

The first road safety audit training courses in Hungary

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Contents

- History of road safety auditing in Hungary
- Training courses and their content
- Some experiences with audits (typical mistakes)

Some key dates in Hungary

- 2004 – The first road safety audit course is organized
- 2005 – Road Safety Audit Guidelines (RSAG) published
- 2009 – RSAG updated as Road Technical Specification
- 2010 – An amendment of the Law on Road Transport was adopted by the Parliament
- 2011 – The Government adopted a decree (176/2011) on road infrastructure safety management
- 2013 – RSA group in the Chamber of Engineers is established

Scope of the decree

- Roads of trans-European road network (TEN) and the limited access roads
- From January 2014 extended to all national main roads (about 6000 km).
- From January 2015 to all roads exceeding the traffic volume of 10 000 pcu/day (mainly urban roads).

History of RSA training courses (1)

- Auditor trainings in Hungary
 - Initial training courses (5 days) 2004, 2007, 2010
 - Updating courses (3 days) with exam 2009, 2010
 - New courses (8 days) based on new legislation with exam 2012 (all four pillars of the directive)

History of RSA training courses (2)

- 2004 – 1st course with Polish experts from (Cracow University of Technology) (13)
- 2007 – 2nd course with Dutch experts (Ministry of Transport and Royal Haskoning) (56)
- 2009 – 3rd course again with Dutch experts (25)
- 2010 – 4th course (29)
- 2012 – 3+1 courses (39+35+20+25)
- 2013 – 2 courses organized by the Hungarian Chamber of Engineers

Road Safety Audit Courses

- Methods of the courses
 - Lectures
 - Case studies, examples
 - Workshops with group work
 - Individual homework followed by discussion
 - Book (2012, p.350): Safety of the road infrastructure
- Exams (min 70% required)
 - Test (multiple choice questions)
 - Assignments (2-3 audits)

Curriculum

Module	Item	Hours
1	Road infrastructure safety management (L)	2
2	Road safety impact assessment (L+W)	4
3	Road safety audit and inspection (L)	2
4	Structure of the audit report (planned situation, problem, goal, solution) (L)	2
5	Human factor (L)	2
6	Functional classification of roads (L+W)	2

Module	Item	Hours
7	Role of speed and its impact on safety (L)	2
8	Typical road safety deficits and state-of-the-art solutions (L)	4
9	Audit and inspection of urban intersections (L+W+HW)	5
10	Audit and inspection of rural road sections and intersections (L+W+HW)	5
11	Audit and inspection of suburban road sections (L+W)	4
12	Audit and inspection of urban road sections (L+W+HW)	4





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Module	Item	Hours
13	Road accident data analysis (L)	2
14	Network safety ranking (L+W)	2
15	Cost-benefit analysis (L+W)	2
16	Recent changes in road design guidelines (L)	2
17	Road safety trends in Hungary and in the world (L)	2
	In total	48

Typical mistakes (1)

- Opposing a certain solution with the single argument that it is not conforming to the guidelines
- Starting to propose a solution without identifying the problems and their origins
- Referring to aspects outside the competence of the audit, such as capacity, delay
- Choosing more generous designs (e.g. grade separation, more traffic lanes), thinking that it leads to more safety
- Not following the prescribed structure of the audit report

Structure of the audit report

1. Introduction, basic data
2. General project description
3. Results: problems and proposals

Problem No. 1. (uniform structure):

- Planned situation
- Problem
- Goal
- Proposed solution

Problem No.n.

Typical mistakes (2)

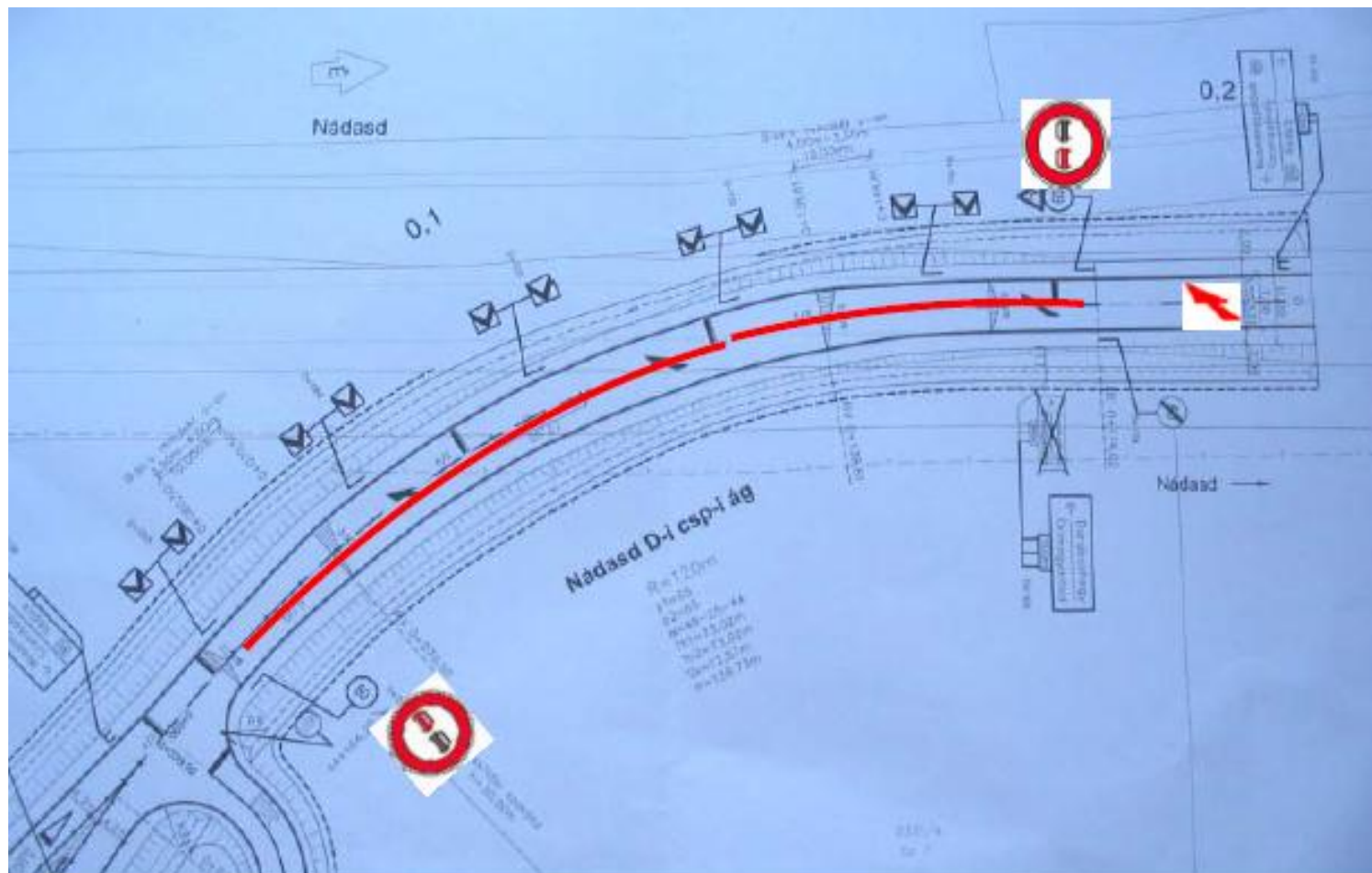
Wrong:

- Problem: high speeds before the junction due to a long and downhill section, it is difficult to cross from the minor road

Right:

- Planned situation: a 600 m long straight section with a gradient of 5% before the junction
- Problem: high speeds, difficult to cross from the minor road
- Objective: decrease speeds, make crossing movements safer
- Solution: xxx

Draft drawings



Some experiences

- 18 road safety audits
- 17 road safety inspections
- Years: 2010 – 2011
- 3 clients
- 16 designers
- 16 auditors

Frequency of certain terms (in 18 audits)

• Speed	194	• Bus stop	62
• Recognizeability	39	• Island	52
• Visibility	30	• Traffic signal	54
• Driveability	31	• Pavement marking	51
• Comprehensability	18	• Traffic sign	54
• Pedestrian	141		
• Cyclist	63		
• Driver	64		

Hungarian Chamber of Engineers

- Auditors have to register
- HCE gives authorization based on exam
- RSA group was established in 2013
 - Serve as a common platform for auditors
 - It is planned to have regular meetings
 - Exchanging best practices
 - Recommendations for updating regulations



THANK YOU FOR YOUR ATTENTION!
DZIĘKUJĘ ZA UWAGĘ!