

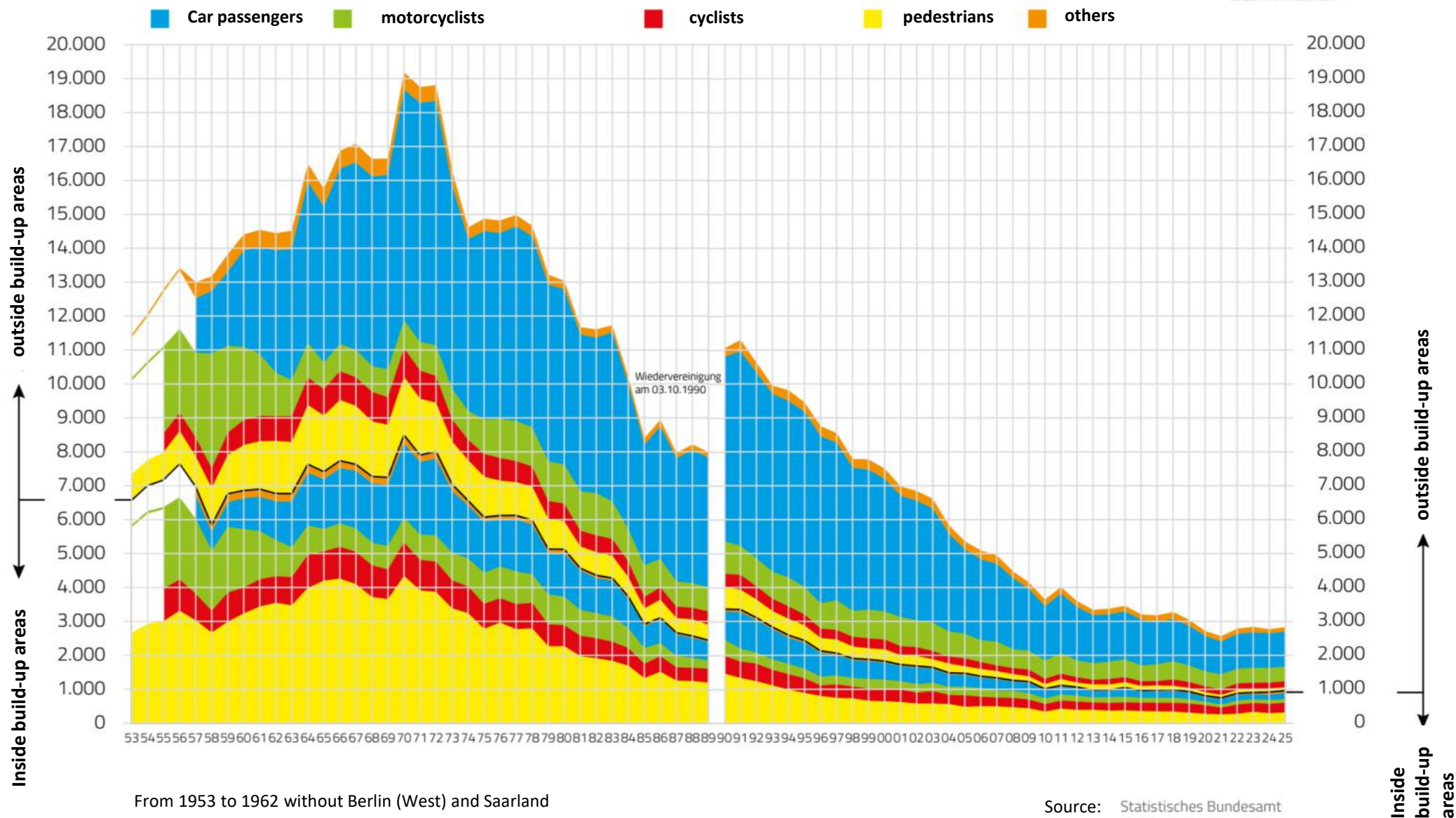


Traffic Organisation in Germany: Translating Legal Rules into Safe Behaviour

12th Annual Conference SAFE ROAD INFRASTRUCTURE

17.09.2026 | Dr. Dominik Schmitt | BAST

Road traffic fatalities



Reducing driver workload through standardization

Standardized road environment

- Fewer unexpected situations
- Reduced driver workload
- Faster perception and decision-making
- Safer and more efficient traffic



German Road Traffic Regulations

Catalogue of Traffic Signs



Warning Signs



Regulatory Signs



Guide Signs



Traffic control Devices



German Road Traffic Regulations

Catalogue of Traffic Signs

Sign 206



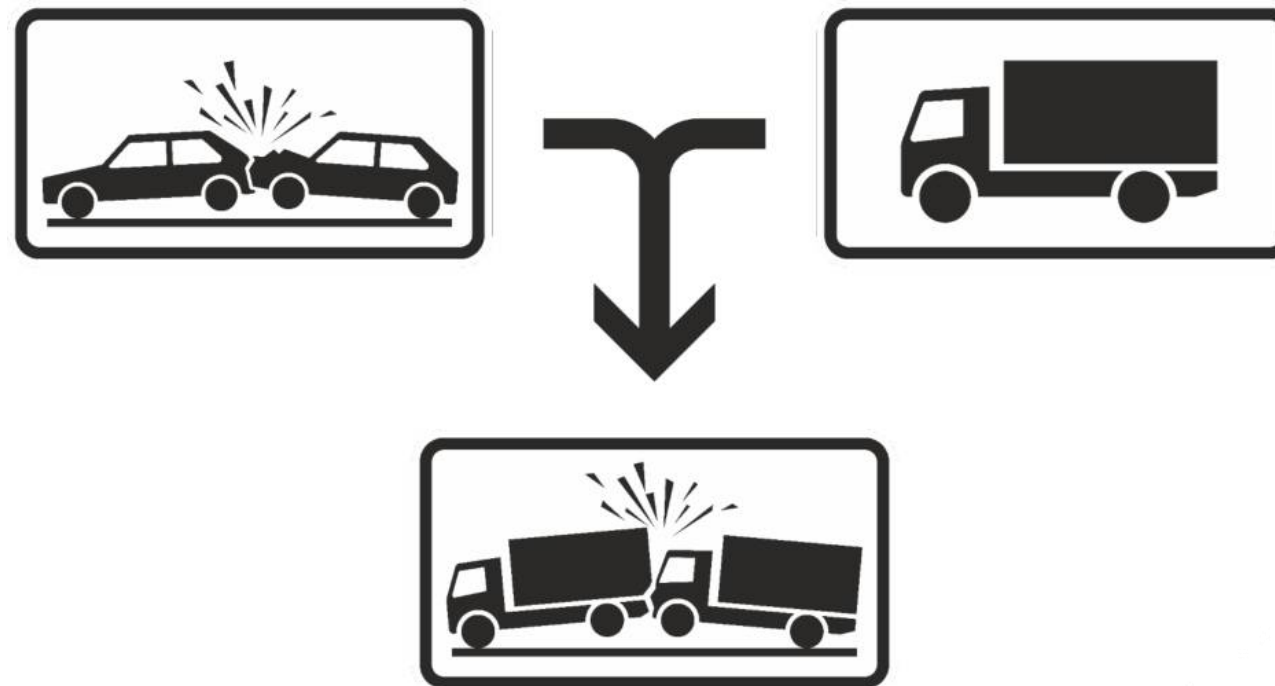
Stop. Give Way.

Requirement / Regulation

1. Drivers must stop and yield the right of way.
2. Drivers must not stop within 10 m before the sign if their vehicle would obstruct the visibility of the sign.
3. If no stop line (road marking 294) is provided, drivers must stop at a point from which they have a clear view of the intersecting road.
4. After stopping, the drivers must give way to all vehicles of the intersecting road.

Design of new traffic signs

- Align new traffic signs as closely as possible with existing signs
- Faster recognition and comprehension by road users
- Based on experience and learned knowledge, people classify information into similar groups and categories



Prevent excessive use of traffic signs



Source: erhui1979/DigitalVision Vectors/Getty Images

Self-Explaining Roads

Transformation Chain: From German Road Traffic Regulations to Self-Explaining Roads

Place Road Signs
only where
required

As few Road
Signs as possible,
as much as
necessary

Use Self-
Explaining Roads

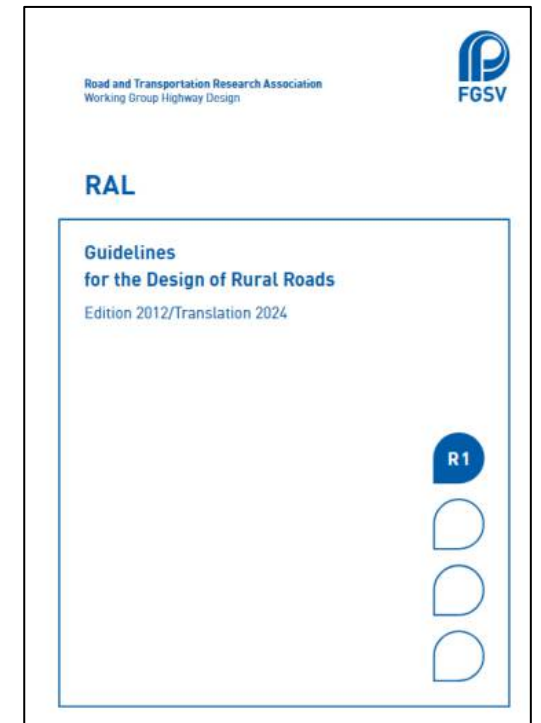
Self-Explaining Roads

Guidelines for the Design of Rural Roads

Key aspects for standardized roads:

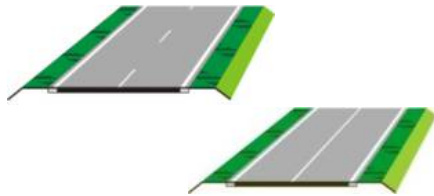
- Roads of a **certain type** have to be **as uniform as possible**
- Roads of **different types** must be **as distinctly different as possible**

- number of **road types** has to be **limited**
- intended to **encourage driving behaviour** appropriate to the function of the road network
- contribution to **road safety**



https://www.fgsv-verlag.de/pub/media/pdf/201_E.v.pdf

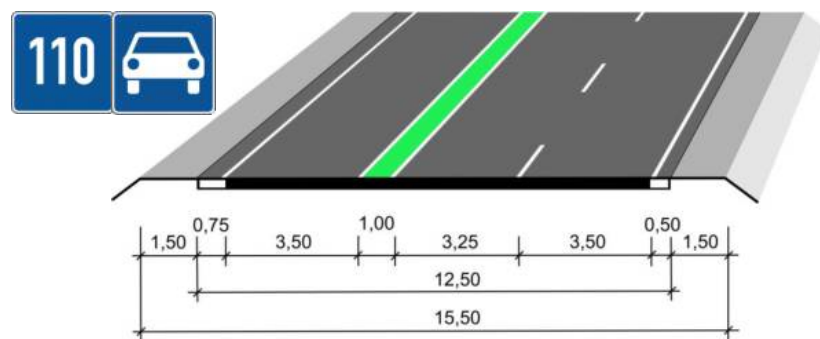
RAL - Design Class and Design Features

design class	planning speed	operating mode	overtaking principle	junction design
EKL 1				
EKL 2				
EKL 3				
EKL 4				

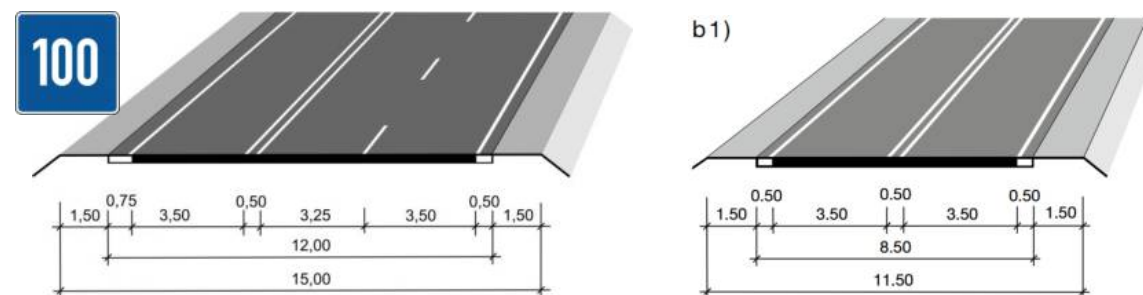
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Rural Road Cross-Sections

Design Class 1

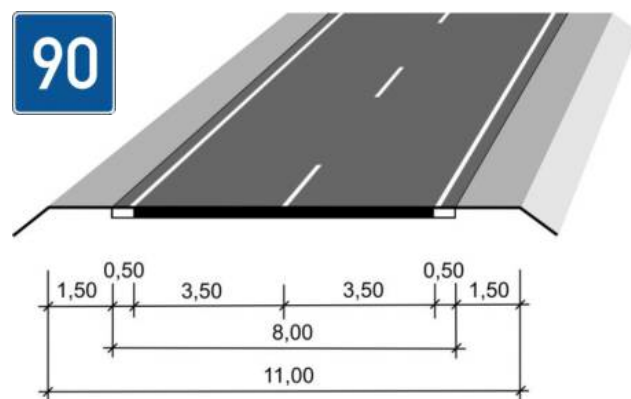


Design Class 2

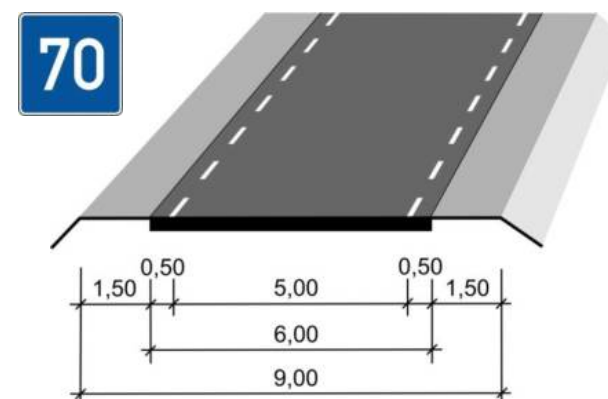


road marking as the only recognizable road element

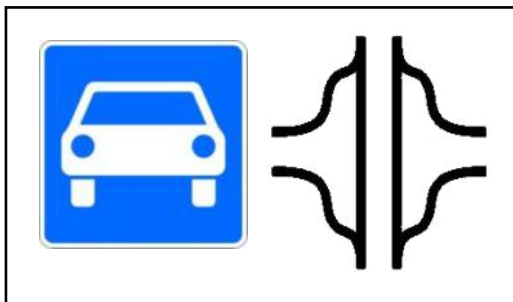
Design Class 3



Design Class 4



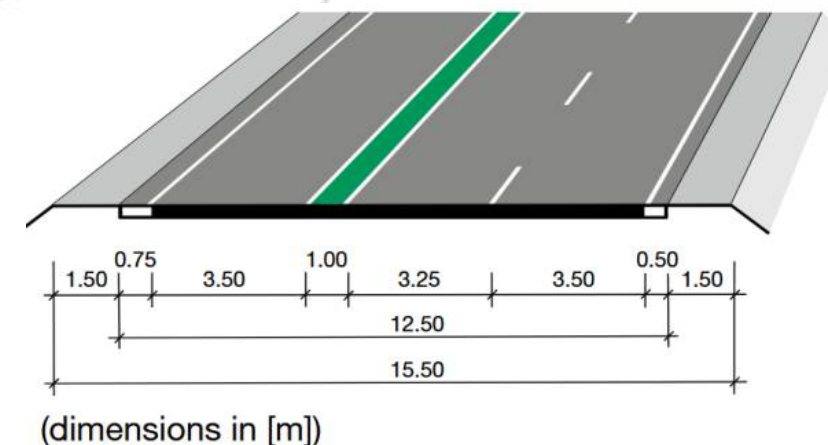
Design-Class 1 - three lane cross section (RQ 15,5)



- alternating passing lanes
 - 40% safe overtaking opportunities in each direction
 - passing lane length 1000m -2000m
 - for AADT of up to 20.000 veh./day
 - only level free junctions
 - road restriction to motor vehicles
- typical “2+1”-road



Source: T. Jährig



Example Design-Class 1



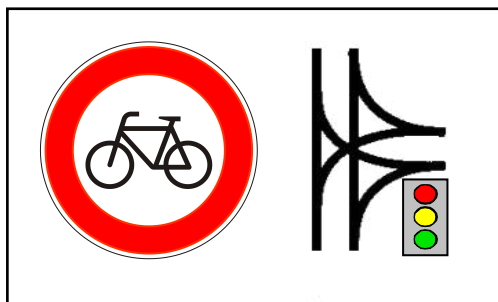
Source: T. Jährig

Example Design-Class 1



Source: T. Jährg

Design-Class 2 – partly two and three lane cross section (RQ 11,5+)

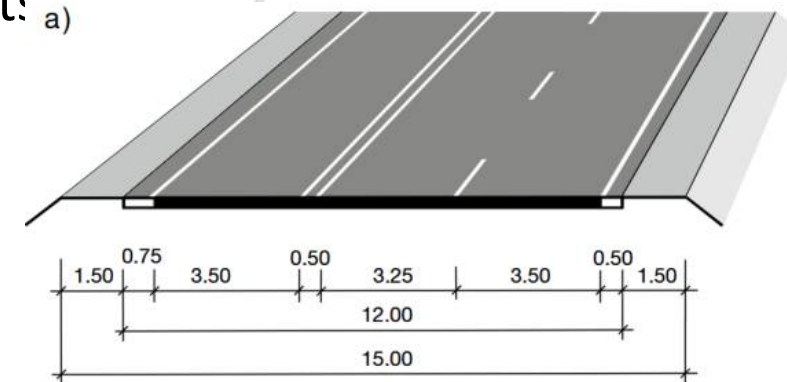
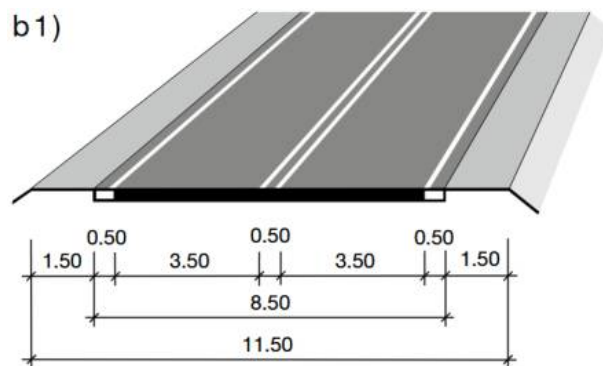


- passing lanes in sections
- 20% safe overtaking opportunities in each direction
- passing lane length 600m at least
- for AADT of up to 17.000 veh./day
- at-grade junctions with traffic lights^{a)}
- slow vehicles allowed but should be avoid



Source: T. Jähig

b1)



Example Design-Class 2



Source: T. Jährg

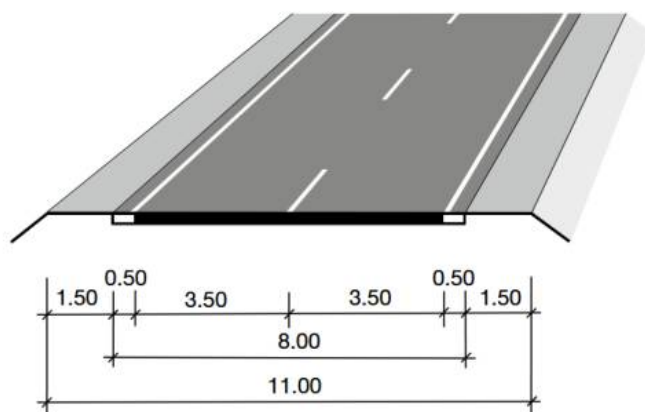
Design-Class 3 – standard two lane cross section (RQ 11)



- no safe overtaking opportunities
- for AADT of up to 15.000 veh./day
- slow vehicles allowed
- roundabouts or at-grade junctions with or without traffic lights
- separate cycle lanes if required



Source: T. Jährig



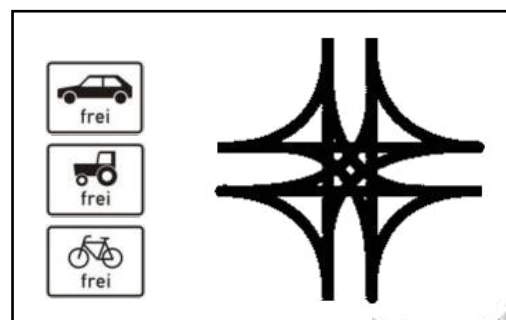
(dimensions in [m])

Example Design-Class 3

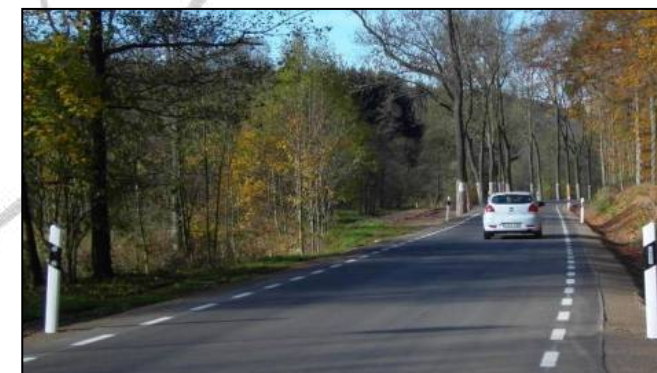
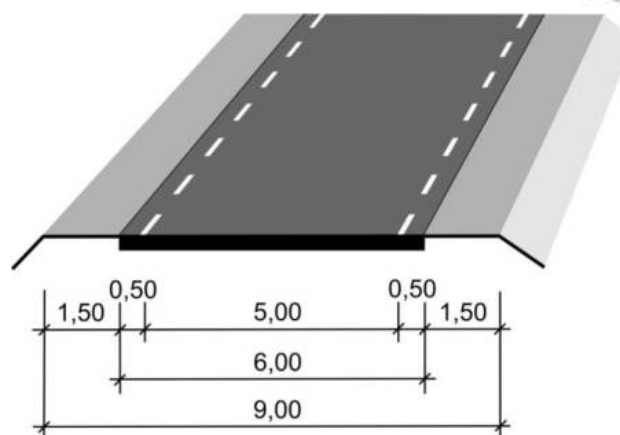


Source: T. Jährig

Design-Class 4 – standard single lane cross section (RQ 9,5)



- cross section without lane separation
- single lane with broken edge line
- for AADT of up to 3000 veh./day
- only at grade junctions
- alignment adapted according to the terrain
- open for all road users



Source: T. Jährig

Example Design-Class 4



Source: T. Jähig

Example Design-Class 4



Source: T. Jähig

Thank you!

I look forward to the joint discussion.

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