

Safe system requirements for SCHOOL ZONES and ACCESS TO PUBLIC SPACES

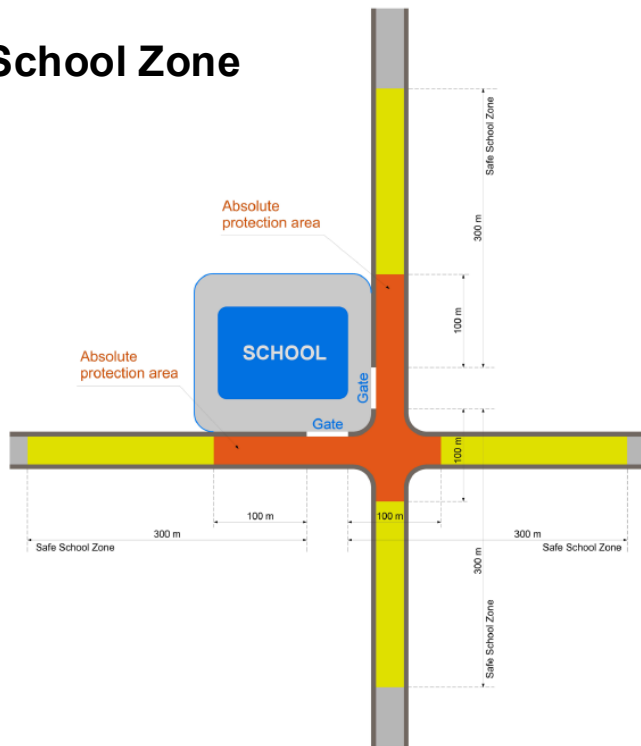
Minh Vo

Sustainable Mobility Coordinator
International Road Assessment Programme (iRAP)

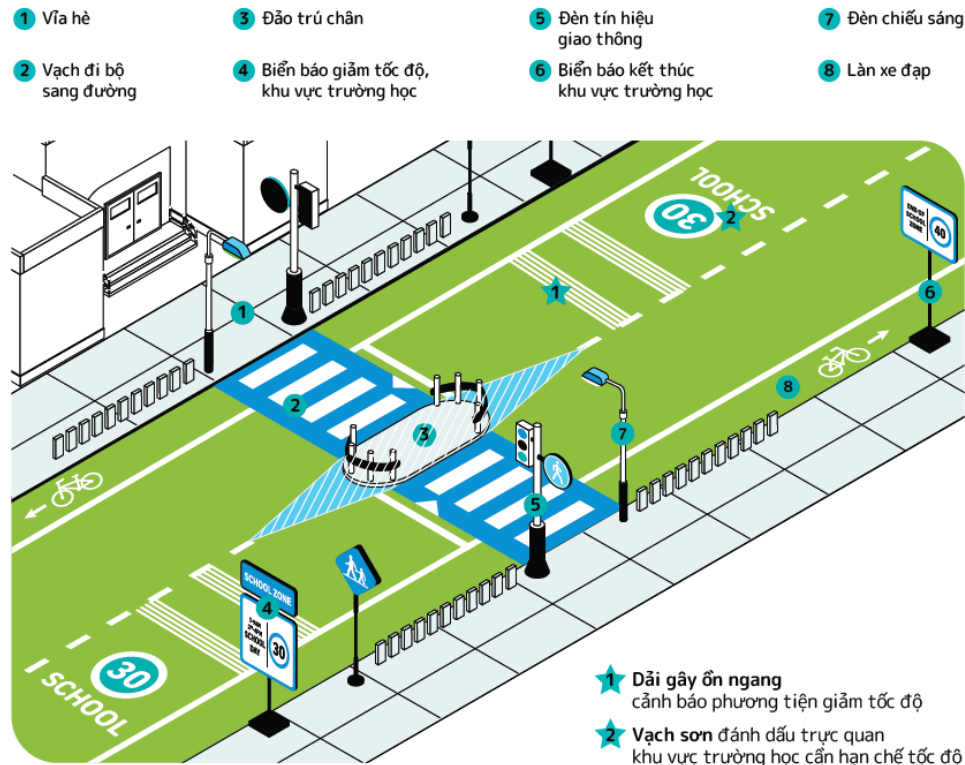
Image credit: Estiara Ellizar

What are School Zones and Public Spaces?

School Zone



Source: AIP Foundation



What are School Zones and Public Spaces?

Box 3. Defining public spaces for children

This guide refers to public spaces for children as places that can be easily and freely accessed and enjoyed by all children, either alone or with friends or family, regardless of gender, ethnicity, sexuality, nationality, social status or physical ability. Whatever their context, these places are safe from physical hazards (such as pollution, waste, traffic, falls or drowning risks); and social risks (such as crime, exclusion, or bullying). They are places that support children's play, learning, social relations, connections with nature, and free and spontaneous action.

Source: [Guide to creating urban public spaces for children](#) (WHO, UNICEF and UN-Habitat, 2025)

Public spaces are defined as places to which people have full access and that are generally understood to be in the public domain, such as parks, plazas, markets, streets, and sidewalks (Low, 2022).



15-Minute Cities

Public spaces play a crucial role in the 15-minute cities. They become focal points for social interaction.

Image credit: <https://www.bulbapp.io/p/f337a83f-ae3a-43fb-b5c0-aa8024a27965/15-minute-cities-what-are-they>

Why Do School Zones and Public Spaces Matter?

- Children, pedestrians, and cyclists are among the most vulnerable road users.
- School journeys occur daily and shape long-term mobility habits.
- Public spaces such as parks, markets, health facilities, transit hubs, and community centers generate significant pedestrian and cycling activity.

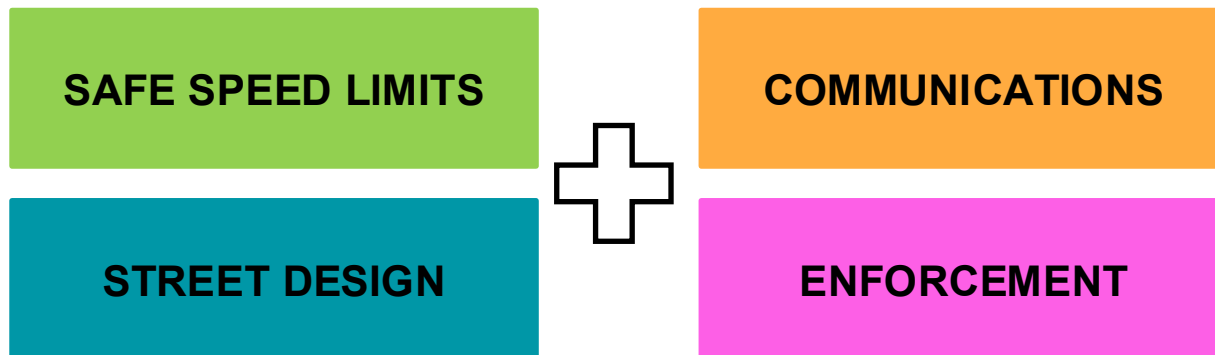


Applying the Safe System Approach



Image credit: U.S. Department of Transportation

Safe Speeds



Safe Speeds



Design that encourages over-speeding

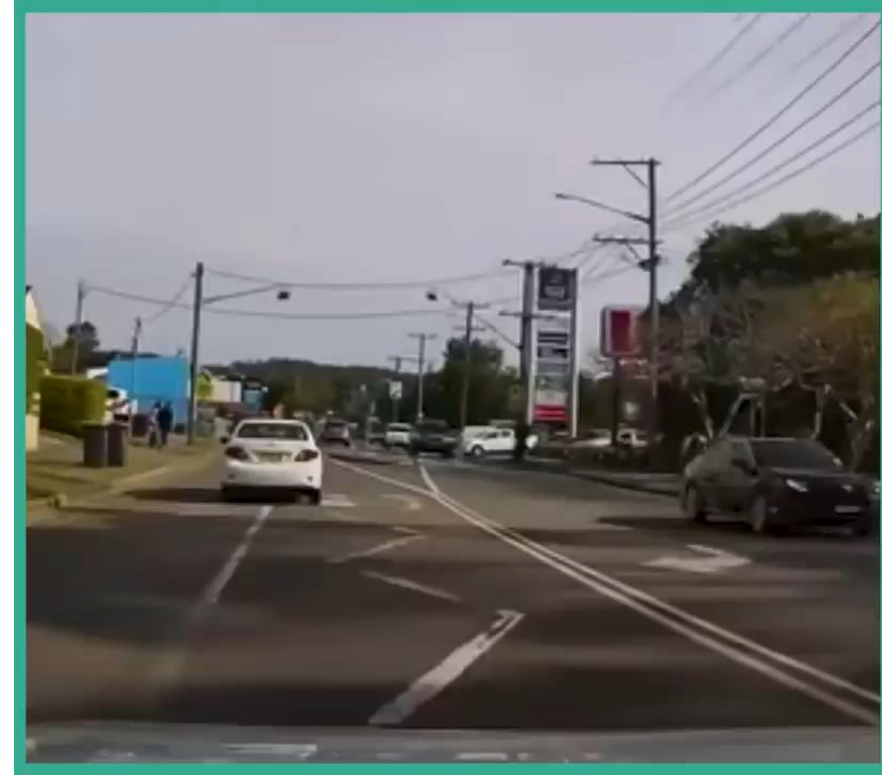


Design that encourages speed reduction

Safe Roads

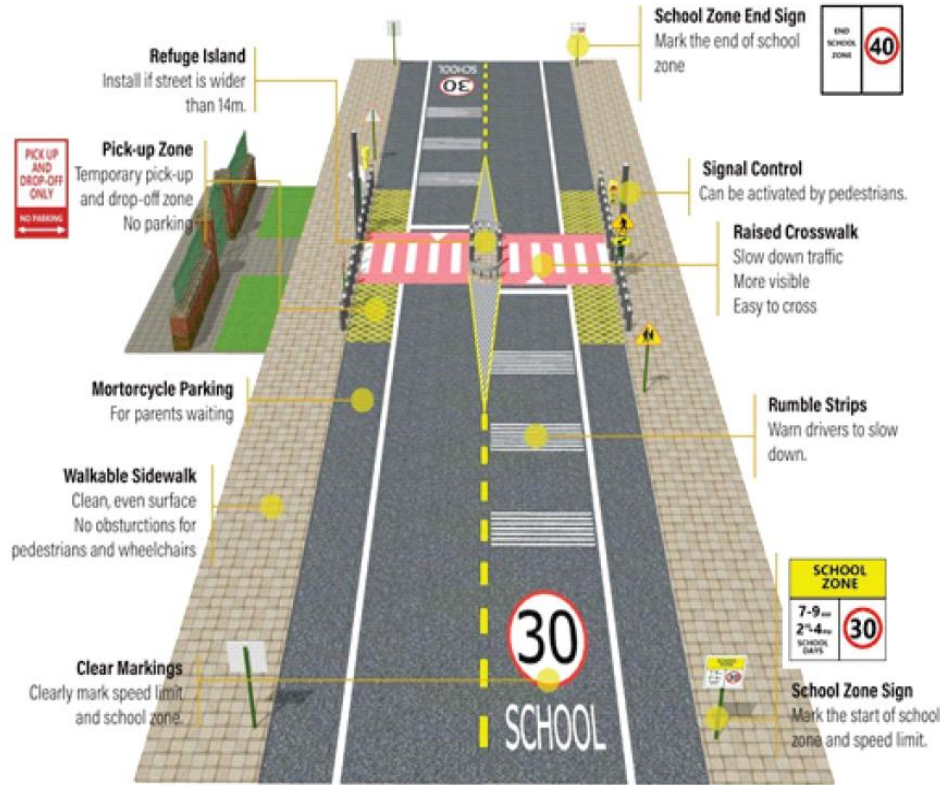
Forgiving Roads Concept is at the core of the **Safe System** approach.

The rationale is that errors are inevitable in the road transport system and should be accommodated by design. **In the first place, the road design should allow adequate room for rectification of any errors. If the error cannot be corrected in time and a crash happens, the road design should still aim to limit the severity of casualties so that fatalities and serious injuries are avoided.** Nevertheless, forgiving design is not restricted to road design, but also vehicle design and personal protection devices.



Source: [LinkedIn](#)

Safe Roads



Model of Safe School Zone (WRI, 2019)

Safe road infrastructure and elements in school zones typically include:

- **Road signs:** school zone signs, children crossing signs, speed limits in school zones, pedestrian crossing signs, etc.
- **Road markings:** road markings.
- **Sidewalks:** sidewalks, pedestrian channelization.
- **Pedestrian crossings:** e.g. marked pedestrian crossings, pedestrian refuge islands, raised pedestrian crossings, etc.
- **Speed:** speed limit, operating speed, speed management.
- **Other basic infrastructure components:** parking locations in front of school gates, street lighting, traffic signals, bicycle lanes.

Road Safety Interventions: What Works and What Does Not Work



Highly effective interventions (defined as those producing crash reduction benefits of 30 percent or more)

ROADS AND ROADSIDES	SPEEDS	ROAD USERS	VEHICLES	POST-CRASH CARE
Integrated public transport	Traffic calming	Increased helmet wearing rates	Seat belts	—
Barrier systems	Roundabouts	Increased seat belt wearing rates	Electronic Stability control	
Medians	Raised intersections		Advanced vehicle technologies	
Infrastructure solutions to support appropriate speeds	Raised crossings			
Roundabouts	Gateway treatments			
Grade separation	Lower speed limits			
Reducing risk exposure at intersections	30 km/h (20 mph) zones for pedestrians			
Pedestrian footpaths	Speed cameras			
Pedestrian crossings				

Interventions with **limited or no proven effectiveness when used alone**

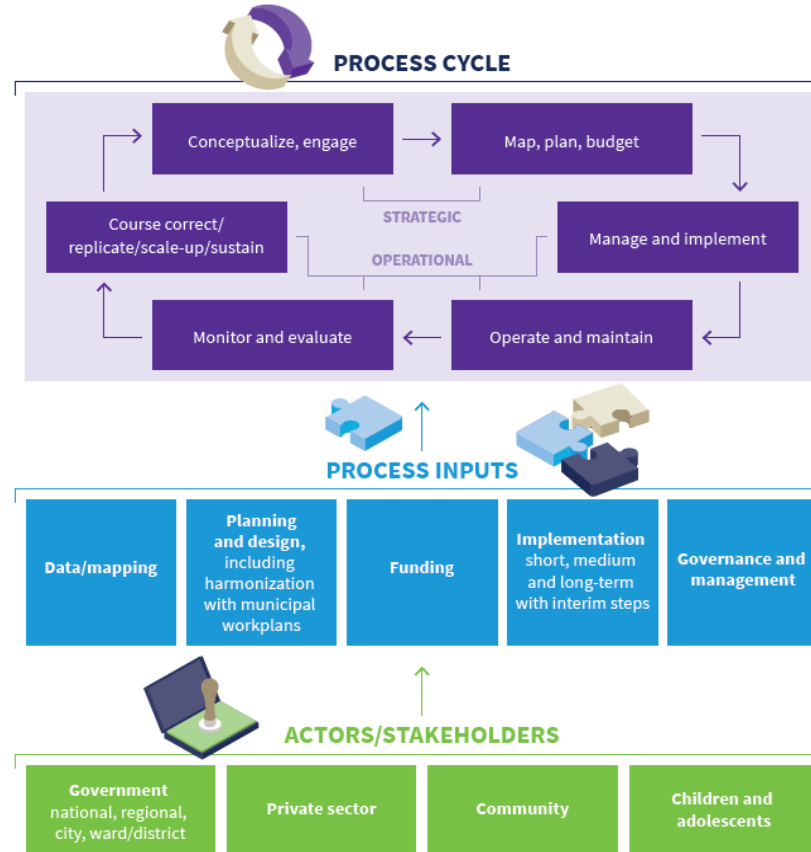
- Stand-alone road safety education campaigns
- School-based driver education aimed only at knowledge improvement
- Post-license driver training programs
- Awareness campaigns without enforcement or engineering measures

Source: Turner, B., Job, S. and Mitra, S. (2021). *Guide for Road Safety Interventions: Evidence of What Works and What Does Not Work*. Washington, DC., USA: World Bank

Project Implementation - Activities, Inputs and Stakeholders



WHO Collaborating Centre for Injury Prevention and Trauma Care



Source: [Guide to creating urban public spaces for children](#) (WHO, UNICEF and UN-Habitat, 2025)

Case Study - Vietnam



Image credit: AIP Foundation

The project employed a phased design, from 2018 to 2022. The multi-pronged strategy combined infrastructure upgrades, education and public awareness campaigns, speed limit establishment and enforcement, and policy development. Project effectiveness was evaluated using evidence-based tools, including iRAP SR4S, vehicle speed surveys, student crash and community KAP surveys.

Results: iRAP SR4S dramatically improved from as low as 1-star to 4- and 5-star ratings post-intervention. Mean vehicle speeds were reduced by up to 28.9%. The proportion of student crashes occurring within school zones plummeted from 35.6% at baseline to 2.9% at the project's end. Parental knowledge of correct speed limits increased substantially from 15.6 to 93.2% ($p < 0.001$). The project also catalyzed a legal decision by city authorities formally adopting a "Safe School Zone definition".

https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2026.1721586/full?utm_source=F-NTF&utm_medium=EMLX&utm_campaign=PRD_FEOPS_20170000_ARTICLE

Case Study - Ulaanbaatar



ADB-funded school zone road safety project in Mongolia:

The project, which has been community led, concluded with new infrastructure work around the school, including a **new pedestrian crossing**, **new road signs**, a **dedicated 'kiss and drop' zone**, and **barriers** to protect pedestrians from road traffic.

The Hugjil Complex School has about 4,000 students. Every day there are mass movements of children to and from school, many unaccompanied by adults. The project team identified that the road in front of the school had many child pedestrians and chaotic parking. It was wide enough for two cars, but one lane was blocked by parking. There were no school or speed limit signs, no painted road markings, and no formal crossing points. In addition to ensuring a safer journey for the children at the Hugjil Complex School, **a Toolkit has been developed** with a **step-by-step guide** to the project stages and **links to key resources** to assist with implementation of similar projects.

Useful Resources



1. [Guide to creating urban public spaces for children](#) (WHO, UNICEF and UN-Habitat, 2025)
2. [Designing for Safe Speeds](#) (GDCl, 2025)
3. [Safe School Zones Guide](#) (AIP Foundation, 2024)
4. [Safe School Zone Community Toolkit](#) (EASST, 2023)
5. [Designing Streets for Kids](#) (GDCl, 2020)
6. [Guide for Road Safety Interventions: Evidence of What Works and What Does Not Work](#)
(World Bank, 2021)
7. [iRAP Star Ratings of the Global Street Design Guide](#) (iRAP & GDCl, 2019)
8. [Cities Safer by Design](#) (WRI, 2015)
9. [iRAP Road Safety Toolkit](#)



THANK YOU!

