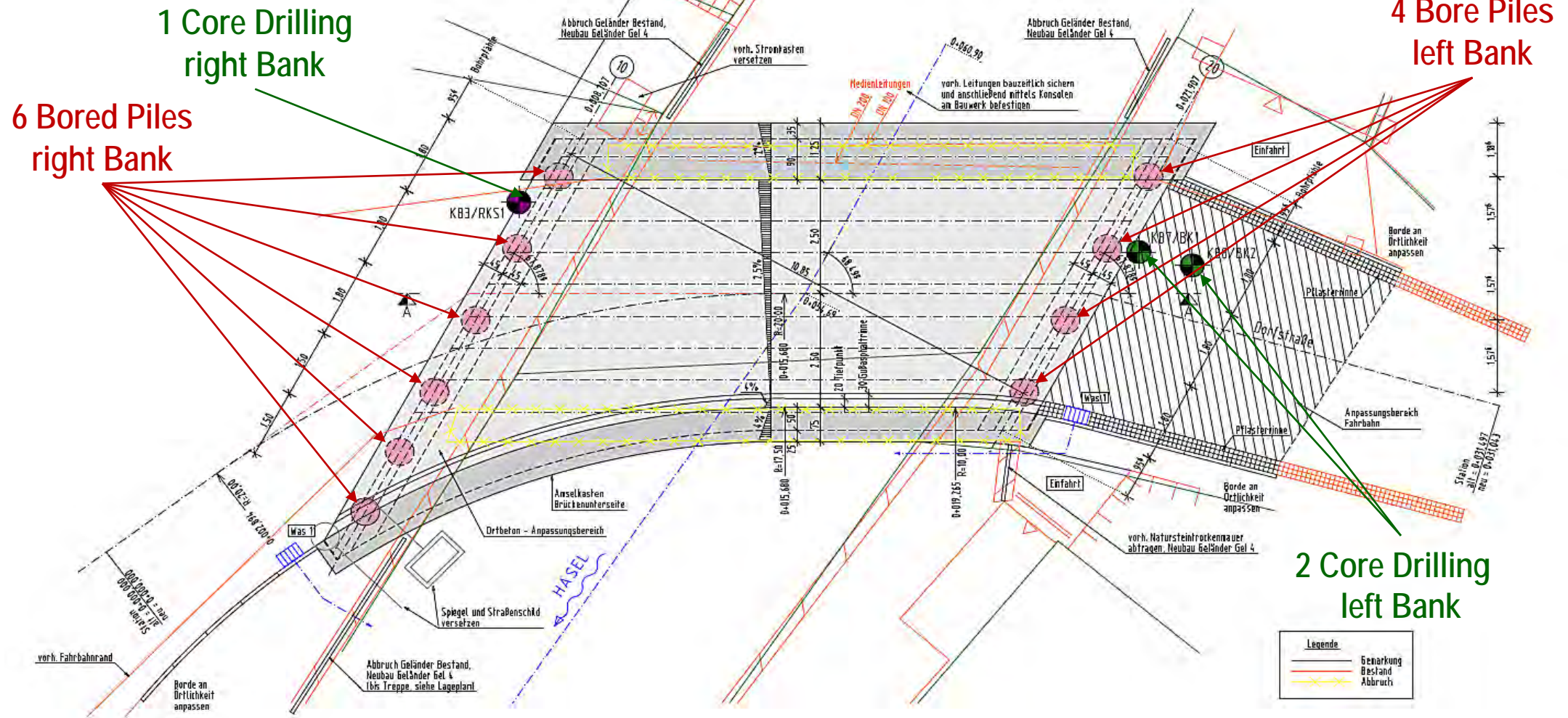


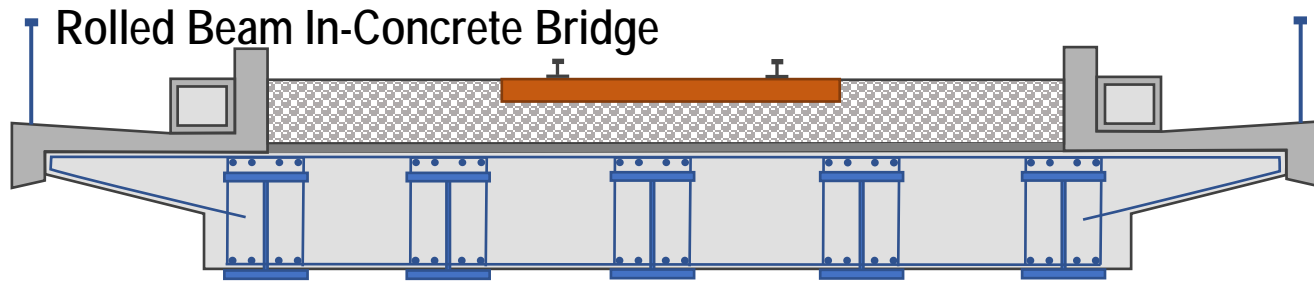
System dimensions of municipal rolled beam in concrete bridge over river Hasel in Dillstädt/Schwarza

Ground Plan rolled beam in concrete bridge over river Hasel in Dillstädt/Schwarza

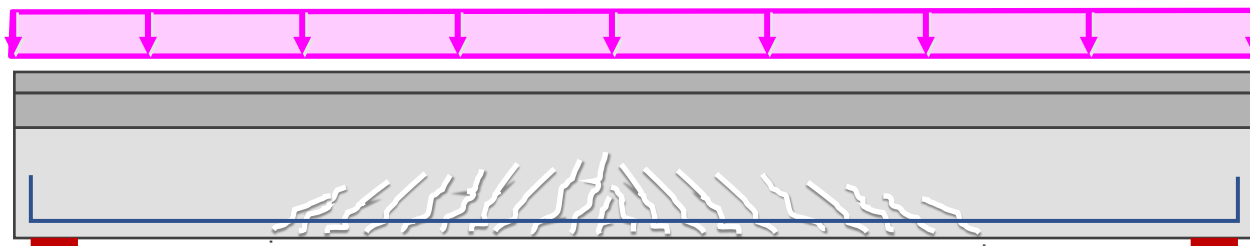
Ground Plan



Stiffness for simply supported beams and cross-sectional stresses in cracked state



System



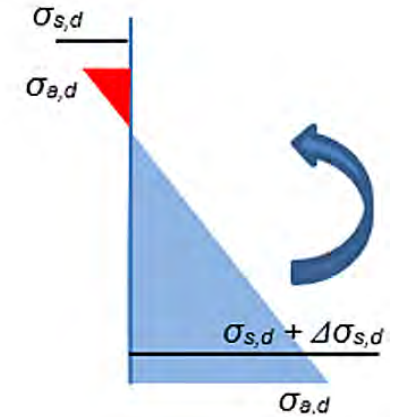
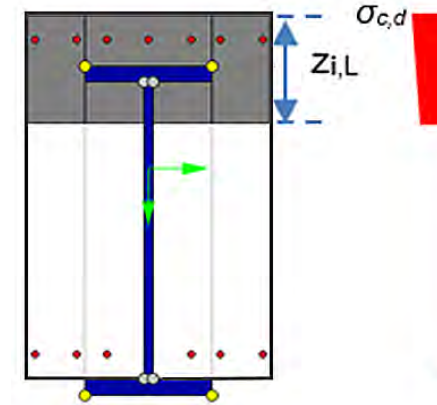
Stiffness



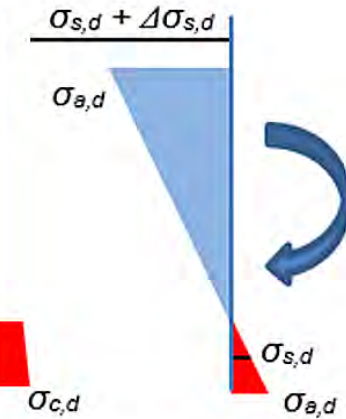
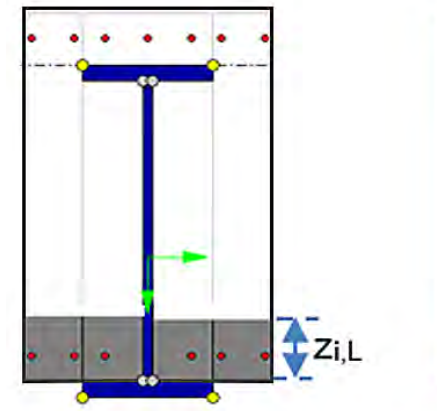
Bending Moment



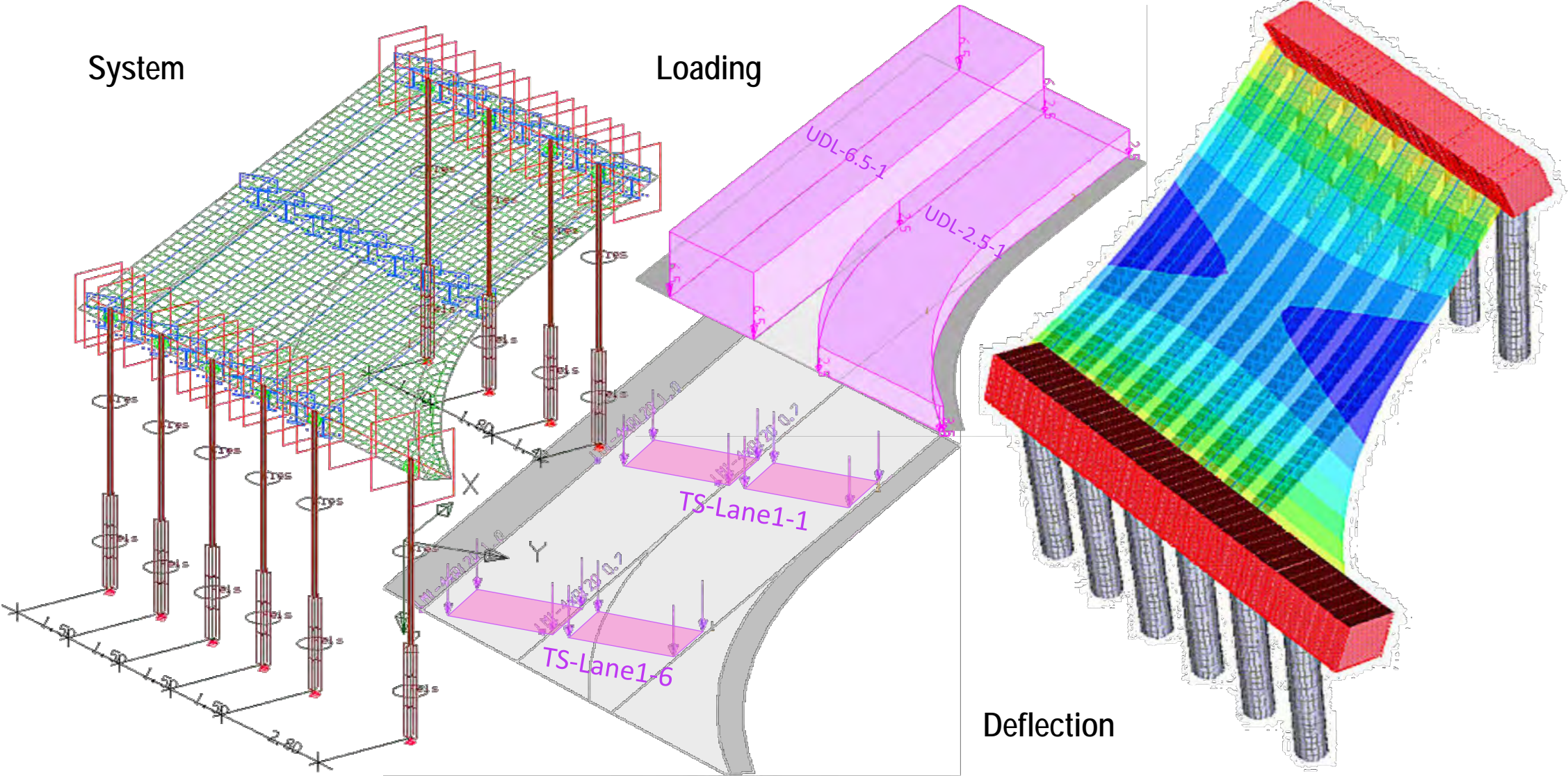
Field Cross-Section



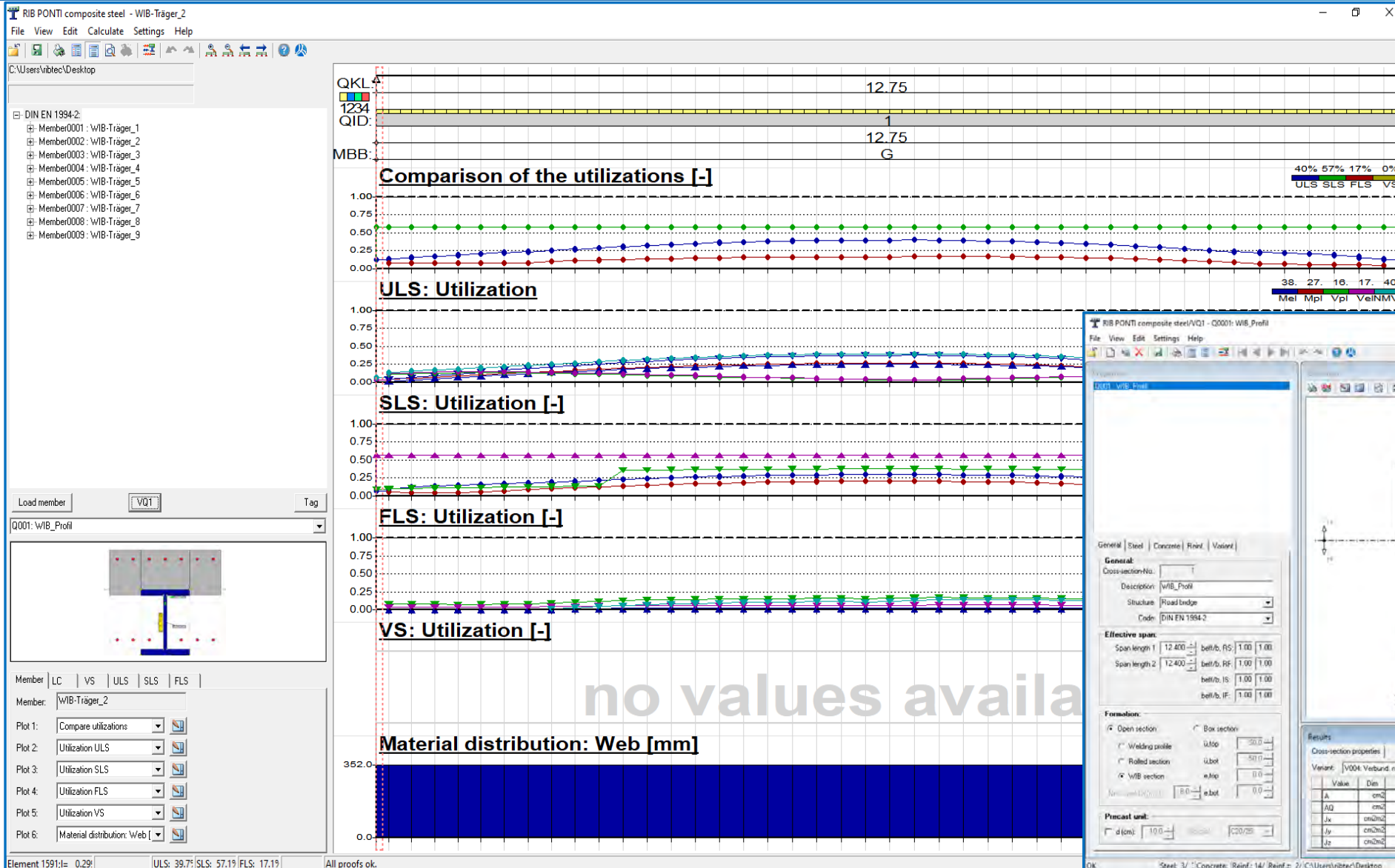
Support Cross-Section



Finite Element Model, Loading and Deformation of integral bridge model



Over all modell with composite design of rolled beam in concrete girder



WIB_Profil

General | Steel | Concrete | Rein | Variant

General:
 Cross-section No.: 1
 Description: WIB_Profil
 Structure: Road bridge
 Code: DIN EN 1994-2

Effective span:
 Span length 1: 12.400 m | bel/b. RS: 1.00 | 1.00
 Span length 2: 12.400 m | bel/b. RF: 1.00 | 1.00
 | bel/b. IS: 1.00 | 1.00
 | bel/b. IF: 1.00 | 1.00

Formation:
 Open section | Box section
 Welding profile | u_top: 50.0 |
 Rolled section | u_bot: 50.0 |
 WIB section | a_top: 0.0 |
 | a_bot: 0.0 |

Precast unit:
 d (cm): 10.0 | f_{ct,ed}: C20/25

Results
 Cross-section properties
 Variant: |V004: Verbund n0 Mye (K- | n_Con: 6.40

Value	Dis	Geometric	End column	End span	Inner column	Inner sp
A	cm ²	669.46	669.46	669.46	669.46	669.46
A ₀	cm ²	73.92	73.92	73.92	73.92	73.92
I _x	cm ⁴	0.34	0.34	0.34	0.34	0.34
I _y	cm ⁴	36.94	36.94	36.94	36.94	36.94
I _{xy}	cm ⁴	32.12	32.12	32.12	32.12	32.12