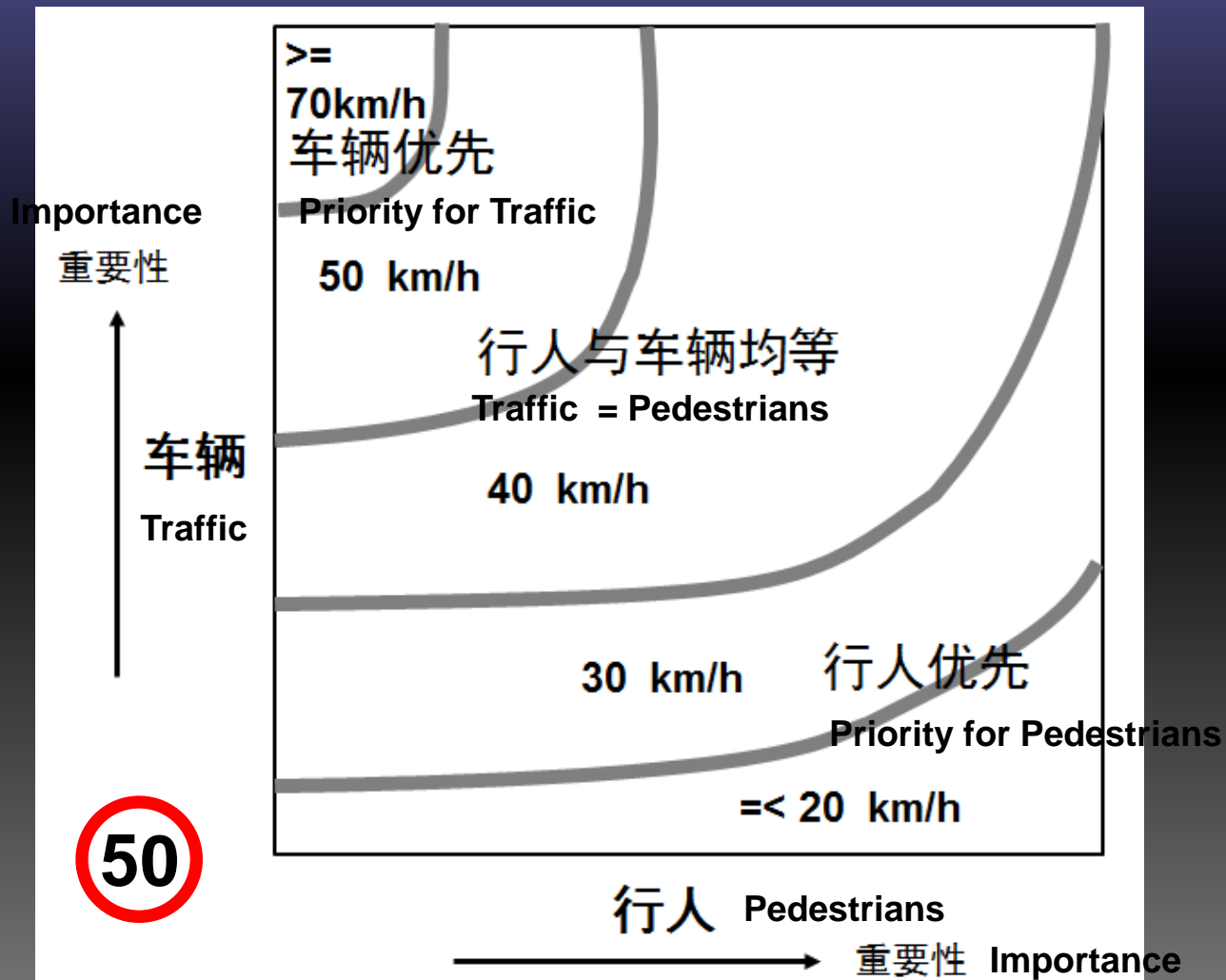
Urban
Speed Limit
In Hong Kong



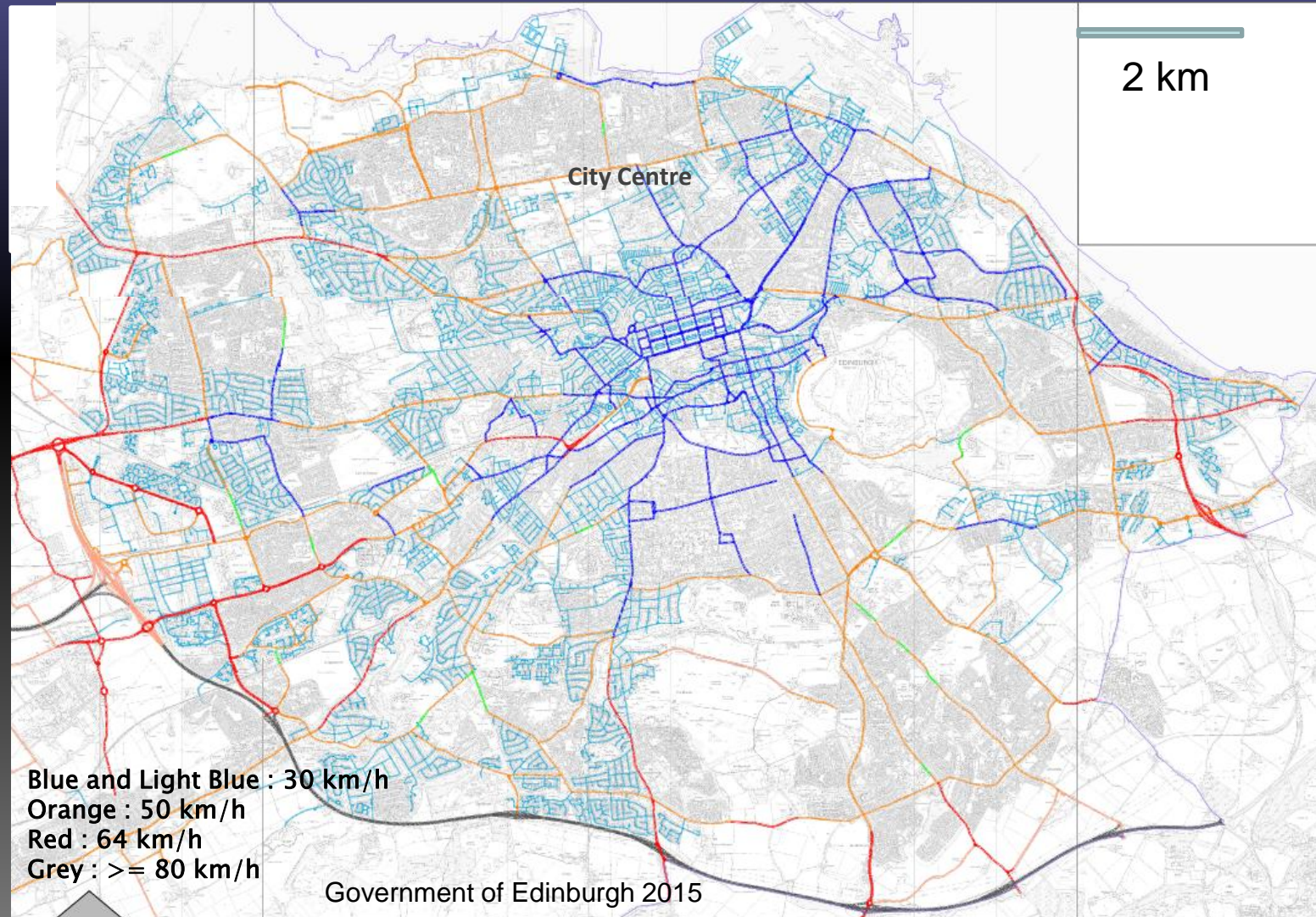
Children Pedestrians and Street Types



Lower Speed Limits



30km/h Speed Limit in Edinburgh



Self-explaining Streets



Google Street View



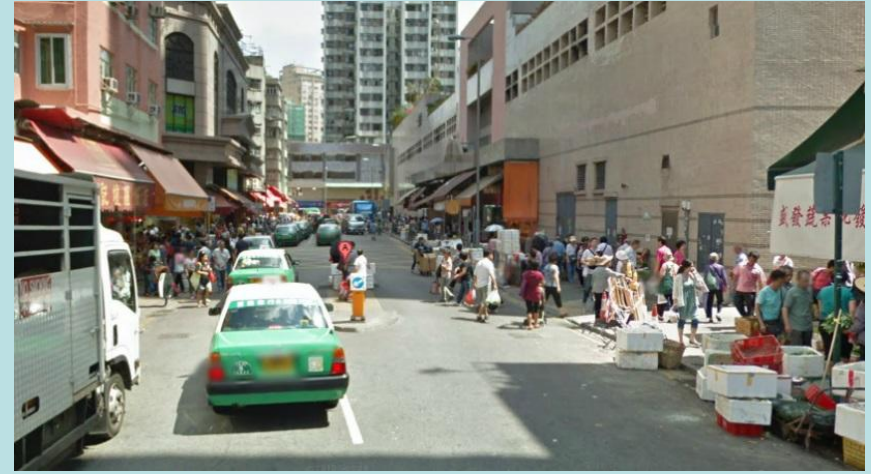
30km/h Zones



One-way Streets



Two-way Streets



Multi-lane One-way Local Distributors



Public/Private Housing Estates/Institutions





40km/h Zones



Wide Single Carriageway District/Local Distributors

Multi-lane Dual Carriageway Primary/District Distributors



Multi-lane Single Carriageway Primary/District Distributors

Multi-lane One-way Primary/District Distributors





50km/h Roads

Dual carriageway with extensive segregation



Single Carriageway with good visibility



Dual Carriageway with footbridges or subways



Sub-urban Roads with few pedestrians





Shared Surface (woonerf, home zones)



Shopping Streets



Open Markets



Entertainment/Tourist Areas



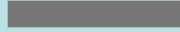
Village Centres



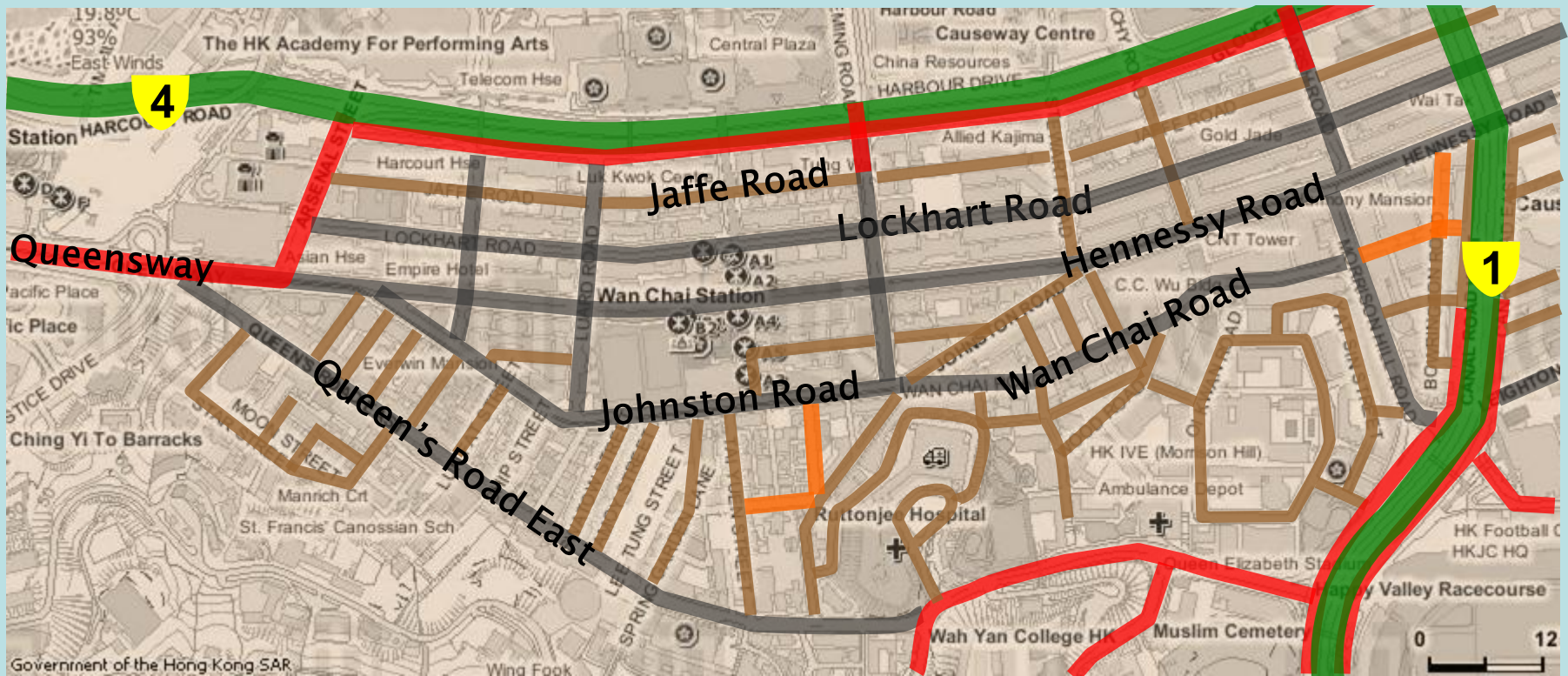
Developing a System for Hong Kong



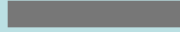
Wan Chai



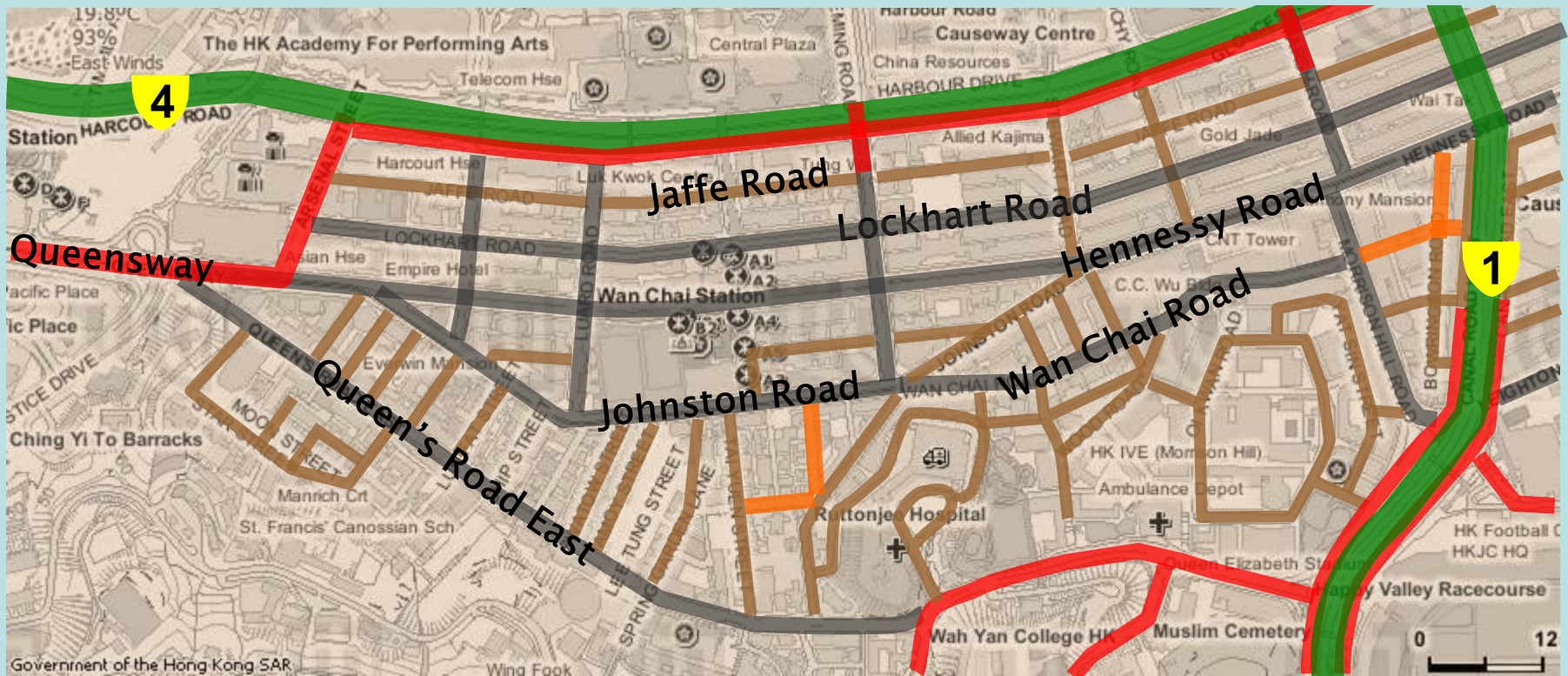
Trunk Roads
>= 50 km/h



Wan Chai



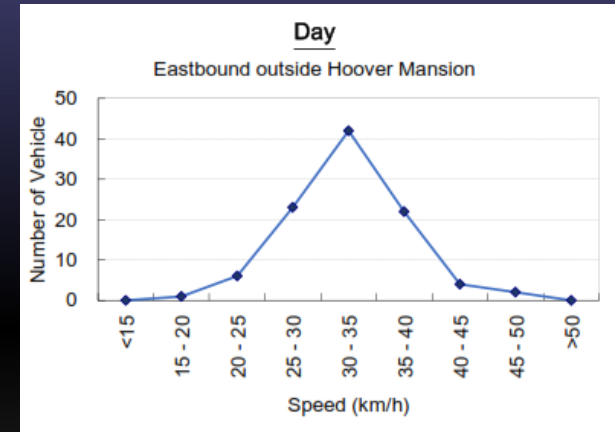
Trunk Roads
>= 50 km/h



A Low Speed Zone Pilot Area Proposal for Residents



-  30km/h Speed Limit Streets
-  Entrance/Exit of 30km/h Speed Limit Streets with Signs
-  "30" Speed Limit Roundel Markings over Colour Dressing
-  Speed Table and Associated Signing



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Safety on Cycle Tracks

- 12% of cycle track casualties classified as serious (0–18, 2013)
- Forgiving design elements
- Cycle Track Junctions and Crossings
- Missing Links and On–street Cycling
- Lower speed limits on Urban Streets

Examples of “Unforgiving” Situations on Cycle Track





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