Fundamentals of Road Construction

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Project 5

The subject of the project lecture:

Road cross-section

Example road surface construction

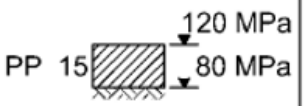
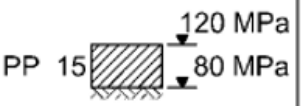
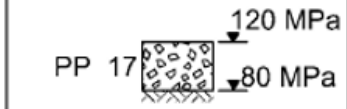
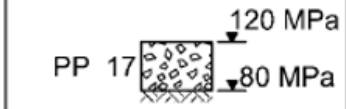
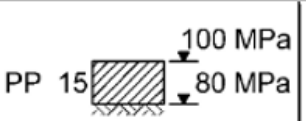
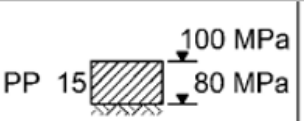
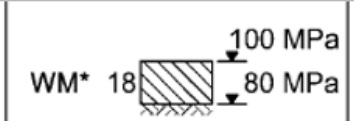
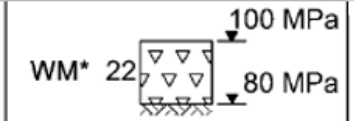
Design data:

The „traffic category”: KR2

The „load-bearing capacity group of the subgrade”: G1

Flexible and semi-rigid road surface construction from catalog

A) Improved subgrade and bottom layers

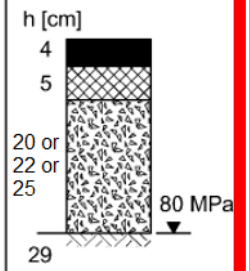
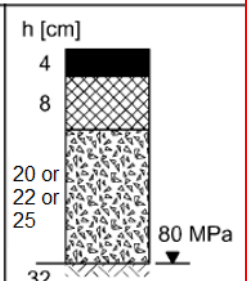
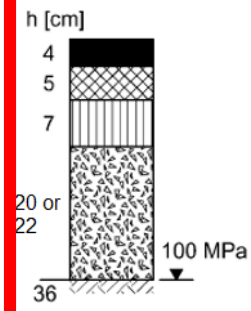
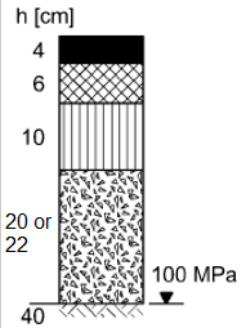
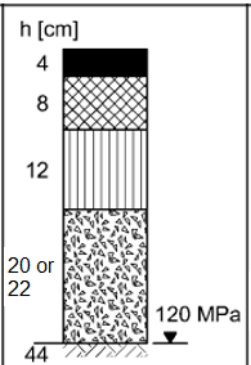
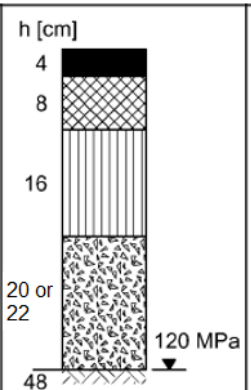
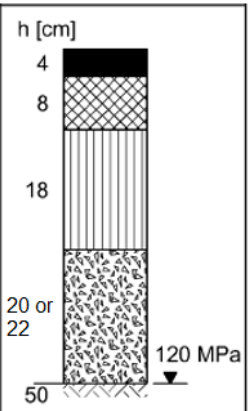
KR 5-7					
KR 3-4					
KR 1-2	does not apply	does not apply	does not apply	does not apply	does not apply

Legend:

- aggregate stabilized with hydraulic binder sub-base course
- mechanically stabilized aggregate sub-base course
- aggregate anti frost layer
- stabilized with hydraulic binder improved subgrade
- mechanically stabilized improved subgrade
- E_2 parameter value

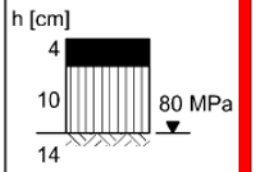
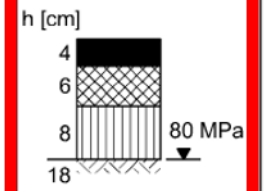
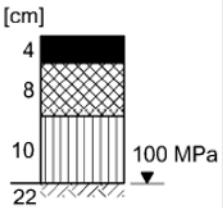
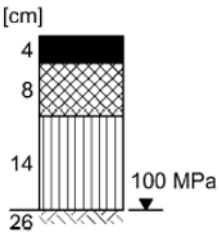
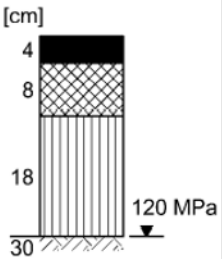
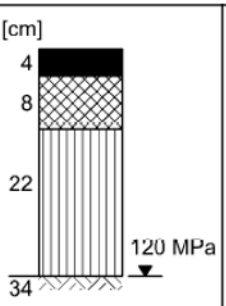
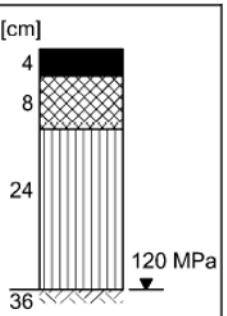
Flexible and semi-rigid road surface construction from catalog

B) Upper layers

Traffic category	KR1	KR2	KR3	KR4	KR5	KR6	KR7
TYPE A							

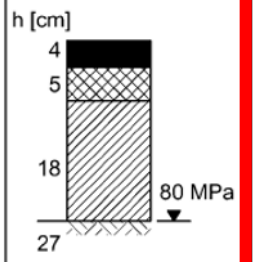
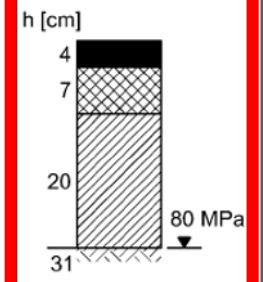
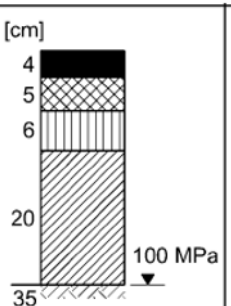
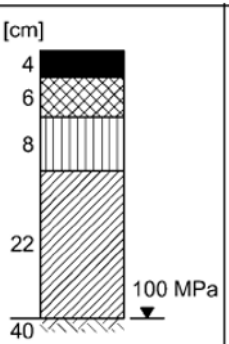
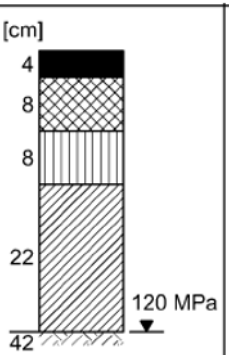
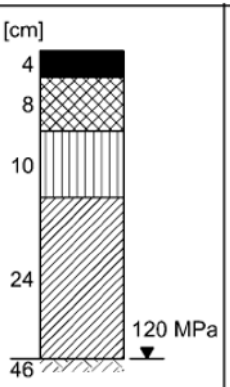
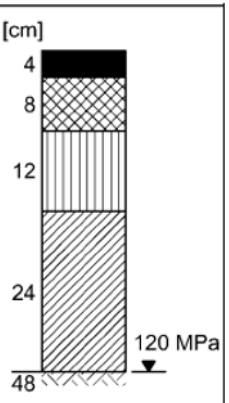
Legend:

- asphalt concrete wearing course
- asphalt concrete binder course
- asphalt concrete base course
- mechanically stabilized aggregate base course
- E_2 parameter value

Traffic category	KR1	KR2	KR3	KR4	KR5	KR6	KR7
TYPE B							

Legend:

- asphalt concrete wearing course
- asphalt concrete binder course
- asphalt concrete base course
- E_2 parameter value

Traffic category	KR1	KR2	KR3	KR4	KR5	KR6	KR7
TYPE C							

Legend:

- asphalt concrete wearing course
- asphalt concrete binder course
- asphalt concrete base course
- aggregate stabilize with a hydraulic binder base course
- E_2 parameter value

Traffic category	KR1	KR2
TYPE D	h [cm] 4 5 18 80 MPa 27	h [cm] 4 7 20 80 MPa 31

Legend:

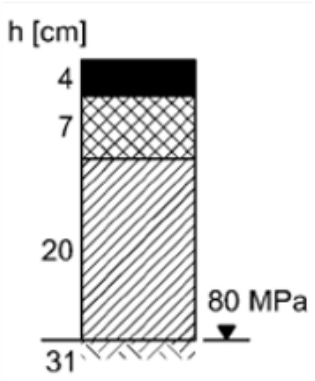
- asphalt concrete wearing course
- asphalt concrete binder course
- soil stabilized with a hydraulic binder base course
- E_2 parameter value

Contents of the descriptive part of the project

Construction of a road

The „traffic category”: KR2

The „load-bearing capacity group of the subgrade”: G1



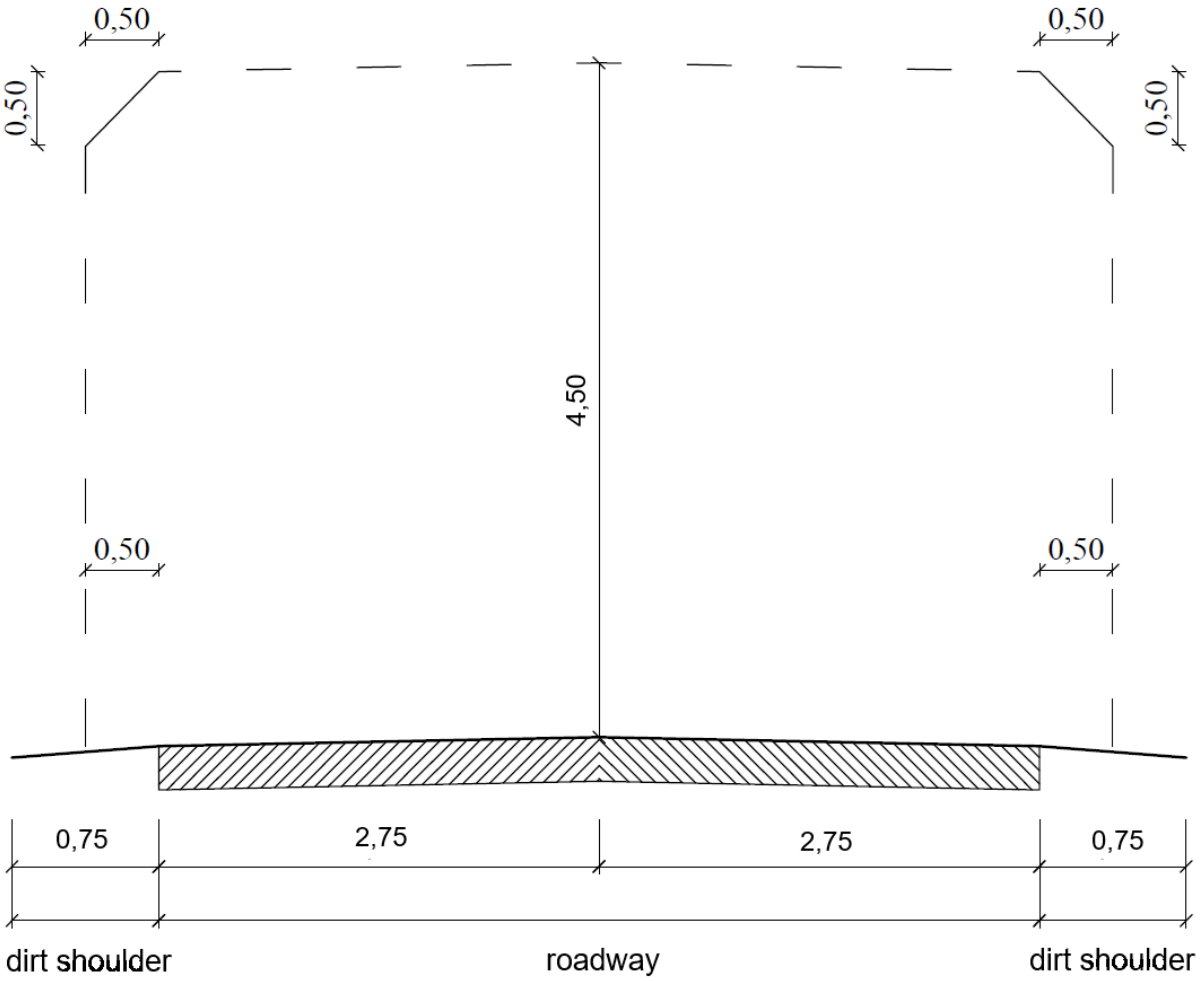
asphalt concrete wearing course
asphalt concrete binder course

aggregate stabilize with a hydraulic binder base course

E_2 parameter value

Road clearance

Road class L

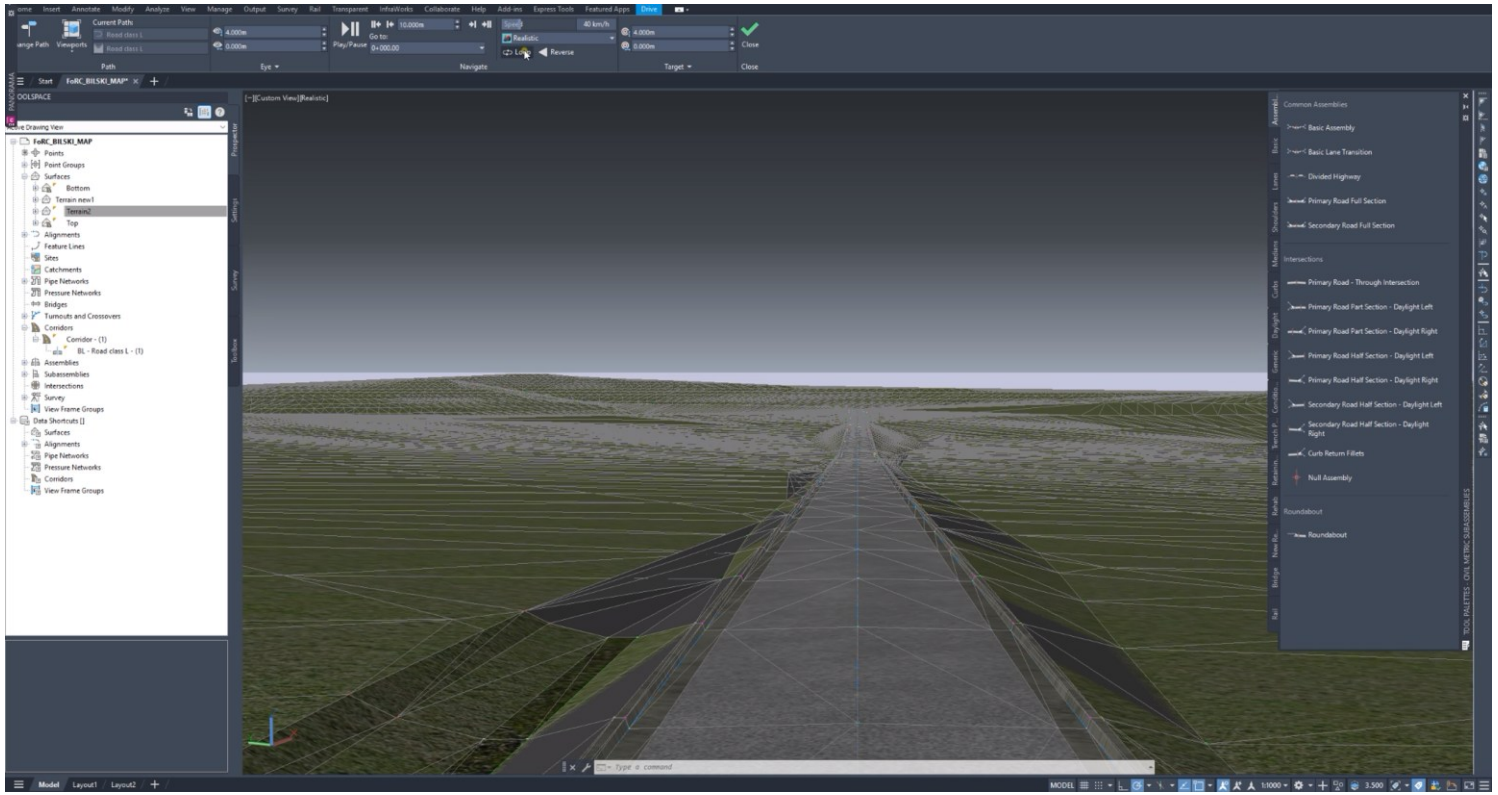


What to do:

1. Based on the "Flexible and Semi-Rigid Road Surface Construction" catalog, select the road pavement construction according to the design data

2. Using the selected pavement construction, create its model in AutoCAD Civil 3D, including the road with shoulders and ditches.

How to do:



https://www.youtube.com/watch?v=cK9TbcFG3HA

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