



# ***NEW CITY LOGISTICS SOLUTIONS FOR HISTORIC AREA OF ZADAR PENINSULA***



# CONTENT



- Regulation on traffic in the pedestrian zone of the Peninsula
- Traffic analysis of pedestrian zone on Peninsula
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Main square



# INTRODUCTION



The City of Zadar made an analysis of the existing state of control of the delivery vehicles in the area of the old core of the Peninsula. After the analysis, data were collected that pointed to the problems and which rules do not adhere to the owners of the delivery vehicles. An amendment to the existing Regulation on Traffic in the pedestrian zone of the Peninsula was started. After the change of the Regulation, the implementation of the new measures took place.







# REGULATION ON TRAFFIC IN THE PEDESTRIAN ZONE OF THE PENINSULA

Problems of old „Regulation on traffic in the pedestrian zone at the peninsula in City of Zadar,,:

- Failure to deliver time to the pedestrian zone (1st shift from 6:00 to 7:30, 2nd shift from 13:00 to 15:00)
- Entry into the pedestrian zone without valid traffic permit (valid issued by the City of Zadar)
- Entry for vehicles with a load capacity greater than prescribed (2,500 kg, vehicle width 220 cm)



# TRAFFIC ANALYSIS OF PEDESTRIAN ZONE ON PENINSULA

- City of Zadar recently made an analysis of the current situation to meet the problems that arise when owners of delivery vehicles do not comply with the rules and what measures need to be taken to regulate mobility of freight vehicles in the pedestrian zone of the Peninsula.
- The analysis was performed in collaboration with Memex and REA (Regional energy agency north- Croatia), and represent a preliminary activity for the development of the Sulp (sustainable urban logistics plan).
- On the basis of the results of the analysis the Municipality started the process of changing the existing policy of transporting the delivery vehicle in the pedestrian zone of the Peninsula, and elaborated all the parameters to bring about new rules and measures in the best possible way.



# AMENDMENT OF THE OLD DECISION AND IMPLEMENTATION OF NEW MEASURES FOR DELIVERY USERS

In relation to the old Municipality Regulation on traffic in the pedestrian zone of the Peninsula, several points have been updated in the new Regulation, which have led to positive results.

Among the others, the main new measures are:

- Changing the time of entry into the pedestrian zone by delivery vehicles
- The delivery time from 13:00 to 15:00 was terminated
- Limited time of use load/unload places
- Using an electric vehicle with special specifications (0-24)
- Increased control of traffic permits for pedestrian zone traffic



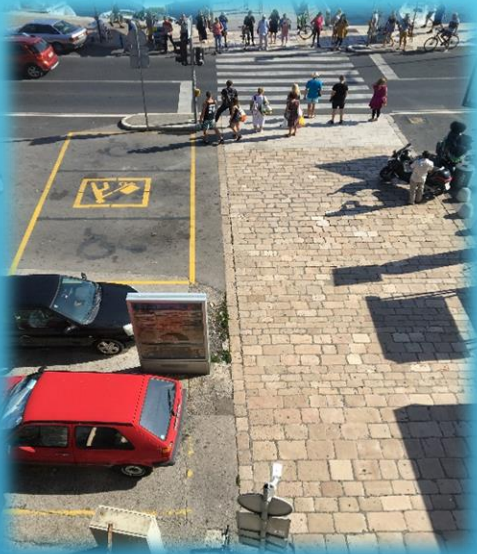
# NEW GUIDELINES FOR INTEGRATED MOBILITY MANAGEMENT IN THE CITY OF ZADAR

The implementation of new measures in the pedestrian zone of the Peninsula has led to positive results.

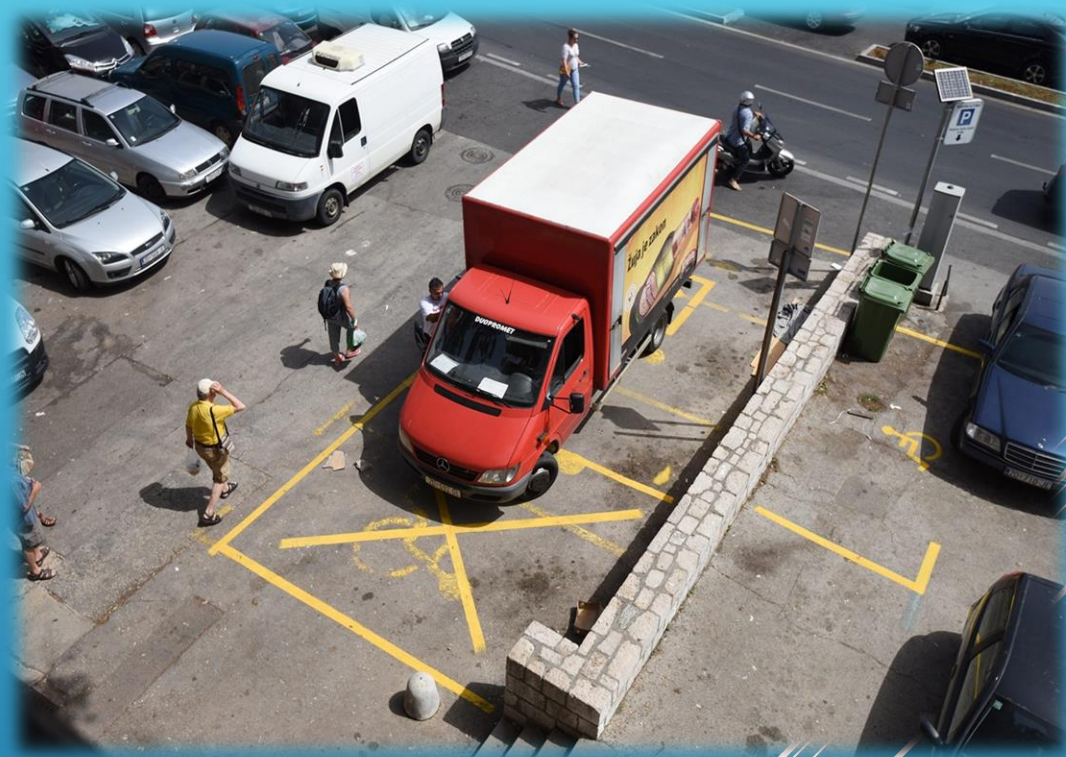
- New measures for delivery vehicles:
- The delivery in the morning is extended for two hours (new delivery time: from 6:00 am to 9:00 pm)
- Load/unload places as an alternative to the repealed afternoon shift (11 points of transfer, retention time 30 min.)
- Use of electric trolleys for delivery (0-24h)
- Video surveillance at 10 gates, set for monitoring all entrances to the pedestrian zone on the Peninsula







- Load/unload places that serve as an alternative to delivery vehicles in the afternoon shift.



- All load/unload places are marked in yellow and the maximum hold time is indicated on the sign.  
30 minutes



- Transport operators who do not have a pedestrian zone permit use load/unload place also in the morning.







11 Load/unload places outside the pedestrian zone





Electric wheelchair delivery is available throughout the day and makes it easier for the suppliers to freely perform delivery without using the express delivery vehicles in the pedestrian zone.

Deliverers have got the exact dimensions of the electric vehicle so that there would be no misuse of vehicles that are unsuitable for this kind of delivery in the old town core.



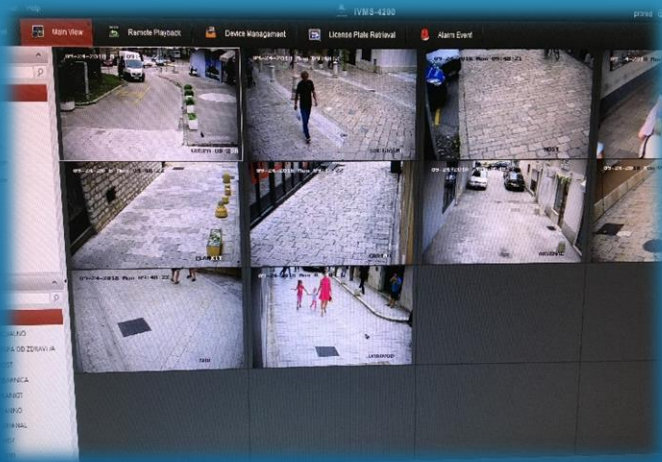
In addition to electric delivery carriers, deliverers are also allowed to use other means of delivery to facilitate delivery of goods at the time when a ban on entering the pedestrian zone is in effect.





By implementing video surveillance at the entrance to the pedestrian zone, we are trying to control the entrances to pedestrian zone to help detected who are delivering outside the time allowed.

- 10 cameras (LPR) for vehicle control are set.
- A software that allows the recognition of plate is developed and it stores plates in memory that is available for 24 hours.
- Video surveillance records all vehicles entering the pedestrian zone of the Peninsula.





# IMPACT ANALYSIS OF TRAFFIC CONTROL MEASURES AND IMPROVEMENT OF DELIVERY PROCESSES IN THE PEDESTRIAN ZONE

After the implementation of the new Regulation for the pedestrian zone of the "Peninsula", the surveys have confirmed that the transport operators:

- In general they respect the implemented measures ie., they deliver at the allowed time
- Use load/unload places for delivery in the afternoon
- Use the electric trolley when possible

The results of the analysis have also shown that there are still violators and that the delivery is carried out at a time when it is not allowed. Moreover they L/U space are often illegally occupied by cars as a parking space.

We can say that by implementing new measures to regulate traffic and improve the process of delivering goods to the pedestrian zone, it reduced the vehicle load by 50%.



- The city of Zadar intends to improve and implement these measures in the future, with the system being upgraded and improved in a way that facilitates control of the entrance/exit of the delivery vehicles in the Peninsula area.
- A black/white list that controls the entrance or exit of the vehicles in the pedestrian zone of the Peninsula
- Entry block with lifting pillars, which will also work on the recognition principle of the table and on the basis of recognition allow delivery vehicles to the pedestrian zone.



# CONCLUSION

The city of Zadar, by amending the „Regulation on traffic in pedestrian zone Peninsula", has achieved results that are acceptable and satisfactory that it has not encountered major obstacles or denials of the owner of the delivery vehicle.

The plan was to provide security to the inhabitants of the Peninsula and to all visitors, and also the delivery vehicles can deliver the goods unhindered and on time.

By implementing new measures, we have ensured control of all vehicles entering the pedestrian zone, reducing the number of unauthorized entrances. All vehicles that entered without the permission of the City of Zadar were given written warnings.

Our goal is not to issue financial penalties but to encourage all couriers to conscientiously and responsibly use the delivery time or to use L/U places to reduce the burden on the pedestrian zone Peninsula.





# THANK YOU!

