



Speed reduction

This ReVeAL building block fact sheet is one of a series of 33, each describing one Urban Vehicle Access Regulation (UVAR) building block and providing an example of its use in a city. The ReVeAL building blocks can be combined with one another to create a structured UVAR package for a city. Try out the ReVeAL online tool, www.AccessRegulationsForYourCity.eu, to receive suggestions of appropriate UVAR building blocks for your city as well as guidance in their implementation.

The EU-funded research and innovation project, CIVITAS ReVeAL, aims to add Urban Vehicle Access Regulations and associated policies and technologies to the standard range of urban mobility measures in cities across Europe. The project mission is to enable cities to optimise urban space and transport networks use to improve urban accessibility, sustainability, and liveability.

For more information, please visit: www.civitas-reveal.eu.

Spatial Interventions

Spatial interventions are where the road layout has been altered to favor more sustainable mobility and prevent vehicles entering. Examples of these are removing road and parking space taken for vehicles and using the space for sustainable mobility or amenities (bus lanes, logistics hubs, parklets, restaurants and more)

Speed reduction

Traffic filter:

- Recirculation of traffic
- Road block
- Capacity restraint

Reallocating parking space:

- Parklet
- Drop-off zone shared mobility
- Logistics bay (mini-hub)
- Kiss & Ride (K&R)

Reallocating road space for pedestrians:

- Widen pavement
- Pedestrian priority street or zone

Reallocating road space for cycling:

- Cycle lane
- Cycling street

Reallocating road space for public transport:

- Bus or tram priority lane

Pricing Aspects

Pricing aspects are when the entry to an area or to the entirety of the city is given a price tag to encourage more sustainable transport. Pricing aspects also include the (differential) levels of penalty fees to encourage (and enforce) compliance.

Road charges / tolls:

- Charge applied to a perimeter or an area (congestion charge)
- Charge applied to specific points
- Distance-based charge
- Time-based charge
- Permit charge
- Charge based on emission standards (pollution charge)

Parking charge:

- Dynamic price (real time)
- Fixed price
- Charge based on emission standards (pollution charge)
- Workplace levy
- From on-street to off-street parking

Regulatory Measures

Regulatory measures are those where there is a legal instrument that states who can and cannot enter an area. They could often also be called "bans" and include Zero Emission Zones, Low Emission Zones, and Limited Traffic Zones.

Regulation by emissions:

- Euro standard
- Zero-emission vehicles

Regulation by vehicle type and dimensions:

- Vehicle type
- Dimensions

Regulation by trip purpose:

- Delivery and logistics
- Through traffic ban

Regulation by permit:

- Permit to travel
- Parking permit
- Planning permit conditions



Speed reduction

Definition of the building block

Variation in road design to indicate that road use is different and/or speed is limited (e.g., lane narrowing, chicanes, speed cushions).

Timing, phasing, scaling and replication

This building block has no-timing related issues requiring specific attention.

Time windows

Time differentiated access is generally not used.

Enforcement options

- Cameras with automated number plate recognition (ANPR)
- Manual enforcement through visual inspection
- Road sign

Gender and equity

Increased road safety and reduced noise levels are particularly beneficial to women and children. This measure can be very helpful around schools.

Future considerations

In a future with geofencing, it may be possible to control maximum vehicle speed in specific locations. Vehicle technology could be used to make it impossible for the vehicle to exceed the speed limit. Cities could thus set speed limits by street and communicate the limits to all vehicles, which would not exceed the speed limit.

Further guidance

- How to communicate the scheme
- Geofencing and Intelligent Speed Assistance (ISA)

Complementary measures

Increased mobility options

The types of increased mobility options will be different depending on the scheme type, but some examples are:

- Creation of mobility hubs
- Increasing/improving walking or cycling facilities
- Increasing/improving public transport
- Facilitating vehicle hire and/or car sharing
- Providing parking spaces in alternative locations (e.g., Park & Ride)

Speed reduction

Consider combining with:

Spatial Interventions

Traffic filter:

- Recirculation
- Road block
- Capacity restraint

Reallocating road space for pedestrians:

- Widen pavement
- Pedestrian priority street or zone

Reallocating road space for cycling:

- Cycle lane
- Cycling street

Pricing Aspects

Road charges/tolls:

- Charge applied to a perimeter or an area (congestion charge)
- Charge applied to a specific point
- Distance-based charge
- Time-based charge
- Permit charge
- Charge based on emission standards (pollution charge)

Regulatory Measures

Regulation by permit: Permit to travel

Speed reduction is often combined with the reallocation of road space for other purposes, with parking charge or with regulations by trip purpose or permit.



Area 30 is an area with speed reduction in the city centre of Vitoria-Gasteiz. In some roads the speed limit is 20 km/h (Courtesy of Municipality of Vitoria-Gasteiz, 2022)

Speed reduction

Example: Area 30, Vitoria-Gasteiz, Spain

Description

Area 30 is a traffic calming pilot in the city centre, where the speed limit varies from main roads (max 30 km/h) to internal roads (10 km/h or 20 km/h). Vehicle flows are regulated by traffic lights which are synchronised to the established limits. This pilot was started in 2012 after the implementation of the superblock around Sancho el Sabio Street and in response to the increase in the number of cyclists on sidewalks and pedestrian areas. Area 30 constitutes the first step in the gradual progress towards implementation of the 17 city centre superblocks.

Enforcement methods

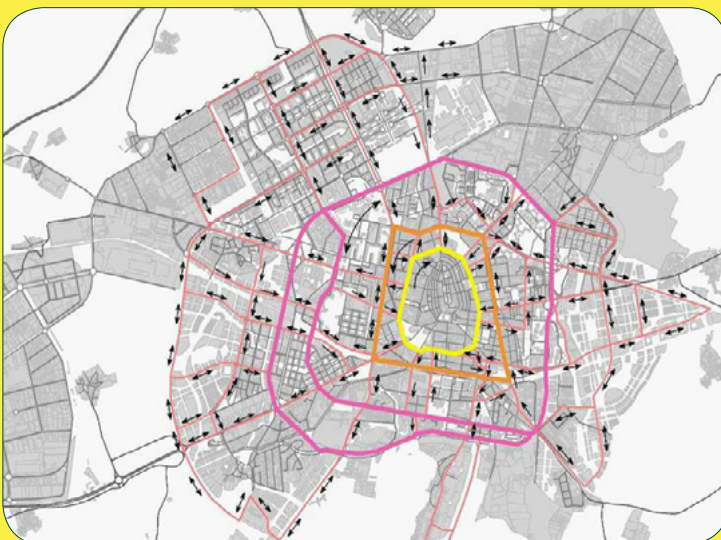
- Speed control cameras
- Mobile speed radar

Time windows

In effect at all times

Phasing and upscaling

- 1976-2010. Pedestrianisation of the city centre in 6 steps
- 2009-2010. First pilot of the superblock for the area around Sancho el Sablo Street
- 2012. Area 30 pilot
- 2020. Extension of the superblocks



Current extent of the Area 30 (marked in yellow) and future extensions (Escudero, 2020)

Speed reduction

Area 30, Vitoria-Gasteiz, Spain

Other building blocks put in place

Spatial Interventions

Traffic filter

- Recirculation of traffic
- Roadblock
- Capacity restraint

Reallocating parking space: Parklet

Reallocating road space for pedestrians:

- Widen pavement
- Pedestrian priority street or zone

Reallocating road space for cyclists:

Cycle lane

Pricing Aspects

Parking charge: Fixed price

Complementary measures

Increased mobility options

- Consolidate and improve the main network of pedestrian and cycling paths.
- Improving signalling to inform priority for cyclists and pedestrians
- Construction of high-performance segregated cycle paths to the industrial estates.
- Promote and implement Safe School Roads.

References

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