PontiFix®

Lightweight Bridges

www.pontifix.de

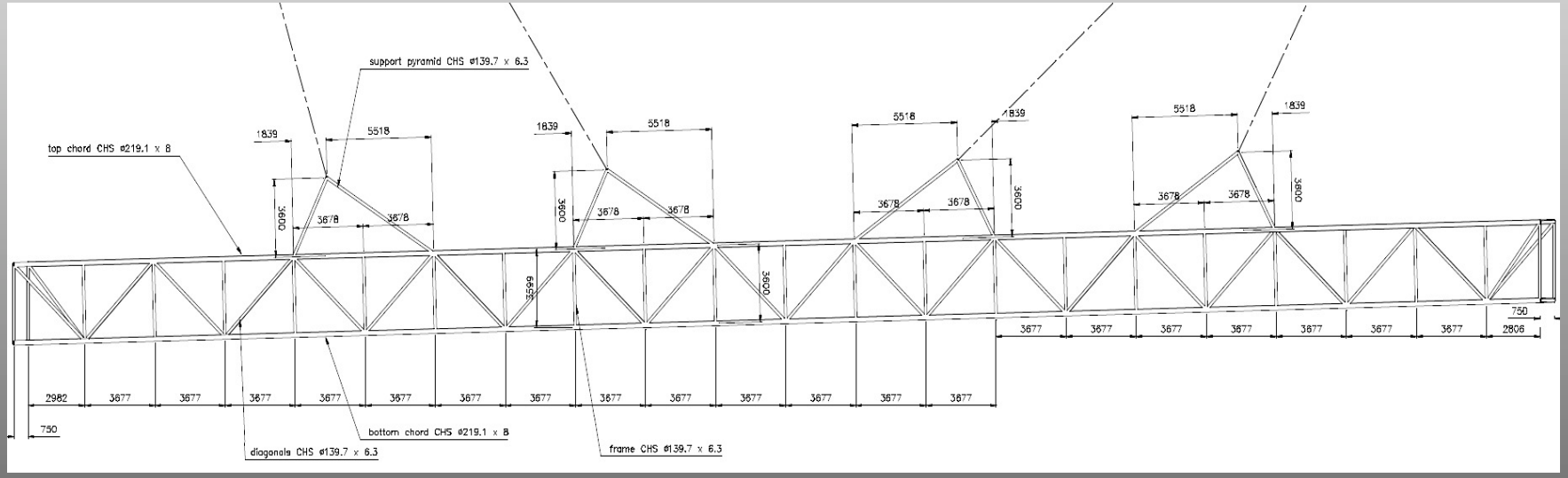
Implementation of aluminum alloy bridges at transport infrastructure facilities.

Krasnoyarsk Metallurgical Plant

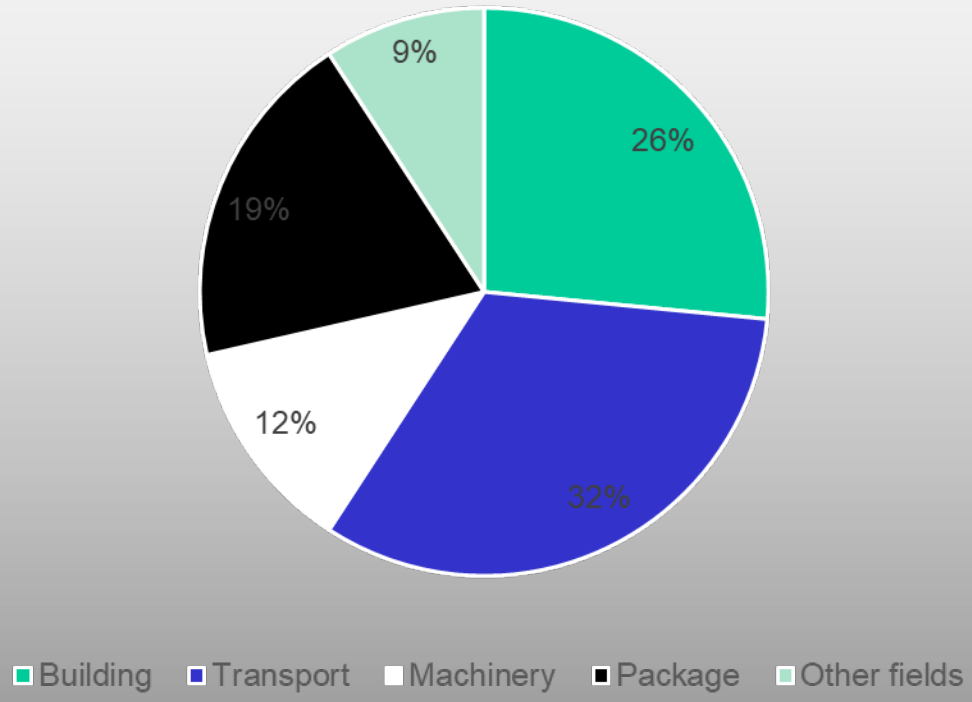
Aluminum structures are lightweight and do not require regular maintenance. The long lifespan of such structures is determined by high natural corrosion resistance of aluminum and its alloys.

At the same time, aluminum can be completely recycled and the optimized profile system allows for a reasonable use of resources. Optimized profile production processes minimize the time required to assemble bridge structures.

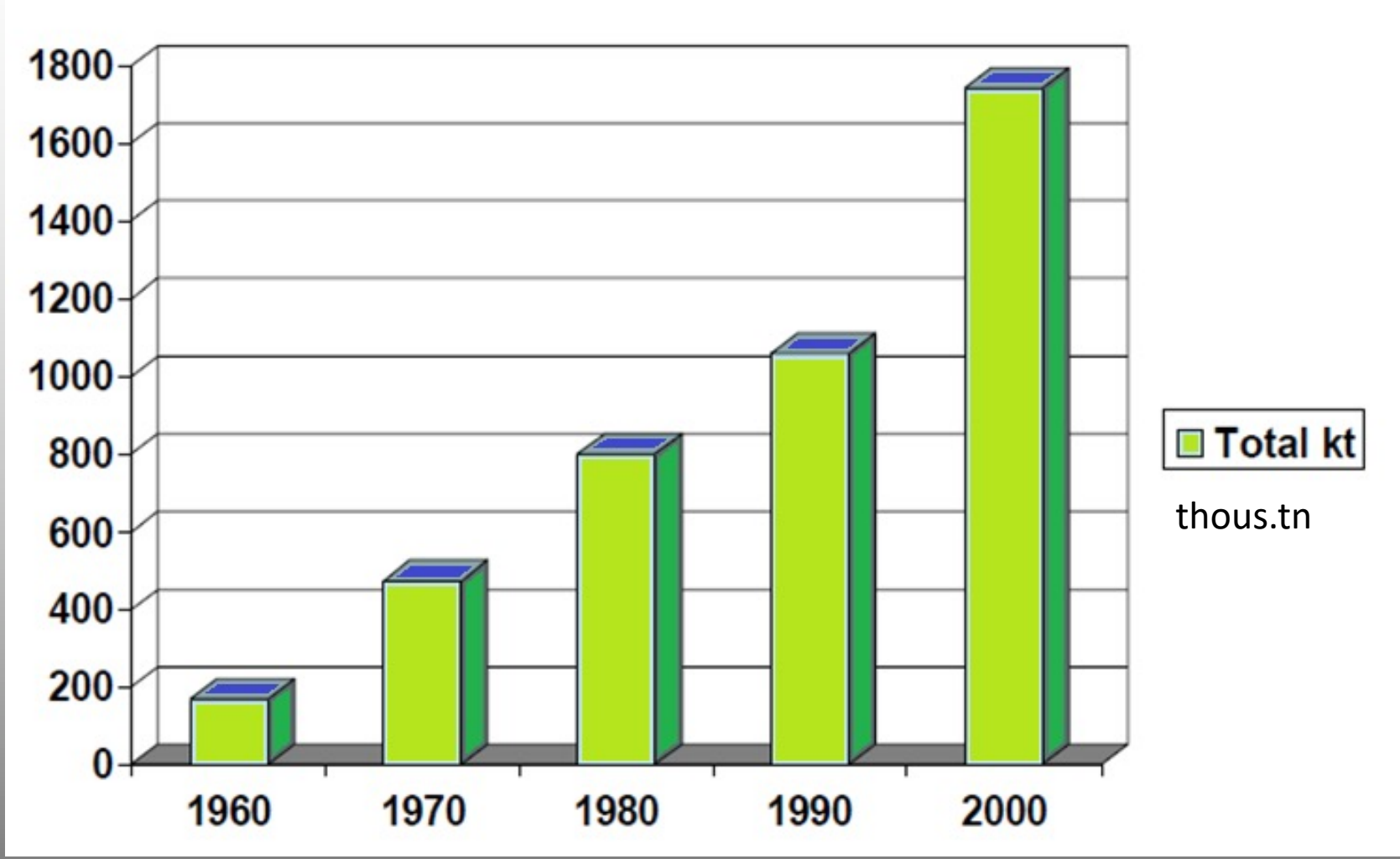
Profiles for bridge structures are made of aluminum alloys of high strength, comparable to the strength of steel



Main sectors of aluminum consumption in the European Union



The use of aluminum in the construction market of the European Union

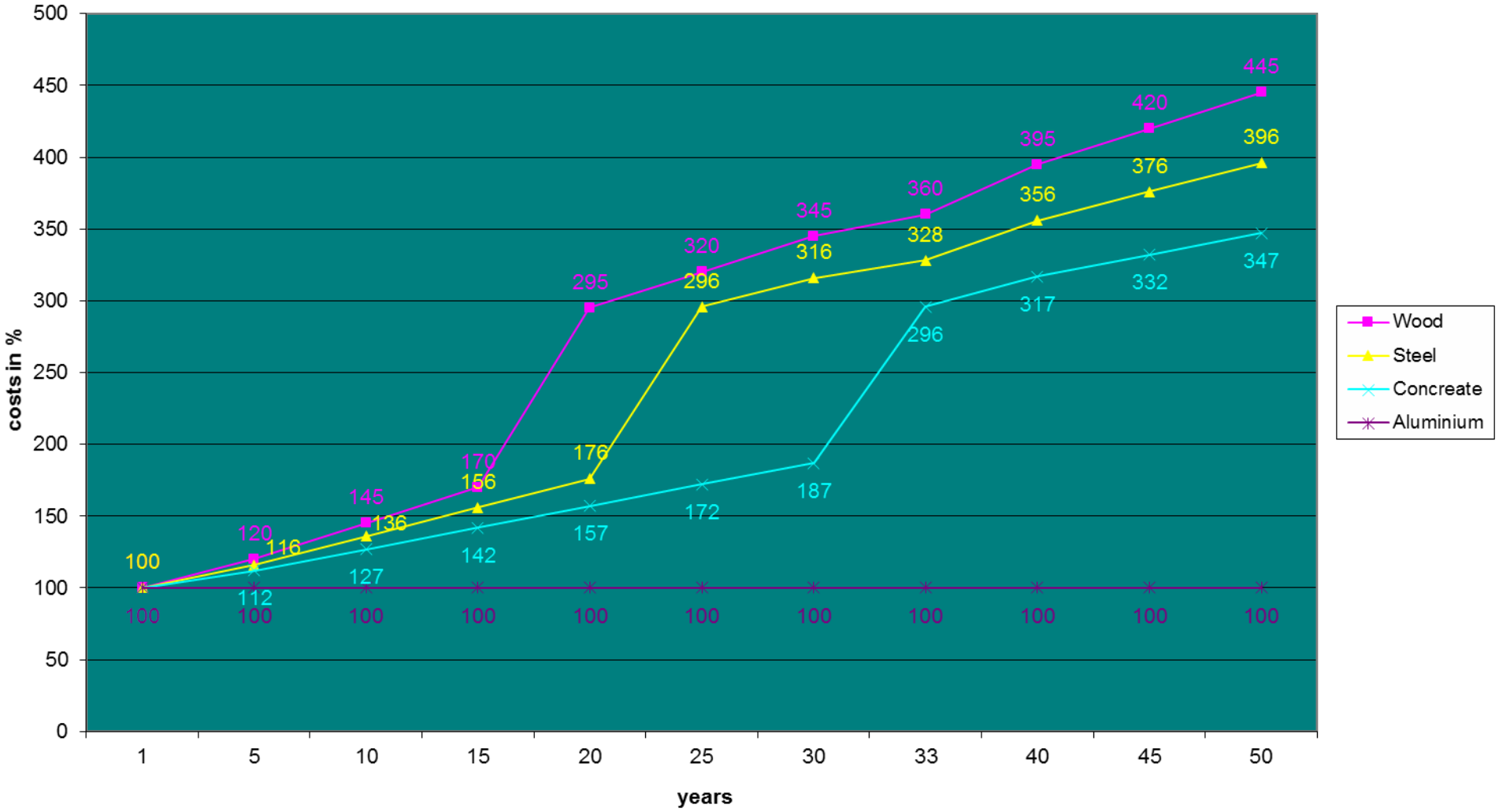


Aluminum bridges

Advantages

- Elegance and grace
- They can be installed within several hours without causing trouble to traffic
- No deprecation or corrosion. Unlimited lifespan. No maintenance costs.
- Huge variety of design options. Environment friendly. Can be recycled.
- Strength characteristics are confirmed by tests.
- Can sustain high loads
- Compliance with international footbridge construction standards.
- Easy to move and modify.

Maintenance costs for various materials



The use of aluminum alloy footbridges

- Across roadways
- Across water
- Across railways
- Footbridges inside buildings
- Temporary constructions

Degler-Steg, a bridge in Rastatt (Germany) 2020

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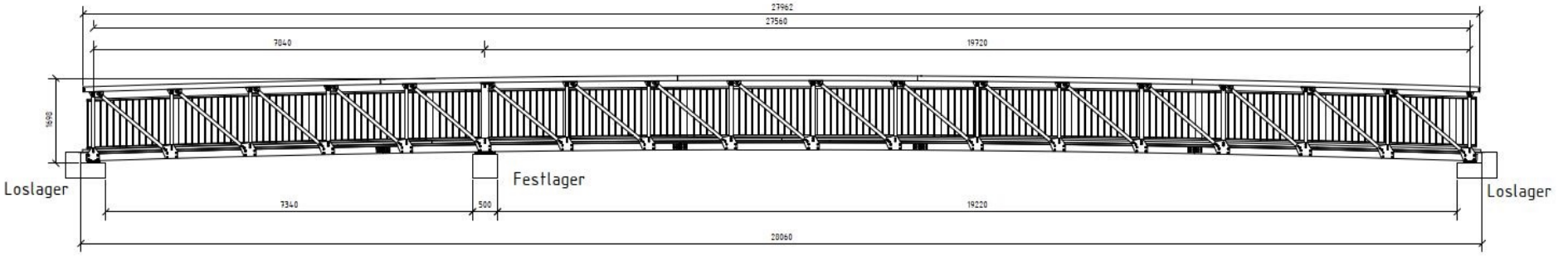
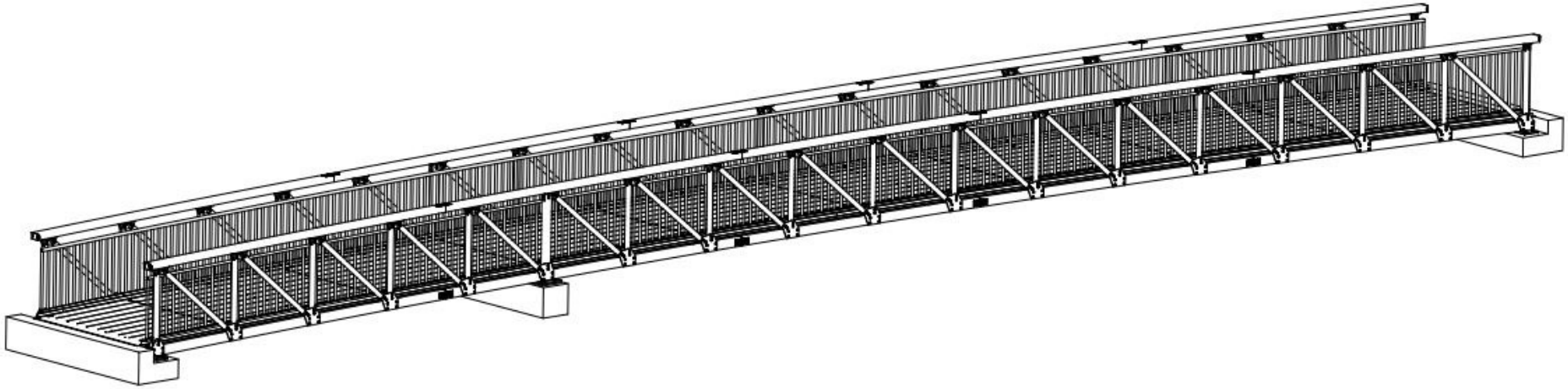
The bridge over the Prüm near Hermesdorf

The bridge over the Prüm near Hermesdorf

Krasnoyarsk Metallurgical Plant





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The Leimersheim bridge

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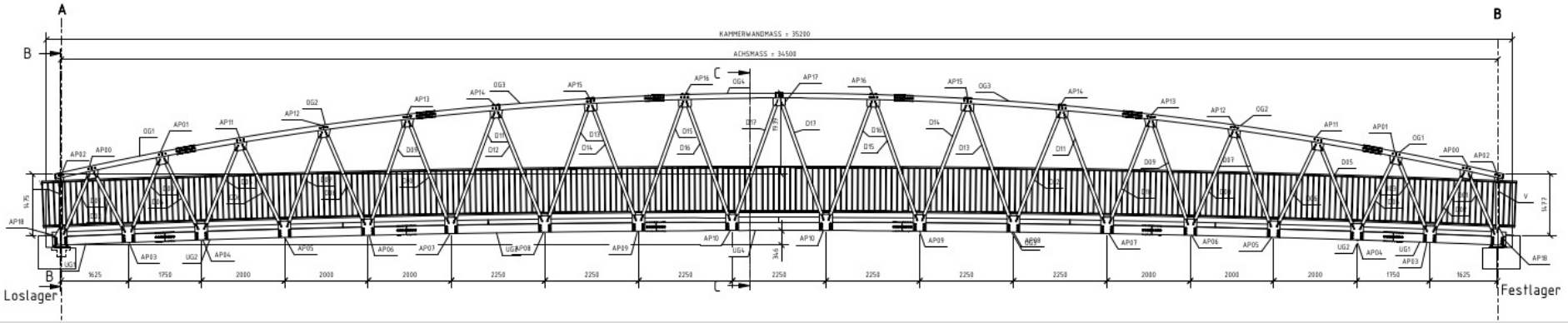
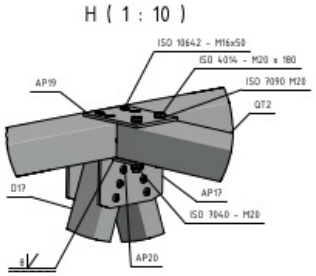
Brücke Freudenstadt

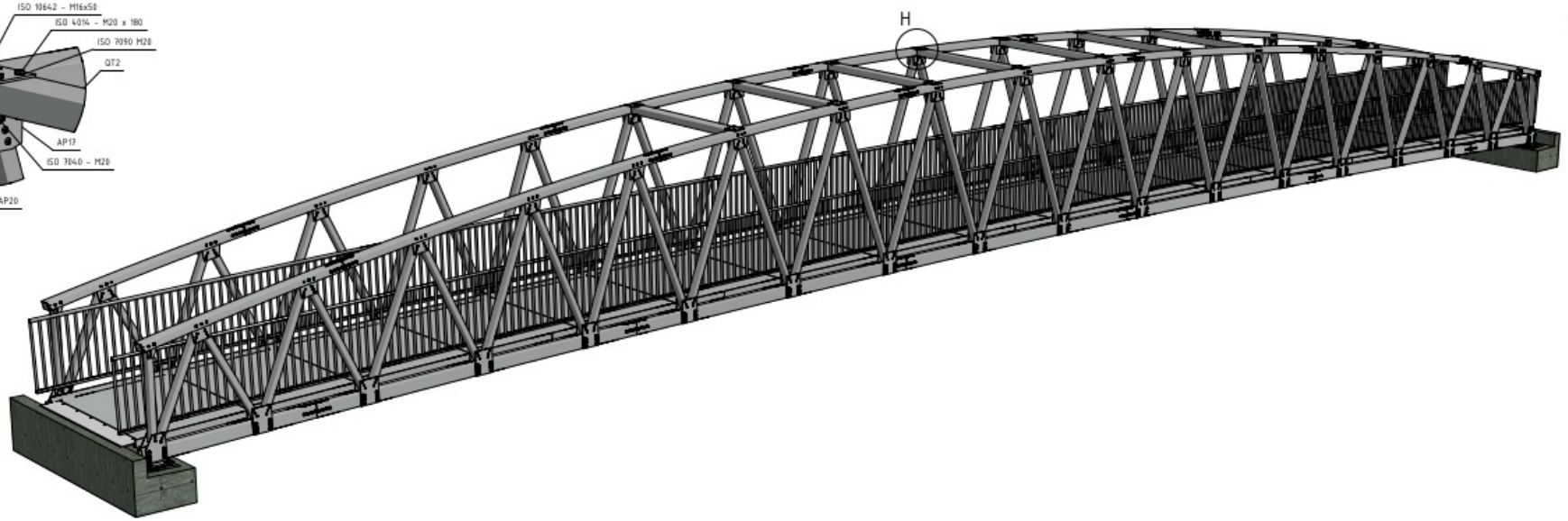
Krasnoyarsk Metallurgical Plant

Bogen Bridge near Bärndorf

Bogen Bridge near Bärndorf







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Cable-stayed bridge Metzdorf Moersdorf 2019

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Cable-stayed bridge Metzdorf Moersdorf 2019

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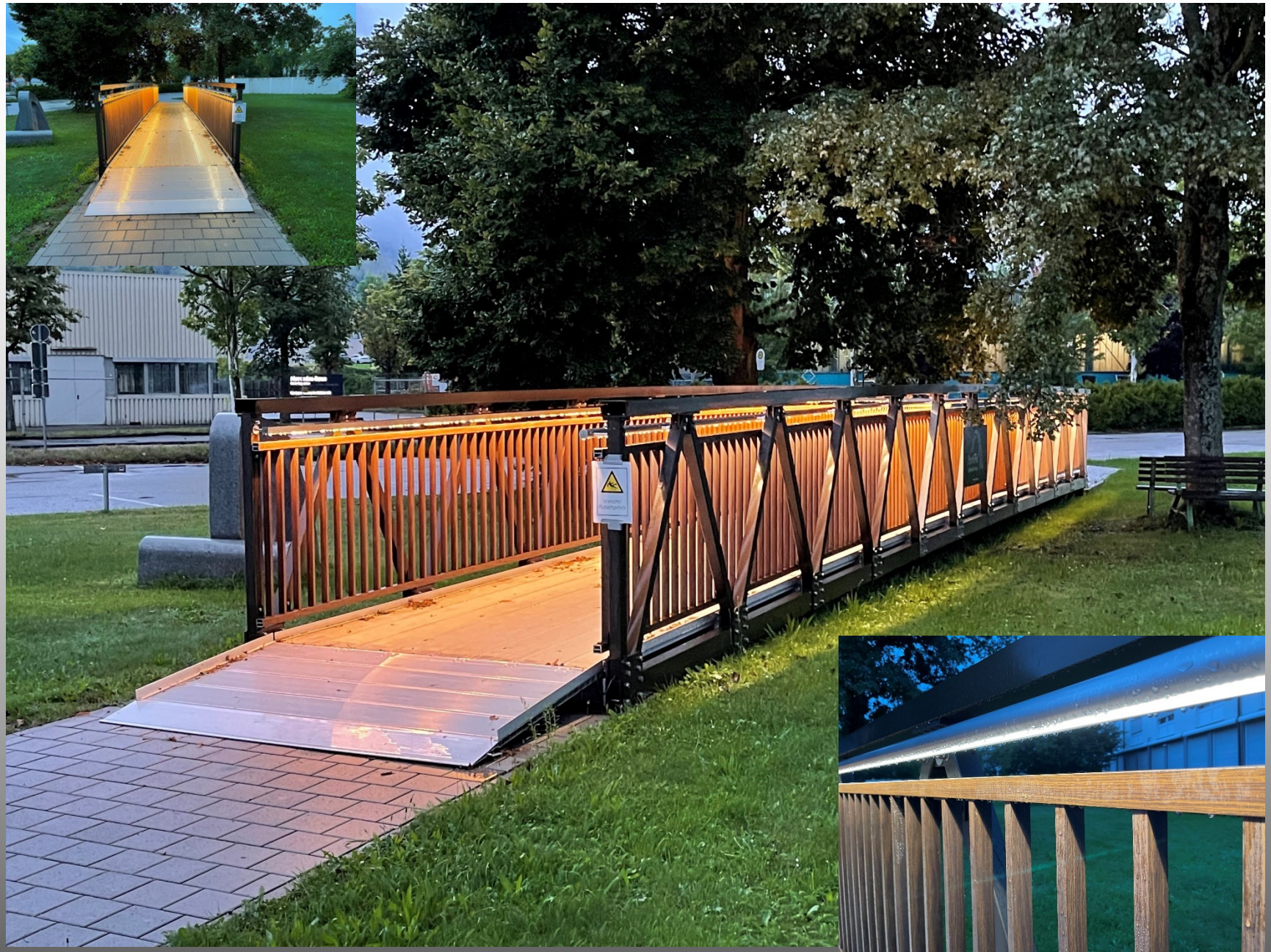
Bogen bridge near Bärndorf

Musterbrücke



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Schnaitheim railway station bridge

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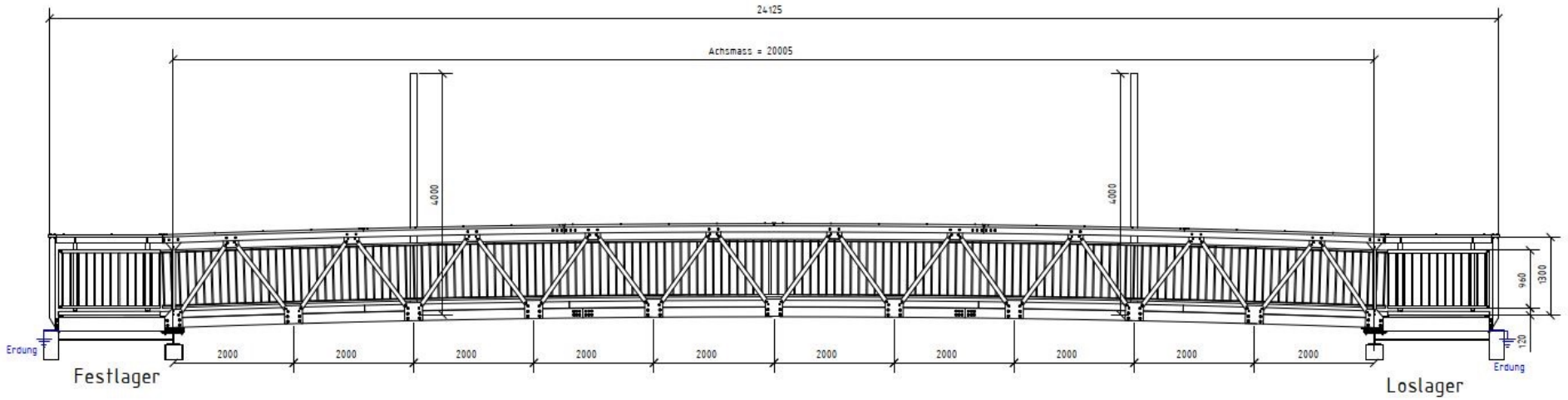

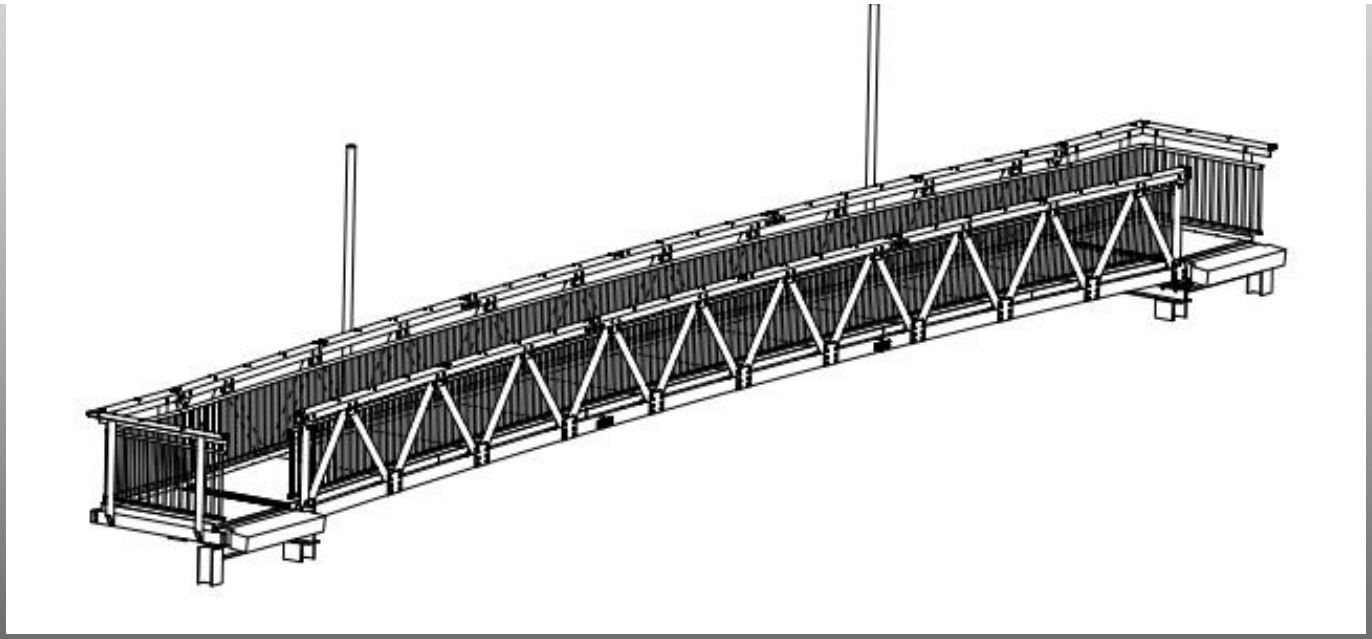


An old bridge
27/02/2016

A new bridge

An old composite reinforced concrete bridge has been replaced with an aluminum alloy construction.

Total bridge length is 86 m

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Praça Fil footbridge

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Galleries in Forum Kirchberg Luxemburg 1997

Galleries in Festo Festo Technologiezentrum 2001

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Length	Quantity	∑ metres	%	%	Length	Quantity	∑metres	%	%
4	41	166,47	0,60%		33	50	1.647,68	0,80%	
5	135	673,12	2,10%		34	64	2.168,35	1,00%	
6	180	1.065,62	2,80%		35	114	3.987,28	1,70%	
7	297	2.058,70	4,50%		36	50	1.796,70	0,80%	
8	318	2.592,25	4,90%	1.173	37	35	1.295,79	0,50%	
9	202	1.776,84	3,10%	19,15%	38	43	1.628,46	0,70%	
10	387	3.893,33	5,90%		39	19	738,88	0,30%	
11	67	729,32	1,00%		40	101	4.040,12	1,50%	514
12	359	4.254,01	5,50%		41	38	1.555,85	0,60%	8,39%
13	120	1.551,32	1,80%		42	32	1.345,26	0,50%	
14	321	4.397,92	4,90%		43	14	601,99	0,20%	
15	354	5.344,95	5,40%		44	22	967,58	0,30%	
16	117	1.862,40	1,80%	1.943	45	65	2.923,25	1,00%	
17	218	3.694,19	3,30%	31,72%	46	27	1.239,58	0,40%	
18	118	2.119,18	1,80%		47	39	1.823,82	0,60%	
19	159	2.981,84	2,40%		48	45	2.158,09	0,70%	
20	244	4.892,09	3,70%		49	22	1.076,43	0,30%	
21	96	2.011,35	1,50%		50	84	4.201,03	1,30%	
22	184	4.038,90	2,80%		51	17	866,65	0,30%	
23	113	2.590,50	1,70%		52	22	1.141,84	0,30%	
24	129	3.082,58	2,00%	1.248	53	22	1.166,07	0,30%	
25	205	5.131,01	3,10%	20,38%	54	15	809,87	0,20%	
				71,25%	55	34	1.868,32	0,50%	
26	103	2.675,82	1,60%		56	22	1.230,60	0,30%	
27	83	2.241,08	1,30%		57	6	342,2	0,10%	
28	72	2.008,43	1,10%		58	8	463,7	0,10%	
29	84	2.428,63	1,30%		59	6	353,5	0,10%	
30	207	6.208,50	3,20%		60	52	3.121,92	0,80%	
31	54	1.666,06	0,80%	680	61	8	485,38	0,10%	567
32	77	2.457,38	1,20%	11,10%	62	5	309,7	0,10%	9,26%
Total was put up for tender from 2018 to 2019						**6.125**		**Sum**	**100,00%**

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Temporary bridges made of aluminum alloys to make a temporary crossing.


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Temporary bridges made of aluminum
alloys to make a temporary crossing in
order to support the construction process

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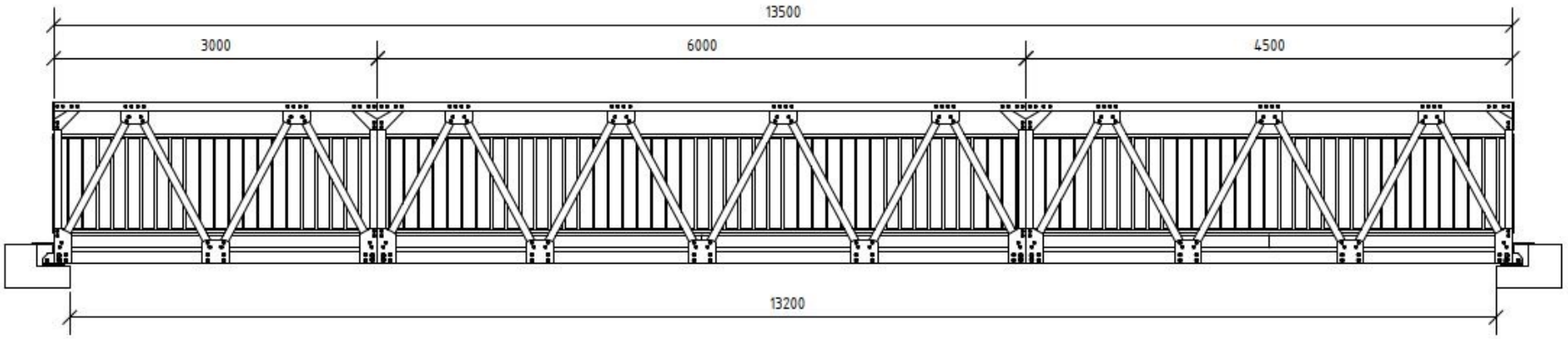
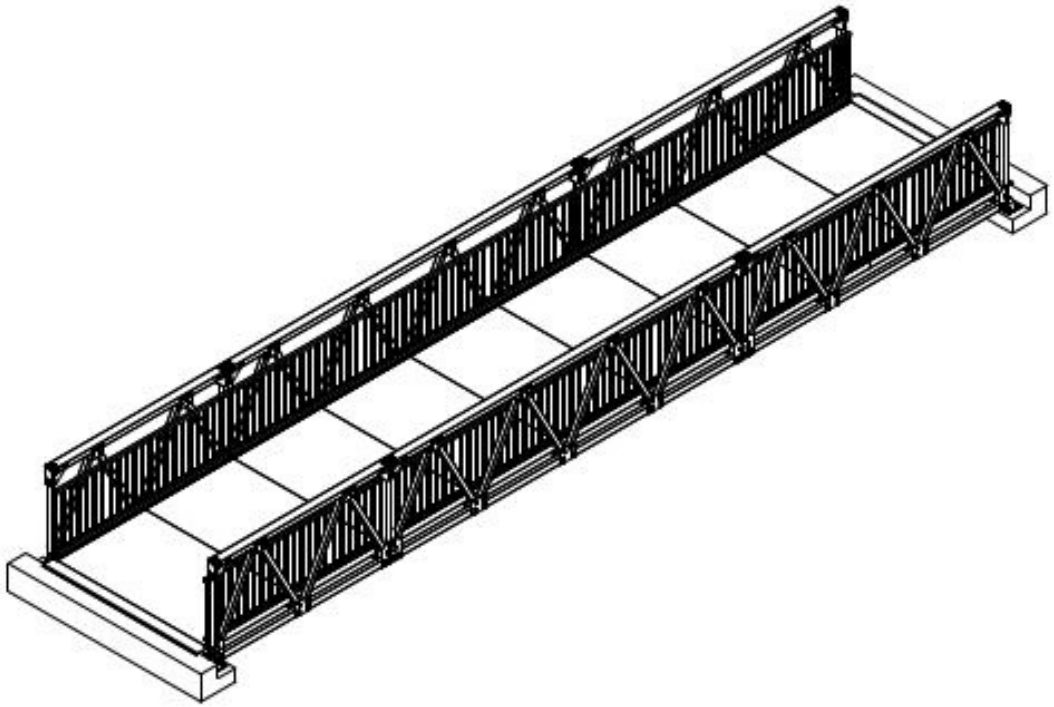


Temporary bridge13,5m

modules
6,0m+4,5m+3,0m



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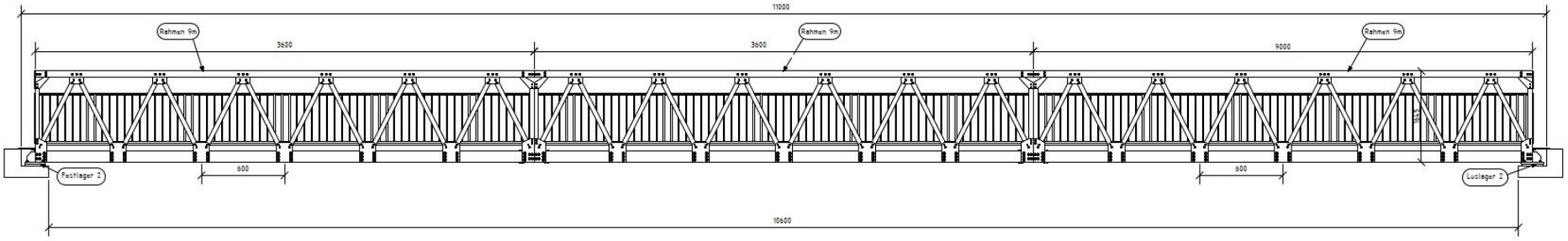
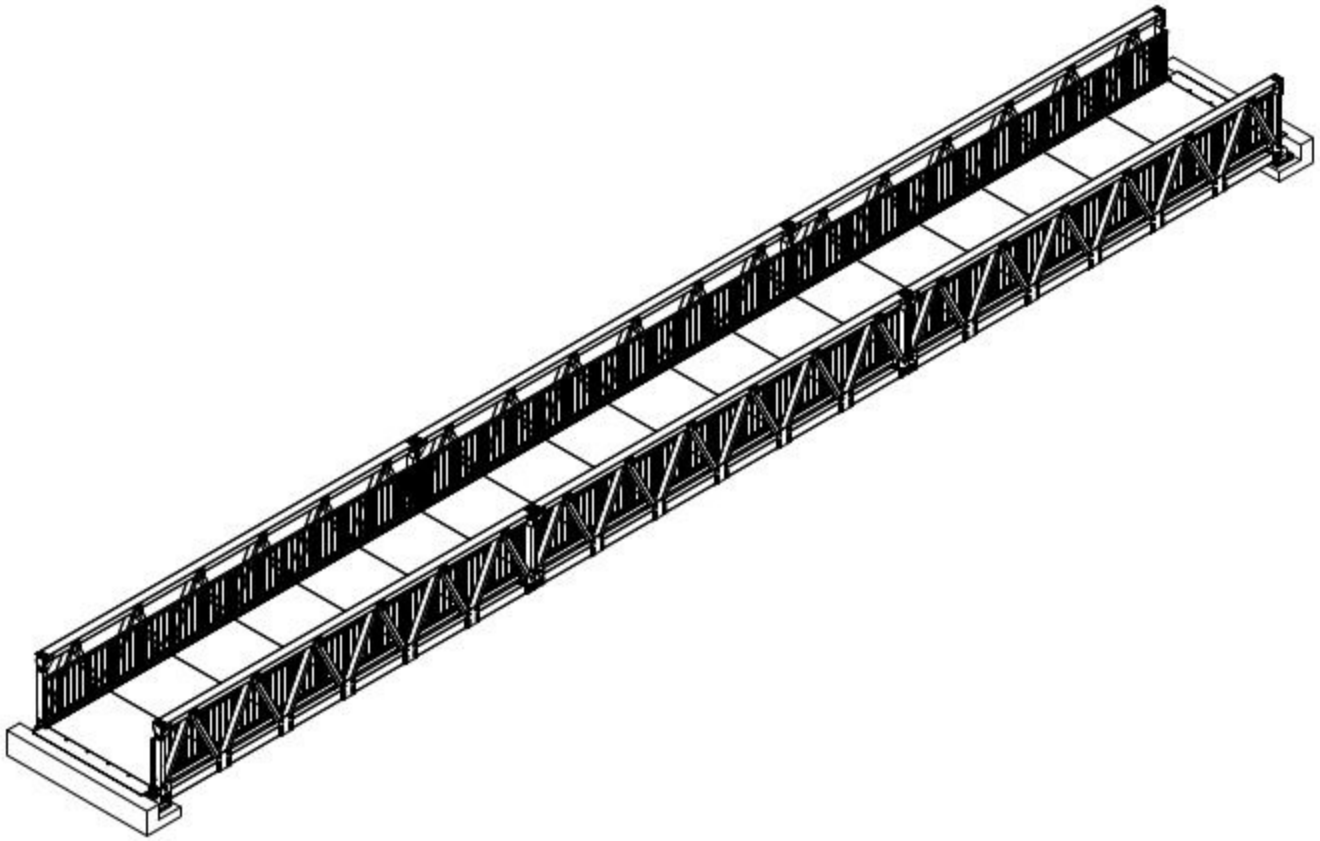


Temporary bridge 27,0m

modules 9,0m



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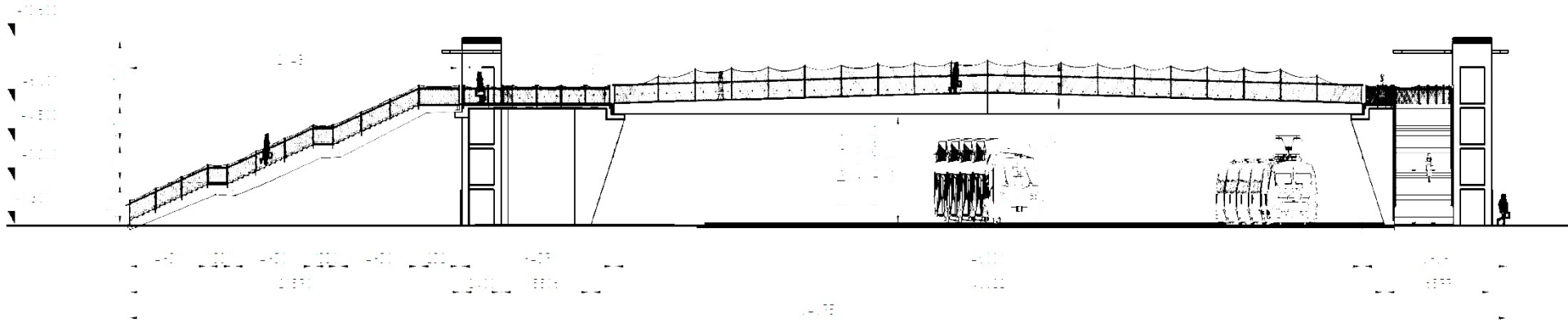
Engineering and projects



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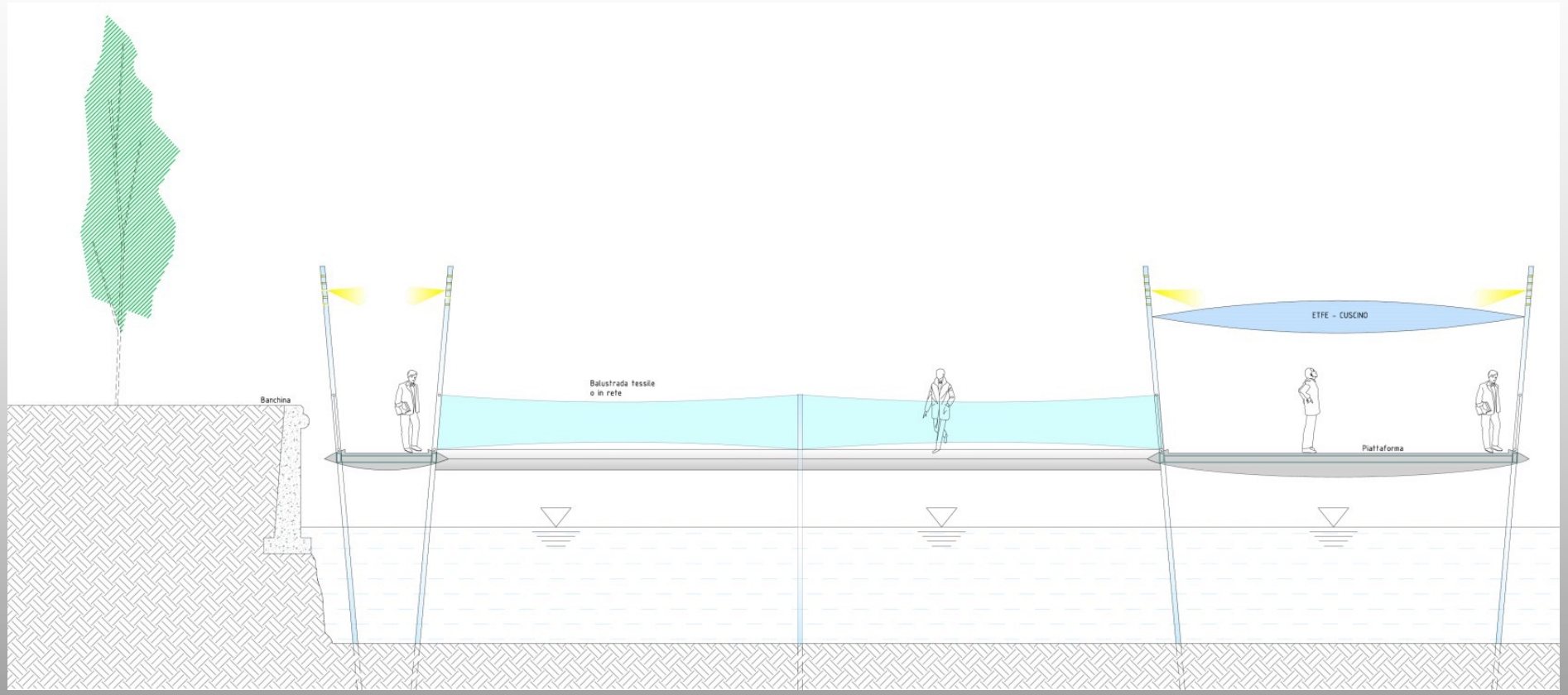
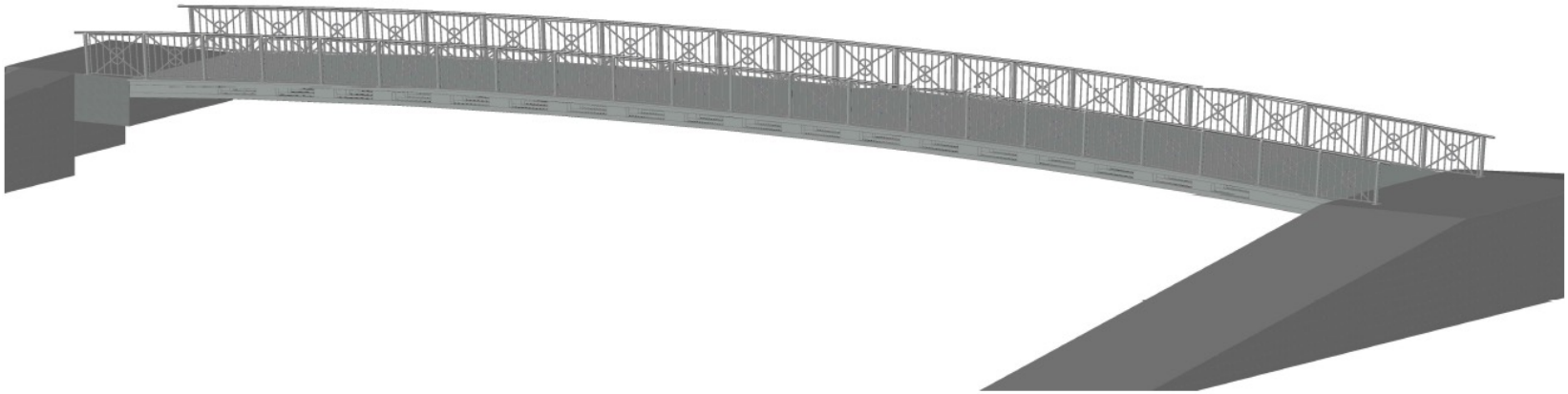
Systems of bridges



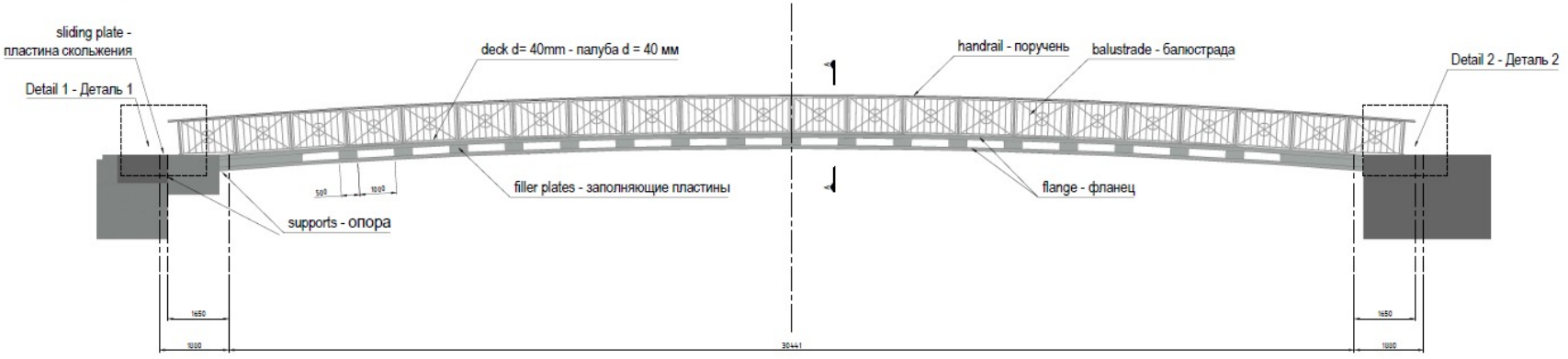
Coastal bridge-ladder

The bridge across the Kacha in Krasnoyarsk



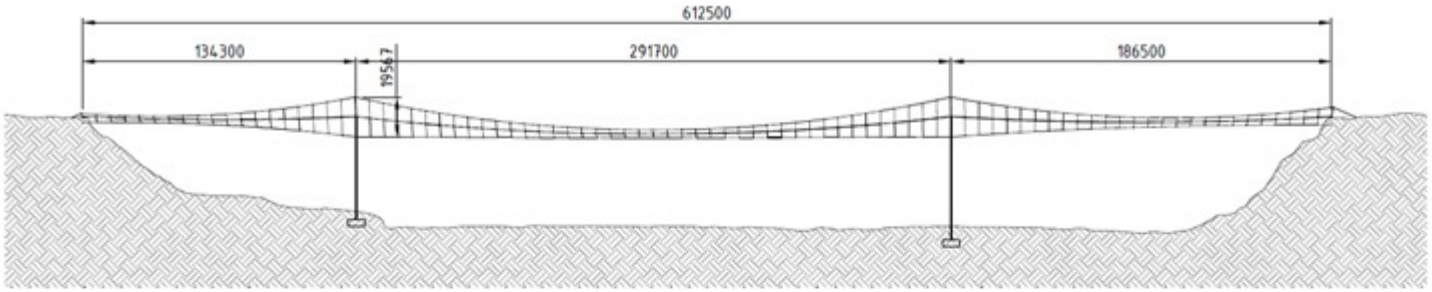
Side view aluminium bridge - Вид сбоку алюминиевый мост

Scale 1:100



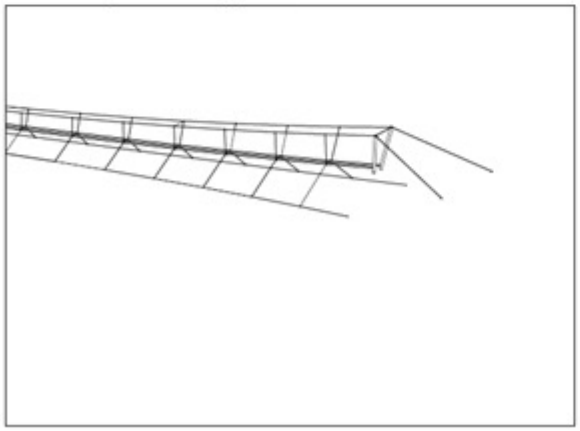
Swaying bridge in Rottweil

Side view

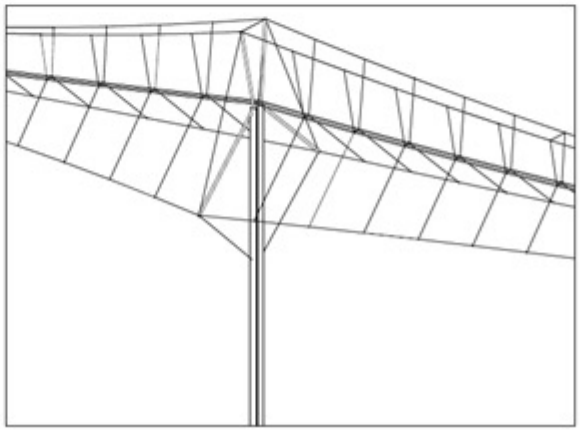


Top view

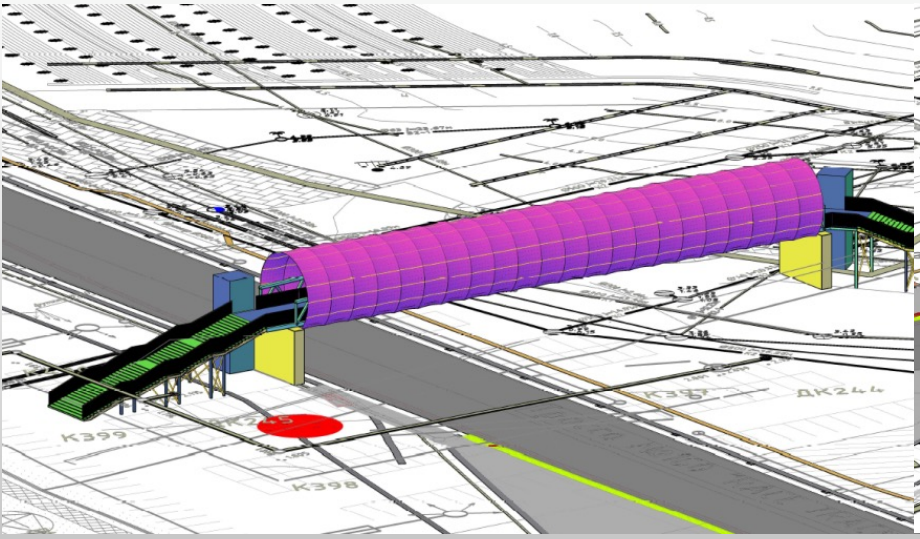
Isometry end support

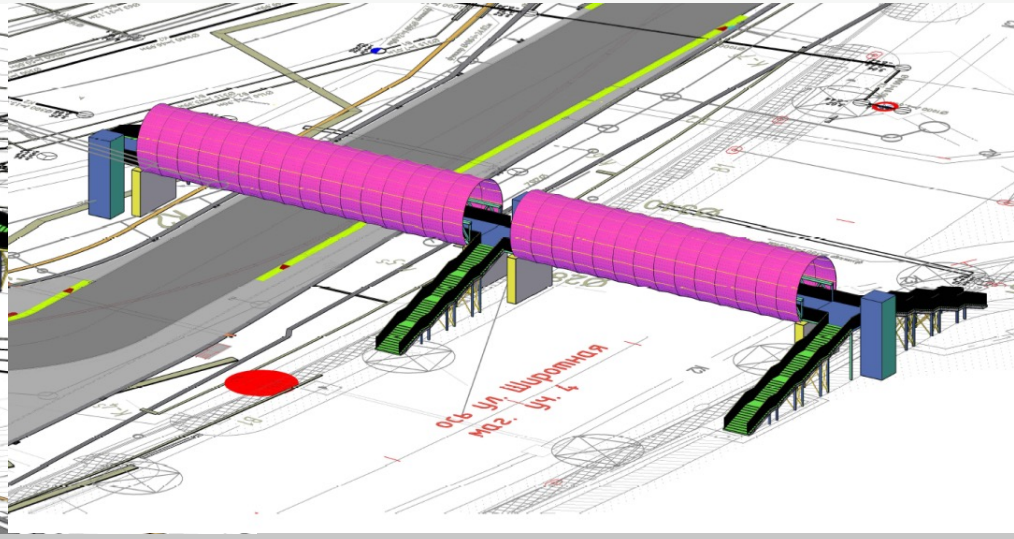


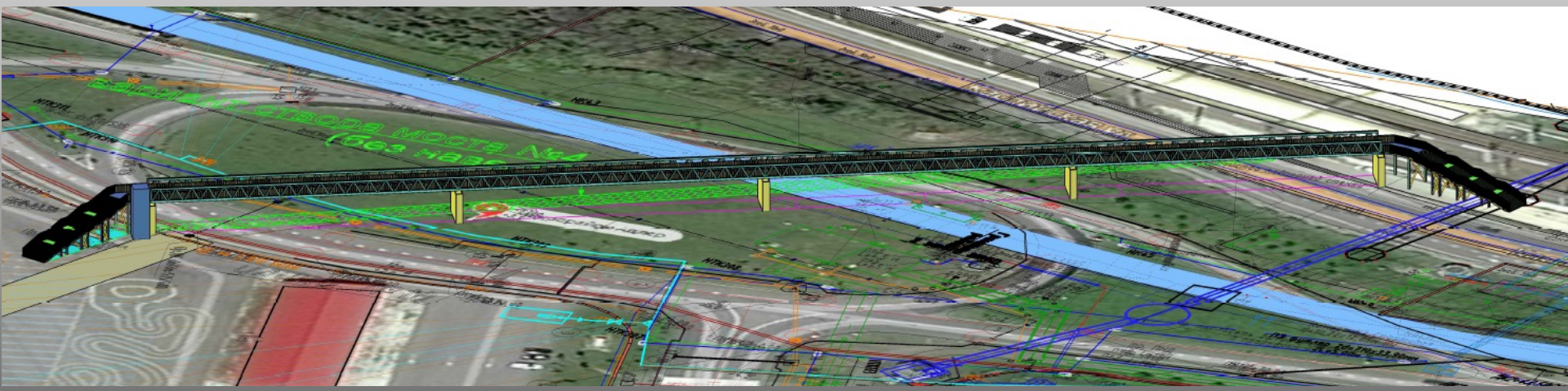
Isometry intermediate support



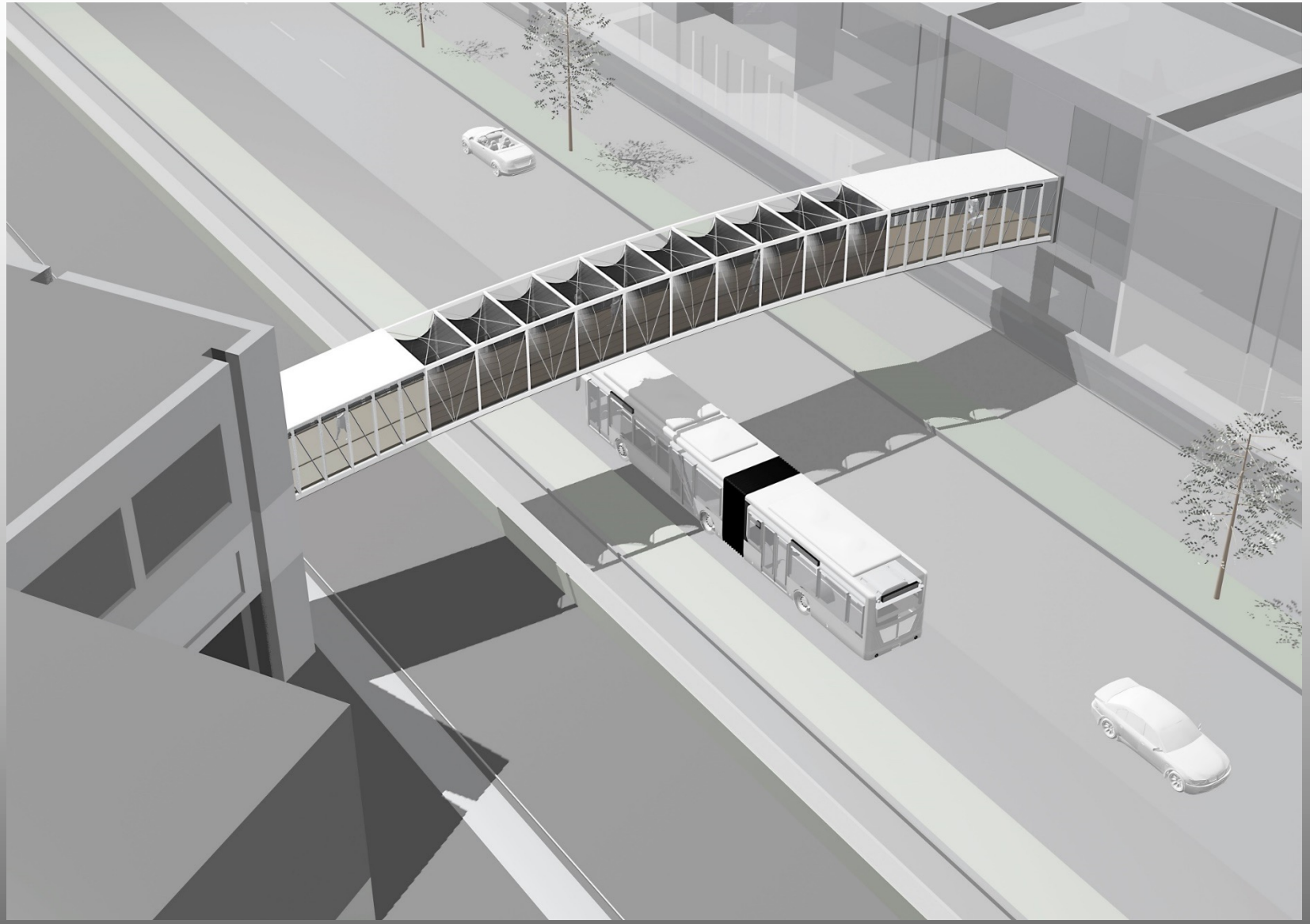
Design of the footbridges across Formula 1 track in Sochi.





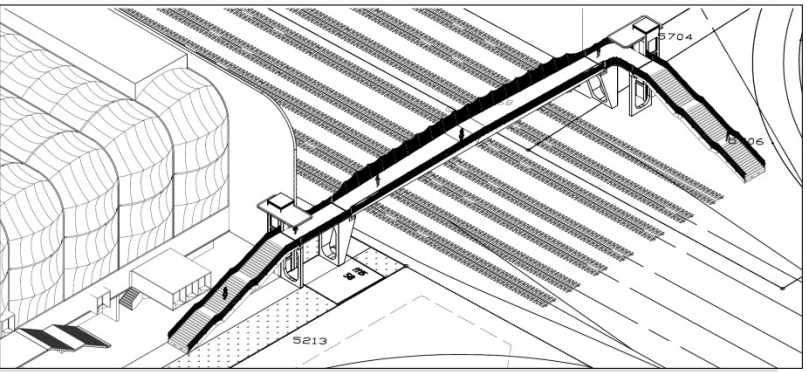


Competitive project Brillux Werksbrücke 2018

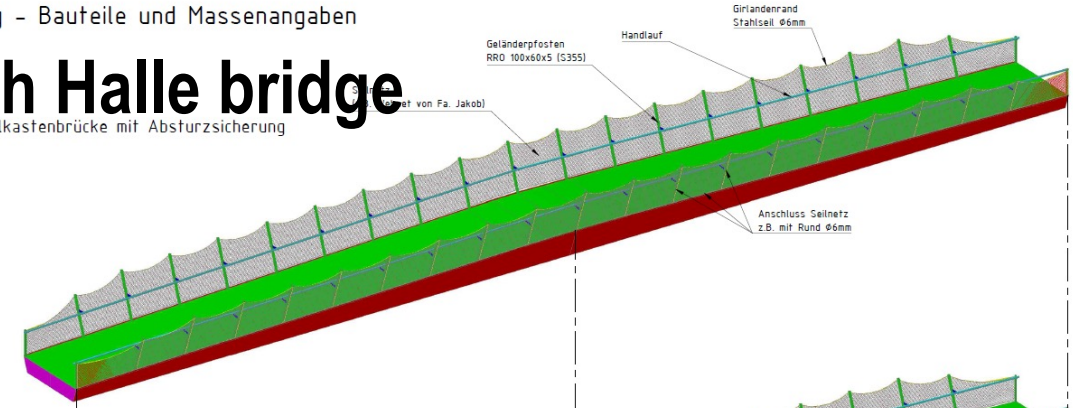


Steg - Bauteile und Massenangaben

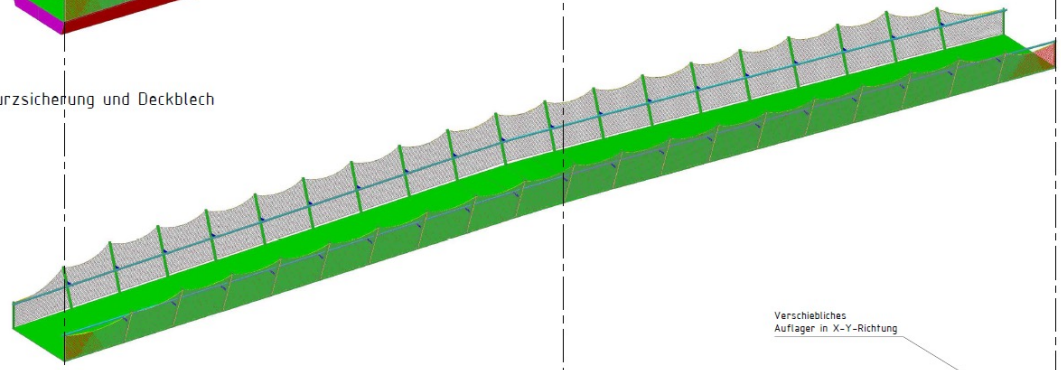
Zürich Halle bridge



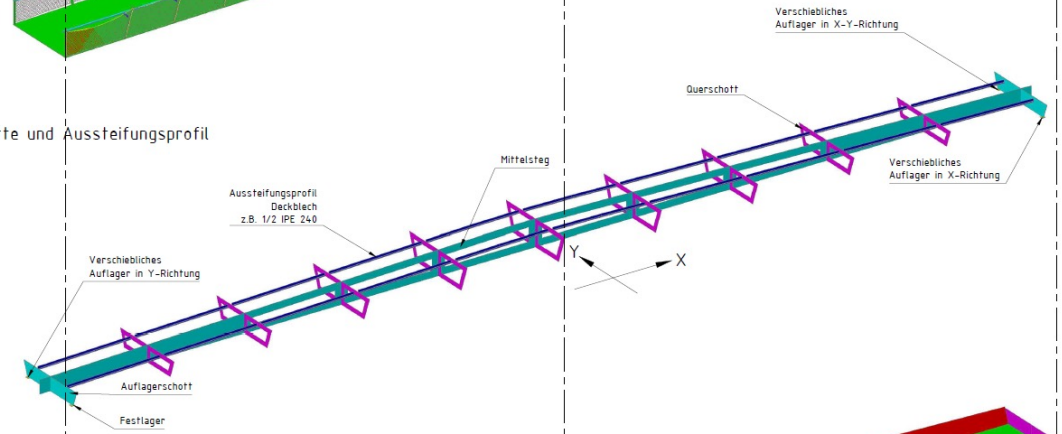
Hohlkastenbrücke mit Absturzsicherung



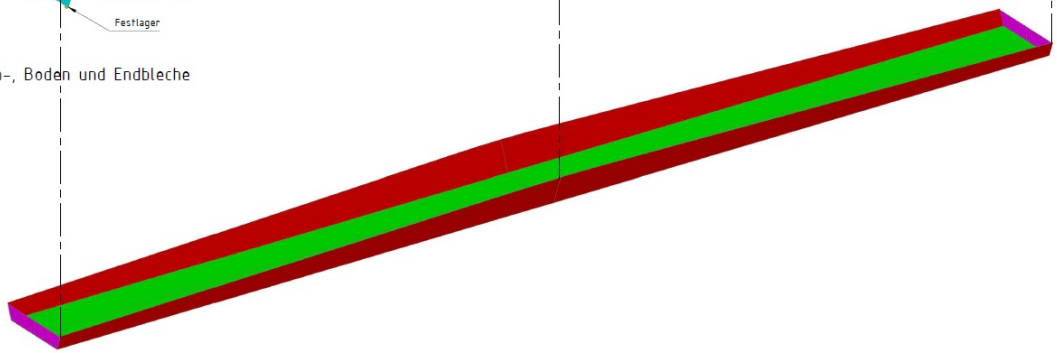
Absturzsicherung und Deckblech



Schotte und Aussteifungsprofil



Seiten-, Boden und Endbleche



A bridge across the Enisey in Krasnoyarsk

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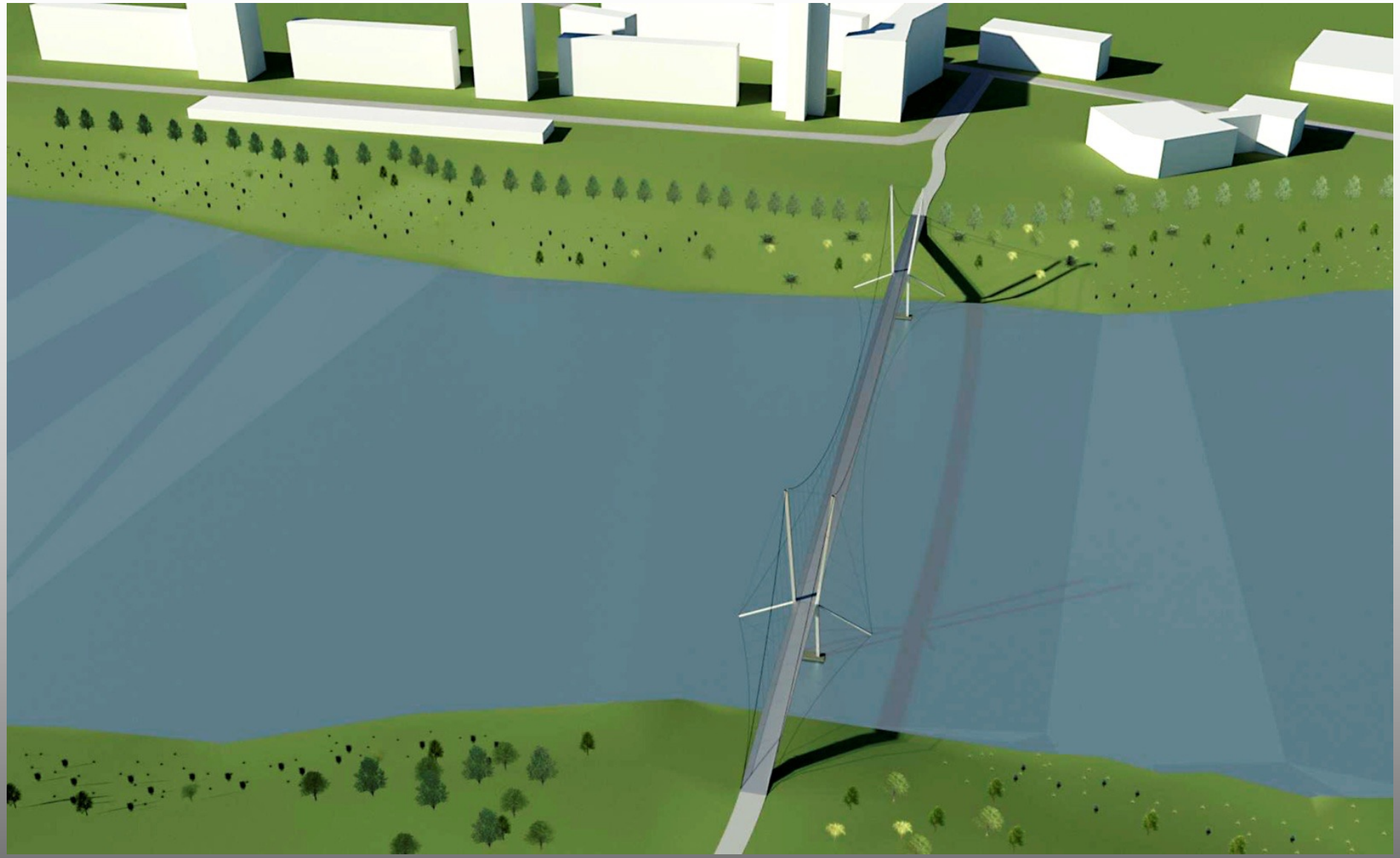
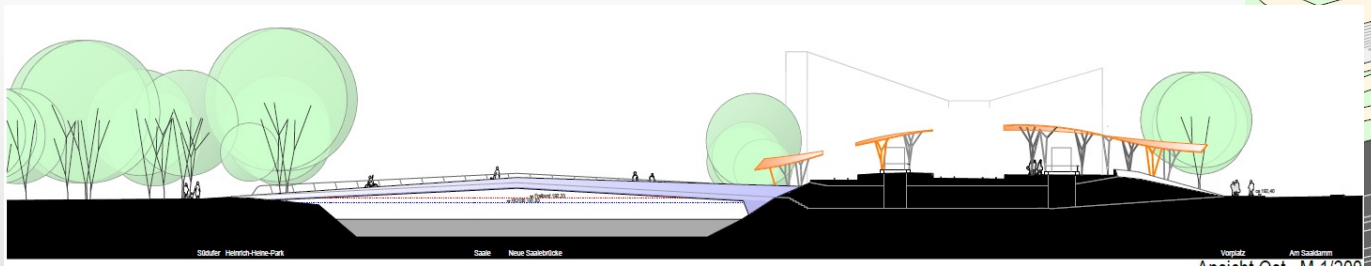


A bridge across the Enisey in Krasnoyarsk

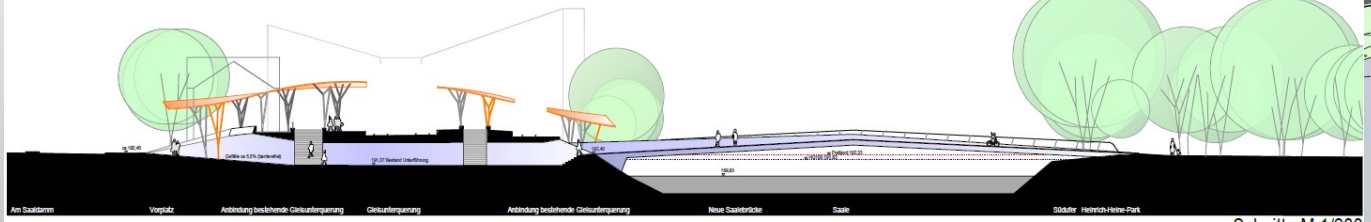
giprostroymost

A bridge in Duisport

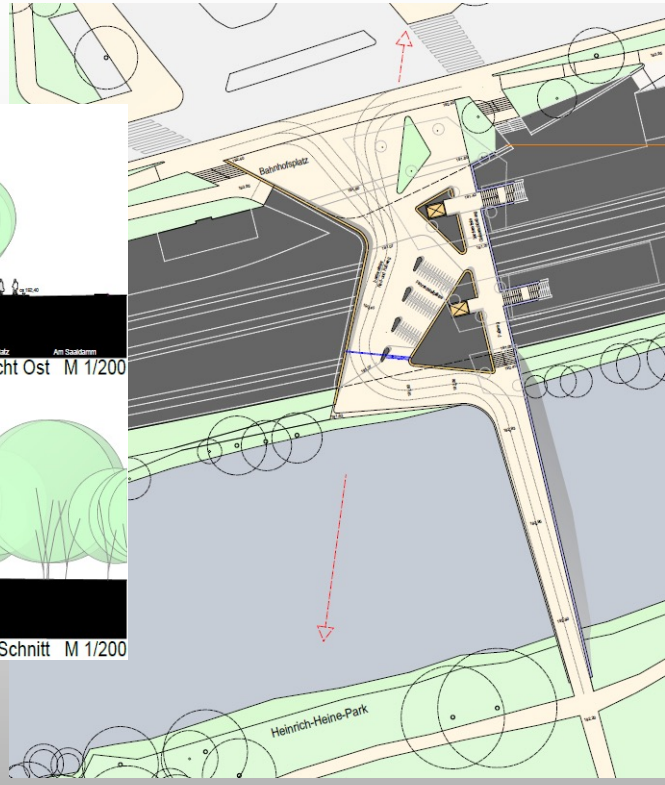
Competitive project Neue Saalequerung Rudolstadt 2019



Ansicht Ost M 1/200



Schnitt M 1/200



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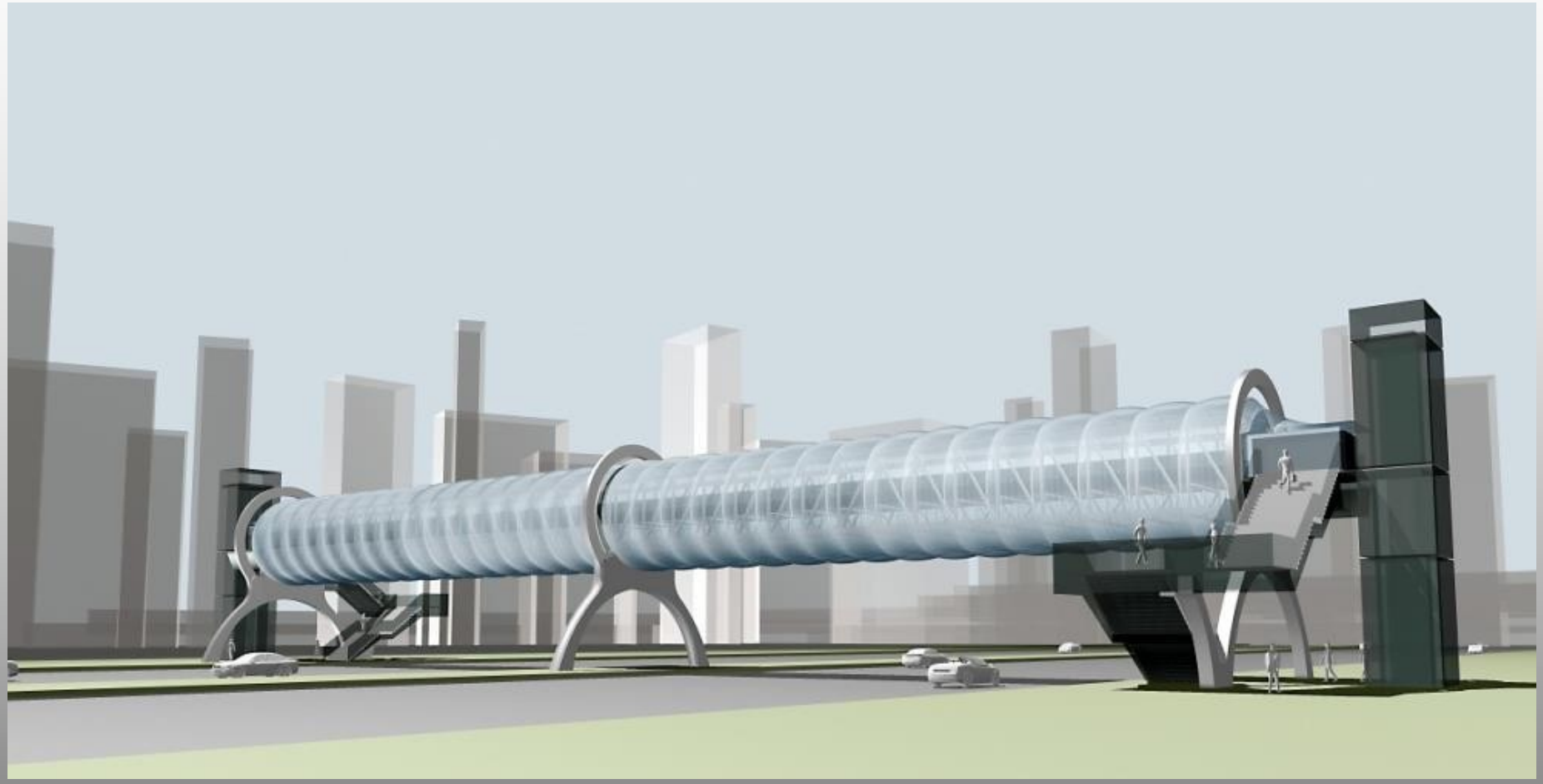
Bridge systems



Lined bridges

Bridge systems

Lined bridges

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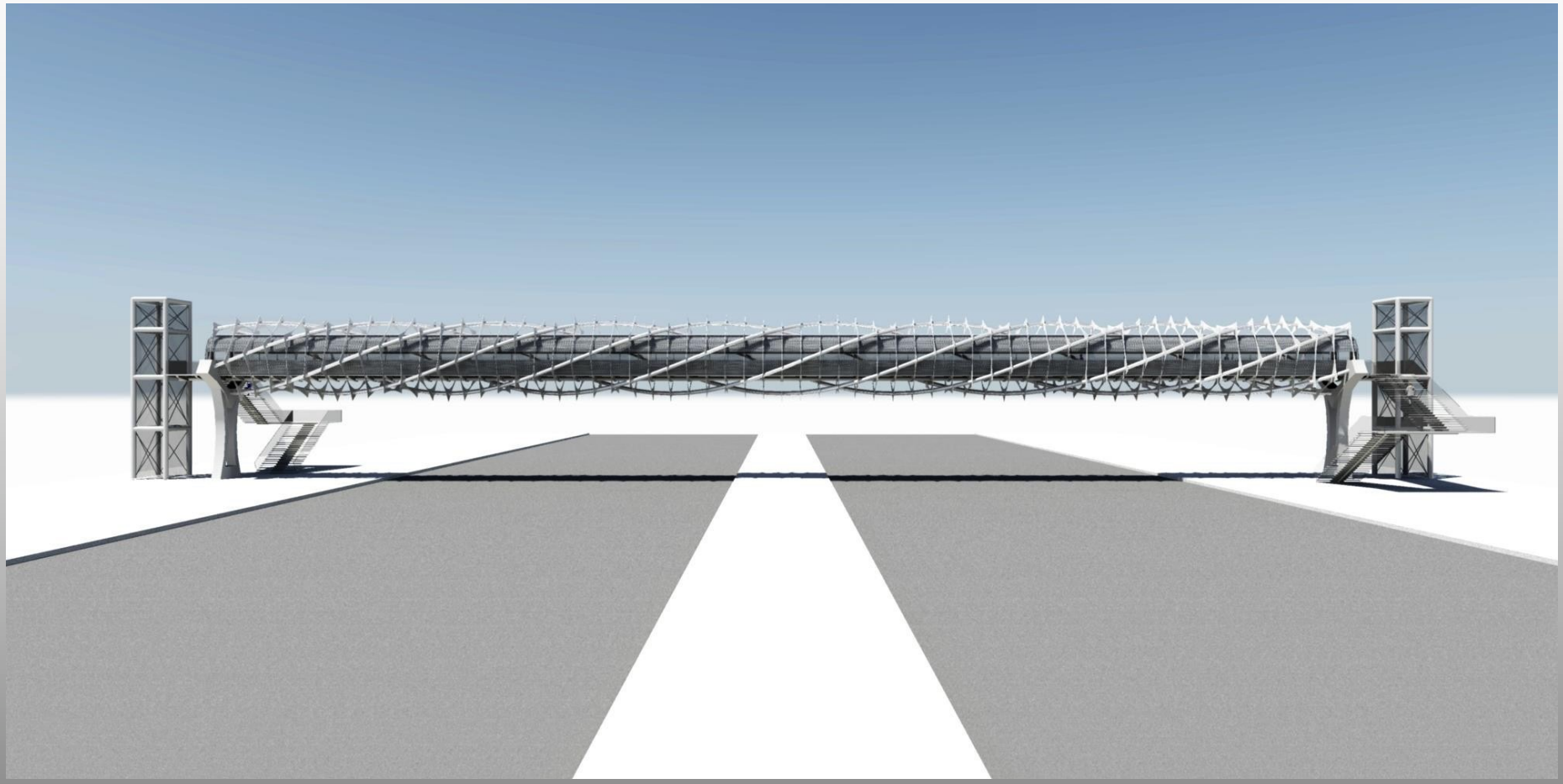
Bridge systems



Lined bridges

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Bridge systems

Lined bridges

Doha East Industrial Road

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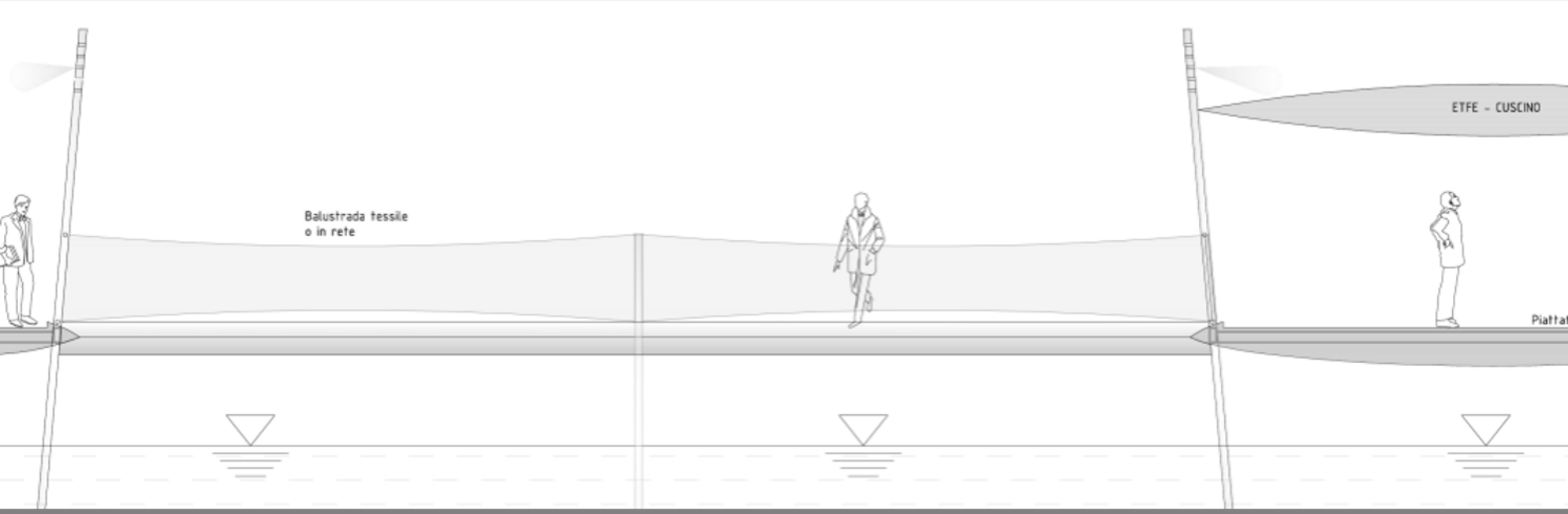
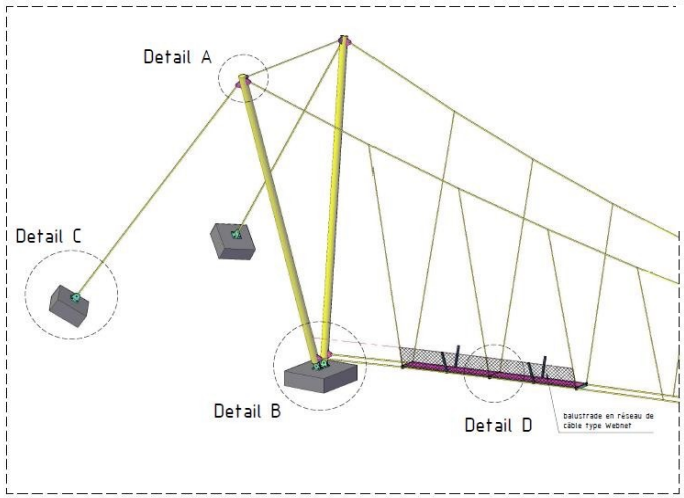
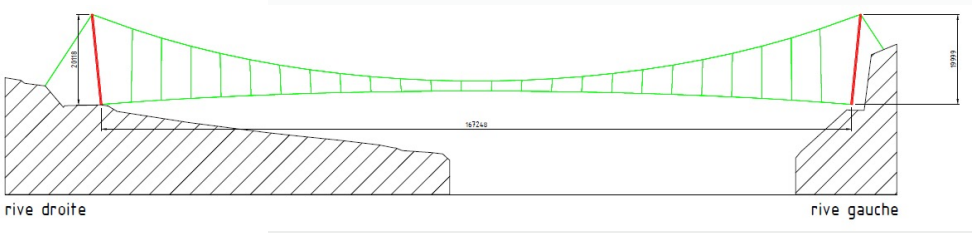
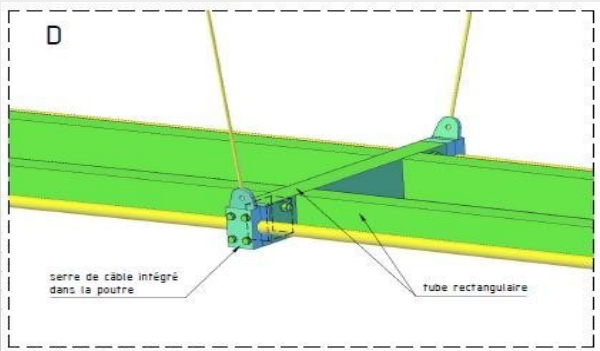
New engineering solutions

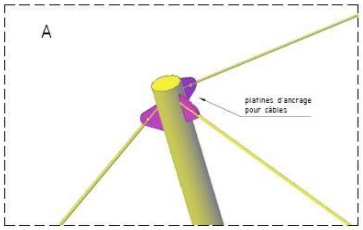


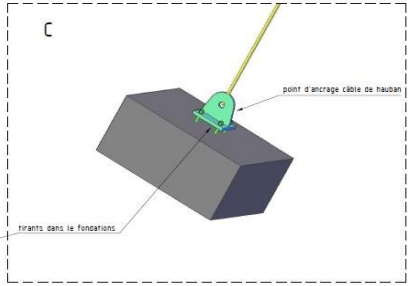
Suspension bridge with aluminum deck

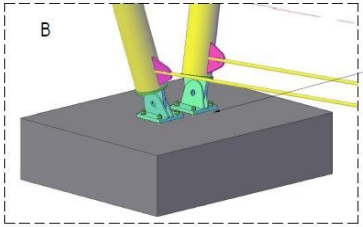


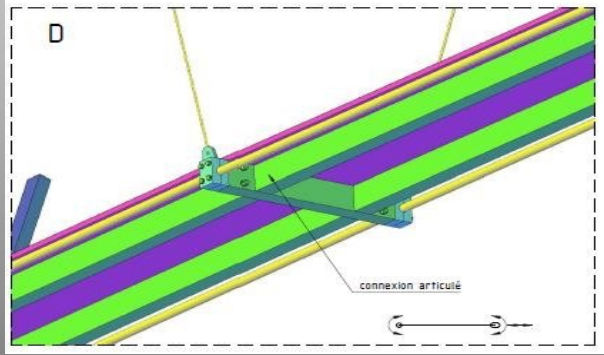




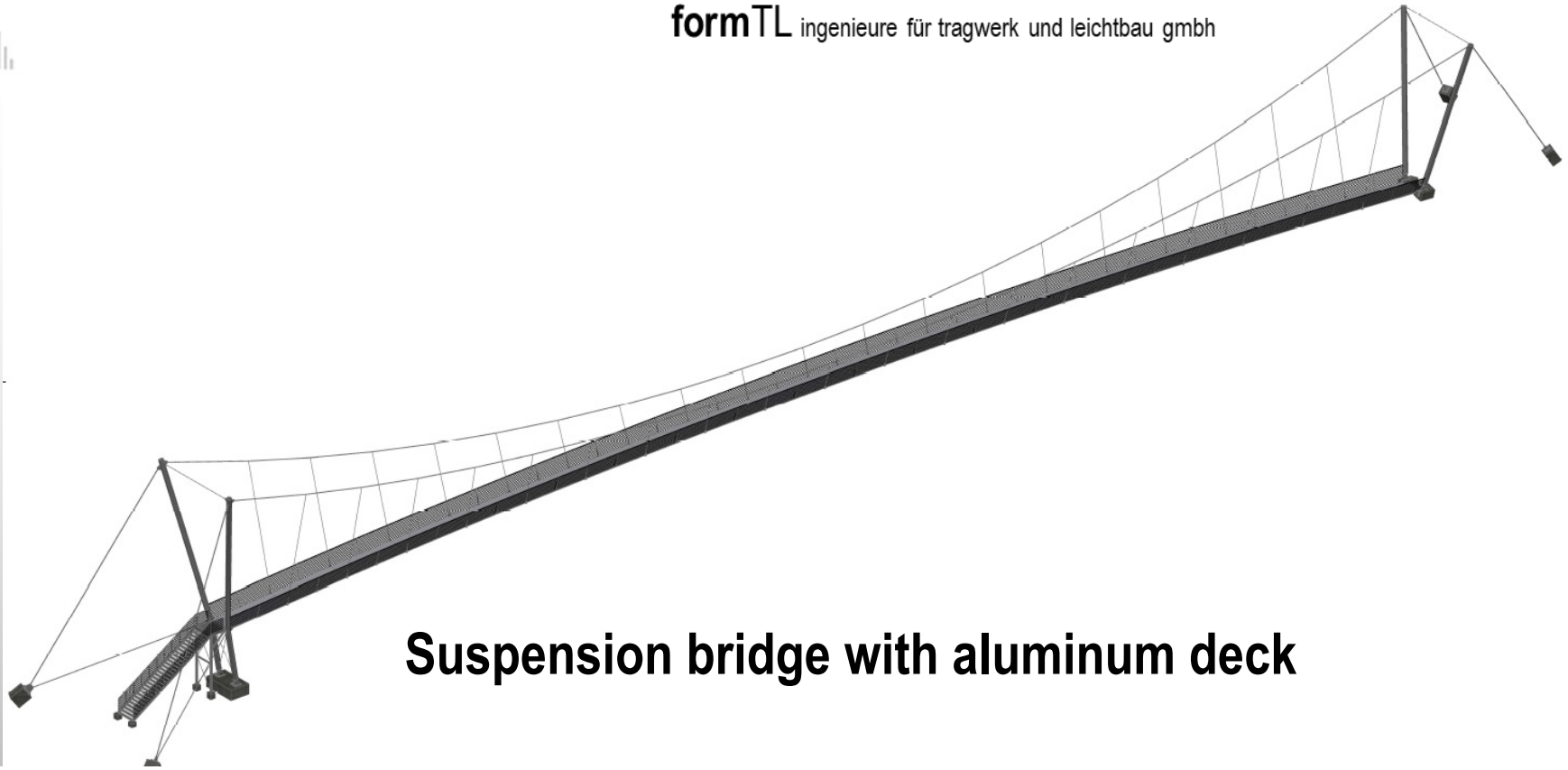




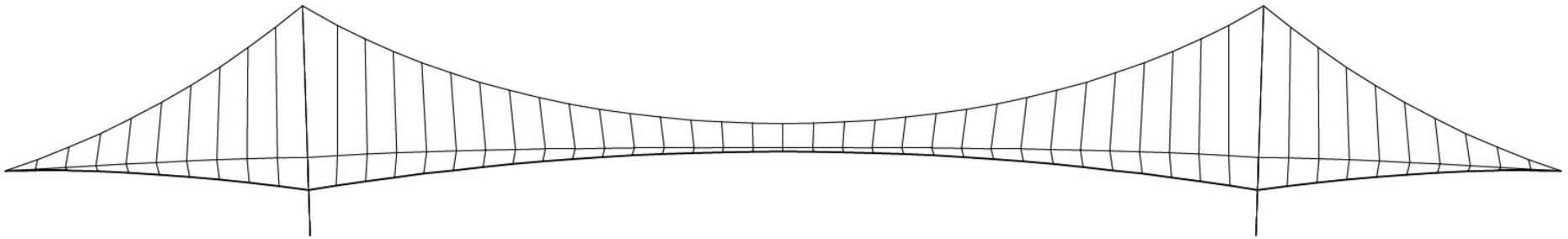




Suspension bridge



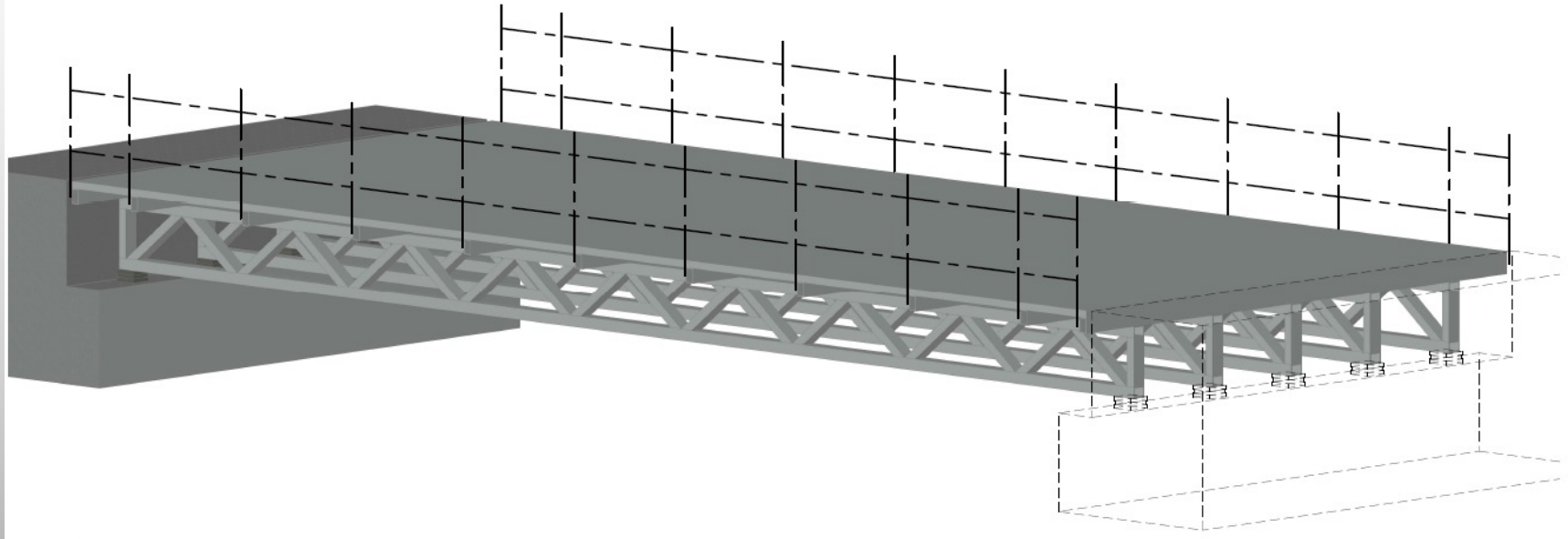
Suspension bridge with aluminum deck



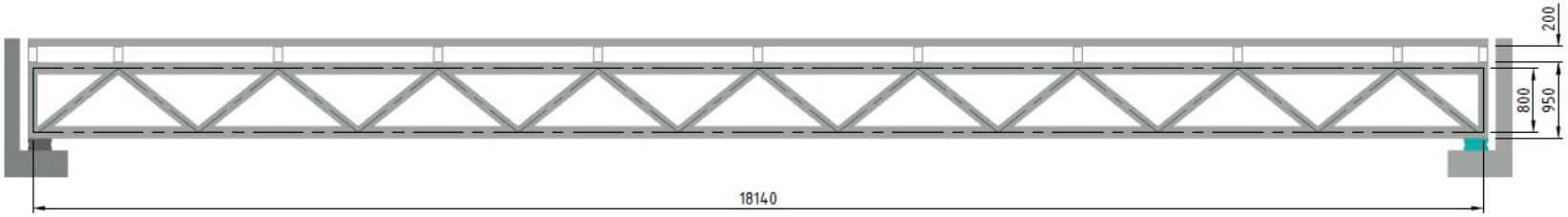
Light road bridges

Road bridge for load class 14

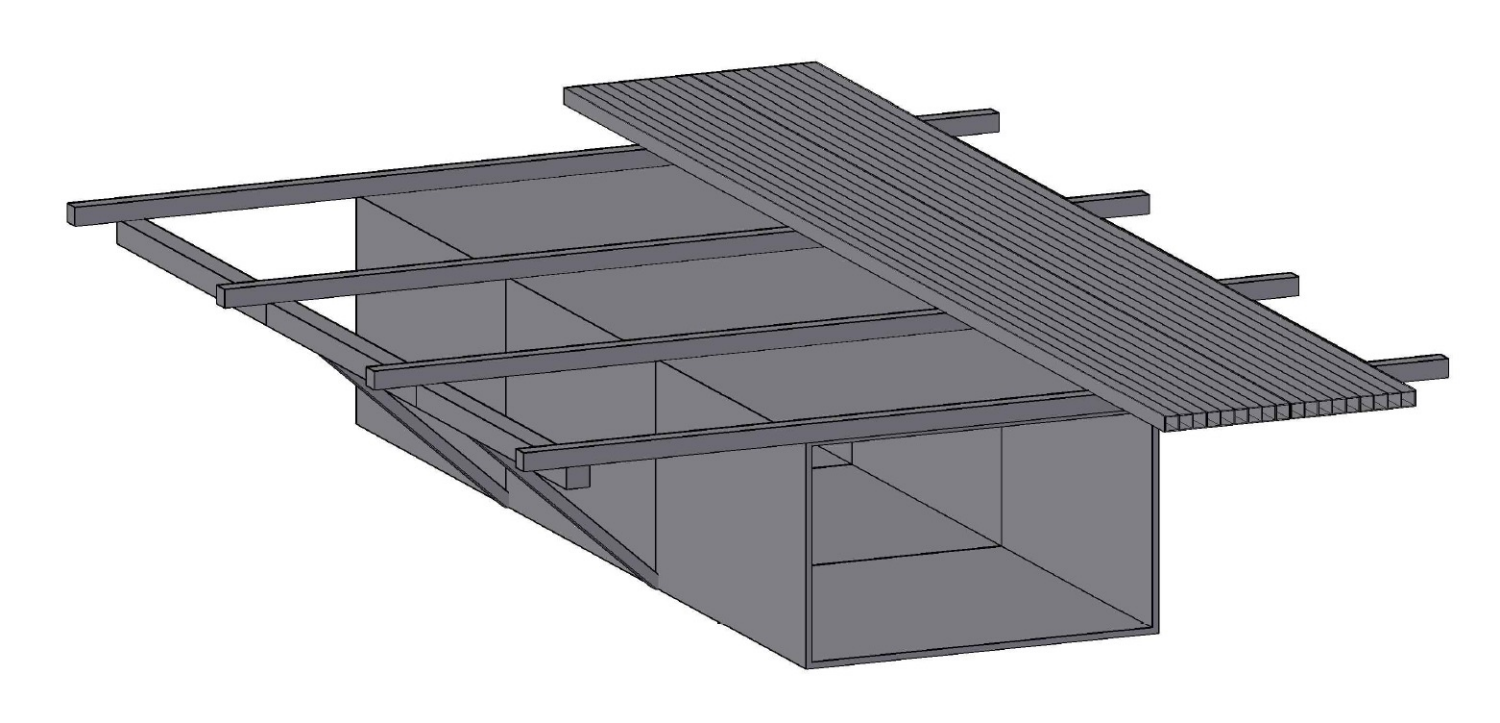
Isometric view



View



Light road bridges



This system consists of a welded box section made of sheet metal. The deck is carried by transversal beams, which can be supported by diagonal struts depending on the width of the bridge.
Plate thickness and all other dimensions can be adjusted to the individual needs of the project.

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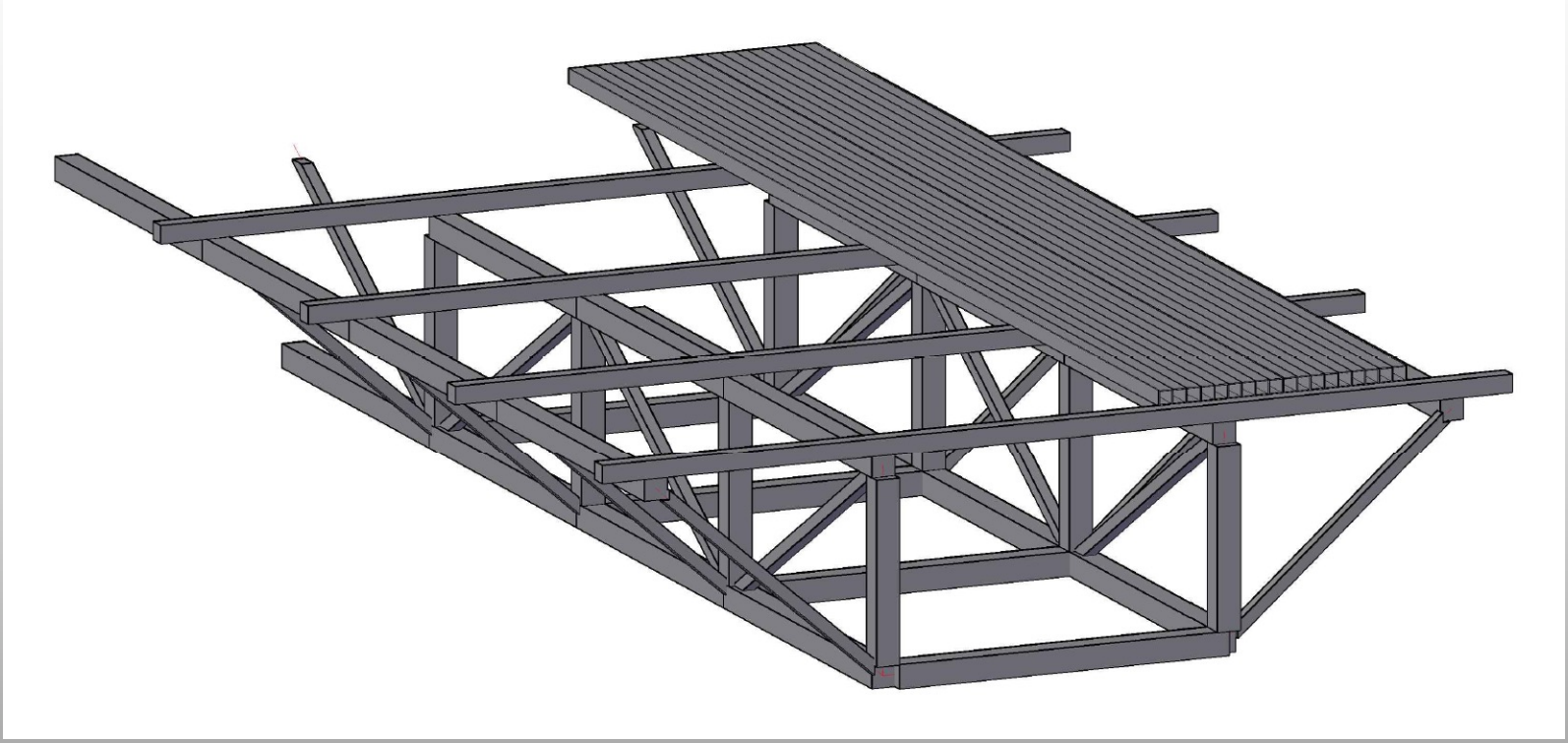
Light road bridges



This system consists of a spatial truss box, made of hollow sections. The deck is carried by transversal beams, which can be supported by diagonal struts depending on the width of the bridge.
Member sizes and other dimensions can be adjusted to the individual needs of the project.

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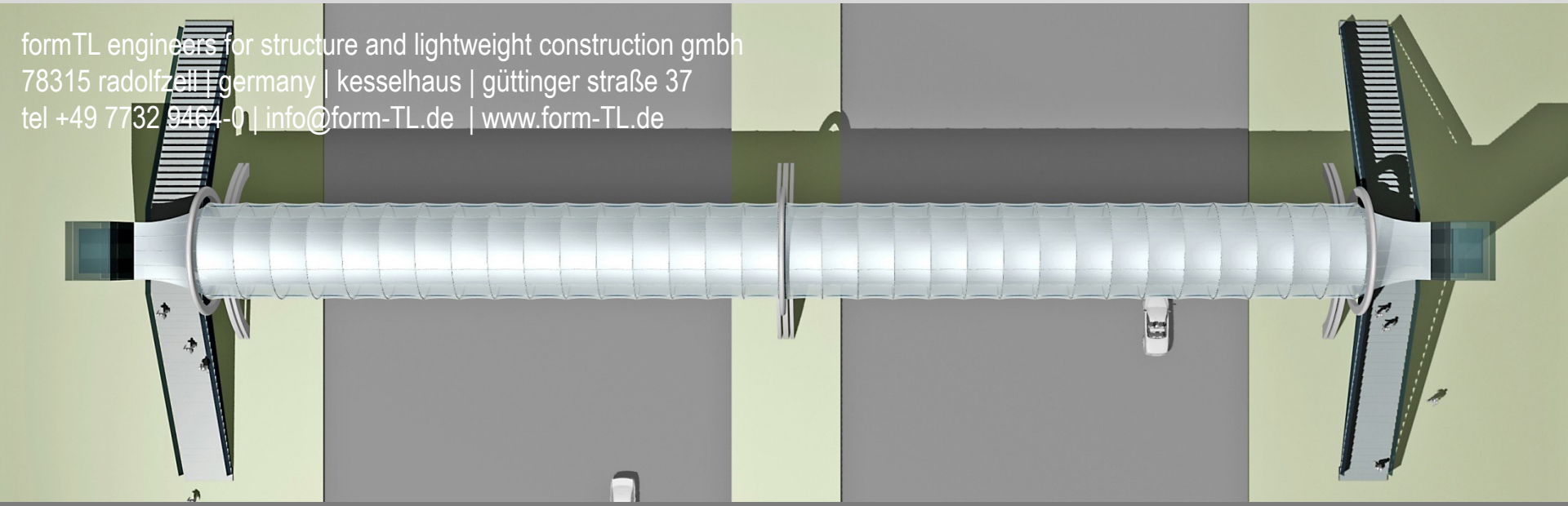

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Thank you for attention

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