MINISTRY OF REGIONAL DEVELOPMENT AND PUBLIC WORKS

MINISTRY OF INTERIOR

Regulation No..... on the conditions for the construction or installation on the carriageway of artificial bumps and other speed limiting devices and the requirements thereto

Chapter One

GENERAL

Article 1. (1) The Regulation lays down:

1. the conditions for the construction or installation on the carriageway of artificial bumps and other speed limiting devices and the requirements thereto;

2. the types of speed limiting devices for motor vehicles and the scope of their application;

3. the technical requirements for speed limiting devices for motor vehicles;

4. 4. the requirements for the procurement, design, coordination, approval, execution, control and maintenance of speed limiting devices for motor vehicles.

(2) The requirements of the Regulation apply to roads open to public use as follows:

1. to national roads of the first to third class and local roads;

2. to streets of the primary and secondary street networks, with the exception of first class streets.

(3) On national roads outside urban areas, the construction or installation of artificial bumps on the carriageway is not permitted.

(4) The requirements of the Regulation shall apply to major renovation and reconstruction works on existing roads and streets, in the development of a stand-alone speed limit project for motor vehicles, and in the design of new construction works.

Article 2. (1) The purpose of the Regulation is to create the conditions for traffic calming, to improve traffic safety on roads open to public use, and to reduce the number and severity of traffic accidents.

(2) In order to achieve the objective referred to in paragraph 1, the following shall be undertaken:

1. speed limitation measures for motor vehicles, as follows:

(a) in urban areas – between 50 and 20 km/h;

(b) at the entrances of urban areas - up to 50 km/h;

(c) outside urban areas – between 90 and 30 km/h;

2. traffic calming measures which influence driver behaviour and improve the traffic conditions for non-motorised road users by:

(a) implementing an approach to identify comprehensive measures for the co-ordinated application of speed limiting devices with appropriate road markings, light signals, road signs and other means of road signalling and creating conditions for their easy perception;

(b) reducing potential conflicts between individual road users and improving safety for all road users;

(c) improving the traffic regime.

Article 3. (1) Depending on the area of application, various types of speed limiting devices and combined traffic calming measures shall be used:

1. in urban areas:

(a) artificial bumps;

(b) situational changes on the running carriageway affecting the movement trajectory of the vehicle;

(c) situational changes on the running carriageway affecting drivers' perceptions;

(d) physical barriers for vehicle traffic redistribution (partial and/or complete closure of streets);

(e) reduction in the number and/or width of active traffic lanes;

(f) the separation of lanes for the movement of vehicles from the lanes for the scheduled public passenger transport services (SPPTS) or cycling infrastructure lanes in accordance with the requirements of a regulation referred to in Article 75(4) of the Spatial Planning Act (SPA);

(g) new organisation of the parking places in the street space;

(h) new allocation of areas for street landscaping;

(i) marking of pedestrian walkways;

(k) combinations of speed limiting devices according to Annex No 1.

2. outside urban areas:

(a) islands in the carriageway;

(b) transverse noisy road markings;

(c) optical markings;

(d) roundabouts;

(e) longitudinal stripes;

(e) combinations of the devices referred to in points (a) to (e).

3. independently or in addition to the speed limiting devices referred to in paragraphs 1 and 2, the following means shall also be used:

(a) pavements of red colour and/or different texture; the red colour is achieved by adding pigment to the asphalt or concrete mixture; it shall be permitted the use of red-coloured concrete slabs or concrete paving blocks complying with the requirements of BDS EN 1339 "Concrete paving flags - Requirements and test methods", or BDS EN 1338 "Concrete paving blocks - Requirements and test methods";

(b) traffic signs with variable messages according to BDS EN 12966 "Road vertical signs - Variable message traffic signs".

(2) The speed limiting devices and combined traffic calming measures shall be determined in compliance with the requirements of the Regulation referred to in Article 3(3) of the Road Traffic Act (RTA), depending on their location:

1. in urban areas:

(a) with a Traffic organisation master plan (TOMP) for the whole territory of the settlement or for a part of it – a district, a zone, a residential complex;

(b) with a project for the organisation and safety of traffic in urban areas (POSTiUA) in specific cases;

2. (c) outside the boundaries of urban areas, with a project for the organisation and safety of traffic outside urban areas (POSToUA).

(3) Measures to limit the speed of traffic shall be taken by decision of the owner or administration managing the road in the presence of prescribed corrective actions as a result of procedures carried out in accordance with the Regulation on Procedures for Road Infrastructure Safety Management (SG issue No 46/2022) or following an on-site inspection and analysis of the need to restrict the speed of vehicle traffic and determining the specific measures.

(4) The analysis referred to in paragraph 3 shall be carried out:

1. on the basis of data:

(a) from the TOMP and the Sustainable Urban Mobility Plan (SUMP);

(b) on traffic accidents that have occurred;

(c) on speeding;

(d) on the composition and intensity of road traffic;

(e) on the intensity of pedestrian and cycling traffic;

(f) on the geometrical elements.

2. taking into consideration the following:

(a) the location of schools, nurseries and kindergartens, playgrounds and sports grounds, health and cultural establishments, large retail establishments and other mass access facilities;

(b) the location of pedestrian walkways predominantly used by children and/or persons with disabilities (visual, hearing or motor disabilities);

(c) entrances and exits of designated and signalled residential areas, parking lots, garages, etc.;

(d) sections with concentration of traffic accidents caused by drivers exceeding or not complying with the road conditions;

(e) elements of the urban environment and around the road factors that affect visibility (trees, poles, fences, etc.) at crossing points of different vehicle streams.

(5) The applicability of the different types of speed limiting devices and traffic calming measures shall be determined by the street class or design speed of the road, as set out in Annex No 2.

Chapter Two

TECHNICAL REQUIREMENTS AND TYPES OF SPEED LIMITING DEVICES AND TRAFFIC CALMING FACILITIES

Section I

General technical requirements

Article 4. Where designing, constructing or installing the speed limiting devices, construction products whose performance in relation to their essential characteristics ensures the fulfilment of the requirements for construction works in accordance with Article 169(1) of the SPA and complies with the technical specifications within the meaning of the Regulation referred to in Article 9(2)(5) of the Technical Requirements for Products Act pursuant to Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Directive 89/106/EEC (OJ L 88/5, 04.04.2011) shall be envisaged, as well as the requirements under Articles 9, 10 and 11 of Regulation (EU) 2019/515 of the European Parliament and of the Council of 19 March 2019 on the mutual recognition of goods lawfully marketed in another Member State and repealing Regulation (EC) No 764/2008 (OJ L 91/1, 29.03.2019).

Article 5. Speed limiting devices and combined traffic calming measures shall be adapted to the urban environment (selection of appropriate means, location, choice of materials, etc.).

Article 6. The geometrical and structural design of speed limiting devices shall comply with the requirements of the Regulation referred to in Article 75(4) of the SPA and the requirements for the passage and manoeuvring of vehicles of the SPPTS, the Directorate General of Fire Safety and Population Protection (DG FSPP) and other specialised services (garbage collection, street cleaning, snow removal).

Article 7. (1) In the case of reconstruction and major renovation, speed limiting devices and combined traffic calming measures shall be implemented with durable construction products – asphaltic concrete, concrete and/or pavement.

(2) Convex artificial bumps, islands and local constrictions of the carriageway, executed with fittings, shall be fixed to the road surface in a durable manner.

(3) Irrespective of the method in which convex artificial bumps are implemented, the geometrical parameters defined in Section II shall be complied with.

Section II

Artificial bumps

Article 8. (1) The artificial bump is an alteration of the surface level at a specific location of the carriageway.

(2) Depending on its position in relation to the surface level, the artificial unevenness is:

1. convex – elevation of the pavement level at a specific location formed by ramps that may be located:

(a) transversely on the carriageway;

(b) longitudinally across the carriageway;

2. concave – a lowering of the level of the pavement at a specific location positioned longitudinally at the end of the carriageway;

3. automated – a convex or concave unevenness located transversely on the carriageway which is raised or lowered by automated systems depending on the speed of the vehicle.

(3) The automated artificial unevenness depending on the speed of passage of a road vehicle shall have the following functionalities:

1. when passing within a permissible running speed, it shall be at the level of the carriageway;

2. when exceeding the maximum permissible traffic speed, depending on its type, it shall be raised from 50 to 100 mm or lowered from 30 to 80 mm relative to the level of the carriageway.

Article 9. The artificial unevenness may be used in combination with pedestrian protective enclosures to better organise pedestrian traffic and to increase its safety.

Article 10. (1) The convex artificial unevenness located transversely to the carriageway shall be constructed or mounted on sections of the road/street with a longitudinal gradient of up to 5 %.

(2) On roads/streets with a longitudinal gradient of 5–10 %, the construction of a convex artificial bump shall be permitted where it is proven that other speed limiting measures cannot be applied. In such cases, the bevelling on the low side shall be allowed to reach up to 20 % in accordance with Annex No 3.

Article 11. The convex artificial unevenness may be:

1. a hump;

2. a road board;

3. a road cushion;

4. a raised crossing.

Article 12. (1) A hump is a projecting artificial bump located transverse to the axis of the carriageway.

(2) The section of the hump parallel to the carriageway axis is parabolic (Figure 1) and is described by the following equation:

 $h(x) = 4Hx(L-x) / L^2$,

where:

H – height of the hump at its highest point

L – length of the hump



Figure 1. Parabolic section of the hump

(3) The height of the hump (H) in street sections shall be between 50 and 100 mm, and when implemented in residential areas, between 100 and 120 mm. Its length (L) shall be between 3 and 5 m.

(4) The mean gradient of the hump ramp (Δi) shall be measured between the line passing through the points marking the beginning and quarter of the hump (L/4) and its base. The average gradient of the hump ramp shall be between 5 and 10 %.

(5) The geometrical parameters of the hump shall be executed according to the criteria of Table 1 or the hump profiles specified in Annex 4, determined according to the target speed of travel.

	Street sections with speed limit up to 40 km/h	Street sections with speed limit up to 30 km/h	Residential areas with speed limit up to 20 km/h		
gradient, Δi [%]	5 - 8	6 – 9	8-10		
height, H [mm] 50 – 80		60 - 100	100 – 120		

Table 1. Geometric parameters of the hump depending on the target running speed

(6) The distance of the hump from the kerb or the carriageway edge shall be 0.70 m in the absence of constructed cycling infrastructure in accordance with section B - B of Annex 4. A hump shall not be located on built cycling infrastructure.

(7) The bevelling of the hump towards the carriageway boundary shall be executed with a gradient of 15 - 25 %.

Article 13. (1) A road board is a convex artificial unevenness with a trapezoidal cross-section, parallel to the axis of the carriageway that spans the full width of the carriageway (Figure 2a).

(2) A road cushion is a convex artificial unevenness with a trapezoidal cross-section, parallel and transverse to the axis of the carriageway that covers part of the width of the carriageway (Figure 2b).

(3) A raised crossing is a convex artificial unevenness with a trapezoidal cross-section, parallel and transverse to the axes of intersecting roadways that covers the entire surface of the roadways at a street intersection (Figure 2c).



(b) Plan and a cross-section of a road cushion



(d) Longitudinal cross-section of a road board, a road cushion and a raised crossing

Figure 2. Diagrams of a road board, a road cushion and a raised crossing

(4) The gradient of the ramp and the height of the artificial bumps under paragraphs 1, 2 and 3 shall be implemented in accordance with Tables 2 and 3.

	Street sections with speed limit up to 40 km/h	Street sections with speed limit up to 30 km/h	Residential areas with speed limit up to 20 km/h		
gradient, Δi [%]	5 – 9	9-12	12 – 15		
height, H [mm]	50 - 80	60 - 100	60 – 100 (120)		

Table 2. Geometrical parameters of road boards/raised crossings depending on the area of application

(5) The height H of the road boards shall be between 50 and 100 mm. By way of exception, the height is allowed to reach 120 mm where the road boards are executed as a raised pedestrian walkway in order to ensure accessibility to the pavement.

(6) The height H of the road cushions shall be between 50 and 80 mm. In the case of use of road cushions along the route of a SPPTS or in a section used by vehicles of DG FSPP and of other specialised services (garbage collection, street cleaning, snow removal), the width of the individual road cushion in the respective traffic lanes shall be between 1.70 and 2.10 m depending on the vehicle gauge. Their arrangement shall be as shown in Figure 3. The distance of a road cushion from the kerb or the carriageway edge shall be between 0.80 and 1.20 m.

(7) The bevelling of the road cushions on their sides shall be parallel to the axis of the road and shall be performed with a gradient of between 15 and 25 % (Figure 3).

	At a speed limit of up to 30 km/h	At a speed limit of up to 20 km/h		
gradient, Δi [%]	5 – 9	9 – 12		
height, H [mm]	50 - 80	60 - 80		

Table 3. Geometrical parameters of road cushions depending on the area of application



(A) separate road cushions on a two-lane carriageway



(b) whole road cushion on a two-lane carriageway



(c) separate road cushions on a multi-lane carriageway

Figure 3. Diagrams of road cushions

(8) Where a road board is used as the raised pedestrian walkway, its upper surface shall be executed 20 to 30 mm below the level of the upper edge of the kerb line, and the side walk shall be bevelled to reach the upper surface of the road board.

Article 14. The raised crossing shall be performed in compliance with the following geometric requirements:

1. the height of the raised pavement shall be between 80 and 120 mm above the level of the street pavement;

2. the transition from the side walk to the raised pavement of the crossing shall be in accordance with the requirements of the Regulation on accessible environment under Article 53(3) of the Persons with Disabilities Act, in conjunction with Article 112(4) and Article 169(1)(4) and Article 169(4) of the SPA;

3. the gradient of the ramp Δi shall be between 9 and 15 %;

4. the raised surface shall cover the area of the carriageway intended for RV traffic as well as areas intended for pedestrian crossings (Figure 4d).

Article 15. Convex artificial bumps shall be located in the areas of designated pedestrian crossings and at intersections as shown in Figure 4:





(a) location of road cushions relative to a pedestrian walkway





(c) a pedestrian walkway raised by means of a road board



(d) raising the continuation of the side-walks in the intersection area by a road boards

Figure 4. Schemes of artificial bumps in pedestrian crossing areas and intersections

Article 16. (1) Artificial bumps located longitudinally on the carriageway are local increases or decreases in the level of the pavement of 20 to 50 mm. They shall be constructed paved with a pavement texture coarser than the main part of the carriageway. They are of the following types:

- 1. convex, located in the axis of the carriageway;
- 2. concave, located at both ends of the carriageway;
- 3. a combination of the above.

(2) The width of the convex artificial bump referred to in paragraph (1)(1) shall be between 0.80 and 1.50 m, with a strip of the carriageway between 2.00 and 2.50 m wide on either side, as shown in Figures 5a and 5c.

(3) The width of the concave artificial unevenness referred to in paragraph 1(2) shall be between 0.50 and 1.00 m. The width of the remaining part of the carriageway shall be between 4.50 and 5.00 m, as shown in Figure 5b.

(4) Concave artificial unevennesses located at both ends of the carriageway shall only be applied to a one-way carriageway.

(5) The artificial bumps referred to in paragraph 1 shall be constructed or installed in such a way as not to prevent the drainage of the carriageway. Where necessary, additional components to ensure proper drainage shall be designed and constructed.

(6) In sections where SPPTS are in operation, it shall not be permissible to place an artificial bump referred to in paragraph 1.



Figure 5. Diagrams of artificial bumps located longitudinally on the axis of the road/street

Article 17. (1) On streets which are part of SPPTS routes or a section used by vehicles of the Directorate General of Fire Safety and Population Protection (DG FSPP) and of other specialised services (garbage collection, street cleaning, snow removal), only the construction of road cushions is permissible.

(2) Convex artificial bumps shall be constructed or installed on the carriageway in accordance with the requirements of the Regulation referred to in Article 14(2).

Article 18. Convex artificial bumps shall be positioned:

1. at a distance of at least 25 m before any road structure above the carriageway or before any part thereof situated at a height of less than 5.50 m from the surface of the carriageway;

2. at a distance of at least 25 m before any part of a facility over which the road passes or of a facility situated under the road;

3. at a distance of at least 20 m from a level crossing or a railway line.

Article 19. (1) Convex artificial bumps shall be visible in various meteorological conditions during the day and the night.

(2) The section of the carriageway on which convex artificial bumps are located shall be illuminated in accordance with BDS EN 13201-2 "Road lighting - Part 2: Performance requirements".

(3) The illumination of convex artificial bumps which are also pedestrian walkways shall be carried out in accordance with the Regulation on Road Signalling with Road Markings referred to Article 14(1) of the RTA.

Article 20. The signalling of convex artificial bumps with road markings shall be carried out in compliance with the provisions of the Regulation on Road Signalling with Road Markings referred to in Article 14(1) of the RTA.

Article 21. Convex artificial bumps shall be signalled by traffic signs in compliance with the provisions of the Regulation on the Signalling of Roads with Traffic Signs referred to in Article 14(1) of the RTA.

Section III Situational changes on the carriageway

Article 22. The situational changes on the carriageway affecting the trajectory of the movement of vehicles are:

- 1. horizontal displacements, including chicanes on the carriageway centreline or individual traffic lanes;
- 2. geometry modification at intersections;
- 3. reduction of radii of the kerb curves;
- 4. replacement of existing intersections with roundabouts.

Article 23. (1) A chicane is the purposeful design of two or more successive horizontal offsets of the axis of the carriageway in a direction transverse to the direction of travel when the terrain does not require it (Figure 6).







(b) a chicane



(2) The width of the carriageway or the traffic lane (B) in the area of horizontal offsets shall be determined by reference to Figure 7.



Дълбочина на отместването	Offset depth
Дължина L ₀ на отместването [т]	Length L_0 of the offset [t]

(3) Horizontal offsets with depth T_0 less than the width of the carriageway ($T_0 < B$) shall be used to limit the speed to 40 \div 50 km/h. Where the running speed is to be limited below 40 km/h, the depth of the offset shall be greater than the width of the carriageway ($T_0 > B$).

(4) The distance between two consecutive horizontal offsets L shall be between 10 - 30 m on streets of the secondary street network and between 30 - 50 m on streets of the primary street network.

(5) Horizontal offsets may be carried out on an existing section and with road markings and appropriate technical means or urban facilities in accordance with Annex 5.

Article 24. Geometry modification of an intersection is the purposeful distortion of the centrelines of the carriageway/traffic lanes within the intersection area by shifting the kerb and centrelines, reorganising the parking before and after the intersection, as per Figures 8 and 9.



Figure 8. Diagram for geometry modification of a three-way intersection on a secondary network street

остров или издаване на бордюрната линия	an island or a kerb line projection			
(при остров)	(in case of an island)			



and two-way traffic

(a) for streets with a gauge of larger than 12 m (b) for streets with a gauge of less than or equal to 12 m and one-way traffic

Figure 9. Diagrams of intersection geometry modifications

Article 25. The reduction of the radii of the kerb curves shall be undertaken at intersections in order to limit the speed of traffic in a right-turning curve and to reduce the crossing distance for pedestrians.

Article 26. Roundabouts shall be designed and implemented in accordance with the requirements of the Regulation referred to in Article 75(4) of the SPA in urban areas and outside their boundaries in accordance with the Regulation referred to in Article 36 of the Road Act.

Article 27. The situational changes on the carriageway affecting drivers' perceptions are:

- local narrowings between intersections; 1.
- 2. islands on the carriageway;
- off-set side walks. 3.

Article 28. (1) Local narrowings may be one-sided and two-sided (Figure 10).

(2) The length of the narrowing area shall be between 5 and 10 m. Longer narrowings on certain locations are permitted, but not exceeding 20 m.

(3) The width of a carriageway with two active traffic lanes in the narrowing area shall be between 4 and 5 m.

(4) In cases where the introduction of a local narrowing does not achieve the required limiting effect and/or there is a need to improve the pedestrian crossing conditions, the local narrowing shall be performed in combination with a road board (Annex No 1).



(a) unilateral local narrowing (b) bilateral local narrowing

Figure 10. Diagrams of local narrowings

Article 29. (1) Central islands as a speed limiting device in areas of pedestrian walkways shall be executed according to Figure 11.



паркинг лента	parking lane
*при озеленяване с висока растителност	* in the case of landscaping with tall vegetation

Figure 11. A diagram of a central island for pedestrian crossing

(2) The minimum width of a central island shall be 2.00 m. In the case of space constraints, the width may be reduced to 1.50 m. Where an area of tall vegetation is provided as part of the central island, the minimum width shall be 3.00 m and may be reduced to 2.50 m where space constraints exist.

(3) The minimum width of traffic lanes in the area of the central island shall be 2.75 m. If the central island is situated on a horizontal curve with a radius of less than 100 m, the minimum width of the traffic lanes shall be 3 m.

(4) The pavement in the island area intended for pedestrians may be of a different colour and/or texture.

(5) Where the construction of a central island does not achieve the required limiting effect and/or there is a need to improve pedestrian crossing conditions, the island may be performed in combination with artificial bumps (Annex No 1).

Article 30. (1) The off-set side walks shall be implemented to provide shorter pedestrian crossing distances at intersections, lower turning speeds and/or better visibility for all road users. They shall be implemented on streets with wide traffic lanes by narrowing them at the intersection or on streets with permitted parking by taking width away from the parking lane (Figure 12).

(2) The narrowed portion of the carriageway on one-way streets shall be at least 3.50 m and on two-way streets 5.00 m.

(3) The length of the protruding zone shall be at least 5.00 m from the adjacent kerb line of the street being crossed as shown in Figure 12.



Figure 12. Diagram of off-set side walks at an intersection

Section IV

Speed limitation islands outside urban areas

Article 31. The islands in the carriageway are used for a situational traffic lane changing, resulting in a reduction in speed. They shall be placed in transition zones where the speed of traffic is to be reduced as follows:

1. a chicane island – used to reduce the speed of traffic in one direction.



Figure 13. Diagram for the possible traffic management with a chicane island when entering an urbanized area

2. two-sided central island – used to reduce the speed of travel in both directions.



Figure 14. Diagram for the possible traffic management with a two-sided central island

3. central island – used to reduce the width of the traffic lanes without changing the overall road width.



Figure 15. Diagram for the possible traffic management with a central island

остров с бордюри с шисмма МИНИМУМ	an island with kerbs with a MINIMUM of
Светлоотрадителни кабари през 4т	retroreflecting road studs through 4 t

Section V

Road markings used to calm traffic

Article 32. (1) Transverse and longitudinal road markings may be used to limit running speed in accordance with the requirements of the Regulation on Road Signalling with Road Markings under Article 14(1) of the RTA and/or longitudinal stripes of a colour and texture different from that of the pavement.

(2) Transverse markings shall be optical and/or structured.

(3) Longitudinal markings and/or longitudinal stripes referred to in paragraph 1 shall be carried out in the middle and/or at both ends of the carriageway.



Figure 16. Diagram for the possible traffic management with longitudinal stripes

Chapter Three

PROCUREMENT, DESIGN, COORDINATION, APPROVAL AND EXECUTION OF ARTIFICIAL BUMPS AND OTHER SPEED LIMITING DEVICES

Article 33. (1) The administration managing the road or the owner of the road shall commission the preparation of projects for the construction or installation on the carriageway of artificial bumps and other speed limiting devices.

(2) The administration managing the road or the owner of the main road shall commission and execute the projects referred to in paragraph 1 within the scope of intersections at which roads with different owners intersect or divide each other or merge at one and the same level.

(3) Where a road of the national road network coincides with a street in an urban area, the preparation of the project referred to in paragraph 1 shall be commissioned by means of an agreement report between the Road Infrastructure Agency (RIA) and the municipality concerned.

Article 34. (1) Projects shall be awarded and implemented as a conceptual and technical design or as a stand-alone technical design.

(2) In urban areas, projects may be awarded for the entire territory of the locality, for part of it – a district, an area, a residential complex, or for an individual street.

(3) The award of projects outside urban areas may be part of an investment project for new construction, rehabilitation or reconstruction or as a stand-alone project.

Article 35. The project shall be drawn up on the basis of detailed terms of reference for design, accompanied by the necessary source data supplied by the contracting authority.

Article 36. The project in the "conceptual design" phase shall contain:

- 1. explanatory note;
- 2. situation;
- 3. organisation of traffic.

Article 37. The project in the 'technical design' phase shall contain: explanatory note with annexes;

- 1. situation;
- 2. longitudinal profile at the designer's discretion;
- 3. cross-section profiles and details;
- 4. design surface plan;
- 5. drainage plan;
- 6. organisation of traffic;
- 7. temporary traffic organisation and safety.

Article 38. The projects shall be prepared by technically competent persons having full design competence in the following parts: "Transport Planning and Design", "Traffic Organisation and Safety and Temporary Traffic Organisation and Safety" issued by the Chamber of Engineers in the Investment Design of the Republic of Bulgaria.

Article 39. The contracting authority referred to in Article 33 shall coordinate the projects with the relevant competent authorities in accordance with the procedure laid down in Article 3(3) of the RTA.

Article 40. After the implementation of the project referred to in Article 34(1), the section shall be put into service in accordance with the procedure laid down in the SPA and traffic shall be restored.

RESPONSIBILITIES AND DUTIES. CONTROL

Article 41. The organisation and financing of activities relating to the construction and installation on the carriageway of artificial bumps and other speed limiting devices shall be the duty and responsibility of the administration managing the road or of the owner of the road.

Article 42. The administration managing the road or the owner of the road shall be obliged to maintain the speed limiting devices in an undamaged condition ensuring safe operation.

Article 43. The administration managing the road or the owner of the road shall carry out an initial and periodic review of the speed limiting devices and shall monitor and report on the effect of their introduction, which shall include:

1. data on the traffic accidents occurred;

2. behaviour of road users;

3. traffic speed;

4. the preparation of a report based on the above data, analysing the advantages and disadvantages of the measures taken;

5. a proposal for follow-up actions, where necessary.

Article 44. For the constructed and installed speed limiting devices, the road administration or the owner of the road shall document and keep technical records, which shall include a database of the examinations, inspections, audits and tests of the devices in order to establish their operational condition, to determine the causes of the damage and defects that have occurred and the need to repair or replace the devices with compromised integrity, in accordance with Regulation No RD-02-20-19 of 12 November 2012 on the maintenance and ongoing repair of roads (SG No. 91 of 2012).

Transitional and final provisions

Article 1. The Regulation is issued on the basis of Article 24a(2) of the RTA and repeals Regulation No RD-02-20-10 of 2012 on the conditions for the construction or installation on the carriageway of artificial bumps and other speed limiting devices and the requirements thereto (promulgated in SG issue No. 56 of 2012, as amended, SG issue No. 32 of 2015).

§ 2. (1) Existing artificial bumps and other speed limiting devices shall be brought into compliance with the requirements of this Regulation as follows:

1. within the boundaries of urban areas, following the drawing up of the relevant plan or project provided for in Article 3(1)(2) in accordance with the TOMP or after its update pursuant to the Regulation referred to in Article 3(3) of the RTA;

2. outside the boundaries of urban areas, following the drawing up of an POST or an update of the existing POST pursuant to the Regulation referred to in point 1.

(2) Existing artificial bumps and other speed limiting devices which cannot be brought into compliance with the requirements of this Regulation shall be removed.

§ 3. The control of the implementation of the Regulation shall be entrusted to the offices responsible for monitoring compliance with the traffic rules designated by the Minister of the Interior, the National Construction Control Directorate (NCCD), the mayors of the municipalities concerned or persons authorised by them within the limits of their competence.

§ 4. (1) Investment project approval proceedings initiated and the issuance of a building permit shall be completed in accordance with the previous procedure.

(2) For an investment project approval procedure initiated and the issuance of a building permit shall be deemed to have commenced on the date of submission of the investment project for approval by the competent authority. The existence of an approved conceptual investment project shall also be deemed as the commencement of the proceedings.

§ 5. The Regulation shall enter into force on the day of its publication in the State Gazette.

Possible combinations of speed limiting devices



(a) A diagram of road cushions combined with bilateral local narrowing



(b) A diagram of a bilateral local narrowing combined with a road board



*при озеленяване с висока растителност

паркинг лента	parking lane
*при озеленяване с висока растителност	* in the case of landscaping with tall vegetation

(c) A diagram of a central island combined with road boards



еднопосочно движение

двупосочно движение	two-way traffic

(d) A diagram of a combination of off-set side walks, reduction of radii of the kerb curves and a road board at an intersection between a street of the primary and a street of the secondary street network



(e) A diagram of a combination of off-set side walks, reduction of radii of the kerb curves and a raised crossing

Speed limiting and traffic calming device	Applicability according to street classification							Applicable on urban roads	Applicable outside urban areas *
	Positioning	Acco	rding to the s classificatior	street 1	Accordin functions i	According to the functions it performs			
		Class II streets	Class III/ IV streets	Class V and VI streets	Access to emergency services	Main transit artery			
				Arti	ificial bumps				
A hump	between intersections					•	10 – 50		•
Road cushion	between intersections	•				•	20 - 60		•
Road board	between intersections					•	20 - 60		•
Raised pedestrian walkway	both			•		0	20 – 60	•	٥
Raised crossing	at a junction		•		•	•	20 - 60		•
Longitudinal artificial bumps	between intersections		•	•	•		20 - 40	•	•
Situational changes affecting the traffic trajectory of the motor vehicles									

Horizontal offsets of the carriageway	between intersections	0	•	•	•	•	30 – 60	•	•
Chicanes (series of horizontal off- sets)	between intersections		•	•	•	•	30 – 60	•	
Geometry modification at intersections	at a junction		•		•		20 – 40	•	
Small roundabout	at an intersection		•	•	0	0	20 – 50		•
Large roundabout	at an intersection	•	•		•	•	30 - 90		•
Reducing the radii of the kerb curves	at a crossing		•	•	0		10 - 30	•	
			Situation	al changes a	affecting driv	ers' perceptio	ons		
Off-set side walks	at a crossing						20 - 60		
Local narrowing	between intersections				•		20 – 50		•
Island in the carriageway	both						20 - 60		
Marking									

Transverse optical marking	between intersections	-	-	-	-	-	30 – 90		•
Transverse audible marking	between intersections	-	-	-	-	-	30 – 90		•
Longitudinal stripes	between intersections	-	-	-	-	-	30 – 90		
		-	-	Other	devices				
Pavements of different colours and textures	both						20 – 90		
Variable message signs	between intersections						30 – 90	0	

Key:

– applicable

applicable
 applicable
 not applicable
 * Note: Artificial unevennesses shall not be applied on national roads.

Annex No 3 to Article 10(2)









Hump profiles, depending on the target travel speed



Diagrams of chicanes, shaped with markings and movable plant pots

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(b) a chicane shaped with movable plant pots, marking and parking reorganization

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VIOLETA CORITAROVA

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KALIN STOYANOV