safety

MDPI

**Supplementary**

**Table S1a.** Summary matrix of possible problems arisen from the applications at the diagnosis stage and the corresponding proposed solutions for undivided one-way roads (ST = Short-Term solutions, LT = Long-Term solutions, TC = Traffic Calming measures).

| Undivided one-way roads | RECURRENT PROBLEMS | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Bad conditions of road surface and sidewalks | | Inadequate or absent road signs and markings | | Reduced visibility due to obstacles | | Crashes close to driveways | | Crashes close to pedestrian and bicycle crossings | | Presence of attractor and/or sensitive places (e.g. schools, hospitals, etc.) | | Presence of speeding | | Critical interactions between vehicles and VRUs | |
| | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC |
| POSSIBLE SOLUTIONS | Re-surface;<br><br>Improve skid resistance;<br><br>Maintain pavements and sidewalks. | Demolish and rebuild road pavements and sidewalks | Re-install and/or maintain signs and/or markings;<br><br>Improve reflective power;<br><br>Re-install and/or maintain additional signs and markings (e.g. for public transport) | Re-design road signs and markings in parallel with geometric enhancement;<br><br>Re-design road signs and markings in parallel with traffic calming measures. | Remove/ move various obstacles;<br><br>Manage vegetation;<br><br>Impede illegal parking with markings and/or curbs. | Manage differently parking lots;<br><br>Enlarge sidewalks thus reducing carriageway widths;<br><br>Install traffic calming measures (e.g. speed humps, raised crossings);<br><br>Install barriers on sidewalks to avoid illegal parking or pedestrian crossing. | Install speed cameras;<br><br>Install optical speed bars;<br><br>Install rumble strips;<br><br>Remove obstacles which limit driveways' visibility;<br><br>Install flashing lights/signals;<br><br>Increase brightness by means of appropriate lighting. | Install traffic calming devices (e.g. speed humps, raised pedestrian crossings, chicanes, etc.);<br><br>Move lateral road accesses to adjacent streets. | Install/adjust road signs of pedestrian and bicycle crossings;<br><br>Install/adjust warning signs;<br><br>Install speed cameras;<br><br>Install reflective signs;<br><br>Prohibit parking close pedestrian crossings;<br><br>Install optical speed bars and rumble strips in approach at pedestrian and bicycle crossings;<br><br>Install flashing lights/signals;<br><br>Increase brightness by means of appropriate lighting. | Convert pedestrian crossings into well designed bike-pedestrian crossings;<br><br>Install raised crossings (in absence of possible emergency vehicle transit);<br><br>Install traffic calming devices (e.g. speed humps, enlarge sidewalks, etc.);<br><br>Compel pedestrians to cross along the crossings through road separators (e.g. railings);<br><br>Relocate pedestrian crossings and bike-pedestrian crossings. | Install speed cameras close to attractors and/or sensitive places;<br><br>Install optical speed bars;<br><br>Install rumble strips;<br><br>Adjust pedestrian paths and bike-pedestrian crossings (e.g. signs);<br><br>Install flashing lights/signals close to attractors and/or sensitive places, accesses;<br><br>Increase brightness by means of appropriate lighting. | Install raised pedestrian crossings and raised bike-pedestrian crossings (in absence of emergency vehicle transit);<br><br>Re-design of parking areas;<br><br>Adjust sidewalks;<br><br>Enlarge sidewalks and prohibit parking through bollards or railings;<br><br>Install new bike-pedestrian crossings;<br><br>Convert pedestrian crossings into well designed bike-pedestrian crossings;<br><br>Install traffic calming devices (e.g. speed humps). | Install speed cameras;<br><br>Install optical speed bars;<br><br>Install rumble strips;<br><br>Install/adjust vertical and horizontal road signs;<br><br>Install reflective signs;<br><br>Install flashing lights/signals. | Install raised pedestrian and bike-pedestrian crossings (in absence of emergency vehicle transit);<br><br>Install traffic calming devices (e.g. speed humps, speed cushions, chicane, etc.);<br><br>Enlarge sidewalks;<br><br>Install a 30 km/h or 20 km/h speed zone;<br><br>Provide road pavements with different materials (e.g. cobbles);<br><br>Convert pedestrian crossings into well designed bike-pedestrian crossings;<br><br>Relocate pedestrian and bike-pedestrian crossings. | Install/adjust vertical and horizontal road signs;<br><br>Install speed cameras;<br><br>Install reflective signs;<br><br>Prohibit parking near pedestrian crossings;<br><br>Install optical speed bars and rumble strips in approach at pedestrian and bike-pedestrian crossings;<br><br>Install flashing lights/signals;<br><br>Increase brightness by means of appropriate lighting. | Re-design bus stops;<br><br>Enlarge sidewalks;<br><br>Compel pedestrians to cross along crossings through road separators (e.g. railings);<br><br>Install specialized lanes;<br><br>Install raised pedestrian and bike-pedestrian crossings (in absence of emergency vehicle transit);<br><br>Convert pedestrian crossings into well designed bike-pedestrian crossings;<br><br>Install bike-pedestrian crossings. |

**Table S1b.** Summary matrix of possible problems arisen from the applications at the diagnosis stage and the corresponding proposed solutions for undivided two-way roads (ST = Short-Term solutions, LT = Long-Term solutions, TC = Traffic Calming measures).

| Undivided two-way roads | RECURRENT PROBLEMS | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Bad conditions of road surface and sidewalks | | Inadequate or absent road signs and markings | | Reduced visibility due to obstacles | | Crashes close to driveways | | Crashes close to pedestrian and bicycle crossings | | Presence of attractor and/or sensitive places (e.g. schools, hospitals, etc.) | | Presence of speeding | | Presence of U-turns | | Critical interactions between vehicles and VRUs | |
| | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC |
| POSSIBLE SOLUTIONS | See Table S1a | See Table S1a | See Table S1a | See Table S1a | See Table S1a | See Table S1a | See Table S1a | Install traffic calming devices (e.g. speed humps, raised pedestrian crossings, chicanes, etc.);<br><br>Install raised medians to inhibit illegal manoeuvres and channel accurately the road accesses;<br><br>Move lateral road accesses to adjacent streets. | See Table S1a | Convert pedestrian crossings into well designed bike-pedestrian crossings;<br><br>Install raised crossings (in absence of possible emergency vehicle transit);<br><br>Install traffic/median island;<br><br>Install pedestrian safety islands<br><br>Install two-stage pedestrian and bike-pedestrian crossing;<br><br>Install traffic calming devices (e.g. speed humps, enlarge sidewalks, etc.);<br><br>Compel pedestrians to cross along the crossings through road separators (e.g. railings);<br><br>Relocate pedestrian crossings and bike-pedestrian crossings. | See Table S1a | Install traffic/median islands;<br><br>Install raised pedestrian crossings and raised bike-pedestrian crossings with median island (in absence of emergency vehicle transit);<br><br>Re-design of parking areas;<br><br>Adjust sidewalks;<br><br>Enlarge sidewalks and prohibit parking through bollards or railings;<br><br>Install new bike-pedestrian crossings;<br><br>Convert pedestrian crossings into well designed bike-pedestrian crossings;<br><br>Install traffic calming devices (e.g. speed humps). | See Table S1a | Install raised pedestrian and bike-pedestrian crossings (in absence of emergency vehicle transit);<br><br>Install traffic calming devices (e.g. speed humps, speed cushions, chicane, etc.);<br><br>Enlarge sidewalks;<br><br>Install a 30 km/h or 20 km/h speed zone;<br><br>Provide road pavements with different materials (e.g. cobbles);<br><br>Convert pedestrian crossings into well designed bike-pedestrian crossings;<br><br>Relocate pedestrian and bike-pedestrian crossings;<br><br>Install traffic/median islands. | Install traffic control cameras;<br><br>Install convex mirrors;<br><br>Install optical speed bars;<br><br>Install rumble strips.<br><br>Install warning signs | Install median islands to inhibit U-turns. | See Table S1a | Re-design bus stops;<br><br>Install traffic/median islands to divide driving lanes;<br><br>Enlarge sidewalks;<br><br>Compel pedestrians to cross along crossings through road separators (e.g. railings);<br><br>Install specialized lanes;<br><br>Install raised pedestrian and bike-pedestrian crossings (in absence of emergency vehicle transit);<br><br>Convert pedestrian crossings into well designed bike-pedestrian crossings;<br><br>Install bike-pedestrian crossings.<br><br>Install pedestrian safety islands<br><br>Install two-stage pedestrian and bike-pedestrian crossing; |

**Table S1c.** Summary matrix of possible problems arisen from the applications at the diagnosis stage and the corresponding proposed solutions for divided roads (ST = Short-Term solutions, LT = Long-Term solutions, TC = Traffic Calming measures).

| Divided roads | RECURRENT PROBLEMS | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Bad conditions of road surface and sidewalks | | Inadequate or absent road signs and markings | | Reduced visibility due to obstacles | | Crashes close to driveways | | Crashes close to pedestrian and bicycle crossings | | Presence of attractor and/or sensitive places (e.g. schools, hospitals, etc.) | | Presence of speeding | | Presence of U-turns | | Critical interactions between vehicles and VRUs | |
| | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC |
| POSSIBLE SOLUTIONS | See Table S1a | See Table S1a | See Table S1a | See Table S1a | See Table S1a | See Table S1a | See Table S1a | Install traffic calming devices (e.g. speed humps, raised pedestrian crossings, chicanes, etc.);<br><br>Move lateral road accesses to adjacent streets;<br><br>Provide continuity in the raised medians (or widen them) to reduce conflicts in critical points. | Install/adjust road signs of pedestrian and bicycle crossings;<br><br>Install/ adjust warning signs;<br><br>Install speed cameras;<br><br>Install reflective signs;<br><br>Prohibit parking near pedestrian crossings<br><br>Install optical speed bars and rumble strips in approach at pedestrian and bicycle crossings;<br><br>Convert traditional pedestrian crossings in two-stage crossings (with median refuge islands);<br><br>Install flashing lights/sign;<br><br>Increase brightness by means of appropriate lighting. | Convert pedestrian crossings into well designed bike-pedestrian crossings;<br><br>Install raised crossings (in absence of possible emergency vehicle transit);<br><br>Install traffic calming devices (e.g. speed humps, enlarge sidewalks, etc.);<br><br>Implement pedestrian safety islands<br><br>Install two-stage pedestrian and bike-pedestrian crossing;<br><br>Compel pedestrians to cross along the crossings through road separators (e.g. railings);<br><br>Relocate pedestrian crossings and bike-pedestrian crossings. | See Table S1a | See Table S1a | See Table S1a | Install raised pedestrian and bike-pedestrian crossings (in absence of emergency vehicle transit);<br><br>Install traffic calming devices (e.g. speed humps, speed cushions, chicane, etc.);<br><br>Enlarge sidewalks;<br><br>Install a 30 km/h or 20km/h speed zone;<br><br>Provide road pavements with different materials (e.g. cobbles);<br><br>Convert pedestrian crossings into bike-pedestrian crossings;<br><br>Relocate pedestrian and bike-pedestrian crossings;<br><br>Enlarge traffic/median islands. | See Table S1b | Provide continuity or extend traffic islands to inhibit U-turns (possibly allowed in safer points); | See Table S1a | Redesign bus stops;<br><br>Enlarge sidewalks;<br><br>Compel pedestrians to cross along crossings through road separators (e.g. railings);<br><br>Install specialized lanes;<br><br>Install raised pedestrian and bike-pedestrian crossings (in absence of emergency vehicle transit);<br><br>Convert pedestrian crossings into well designed bike-pedestrian crossings;<br><br>Install bike-pedestrian crossings.<br><br>Implement pedestrian safety islands<br><br>Install two-stage pedestrian and bike-pedestrian crossing; |

**Table S1d.** Summary matrix of possible problems arisen from the applications at the diagnosis stage and the corresponding proposed solutions for unsignalized intersections (ST = Short-Term solutions, LT = Long-Term solutions, TC = Traffic Calming measures).

| Unsignalized intersections | RECURRENT PROBLEMS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Bad conditions of road surface and sidewalks | | Inadequate or absent road signs and markings | | Reduced visibility due to obstacles | | Crashes close to pedestrian and bicycle crossings | | Presence of attractor and/or sensitive places (e.g. schools, hospitals, etc.) | | Presence of speeding | | Critical interactions between vehicles and VRUs | |
| | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC |
| POSSIBLE SOLUTIONS | Re-surface;<br><br>Improve skid resistance;<br><br>Maintain pavements and sidewalks. | Demolish and rebuild road pavements and sidewalks | Re-install and/or maintain sings and/or markings;<br><br>Install informative road signs for the intersection presence;<br><br>Install stop/give-way signs where appropriate;<br><br>Improve reflective power;<br><br>Re-install and/or maintain additional signs and markings (e.g. for public transport). | Re-design road signs and markings in parallel with geometric enhancement;<br><br>Re-design road signs and markings in parallel with traffic calming measures. | Remove/ relocate various obstacles;<br><br>Manage vegetation;<br><br>Impede illegal parking with markings and/or curbs. | Remove parking lots close to intersections;<br><br>Install a 30 km-h or 20 km-h speed zone;<br><br>Enlarge sidewalks in proximity to intersections;<br><br>Install traffic islands to channel traffic flows;<br><br>Install barriers on sidewalks to avoid illegal parking or pedestrian crossing. | Install/ adjust road signs related to the pedestrian and bicycle crossings;<br><br>Install/ adjust warning signs;<br><br>Install speed cameras;<br><br>Install reflective signs;<br><br>Prohibit parking close to pedestrian crossings;<br><br>Install optical speed bars and rumble strips in approach at pedestrian and bicycle crossings;<br><br>Install flashing lights/signals;<br><br>Increase brightness by means of appropriate lighting. | Convert pedestrian crossings into bike-pedestrian crossings to connect bike paths;<br><br>Increase visibility of the zebra crossings with different pavement materials (e.g. colored asphalt);<br><br>Install raised crossings (in absence of emergency vehicle transit);<br><br>Install traffic lights<br><br>Install countdown on pedestrian traffic lights (with increase of the pedestrian phase);<br><br>Install intelligent traffic lights in connection with cycling and vehicular flows;<br><br>Install bike boxes;<br><br>Install pedestrian safety islands;<br><br>Install traffic calming devices (e.g. speed humps, enlarge sidewalks, etc.);<br><br>Compel pedestrians to cross along crossings through road separators (e.g. railings);<br><br>Relocate pedestrian and bike-pedestrian crossings;<br><br>Install a bike crossing at a distance of enough meters from the side of the main road with cyclist priority at intersections;<br><br>Relocate pedestrian paths at a distance of enough meters from the side of the main road. | Install speed cameras close to attractors and/or sensitive places;<br><br>Install optical speed bars;<br><br>Install rumble strips;<br><br>Adjust pedestrian paths and bike-pedestrian crossings (e.g. road signs);<br><br>Install flashing lights/signals close to attractors and/or sensitive places, accesses;<br><br>Increase brightness by means of appropriate lighting. | Install raised pedestrian and bike-pedestrian crossings (in absence of emergency vehicle transit);<br><br>Adjust sidewalks;<br><br>Enlarge sidewalks and inhibit parking;<br><br>Install new bike-pedestrian crossings;<br><br>Convert pedestrian crossings into well designed bike-pedestrian crossings;<br><br>Install raised intersections;<br><br>Install traffic calming devices on segments close to the intersections (e.g. speed humps).<br><br>Install a 30 km/h or 20 km/h speed zone; | Install speed cameras on the legs of the intersection;<br><br>Install optical speed bars;<br><br>Install rumble strips;<br><br>Install/adjust vertical and horizontal signs;<br><br>Install reflective signs;<br><br>Install flashing lights/signals. | Install raised intersections (in absence of emergency vehicle transit);<br><br>Install median islands in approach at intersections;<br><br>Install traffic calming devices (e.g. speed humps, speed cushions, chicane, etc.);<br><br>Enlarge sidewalks;<br><br>Install a 30 km/h or 20 km/h speed zone;<br><br>Provide road pavements with different materials (e.g. cobbles);<br><br>Convert pedestrian crossings into well designed bike-pedestrian crossings;<br><br>Relocate pedestrian and bike-pedestrian crossings;<br><br>Install traffic light Install a mini-roundabout or roundabout. | Install/adjust vertical and horizontal signs;<br><br>Install speed cameras in approach at intersections<br><br>Prohibit parking in approach at intersections;<br><br>Install optical speed bars and rumble strips in approach at intersections;<br><br>Increase brightness by means of appropriate lighting. | Install traffic lights<br><br>Install bike boxes;<br><br>Install pedestrian safety islands<br><br>Install a mini-roundabout or roundabout;<br><br>Install traffic islands to divide lanes;<br><br>Enlarge sidewalks;<br><br>Compel pedestrians to cross along crossings through road separators (e.g. railings);<br><br>Install countdown on pedestrian traffic lights (with increasing of the pedestrian phase);<br><br>Install raised pedestrian and bike-pedestrian crossing (in absence of emergency vehicle transit);<br><br>Convert pedestrian crossings into bike-pedestrian crossings;<br><br>Install bike-pedestrian crossings. |

**Table S1e.** Summary matrix of possible problems arisen from the applications at the diagnosis stage and the corresponding proposed solutions for signalized intersections (ST = Short-Term solutions, LT = Long-Term solutions, TC = Traffic Calming measures).

| Signalized intersections | RECURRENT PROBLEMS | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Bad conditions of road surface and sidewalks** | | **Inadequate or absent road signs and markings** | | **Reduced visibility due to obstacles** | | **Crashes close to pedestrian and bicycle crossings** | | **Presence of attractor and/or sensitive places (e.g. schools, hospitals, etc.)** | | **Presence of speeding** | | **Critical interactions between vehicles and VRUs** | | **Night control of traffic signals (i.e. flashing lights)** | |
| | **ST** | **LT/TC** | **ST** | **LT/TC** | **ST** | **LT/TC** | **ST** | **LT/TC** | **ST** | **LT/TC** | **ST** | **LT/TC** | **ST** | **LT/TC** | **ST** | **LT/TC** |
| **POSSIBLE SOLUTIONS** | See Table S1d | See Table S1d | See Table S1d | See Table S1d | See Table S1d | See Table S1d | Install/ adjust road signs related to the pedestrian and bicycle crossings;<br><br>Install/adjust warning signs;<br><br>Install speed cameras;<br><br>Install reflective signs;<br><br>Install countdown on pedestrian traffic lights (with increase of the pedestrian phase);<br><br>Prohibit parking close to pedestrian crossings;<br><br>Install optical speed bars and rumble strips in approach at pedestrian and bicycle crossings;<br><br>Install flashing lights/signals;<br><br>Increase brightness by means of appropriate lighting. | Convert pedestrian crossings into bike-pedestrian crossings to connect bike paths;<br><br>Increase visibility of the zebra crossings with different pavement materials (e.g. colored asphalt);<br><br>Install raised crossings (in absence of emergency vehicle transit);<br><br>Install intelligent traffic lights in connection with cycling and vehicular flows;<br><br>Install bike boxes<br><br>Install pedestrian safety islands;<br><br>Install traffic calming devices (e.g. speed humps, enlarge sidewalks, etc.);<br><br>Compel pedestrians to cross along crossings through road separators (e.g. railings);<br><br>Relocate pedestrian and bike-pedestrian crossings;<br><br>Install a bike crossing at a distance of enough meters from the side of the main road with cyclist priority at intersections.<br><br>Relocate pedestrian paths at a distance of enough meters from the side of the main road. | See Table S1d | See Table S1d | See Table S1d | Install raised intersections (in absence of emergency vehicle transit);<br><br>Install traffic islands to divide lanes;<br>Install traffic calming devices (e.g. speed humps, speed cushions, chicane, etc.);<br><br>Enlarge sidewalks;<br><br>Install a 30 km/h or 20 km/h speed zone;<br><br>Provide road pavements with different materials (e.g. cobbles);<br><br>Convert pedestrian crossings into well designed bike-pedestrian crossings;<br><br>Relocate pedestrian and bike-pedestrian crossings;<br>Install a mini-roundabout or roundabout | Install/adjust vertical and horizontal signs;<br><br>Install speed cameras in approach at intersections;<br><br>Install countdown on pedestrian traffic lights (with increasing of the pedestrian phase);<br><br>Prohibit parking in approach at intersections;<br><br>Install optical speed bars and rumble strips in approach at intersections;<br><br>Increase brightness by means of appropriate lighting. | Install bike boxes;<br><br>Install pedestrian safety islands<br><br>Install a mini-roundabout or roundabout;<br><br>Install traffic islands to divide lanes;<br><br>Enlarge sidewalks;<br><br>Compel pedestrians to cross along crossings through road separators (e.g. railings);<br><br>Install raised pedestrian and bike-pedestrian crossing (in absence of emergency vehicle transit);<br><br>Convert pedestrian crossings into bike-pedestrian crossings;<br><br>Install bike-pedestrian crossings. | Modify phases of traffic lights, by leaving them active at night too;<br><br>Install countdown on pedestrian traffic lights. | Install a mini roundabout or roundabout. |

**Table S1f.** Summary matrix of possible problems arisen from the applications at the diagnosis stage and the corresponding proposed solutions for roundabouts (ST = Short-Term solutions, LT = Long-Term solutions, TC = Traffic Calming measures).

| Roundabouts | RECURRENT PROBLEMS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Bad conditions of road surface and sidewalks | | Inadequate or absent road signs and markings | | Reduced visibility due to obstacles | | Crashes close to pedestrian and bicycle crossings | | Presence of attractor and/or sensitive places (e.g. schools, hospitals, etc.) | | Presence of speeding | | Critical interactions between vehicles and VRUs | |
| | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC | ST | LT/TC |
| POSSIBLE SOLUTIONS | See Table S1d | See Table S1d | See Table S1d | See Table S1d | See Table S1d | See Table S1d | See Table S1d | Convert pedestrian crossings into bike-pedestrian crossings to connect bike paths;<br><br>Increase visibility of the zebra crossings with different pavement materials (e.g. colored asphalt);<br><br>Install raised crossings (in absence of emergency vehicle transit);<br><br>Install pedestrian safety islands;<br><br>Install traffic calming devices (e.g. speed humps, enlarge sidewalks, etc.);<br><br>Compel pedestrians to cross along crossings through road separators (e.g. railings);<br><br>Relocate pedestrian and bike-pedestrian crossings;<br><br>Install a bike crossing at a distance of enough meters from the side of the main road with cyclist priority at intersections;<br><br>Relocate pedestrian paths at a distance of enough meters from the side of the main road. | See Table S1d | See Table S1d | See Table S1d | Enhance the existing roundabout (e.g. change inscribed circle diameter, etc.);<br><br>Install median islands in approach at intersections;<br><br>Enlarge sidewalks;<br><br>Install a 30 km/h or 20 km/h speed zone;<br><br>Provide road pavements with different materials (e.g. cobbles);<br>Convert pedestrian crossings into well designed bike-pedestrian crossings;<br><br>Relocate pedestrian crossings and bike-pedestrian crossings. | See Table S1d | Improve existing roundabouts (e.g. by removing obstacles from central islands, increasing the deviation angle, etc.);<br><br>Enlarge sidewalks;<br><br>Compel pedestrians to cross along crossings through road separators (e.g. railings);<br><br>Install raised pedestrian and bike-pedestrian crossings (in absence of emergency vehicle transit);<br><br>Convert pedestrian crossings into well designed bike-pedestrian crossings;<br><br>Install bike-pedestrian crossings; |

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