



Introduction

Within the "CyclUrban" project Latvian Cyclist's Union have been developing a list of suggestions for the Latvian Directorate of Road Traffic Safety regarding various cycling and urban improvements. There have been weekly working group meetings since April 2019, where experts from Latvian Cyclist's Union together with road engineers and experts from the Directorate have been discussing Union's suggestions in the Latvian Directorate of Road Traffic Safety Special working group. The meetings are still ongoing (projected to continue until the end of the year 2019).

Depending on the matter, this working group is the first stop for a traffic related regulation to take place. Not all the originally 39 suggestions have been stated for the next steps, however more than half of them have. Depending on the topic and complexity a suggestion can be accepted, rejected, postponed or referred further to the subcommittee "Technical Instruments of the Transport Organization" of the Technical Committee for Road Standardization. Accordingly the subcommittee can accept or deny the suggestion (if that is a matter that does not need a new regulation in the law), decide for an additional working group when special technical solutions need to be developed or move towards the Government (in case when the Road Traffic Regulation law needs to be changed/updated).

As one of the greatest results of these discussions is the decision to create the Standard of Residential Areas. The standard will increase the understanding of Residential Areas from a legislative perspective and increase the well-being of people living in such areas. Among other things it will increase the priorities and safety of cycling in Residential Areas.

Topics that are covered include the above-mentioned Residential Area guidelines, specifications of existing road traffic regulations, introduction of new road signs, technical solutions for traffic lights and road standard (road markings, new infrastructure design etc.). As a result, three general groups of National Recommendations have been be grouped in this report:

- guidelines for Residential Areas;
- road markings, traffic signs and traffic lights related recommendations;
- other cycling related recommendations.

Described below there are the recommendations regarding cycling and approved by the working group. Two of these have been accepted (see paragraphs 2.3.4. and 2.3.6.) already without referring further to the above-mentioned subcommittee. The ones that cover other topics related urban areas and the recommendations that have been postponed or rejected are not listed here in this report.





National Policy Recommendations

Guidelines for Residential Areas

Priority of traveling and permit cycling a one-way street in the residential area

Currently it is not clear from the RTR whether it is allowed or not to ride by bike a one-way street in the opposite direction in Residential Areas. Although it is allowed to cycle and walk along the entire width of the carriageway in the Residential Area. There is no regulation for pedestrian movement directions in the Residential Area, assuming that pedestrians can go everywhere in any direction. However, it is not entirely clear about cyclists.

As one of the aspects of Standard of Residential Areas is the proposal to add "in all directions" to the paragraph 139 of the RTR: "In Residential Area, gas stations and parking areas pedestrians and cyclists are permitted to move along sidewalks and carriageways throughout their width in all directions".

Recommended bicycle lane in the residential area

Since it is allowed to ride a bicycle across the width of the carriageway in the Residential Area, it is clear that the cyclist has priority. What is important, however, is that drivers in residential areas tend to move around the carriageway to the full width and stop to pass passengers anywhere. A cycling tour or a regional, local cycling route can also be taken through the Residential Area. Mostly these are routes and / or cycle paths that run along rivers, through green areas, or through city centers that may be a Residential Area. However, the problem often arises that route directions, signs may not be clear, understandable or sufficient, so direction changes are important for the cyclists to get around safely.

The proposal is to use a pictogram to show a preferred bike trajectory in the Residential Area. The recommended/preferred bike lane would serve as a reminder while simultaneously highlighting the desired trajectory. There would be no road marking as a line for the preferred cycling trajectory, but it would be a pictogram showing a bike and so this solution would not contradict the requirements of the Residential Area Principles. At times it serves as a reminder to other road users of the intersection with the bicycle path, cycling traffic. Such solutions could be used in front of schools where there is and potentially can be heavy cycling (children) traffic before classes and at the same time car traffic when parents bring their children to school. Thus, the space must be delimited, or divided so that flows do not intersect, and in that way reduce risks. Especially if it is a one-way street in a residential area where drivers are not waiting for oncoming cyclists.

Precision in vehicle parking regulation for the residential area

It is a common situation in the yards of multi-story houses where cars are parked on the sidewalks, at the ends of the sidewalks, in that way blocking access for walking and cycling making it especially difficult to move around for people with baby strollers, people with disabilities or bicycles.

The proposal is to add "bicycles" to the paragraph 141 of the RTR: Vehicle parking in Residential Areas is permitted only in specially designated parking spaces. Where such parking spaces are not available or they are occupied, parking shall be permitted only in places where they do not interfere with the movement of pedestrians, bicycles or other vehicles.

Road markings, traffic signs and traffic lights related recommendations

Cycling street

Cycling street is a solution used when there is a need for safely managing cycling traffic, without investing into cycling infrastructure. It is a solution for prioritizing bicycles, while allowing vehicle movement.

Proposal to add a new sign to the Standard for Road Signs and Road Traffic Rules: "Priority for bicycles". Such sign could be used in situations, where there is not a Residential Area, but priority is given to cyclists - the slogan "Car is a guest". These are roads and streets where cycling is the preferred form of traffic, so cyclists can move across the full width of the carriageway or along a bike line, provided that they are set up without deliberately obstructing drivers. The allowed speed is not more than 30km/h. Example of such traffic sign can be seen in Figure 1.



Fig. 1. Example for the traffic sign "Cycling street" used in Netherlands and Belgium

Proposal to add a new sign to the Standard for Road Signs and Road Traffic Rules: "A dead end, except for cyclists and pedestrians"

There are several situations where a road ends with a pedestrian bridge, places where a new road is built and the old is closed for traffic but is legally used for

pedestrians and cyclists. In places where there are deliberately piled poles, fences and barriers to prevent road transport. Such sign would help to improve the situation in residential areas where transit traffic is excluded but replaced by cycling and walking.

Proposal to add a new sign to the Standard for Road Signs and Road Traffic Rules: "A dead end, except for cyclists and pedestrians". Examples from Denmark can be seen in Figure 2.



Fig. 2. Examples for the traffic sign "A dead end, except for cyclists and pedestrians" used in Denmark

Proposal to add a new sign to the Standard for Road Signs and Road Traffic Rules: "Oncoming cyclist"

Historically roads and streets in majority of Latvia are built in a width so that two horse carriages can interchange. However, with increased traffic and for safety reasons, many roads and streets are transformed into one-way streets meanwhile the width of the road has not changed and it is still possible for two cars yet alone a car and a bicycle to interchange. This means that traffic space is not used rationally. A proposal to introduce a road sign, as in other EU countries, indicating the oncoming bicycle.

Proposal to add a new sign to the Standard for Road Signs and Road Traffic Rules: "Oncoming cyclist". Examples that are used in Europe can be seen in Figure 3. Such convenient traffic control is possible on one-way streets where bicycle traffic is allowed in the opposite direction, or vice versa on roads with bicycle traffic where road traffic is permitted. In places where public transport can drive in the opposite direction of cycling.

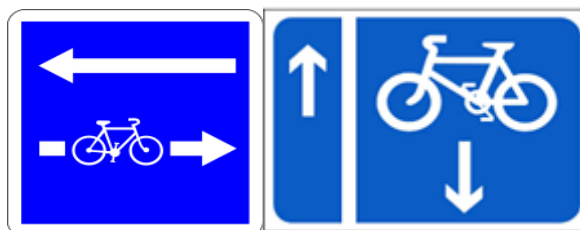


Fig. 3. Examples for the traffic sign "Oncoming cyclist"

Traffic light cycle offset

Traffic Lights in a busy city such as Riga are usually in favor for cars, not pedestrians and cyclists. The proposal is to upgrade the Standard for Traffic Lights





with the option of a light signal cycle offset - different for each group. The first one for pedestrians, the second for cyclists, the third for cars with an offset of, possibly, 3 seconds. This principle is applied in Denmark and the Netherlands. The rationale is similar to a raised STOP road mark on the bike line, or an accumulation area, which ensures that cyclists are in front, better and more prominent.

With the light signal plan, it is possible to regulate the same principle, promoting pedestrians, then cyclists, and then cars. This improves safety for the most vulnerable road users - pedestrians and cyclists. Only when the vulnerable groups have crossed the road, the cars can turn to the right. The aim is not only to create security, but also to change people attitude.

Such an approach can be used in urban centers, where pedestrian and bicycle promotion with respect to road transport is essential. In the Netherlands and Denmark, this priority is also justified by humanity - in rainy, hot or cold weather, pedestrians and cyclists, as vulnerable road users, have significantly less comfortable conditions compared to those traveling in road transport with climate control. Therefore, those who have no problem waiting can wait a little longer.

Offer to introduce bicycle lanes with a dotted line

The proposal for a dotted bike lane road marking was extensively discussed in the drafting of the first version of the Latvian Road Standard, but was postponed due to insufficient arguments, however not rejected entirely. As projects develop more and more, road engineers are faced with situations where such a solution should be used. Bike line with a dotted road marking should be used in situations such as:

- cycling street;
- b) designated edge of the recommended bike lane (where needed and pictogram horizontal markings are not enough);
- c) zones on a bike lane which can be crossed by car for turning, leaving a Residential Area or parking area;
- d) Public transport stops and other situations.

Introduce a 10 cm wide bike lane marking

Currently the width of a bike line is 30 cm. Less costs, more space. There are not many examples abroad where the bike lane horizontal road marking is 30 cm wide. The second downside of such wide marking is that the paint has a higher surface and in wet and snowy conditions it gets slippery. Therefore, it is better that the slippery area, or in this case the color, is a smaller square.

No-conflict signal plan for traffic lights at intersections with bike line

Traffic Lights in busy city such as Riga are typically in favor for cars, not pedestrians and cyclists. Multiple solutions should be included in the Standard for Traffic Lights to allow the traffic expert to choose the most appropriate for each situation. The basic problem is that there is no need to put conflict-free traffic lights everywhere. Visibility, traffic organization, road owner priorities are what



determine what type of solution to use. When cyclists and pedestrians have to wait too long and vehicles do not travel, they are likely to cross the street when the red light is on. The purpose of traffic management must be to transport as many people and goods as possible on the infrastructure that is as simple as possible. Therefore, the main function of traffic lights should be the convenient organization of all the road users

Other cycling related recommendations

Roundabout with priority for cyclists

Currently there is no cycling infrastructure in roundabouts. Many roundabouts even lack simple pedestrian crossings, making it difficult and dangerous to travel by feet or by bike. It is necessary to integrate several technical solutions in the Latvian Road Standard with roundabouts that include cycling infrastructure.

Revision of bike rack standard

Existing standard does not provide the needed quality for bike racks. There should be defined standards for different types of bicycles and various placements. Such as bicycle racks on the carriageway (taking up vehicle parking space), multi-story bicycle stands in stations, bicycle lockers, cargo bicycle stands. Drawings of e-bicycle stands. Defined minimum amount of bicycle racks in facilities - educational establishments and other facilities.

No curbs on bike lines

Currently there are curbs (including in-depth curbs) on cycling infrastructure. There should be no curbs on bike lines, bicycle infrastructure should be on the same level as carriageway.

Mandatory lateral distance of the overtaking vehicle from the cyclist

Currently, the RTR 105th paragraph states: "The driver must, depending on the speed of travel, choose a distance which, in the event of braking of the vehicle in front, is likely to avoid a collision, and to choose an interval which ensures road safety."

The proposal is to supplement the existing paragraph by: "When overtaking cyclists and pedestrians traveling on the road or its outskirts the maximum possible interval should be chosen - outside built-up areas not less than 1.5 meters on hard surfaced roads and not less than 1 meter inside urban areas. When overtaking vulnerable road users (pedestrians, cyclists, moped drivers) and carriageways on dirt roads, the speed of the vehicle and the maximum possible intervals shall be respected'.

Predict the penalty for non-compliance with disregarding the minimum interval. The proposal is to equalize the level of the penalty for aggressive driving.



Offer an additional solution for a four-branch junction with a cycling infrastructure

Currently, the Latvian Road Standard offers a design for a four-branch junction, where the only solution is to separate a cycle path with islands at the junction. The existing offer is safe, but it requires rebuilding of the intersection and enough space to implement it. In restricted and low-budget conditions, an intersection with non-tilted cycle lanes would be most common. However, there is currently no such solution in the standard.

The proposal is to develop technical solutions in the Latvian Road Standard with an additional solution - intersection with non-tilted cycle lanes - for a four-branch junction with a cycling infrastructure.

Handrails on bridges and overpasses are extended outwards

The main argument is the efficient use of space. According to the Latvian Road Standard, the distance from the wall/handrail is 45 cm from the wheel of the bicycle. Raising the handrail to the outside creates extra space for cycling. In addition, it is safer to move around because there is not much chance of catching the handrail in the corner. The same applies to tunnel walls.





Table No. 1: National Policy Recommendations (Latvia)

Priority Topic	No.	Recommendation	Status Quo Description	Proposed Policy Change Description	Date for Implementation	Affected Stakeholder (s)	Final Recipient (s)
Legislative Changes – new road sign	1	<p>Priority of traveling and permit cycling a one-way street in the residential area; Precision in vehicle parking regulation for the residential area</p> <p><i>(compulsory legal instrument of public policy)</i></p> <p>Key words: residential area, priority cycling</p>	<p>Currently there is no regulation for pedestrian movement directions in the Residential Area, assuming that pedestrians can go everywhere in any direction. However, it is not entirely clear about cyclists.</p>	<p>As one of the aspects of Standard of Residential Areas is the proposal to add "in all directions" to the paragraph 139 of the RTR: "In Residential Area, gas stations and parking areas pedestrians and cyclists are permitted to move along sidewalks and carriageways throughout their width in all directions".</p>	2022	<p>every road user: pedestrians, cyclists, private and public vehicle users</p> <p>Latvian Directorate of Road Traffic Safety</p>	<p>Ministry of Transport of the Republic of Latvia</p> <p>The Ministry of Economics of the Republic of Latvia</p>
	2	<p>Cycling street</p> <p><i>(compulsory legal instrument of public policy)</i></p> <p>Key words: residential area, priority cycling, traffic safety</p>	<p>Cycling street is a solution used when there is a need for safely managing cycling traffic, without investing into cycling infrastructure. It is a solution for prioritizing bicycles, while allowing vehicle movement.</p>	<p>Proposal to add a new sign to the Standard for Road Signs and Road Traffic Rules: "Priority for bicycles". Such sign could be used in situations, where there is not a Residential Area, but priority is given to cyclists - the slogan "Car is a guest".</p>	2022	<p>every road user: pedestrians, cyclists, private and public vehicle users</p> <p>Latvian Directorate of Road Traffic Safety</p>	<p>Ministry of Transport of the Republic of Latvia</p> <p>The Ministry of Economics of the Republic of Latvia</p>





	3	<p>New signs to the Standard for Road Signs and Road Traffic Rules</p> <p><i>(compulsory legal instrument of public policy)</i></p> <p>Key words: traffic safety, priority cycling</p>	<p>There are situations where a road ends with a pedestrian bridge, places where a new road is built and the old is closed for traffic but is legally used for pedestrians and cyclists. Currently many roads and streets are transformed into one-way streets meanwhile the width of the road has not changed, and it is still possible for two cars yet alone a car and a bicycle to interchange. Hence traffic space is not used rationally.</p>	<p>New signs to the Standard for Road Signs and Road Traffic Rules: "A dead end, except for cyclists and pedestrians" and "Oncoming cyclist"</p>	2022	<p>every road user: pedestrians, cyclists, private and public vehicle users</p> <p>Latvian Directorate of Road Traffic Safety</p>	<p>Ministry of Transport of the Republic of Latvia</p> <p>The Ministry of Economics of the Republic of Latvia</p>
Legislative Changes – horizontal marking	4	<p>Recommended bicycle lane in the residential area</p> <p><i>(compulsory legal instrument of public policy)</i></p> <p>Key words: residential area, priority cycling</p>	<p>Currently a problem arises when route directions / signs may not be clear, understandable or sufficient, so direction changes are important for the cyclists to get around safely.</p>	<p>The proposal is to use a pictogram to show a preferred bike trajectory in the Residential Area. At times it serves as a reminder to other road users of the intersection with the bicycle path, cycling traffic.</p>	2022	<p>every road user: pedestrians, cyclists, private and public vehicle users</p> <p>Latvian Directorate of Road Traffic Safety</p>	<p>Ministry of Transport of the Republic of Latvia</p> <p>The Ministry of Economics of the Republic of Latvia</p>
	5	<p>Offer to introduce bicycle lanes with a dotted line; Introduce a 10 cm wide bike lane marking</p> <p><i>(infrastructure)</i></p>	<p>Currently the width of a bike line is 30 cm. The second downside of such wide marking is that the paint has a higher surface and in wet and snowy conditions it gets slippery.</p>	<p>Bike line with a dotted road marking should be used in situations such as: cycling street; zones on a bike lane which can be crossed by car for turning, leaving a Residential Area or parking area; Public</p>	2022	<p>every road user: pedestrians, cyclists, private and public vehicle users</p> <p>Latvian</p>	<p>Ministry of Transport of the Republic of Latvia</p> <p>The Ministry of Economics</p>





		<i>improvements)</i>		transport stops and other situations. 10 cm wide bike lane marking would be less costs, more space.		Directorate of Road Traffic Safety	of the Republic of Latvia
Capacity Building	6	Guidelines for Residential Areas <i>(compulsory legal instrument of traffic safety)</i> Key words: residential area, priority cycling	Currently there is not a clear definition and guidelines for residential areas, hence they differ and can be unsafe for movement of people and transport. As new housing development and cycling traffic increases, it is important to ensure traffic safety for all.	The standard will increase the understanding of Residential Areas from a legislative perspective and increase the well-being of people living in such areas. Among other things it will increase the priorities and safety of cyclists and pedestrians in Residential Areas.	2025	every road user: pedestrians, cyclists, private and public vehicle users Latvian Directorate of Road Traffic Safety	Ministry of Transport of the Republic of Latvia The Ministry of Economics of the Republic of Latvia
	7	Traffic light cycle offset <i>(infrastructure improvements)</i> Key words: traffic safety, priority cycling	Currently traffic Lights in busy city such as Riga are typically in favour of cars, not pedestrians and cyclists.	The proposal is to upgrade the Standard for Traffic Lights with the option of a light signal cycle offset - different for each group. The first one for pedestrians, the second for cyclists, the third for cars with an offset of, possibly, 3 seconds. The purpose of traffic management must be to transport as many people and goods as possible on the infrastructure that is as simple as possible.	2022	every road user: pedestrians, cyclists, private and public vehicle users Latvian Directorate of Road Traffic Safety	Ministry of Transport of the Republic of Latvia The Ministry of Economics of the Republic of Latvia
Cycling Infrastructure	8	Roundabout with priority for cyclists; No curbs on bike lines; Offer an additional solution for a four-branch junction with a	Currently the road system is made for motorized vehicles, not bicycles.	It is necessary to integrate technical solutions in the Latvian Road Standard with roundabouts and four branch junctions that include and take into account cycling, also avoiding curbs or	2022	every road user: pedestrians, cyclists, private and public vehicle users	Ministry of Transport of the Republic of Latvia The Ministry





	<p>cycling infrastructure</p> <p><i>(infrastructure improvements)</i></p> <p>Key words: traffic safety, priority cycling</p>		<p>other obstacles on bike lines as it would be a regular carriageway.</p>		<p>Latvian Directorate of Road Traffic Safety</p>	<p>of Economics of the Republic of Latvia</p>
9	<p>Revision of bike rack standard; Handrails on bridges and overpasses are extended outwards</p> <p><i>(infrastructure improvements)</i></p> <p>Key words: traffic safety, priority cycling</p>	<p>Existing standard does not provide the needed quality for bike racks. The main argument is the efficient use of space and safety reasons.</p>	<p>There should be defined standards for different types of bicycles and various placements. Raising the handrail to the outside of a bridge creates extra space for cycling. In addition, it is safer to move around because there is not much chance of catching the handrail in the corner.</p>	2022	<p>pedestrians, cyclists</p> <p>Latvian Directorate of Road Traffic Safety</p>	<p>Ministry of Transport of the Republic of Latvia</p> <p>The Ministry of Economics of the Republic of Latvia</p>
10	<p>Mandatory lateral distance of the overtaking vehicle from the cyclist</p> <p><i>(compulsory legal instrument of public policy)</i></p> <p>Key words: traffic safety, priority cycling</p>	<p>Currently, "The driver must, depending on the speed of travel, choose a distance which, in the event of braking of the vehicle in front, is likely to avoid a collision, and to choose an interval which ensures road safety."</p>	<p>The proposal is to supplement the existing paragraph with by: "When overtaking cyclists and pedestrians traveling on the road or its outskirts the maximum possible interval should be chosen - outside built-up areas not less than 1.5 meters on hard surfaced roads and not less than 1 meter inside urban areas."</p>	2021	<p>every road user: pedestrians, cyclists, private and public vehicle users</p> <p>Latvian Directorate of Road Traffic Safety</p>	<p>Ministry of Transport of the Republic of Latvia</p> <p>The Ministry of Economics of the Republic of Latvia</p>

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Expert Viesturs Laurs

