

# Regulations and practice of road safety audits on the roads in Bulgaria

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- On the basis of legal documents concerning road safety audits stands Directive 2008/96/EC of the European Parliament.
- In 2011 in the Law on Roads regulated the legal framework with regard to the scope of work of the road safety auditor.
- That same year was promulgated a regulation, namely RD-02-20-14 / 29.9.2011 of the Ministry of Regional Development and Public Works.
- In 2012 "Road Infrastructure" Agency issued Guidelines for the management of road infrastructure safety, which is not a mandatory norm.



- Procedures associated with the safety of road infrastructure apply to national roads (motorways, speed roads and roads of first and second grade), which are part of the Trans-European road network in the Republic of Bulgaria.
- At the request of the Road Administration and municipalities road safety audits may be assigned for national roads that are not part of the Trans-European road network in the Republic of Bulgaria, as well as municipal roads.
- Defines what is road safety impact assessment, road safety audits and safety inspections.



- Defines the requirements for the engineers who want to become road safety auditor:
- ✓ possess a diploma from an accredited university with qualification "civil engineer";
- ✓ participate in road safety training program that is approved by the Minister of Regional Development and Public Works and the Minister of Transport, Information Technology and Communications;
- ✓ hold a certificate of qualification (issued by the universities accredited under the Higher Education Act and conducting training in "civil engineer"), based on the passed training and successfully passed examination.
- The auditor has **NO** right to perform audits on infrastructure projects, where he has been involved in its planning, design, construction or operation.



- Defines the scope of work of the road safety auditor:
- ✓ The road safety auditor checks the compliance of the design characteristics of the infrastructure project with the requirements for road safety at every stage of the project.
- ✓ When the inspection of the stage establishes that the design characteristics of the infrastructure project does not meet the requirements for road safety, the auditor prepares a report indicating dangerous and/or critical features of the project.
- ✓ The contracting authority is responsible for the removal of hazardous and/or critical features of the project before the end of the stage.
- ✓ When the inspection of the stage establishes that the design characteristics of the infrastructure project meet the requirements for road safety, the auditor prepares a report and endorses with his signature the design and/or the executive documentation. The presence of these conditions is the basis for approval of projects and the introduction of the construction into operation under the Law on Spatial Planning.



- Before contracting road safety audit, the auditors insure their professional liability for a particular object for damages caused to participants in the construction and/or third parties as a result of wrongful acts or omissions in or in connection with his duties.
- The insurance is concluded for the duration of the contract for audit. When continuing the contract, the insurance have to be renewed until the completion of the audit. Non-renewal of insurance is motive of the contracting authority to stop all payments to the auditor or to terminate the contract for the audit.
- Agency "Road Infrastructure" by territorial units and relevant departments for control of the traffic safety on the roads of the Ministry of Interior, establish and secure yearly areas with high concentration of traffic accidents.
- Authorities carry out categorization of road sections with high concentrations of accidents and road infrastructure safety at least once every three years based on three years analysis which is based on the inspections during the operation of road infrastructure.



- Road sections with a higher priority, according to the list drawn up as a result of the categorization of road infrastructure, with high concentrations of accidents and the categorization of the safety of the road network are evaluated by expert teams through on-site inspection and at least one member of the expert team must be qualified as road safety auditor.
- "Road Infrastructure" Agency through the regional road offices conduct periodic inspections of roads in operation with a view to establish road safety related features and prevent accidents, and to study the possible impact of roadworks on the safety of the traffic flow. Inspections are carried out at least twice a year in order to ensure adequate safety levels for the specific road infrastructure.

#### Ordinance RD-02-20-14



- Regulates the scope and content of road safety impact assessment and road safety audits. Defines the terms and conditions for their performance, the acquisition and recognition of professional qualification "Road Safety Auditor" and passing periodic further training courses on road safety auditors.
- Contains questionnaires for design elements at each stage of the project.
- Universities are required to send to the Ministry of Regional Development and Public Works at least once a year updated lists of trained engineers with professional qualification "Road Safety Auditor" as well as for those who received periodic training courses.
- University of Architecture, Civil Engineering and Geodesy, civil engineers, main course – 150 hours;
- Additional training every two years 15 hours.

### Guidelines for the management of road infrastructure safety



- According to Directive 2008/96 / EU, Member States shall adopt guidelines to assist the competent entities in the application of the Directive.
- No mandatory norm.
- The document provides guidelines and instructions for the implementation of the four main tool for managing the safety of road infrastructure, according to Article 3, Article 4 and Article 5 of Directive 2008/96 / EU:
- ✓ Assessing the impact on road safety.
- ✓ Audit Road Safety.
- ✓ Inspections road safety.
- ✓ Safety management areas with a concentration of accidents.
- When developing the procedures for managing road infrastructure safety, experience and good practices are borrowed from a number of European countries that are leaders in the field of road safety and these procedures are adapted to the conditions in Bulgaria.

#### **Practice in Bulgaria**



#### **Facts:**

- Qualified auditors 74;
- 19,853 km road network, of which about 1,900 are part of the trans-European road network;

#### **Practice in Bulgaria**



#### **Facts:**

Number of deaths on the roads



#### **Practice in Bulgaria**



#### **Problems:**

- A small number of road safety audits, low prices, missing assignments on roads outside the Trans-European road network, there are no conditions to work only as an auditor, including the auditing process in the contractor's scope of work, there are no legal possibility for the municipalities to assign road safety audit for streets;
- It is not clear the responsibility of the contractor to audit. The ordinance now says that the auditor is responsible for the recommendations in the audit report to the contracting authority. It is not clear the form of this responsibility, what compensate for it damage from accident site, which is not found by the auditor as dangerous or other damage to the contracting authority? Not formulated responsibility of the developer when not fulfilled accepted proposal by the auditor and has become a serious accident.



## Major problems identified in the road safety audits



Inadequate drainage - small longitudinal slopes, wrong reshaping of the cross slope at curves, lack of equipment at zero cross slope;



Dangerous profile of the ditches;









#### Inadequate or incomplete vertical signalization;

















#### Poor maintenance of roadside areas;





#### Dangerous end of guardrails;









#### No guardrail buffers at the highway exits;





#### However, we have few installed;)





#### Lack or inadequate lengths of guardrails;













#### Unsafe roadside obstacles - signs, gates, trees etc.;













#### Inadequate signalization at highway junctions;

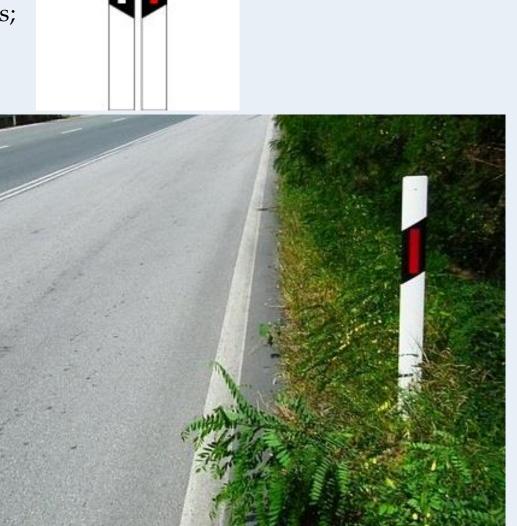








Lack of road edge guide posts;





#### Lack of signs C7 on curves with small radius;





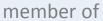
#### <u>Proposals of Bulgarian Branch Association "Road Safety"</u> <u>for improving audit activities:</u>

- Extension of audits except Trans-European roads the road safety audits must include all highways, speed roads and class I roads, i.e. about 27% of state roads;
- To enable municipalities to assign audits;
- Additional requirement for candidates for auditors 5
  years experience in traffic engineering design,
  administrative work, teaching or etc.;
- The leader of the audit team has been involved in at least three audits;
- Increasing the interval between renewal courses for auditors from 2 to 5 years;











Thank You