Annex A

Summary of engineering treatments

TREATMENT	EXAMPLES OF MEASURES	LOCATION	EFFECTIVENESS		RELATIVE COST	PUBLIC SUPPORT
			SHORT-TERM	LONG-TERM		
Self-indicating roads	Ensure that the speed limit is clear and that the road environment reflects this limit.	Traffic routes (predominantly the arterial roads)	Aim is to ensure that the majority of vehicles travel at or below the speed limit.	Should encourage long-term behaviour change on a route.	High	Good
Psychological traffic calming	-Removal of central white line -Red brick narrowing -Surface treatment	Village locations	Early results show this technique can be effective in reducing speed – slows fastest drivers the most.	Approach still in its infancy – long term effectiveness not yet known.	High	Residents appear to respond positively to this technique.
Vertical traffic calming	-Speed humps -Speed cushions -Rumble strips	-Residential routes -Mixed priority routes	The most effective method of reducing vehicle speeds.	No evidence that effectiveness diminishes over time. Limited opportunity for use.	Medium	Not universally popular, but high degree of acceptance.
Horizontal traffic calming	-Build out -Chicane -Pinch point	Mixed priority routes	Effective in reducing speed.	No evidence that effectiveness diminishes over time.	Medium	High degree of acceptance, but can be unpopular i.e. increased noise caused by braking and accelerating.
Road markings	-Strips of coloured tarmac -Speed roundel -Hatched centre lines	-All routes -Speed limit transition points -Approaching junctions	Most effective when used with vertical speed limit signs.	No evidence that effectiveness diminishes over time.	Low	Good
Speed limit signing	-Speed roundel -Slow Down -Bend Warning	All – should ensure that the speed limit is always obvious.	Effective when supporting other measures	No evidence that effectiveness diminishes over time	Low	Very good
Vehicle Activated Signs	-Speed Warning -Hazard Warning	At locations with a speed related injury accident problem.	Effect at reducing the percentage of drivers exceeding the speed limit.	Evidence suggests that the positive effect is not sustained beyond a short period of time.	Medium	Very good
20 mph zones	-Signage -Traffic calming -Road markings	-Schools -Routes where there is a particular risk to vulnerable road users	Very effective at reducing collisions and injuries.	Need to be self-enforcing i.e. accompanied by the introduction of traffic calming.	Medium	Good
Reducing the speed limit	Signage	Routes where the current speed limit is not appropriate.	Speed limits on their own have little effect on vehicle speeds – other measures should always be considered first.	The new speed limit must be appropriate to the road. Should be introduced in conjunction with other measures.	High	Very good
Home Zones	-Speed humps -Measures to encourage shared use	Residential routes	Vehicle speeds should be low before a Home Zone is considered.	Increase in shared use helps to ensure that vehicle speeds remain low.	High	Moderate – can be some opposition.