

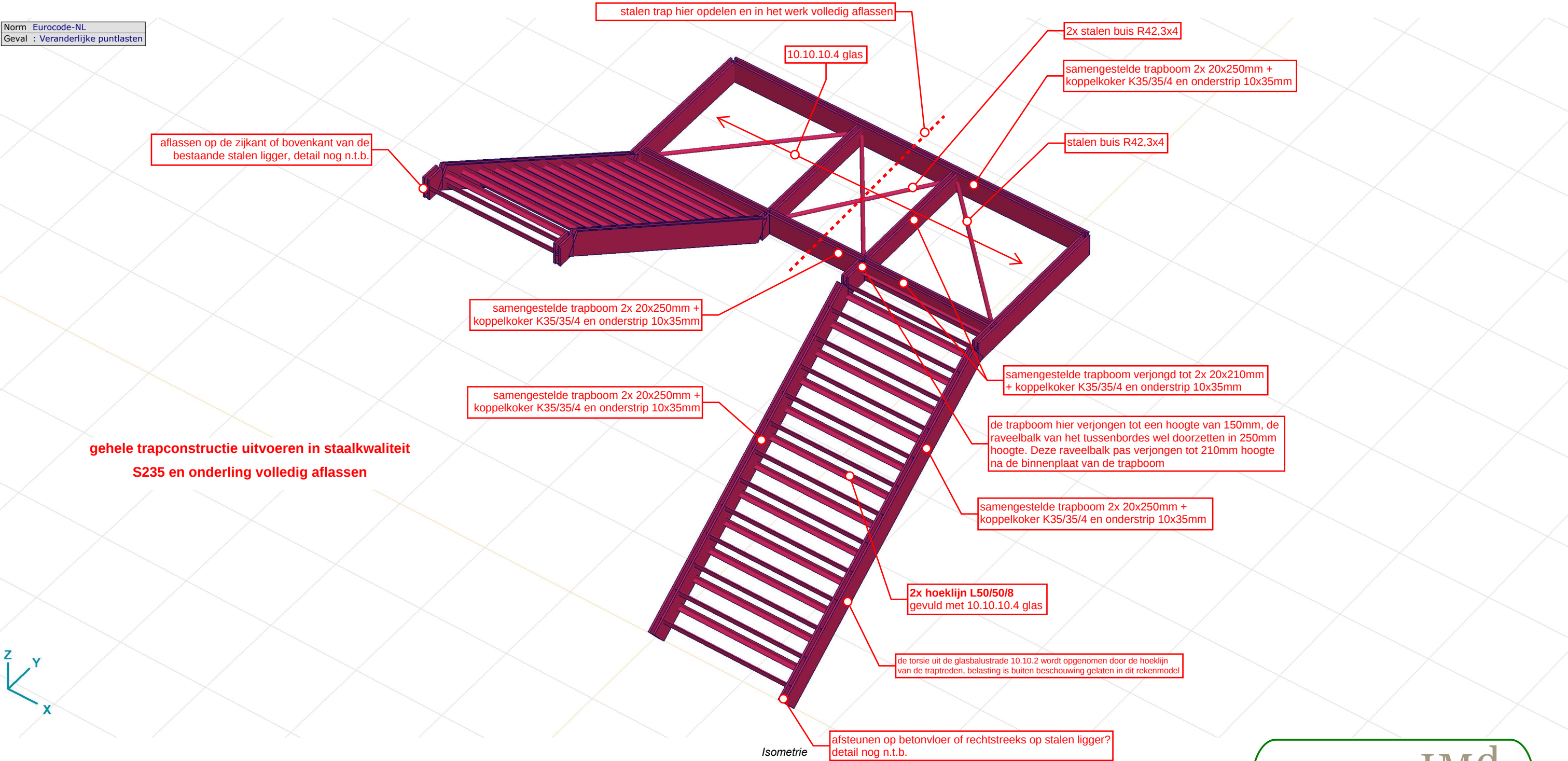
P8861 - Stalen trap Stadswinkel Tilburg

Constructiebureau De Prouw B.V.

Model: Stalen trap 5.axs



Norm	Eurocode-NL
Geval	: Veranderlijke puntlasten



Materialen

	Naam	Type	Nationale norm	Materiaalnorm	Model	E_x [N/mm ²]	E_y [N/mm ²]	ν	α_T [1/°C]	ρ [kg/m ³]
1	S 235	Staal	Eurocode-NL	10025-2	Lineair	210000	210000	0,30	1,2E-5	7850

Naam: Materiaalnaam; Type: Type materiaal; Model: Materiaal model; E_x : Elasticiteitsmodulus in lokale x richting; E_y : Elasticiteitsmodulus in lokale y richting; ν : Poisson's verhouding; α_T : Warmteuitzettingscoëfficiënt; ρ : Dichtheid;

IMd

Raadgevende
Ingenieurs

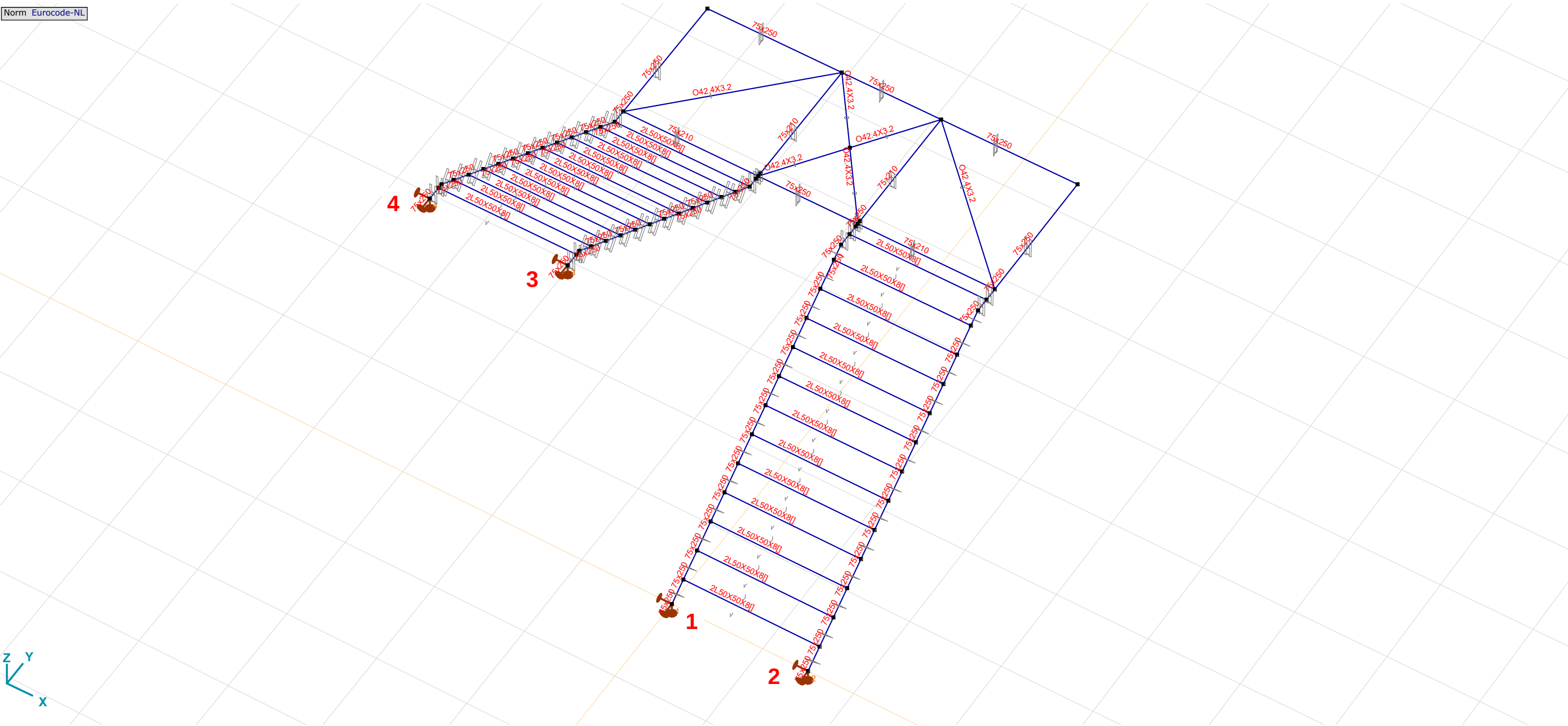
Datum: 4-3-2022
Gecontroleerd: lg
Geen opmerkingen
Gecontroleerd conform DNR
Niet op maatvoering gecontroleerd



Controle steekproefsgewijs



Norm Eurocode-NL



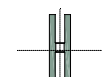
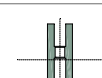
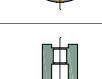
Profielen en ondersteuningen

P8861 - Stalen trap Stadswinkel Tilburg

Constructiebureau De Prouw B.V.
Model: **Stalen trap 5.axs**



Profielen

	<i>Naam</i>	<i>Tekening</i>	<i>Productie</i>	<i>Vorm</i>	<i>h</i> [mm]	<i>b</i> [mm]	<i>tw</i> [mm]	<i>tf</i> [mm]	<i>r₁</i> [mm]	<i>r₂</i> [mm]	<i>r₃</i> [mm]	<i>A_x</i> [mm ²]	<i>A_y</i> [mm ²]	<i>A_z</i> [mm ²]	<i>I_x</i> [mm ⁴]	<i>I_y</i> [mm ⁴]	<i>I_z</i> [mm ⁴]	<i>I_{yz}</i> [mm ⁴]	<i>W_{1,el,t}</i> [mm ³]	<i>W_{1,el,b}</i> [mm ³]	<i>W_{2,el,t}</i> [mm ³]	<i>W_{2,el,b}</i> [mm ³]
1	2 L 50X 50X 8 []		Gewalst	Gesloten dubbel-L profiel	50,0	50,0	8,0	8,0	7,0	3,5	0	1482,52	0	0	33294,1	325652,5	2,2E+07	0	159918,4	159918,4	9368,4	21369,5
																						
2	75x250		Ander	Eigen gedefinieerd	250,0	75,0	0	0	0	0	0	10734,00	867,12	8632,44	9417736,0	5,6E+07	7997676,0	0	438680,3	462607,2	213271,3	213271,3
3	75x210		Ander	Eigen gedefinieerd	210,0	75,0	0	0	0	0	0	9134,00	946,45	7302,48	9107756,0	3,4E+07	6734342,0	0	318301,9	336353,1	179582,5	179582,5
4	O 42.4 X 3.2		Gewalst	Buis	42,4	42,4	3,2	3,2	0	0	0	394,00	199,19	199,19	152243,8	76168,6	76168,6	0	3592,9	3592,9	3592,9	3592,9
5	75x150		Ander	Eigen gedefinieerd	150,0	75,0	0	0	0	0	0	6734,00	1047,75	5120,67	8746638,0	1,4E+07	4839342,0	0	183337,8	186578,9	129049,1	129049,1

	<i>Naam</i>	<i>i_y</i> [mm]	<i>i_z</i> [mm]	<i>S.p.</i>
1	2 L 50X 50X 8 []	14,8	120,7	7
2	75x250	72,4	27,3	9
3	75x210	61,3	27,2	9
4	O 42.4 X 3.2	13,9	13,9	9
5	75x150	45,4	26,8	9

Naam: Doorsnede naam; **Productie:** Productieproces; **Vorm:** Profiel; **h:** Doorsnede hoogte; **b:** Doorsnede breedte; **tw:** Lijfdikte; **tf:** Flensdikte; **r₁, r₂, r₃:** Afrondingswaarde; **Ax:** Doorsnede-oppervlak; **Ay, Az:** Afschuivingsoppervlak; **Ix:** Torsietraagheidsmoment; **Iy, Iz:** Buigtraagheidsmoment; **Iyz:** Centrifugaal traagheidsmoment; **W_{1,el,t}, W_{1,el,b}, W_{2,el,t}, W_{2,el,b}:** Elastisch weerstandsmoment; **i_y, i_z:** Traagheidsstraal; **S.p.:** Spanningspunten;

Knoopopleggingen

	<i>Knoop</i>	<i>X [m]</i>	<i>Y [m]</i>	<i>Z [m]</i>	<i>Type</i>	<i>K_x</i> [kN/m]	<i>K_y</i> [kN/m]	<i>K_z</i> [kN/m]	<i>K_{xx}</i> [kNm/rad]	<i>K_{yy}</i> [kNm/rad]	<i>K_{zz}</i> [kNm/rad]
1	1	0	0	0	Glob.	1E+6	1E+6	1E+6	–	–	–
2	4	1,500	0	0	Glob.	1E+6	1E+6	1E+6	–	–	–
3	10	–1,100	0	4,300	Glob.	1E+6	1E+6	1E+6	–	–	–
4	15	–2,600	0	4,300	Glob.	1E+6	1E+6	1E+6	–	–	–

Knoop: Ondersteunde knoop; **Type:** Opleggingstype; **K_x, K_y, K_z, K_{xx}, K_{yy}, K_{zz}:** Initiële stijfheid;

Belastinggroepen (Eurocode-NL)

	<i>Groep</i>	<i>Type</i>	<i>γ_{G,sup}</i>	<i>γ_{G,inf}</i>	<i>ξ</i>	<i>γ</i>	<i>Ψ₀</i>	<i>Ψ₁</i>	<i>Ψ₂</i>	<i>Additive</i>
1	PERM1	Permanent	1,350	0,900	0,889					✓
2	VER1	Veranderlijk				1,500	0,600	0,700	0,600	–
3	VER2	Veranderlijk				1,500	1,000	1,000	1,000	–

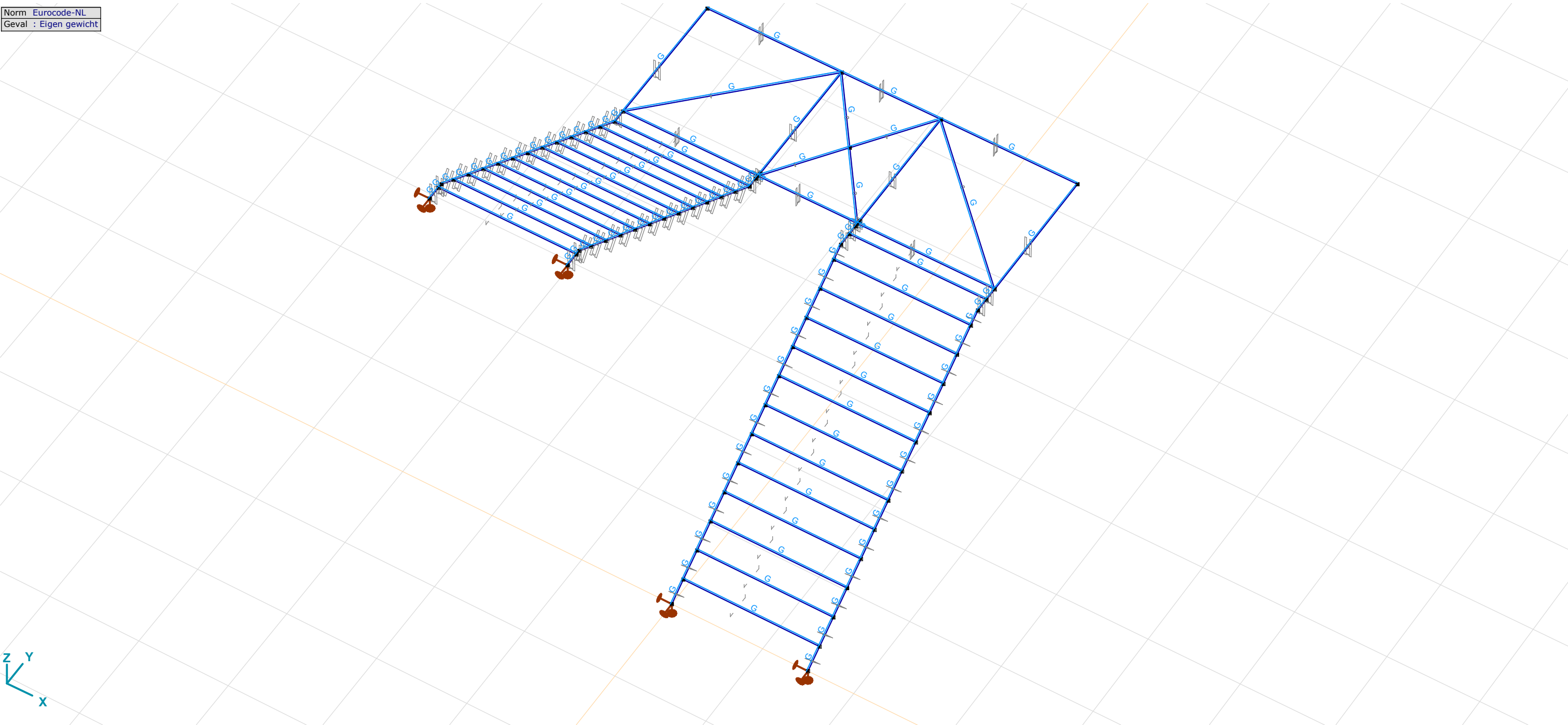
Groep: Belastinggroep; **Ψ₀, Ψ₁, Ψ₂:** Psi factor; **Additive:** Gelijktijdige belastinggevallen;

P8861 - Stalen trap Stadswinkel Tilburg

Constructiebureau De Prouw B.V.
Model: Stalen trap 5.axs



Norm Eurocode-NL
Geval : Eigen gewicht



Eigen gewicht

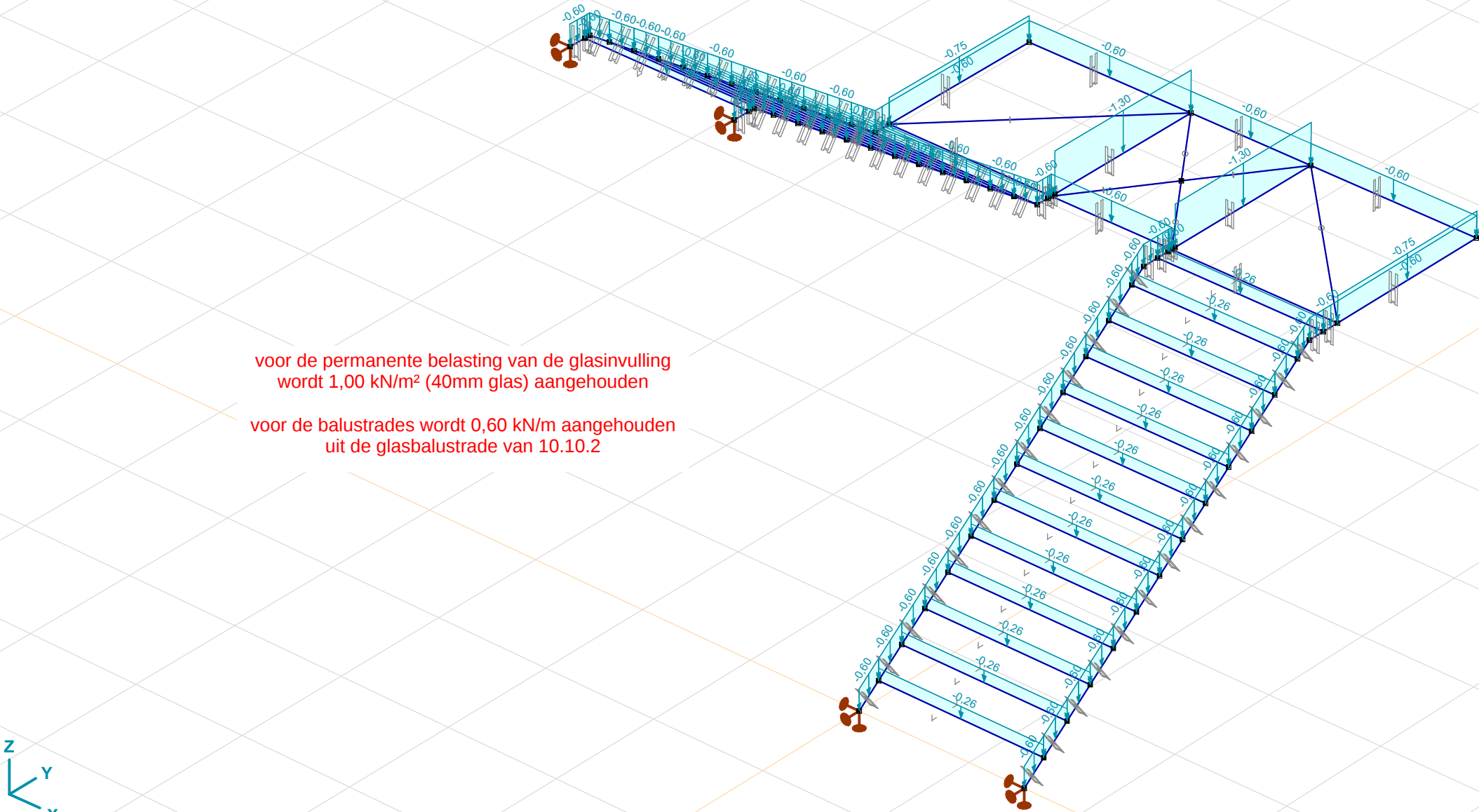
Eigen gewicht: Staaf eigen gewicht

	Σ [kg]
1–106	2942,624
Totaal	2942,624

Σ: Totale massa;



Norm Eurocode-NL
Geval : Permanente belastingen



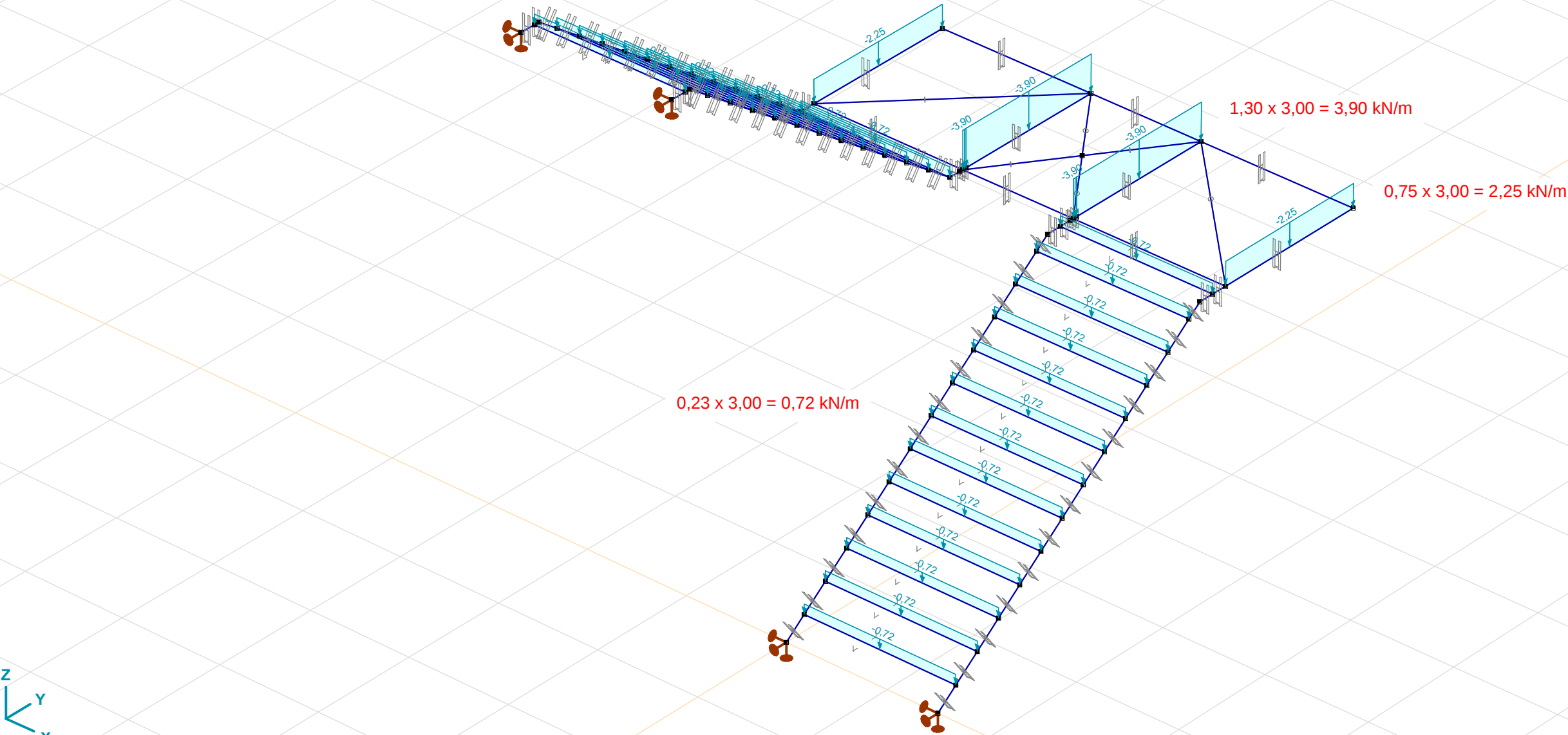
voor de permanente belasting van de glasinfilling
wordt 1,00 kN/m² (40mm glas) aangehouden

voor de balustrades wordt 0,60 kN/m aangehouden
uit de glasbalustrade van 10.10.2

Permanente belastingen



Norm Eurocode-NL
Geval : Veranderlijke vlakbelasting

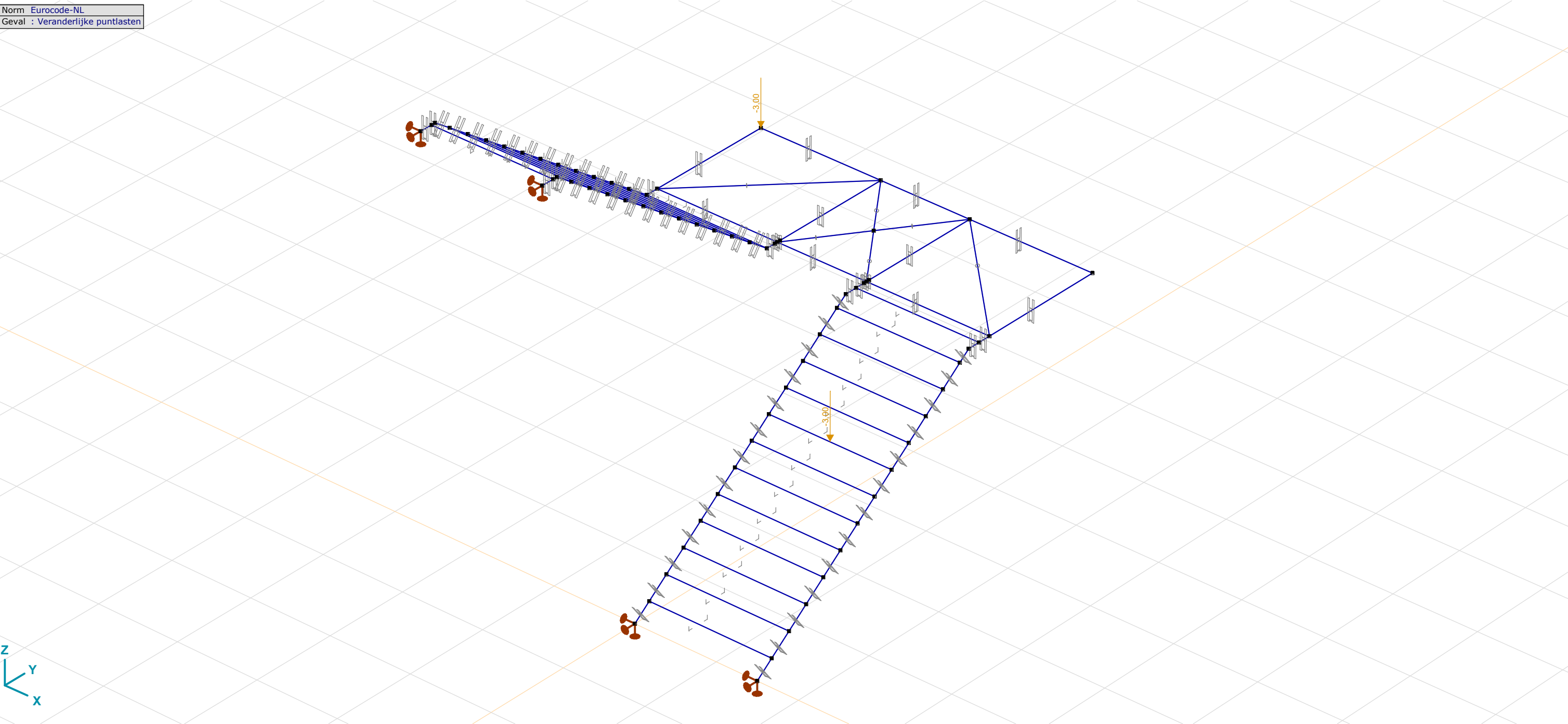


Veranderlijke vlakbelasting - 3,00 kN/m²





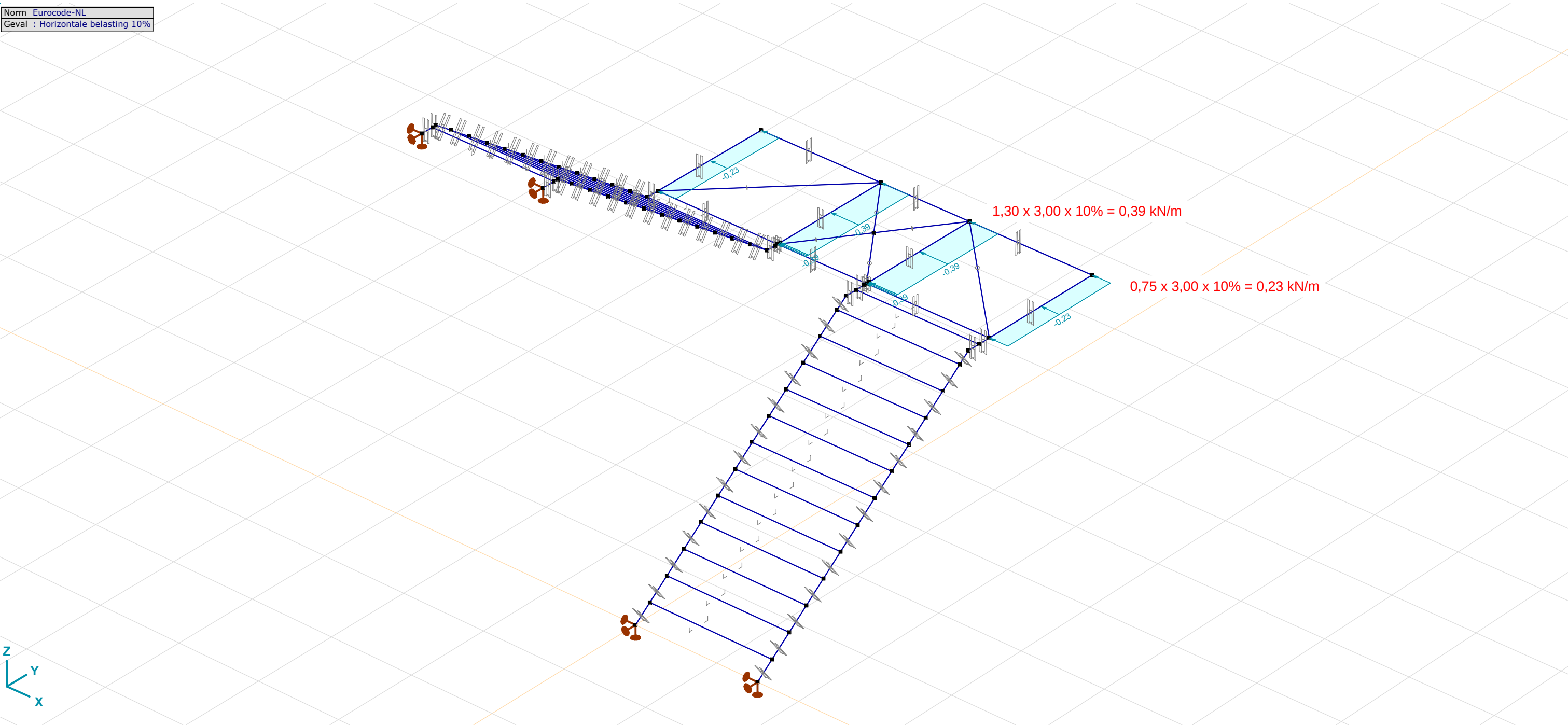
Norm Eurocode-NL
Geval : Veranderlijke puntlasten



Veranderlijke puntlasten - 2x 3,00 kN.



Norm Eurocode-NL
Geval : Horizontale belasting 10%



10% van 3,00 kN/m² op het tussenbordes

P8861 - Stalen trap Stadswinkel Tilburg

Constructiebureau De Prouw B.V.
Model: Stalen trap 5.axs



Gebruiker gedefinieerde belastingcombinaties uit belastinggevallen

	Naam	Type	Eigen gewicht (PERM1)	Permanente belastingen (PERM1)	Veranderlijke vlakbelasting (VER1)	Veranderlijke puntlasten (VER1)	Horizontale belasting 10% (VER2)	Commentaar
1	Co #1	UGT (a, b)	1,35	1,35	0	0	0	
2	Co #2	UGT (a, b)	1,35	1,35	0,90	0	0	
3	Co #3	UGT (a, b)	1,35	1,35	0,90	0	1,50	
4	Co #4	UGT (a, b)	1,35	1,35	0	0,90	0	
5	Co #5	UGT (a, b)	1,35	1,35	0	0,90	1,50	
6	Co #6	UGT (a, b)	1,35	1,35	0	0	1,50	
7	Co #7	UGT (a, b)	1,20	1,20	0	0	0	
8	Co #8	UGT (a, b)	1,20	1,20	1,50	0	0	
9	Co #9	UGT (a, b)	1,20	1,20	1,50	0	1,50	
10	Co #10	UGT (a, b)	1,20	1,20	0	1,50	0	
11	Co #11	UGT (a, b)	1,20	1,20	0	1,50	1,50	
12	Co #12	UGT (a, b)	1,20	1,20	0	0	1,50	
13	Co #13	UGT (a, b)	1,20	1,20	0,90	0	1,50	
14	Co #14	UGT (a, b)	1,20	1,20	0	0,90	1,50	
15	Co #15	BGT Karakteristiek	1,00	1,00	0	0	0	
16	Co #16	BGT Karakteristiek	1,00	1,00	1,00	0	0	
17	Co #17	BGT Karakteristiek	1,00	1,00	1,00	0	1,00	
18	Co #18	BGT Karakteristiek	1,00	1,00	0	1,00	0	
19	Co #19	BGT Karakteristiek	1,00	1,00	0	1,00	1,00	
20	Co #20	BGT Karakteristiek	1,00	1,00	0	0	1,00	
21	Co #21	BGT Karakteristiek	1,00	1,00	0,60	0	1,00	
22	Co #22	BGT Karakteristiek	1,00	1,00	0	0,60	1,00	

gesomeerde permanente belasting

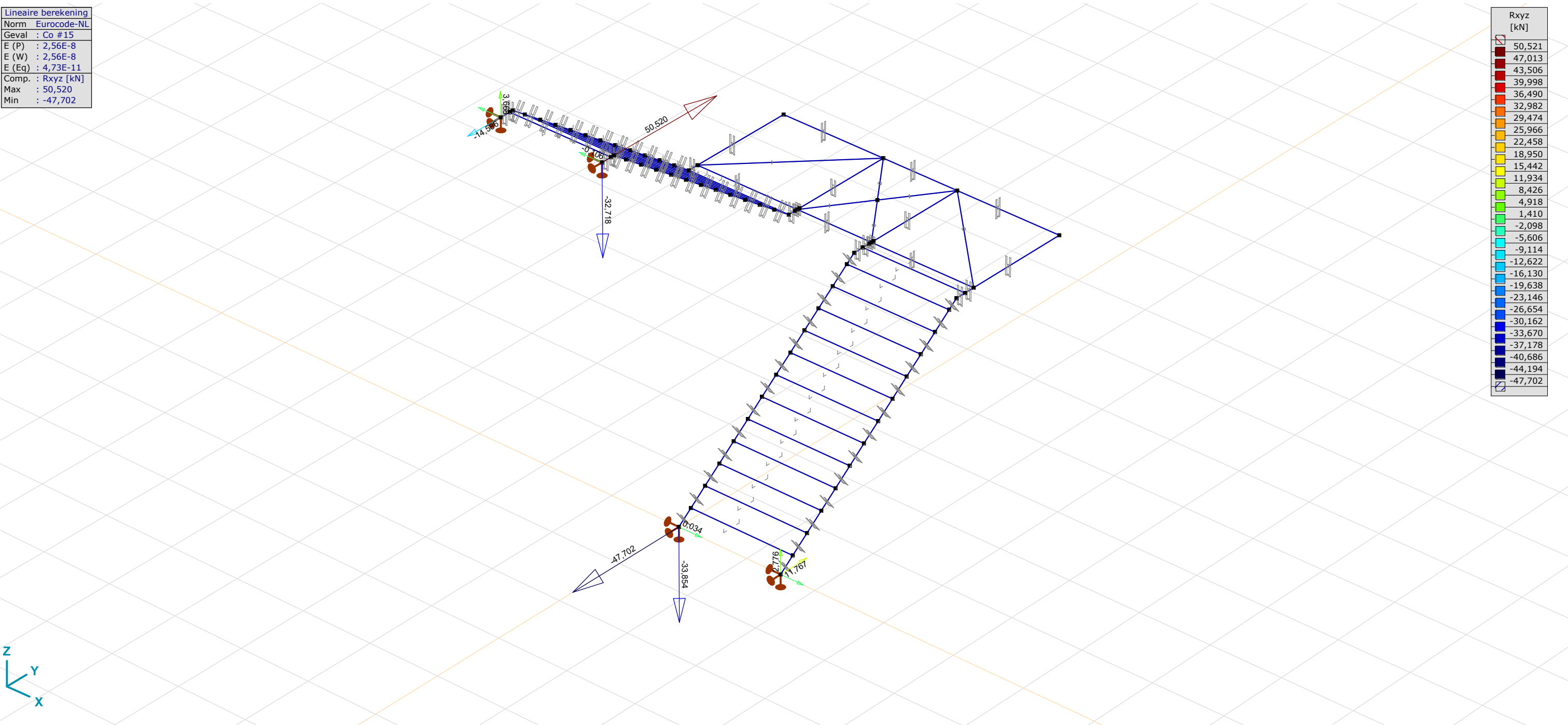
Naam: Naam belastingcombinatie; Type: Type belastingcombinatie; Eigen gewicht (PERM1), Permanente belastingen (PERM1), Veranderlijke vlakbelasting (VER1), Veranderlijke puntlasten (VER1), Horizontale belasting 10% (VER2): Factor;

P8861 - Stalen trap Stadswinkel Tilburg

Constructiebureau De Prouw B.V.
Model: Stalen trap 5.axs



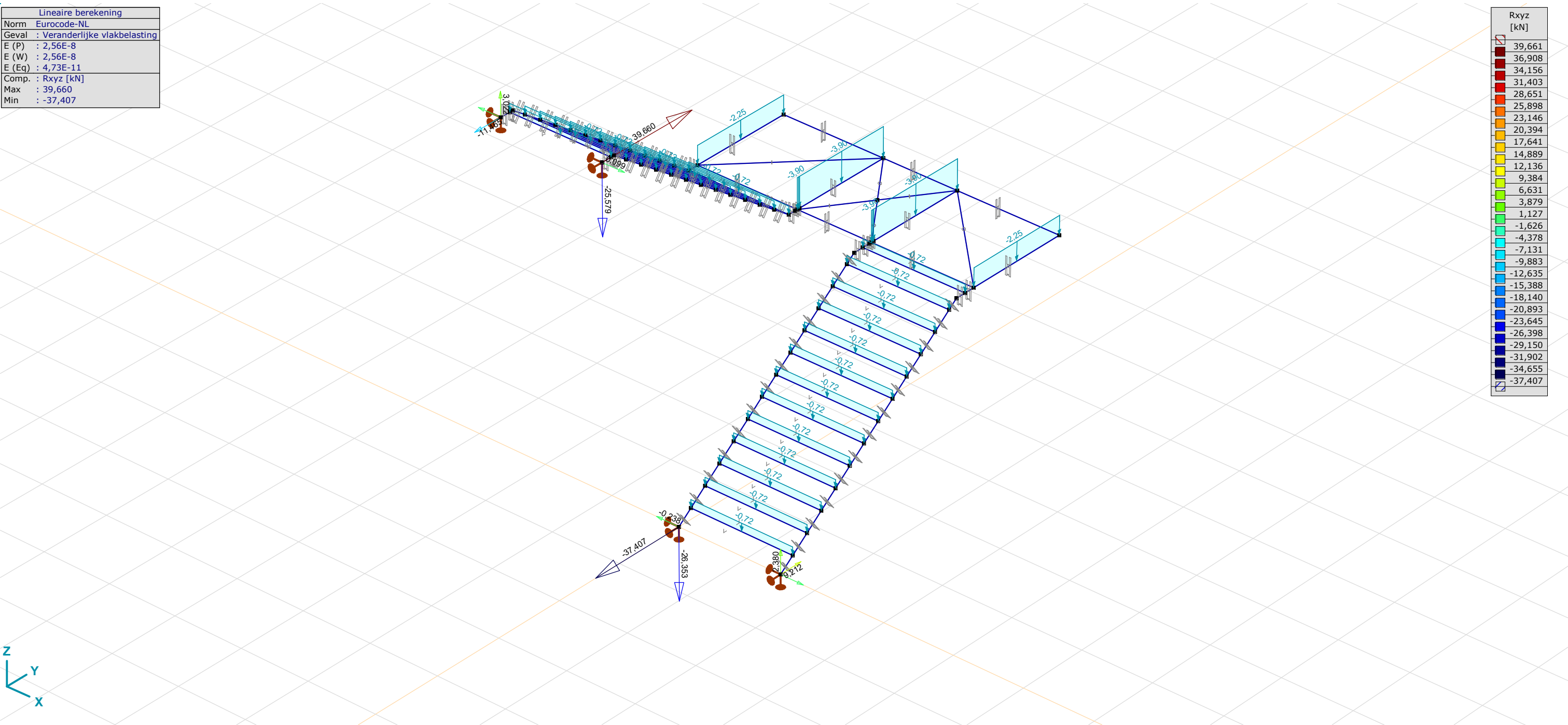
Lineaire berekening	
Norm	Eurocode-NL
Geval	: Co #15
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp.	: Rxyz [kN]
Max	: 50,520
Min	: -47,702



[I], Lineair, Co #15 (BGT Karakteristiek), Rxyz (knoopopl.), Lijnen

Interne krachten knoopoplegging [Lineair, Co #15 (BGT Karakteristiek)]										
	Knoop	X [m]	Y [m]	Z [m]	Type	Rx [kN]	Ry [kN]	Rz [kN]	Rr [kN]	αR
1	1	0	0	0	Glob.	0,034	-47,702	-33,854	58,494	-1,409
2	4	1,500	0	0	Glob.	0,494	11,767	2,776	12,100	4,242
3	10	-1,100	0	4,300	Glob.	-0,106	50,520	-32,718	60,190	-1,544
4	15	-2,600	0	4,300	Glob.	-0,422	-14,586	3,668	15,046	3,978

Lineaire berekening	
Norm	Eurocode-NL
Geval	: Veranderlijke vlakbelasting
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp. : Rxyz [kN]	
Max	: 39,660
Min	: -37,407



[1], Lineair, Veranderlijke vlakbelasting, Rxyz (knoopopl.), Lijnen

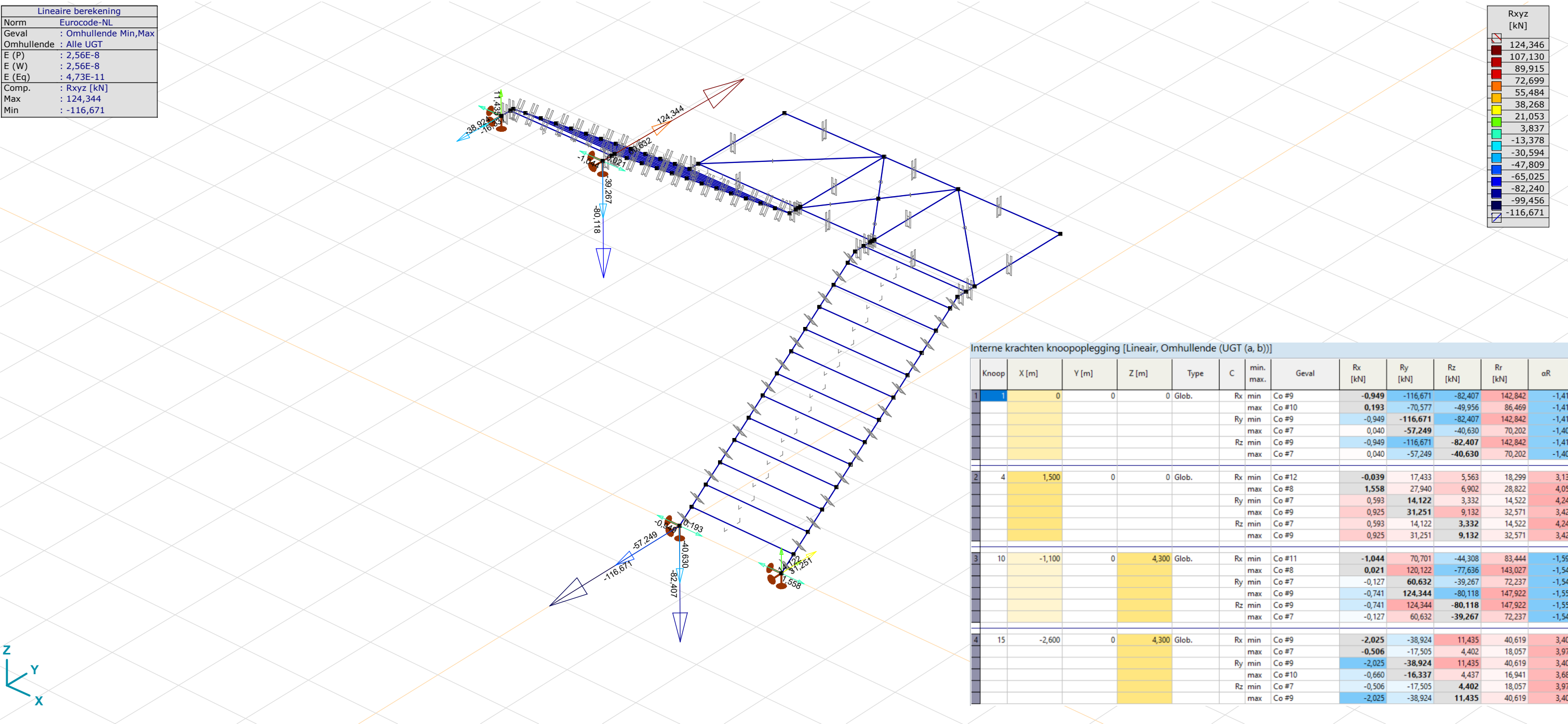
Interne krachten knooppoplegging [Lineair, Veranderlijke vlakbelasting]										
	Knoop	X [m]	Y [m]	Z [m]	Type	Rx [kN]	Ry [kN]	Rz [kN]	Rr [kN]	αR
1	1	0	0	0	Glob.	-0,238	-37,407	-26,353	45,758	-1,420
2	4	1,500	0	0	Glob.	0,643	9,212	2,380	9,536	3,880
3	10	-1,100	0	4,300	Glob.	0,099	39,660	-25,579	47,193	-1,550
4	15	-2,600	0	4,300	Glob.	-0,504	-11,465	3,022	11,867	3,797

P8861 - Stalen trap Stadswinkel Tilburg

Constructiebureau De Prouw B.V.
Model: Stalen trap 5.axs



Lineaire berekening	
Norm	Eurocode-NL
Geval	: Omhullende Min,Max
Omhullende	: Alle UGT
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp.	: Rxyz [kN]
Max	: 124,344
Min	: -116,671

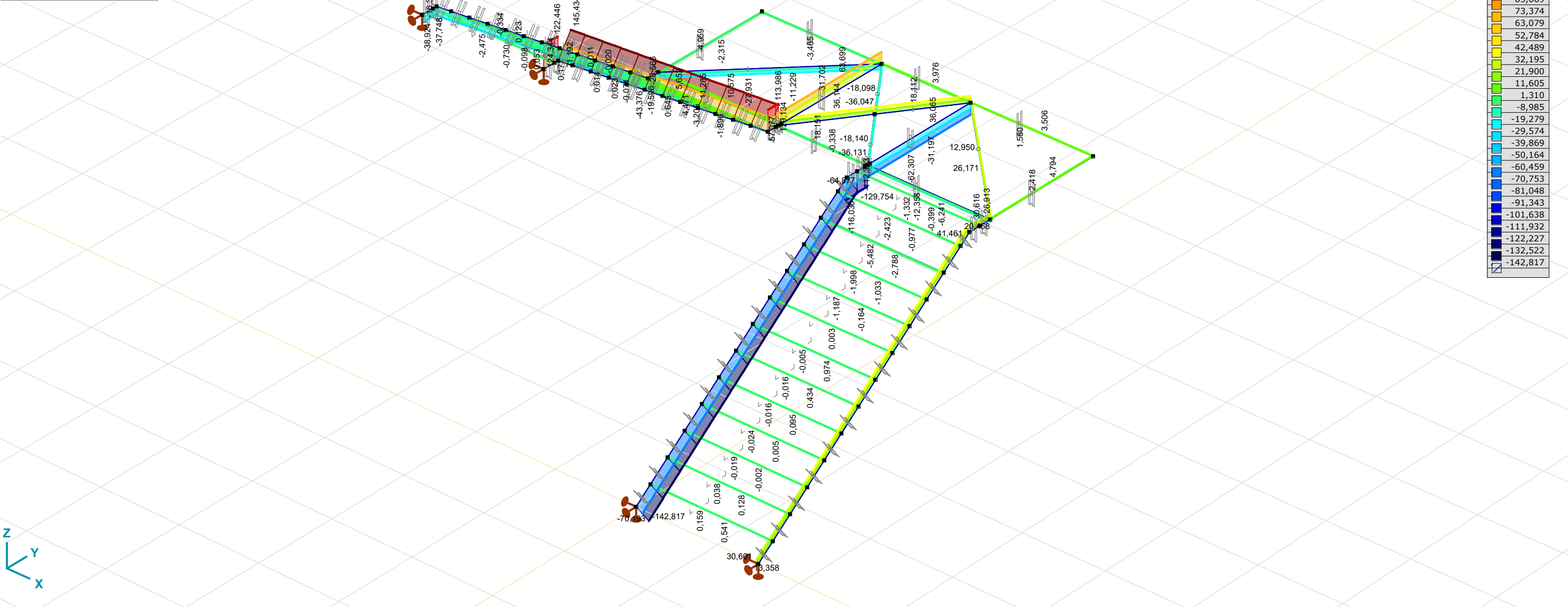


Interne krachten knoopplegging [Lineair, Omhullende (UGT (a, b))]														
Knoop	X [m]	Y [m]	Z [m]	Type	C	min.	max.	Geval	Rx [kN]	Ry [kN]	Rz [kN]	Rr [kN]	αR	
1	1	0	0	Glob.		Rx	min	Co #9	-0,949	-116,671	-82,407	142,842	-1,416	
							max	Co #10	0,193	-70,577	-49,956	86,469	-1,413	
						Ry	min	Co #9	-0,949	-116,671	-82,407	142,842	-1,416	
							max	Co #7	0,040	-57,249	-40,630	70,202	-1,409	
						Rz	min	Co #9	-0,949	-116,671	-82,407	142,842	-1,416	
							max	Co #7	0,040	-57,249	-40,630	70,202	-1,409	
2	4	1,500	0	Glob.		Rx	min	Co #12	-0,039	17,433	5,563	18,299	3,134	
							max	Co #8	1,558	27,940	6,902	28,822	4,055	
						Ry	min	Co #7	0,593	14,122	3,332	14,522	4,242	
							max	Co #9	0,925	31,251	9,132	32,571	3,424	
						Rz	min	Co #7	0,593	14,122	3,332	14,522	4,242	
							max	Co #9	0,925	31,251	9,132	32,571	3,424	
3	10	-1,100	0	Glob.		Rx	min	Co #11	-1,044	70,701	-44,308	83,444	-1,596	
							max	Co #8	0,021	120,122	-77,636	143,027	-1,547	
						Ry	min	Co #7	-0,127	60,632	-39,267	72,237	-1,544	
							max	Co #9	-0,741	124,344	-80,118	147,922	-1,552	
						Rz	min	Co #9	-0,741	124,344	-80,118	147,922	-1,552	
							max	Co #7	-0,127	60,632	-39,267	72,237	-1,544	
4	15	-2,600	0	Glob.		Rx	min	Co #9	-2,025	-38,924	11,435	40,619	3,409	
							max	Co #7	-0,506	-17,505	4,402	18,057	3,978	
						Ry	min	Co #9	-2,025	-38,924	11,435	40,619	3,409	
							max	Co #10	-0,660	-16,337	4,437	16,941	3,685	
						Rz	min	Co #7	-0,506	-17,505	4,402	18,057	3,978	
							max	Co #9	-2,025	-38,924	11,435	40,619	3,409	

[I], Lineair, Omhullende (Alle UGT), Rxyz (knooppopl.), Lijnen



Lineaire berekening	
Norm	Eurocode-NL
Geval	: Omhullende Min,Max
Omhullende	: Alle UGT
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp.	: Nx [kN]
Max	: 145,434
Min	: -142,817

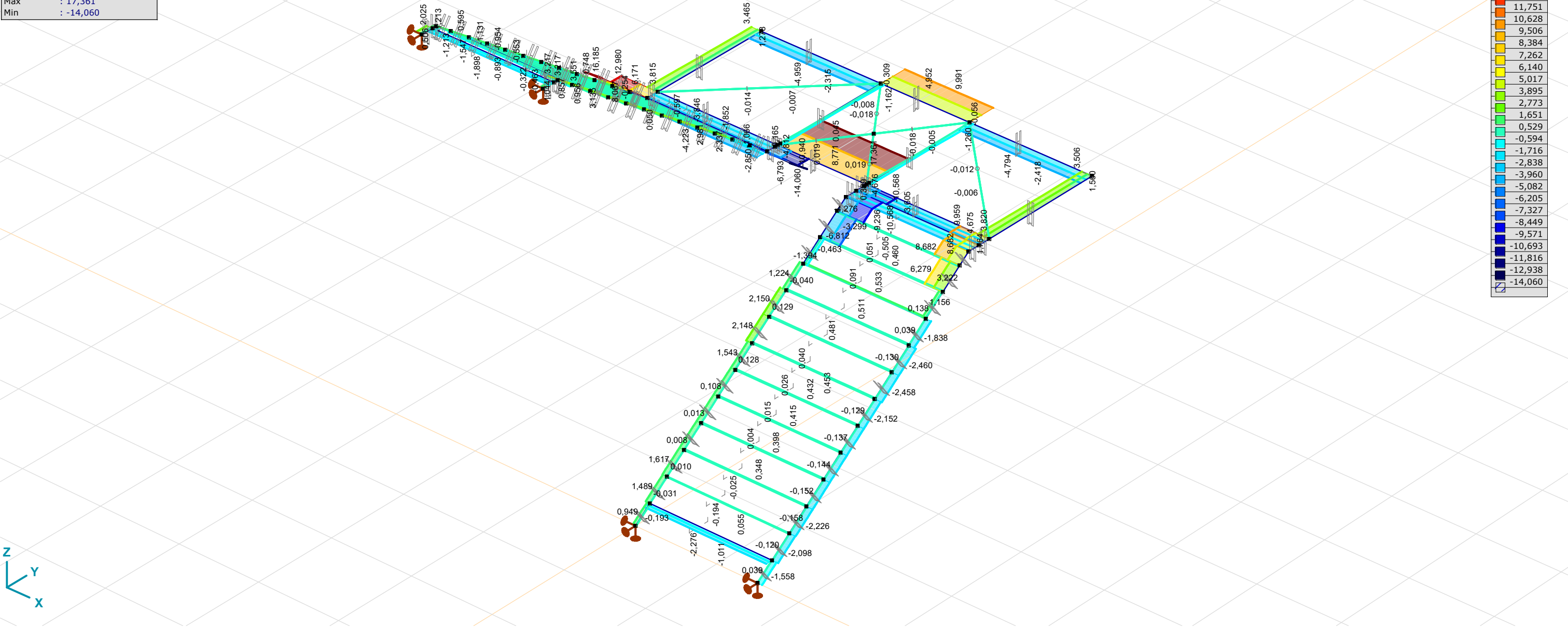


Nx [kN]
145,437
135,142
124,848
114,553
104,258
93,963
83,669
73,374
63,079
52,784
42,489
32,195
21,900
11,605
1,310
-8,985
-19,279
-29,574
-39,869
-50,164
-60,459
-70,753
-81,048
-91,343
-101,638
-111,932
-122,227
-132,522
-142,817

[I], Lineair, Omhullende (Alle UGT), Nx, Lijnen (gevuld)



Lineaire berekening	
Norm	Eurocode-NL
Geval	: Omhullende Min,Max
Omhullende	: Alle UGT
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp.	: Vy [kN]
Max	: 17,361
Min	: -14,060

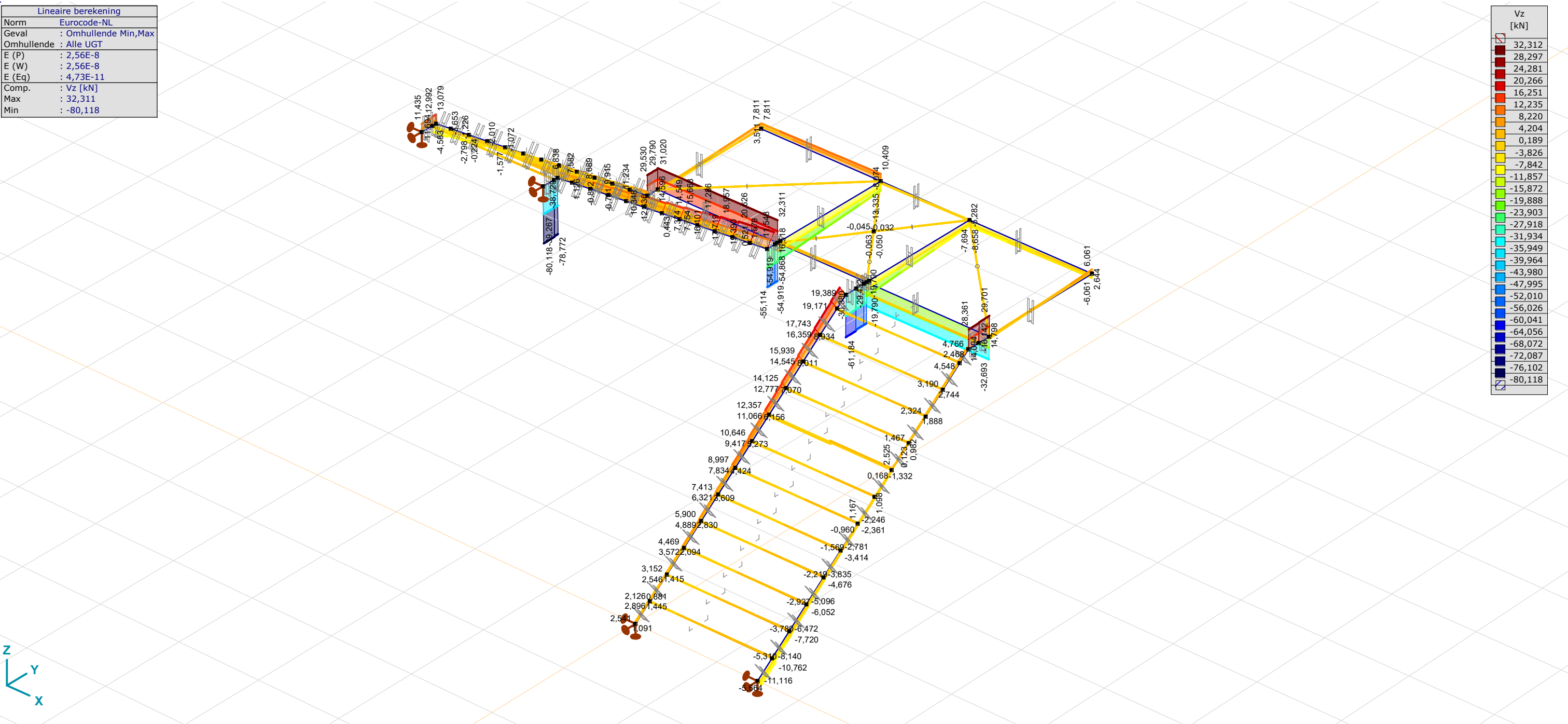


Vy [kN]
17,362
16,239
15,117
13,995
12,873
11,751
10,628
9,506
8,384
7,262
6,140
5,017
3,895
2,773
1,651
0,529
-0,594
-1,716
-3,960
-5,082
-6,205
-7,327
-8,449
-9,571
-10,693
-11,816
-12,938
-14,060

[I], Lineair, Omhullende (Alle UGT), Vy, Lijnen (gevuld)



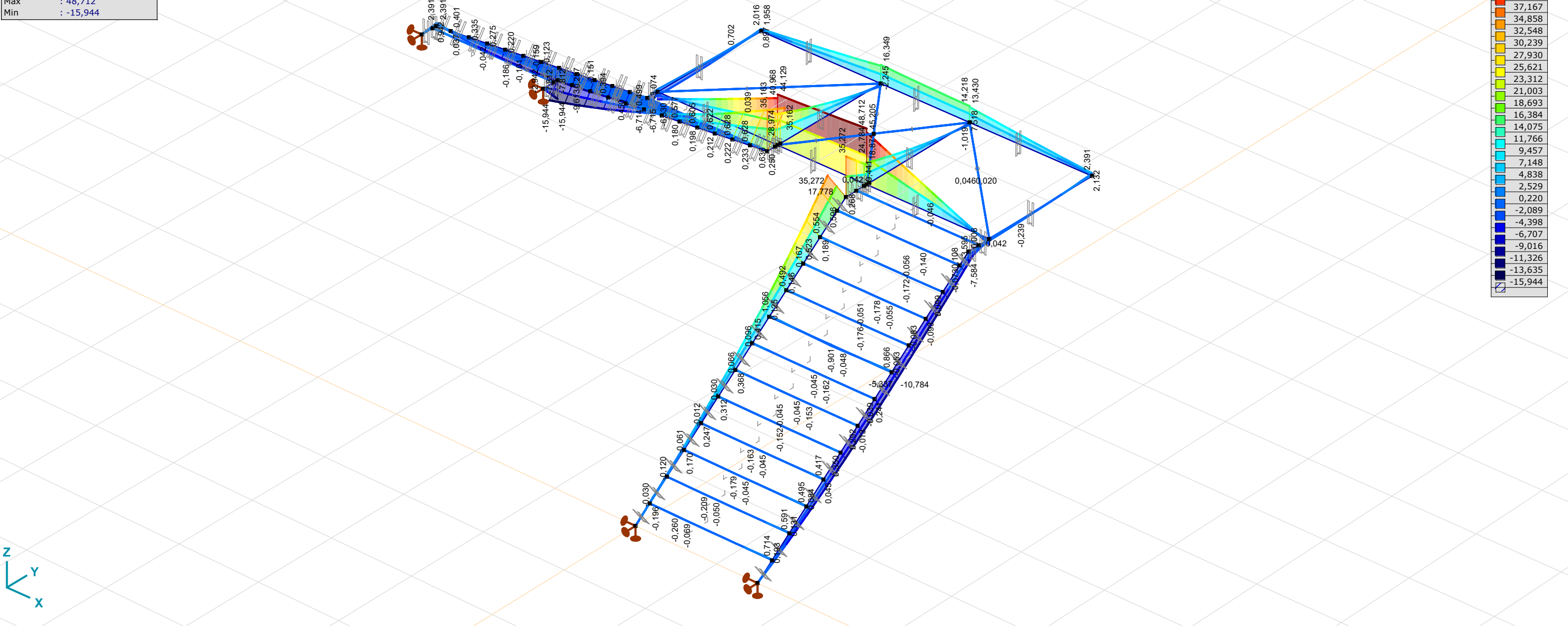
Lineaire berekening	
Norm	Eurocode-NL
Geval	: Omhullende Min,Max
Omhullende	: Alle UGT
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp.	: Vz [kN]
Max	: 32,311
Min	: -80,118



[I], Lineair, Omhullende (Alle UGT), Vz, Lijnen (gevuld)



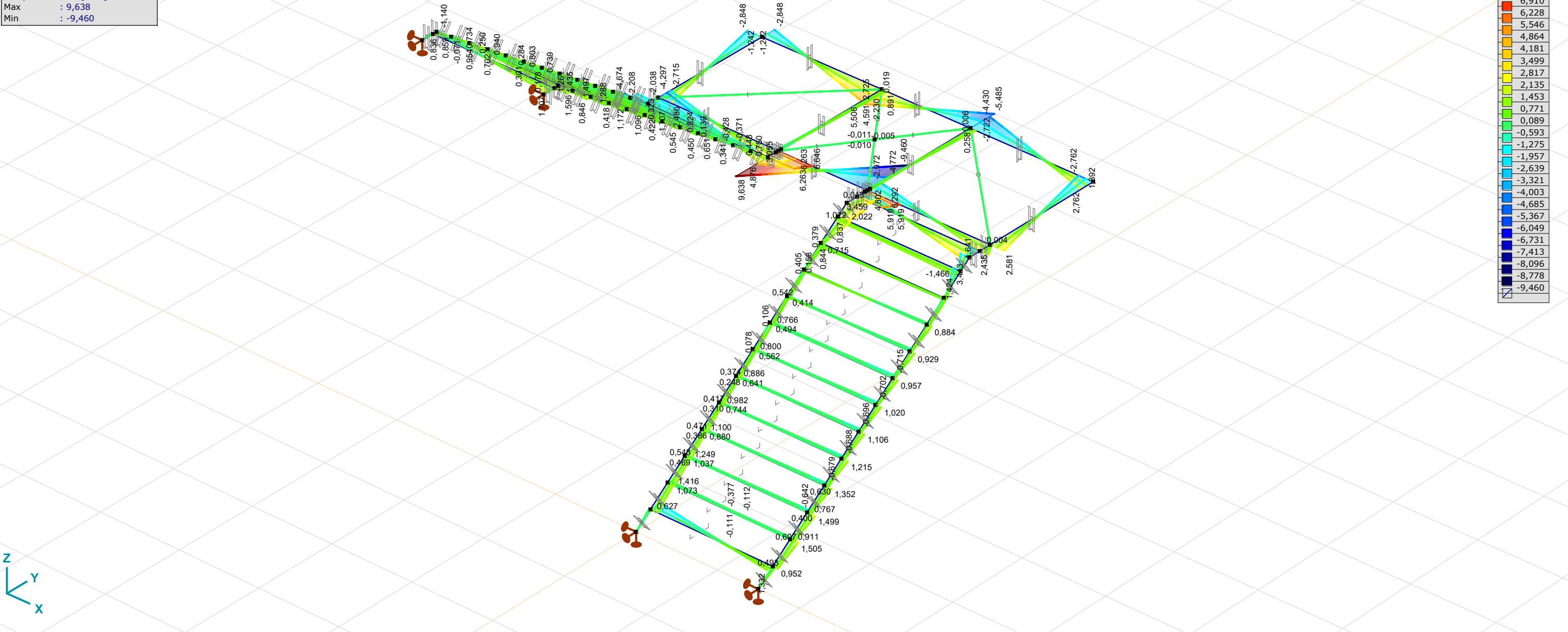
Lineaire berekening	
Norm	Eurocode-NL
Geval	: Omhullende Min,Max
Omhullende	: Alle UGT
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp.	: My [kNm]
Max	: 48,712
Min	: -15,944



[I], Lineair, Omhullende (Alle UGT), My, Lijnen (gevuld)



Lineaire berekening	
Norm	Eurocode-NL
Geval	: Omhullende Min,Max
Omhullende	: Alle UGT
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp.	: Mz [kNm]
Max	: 9,638
Min	: -9,460



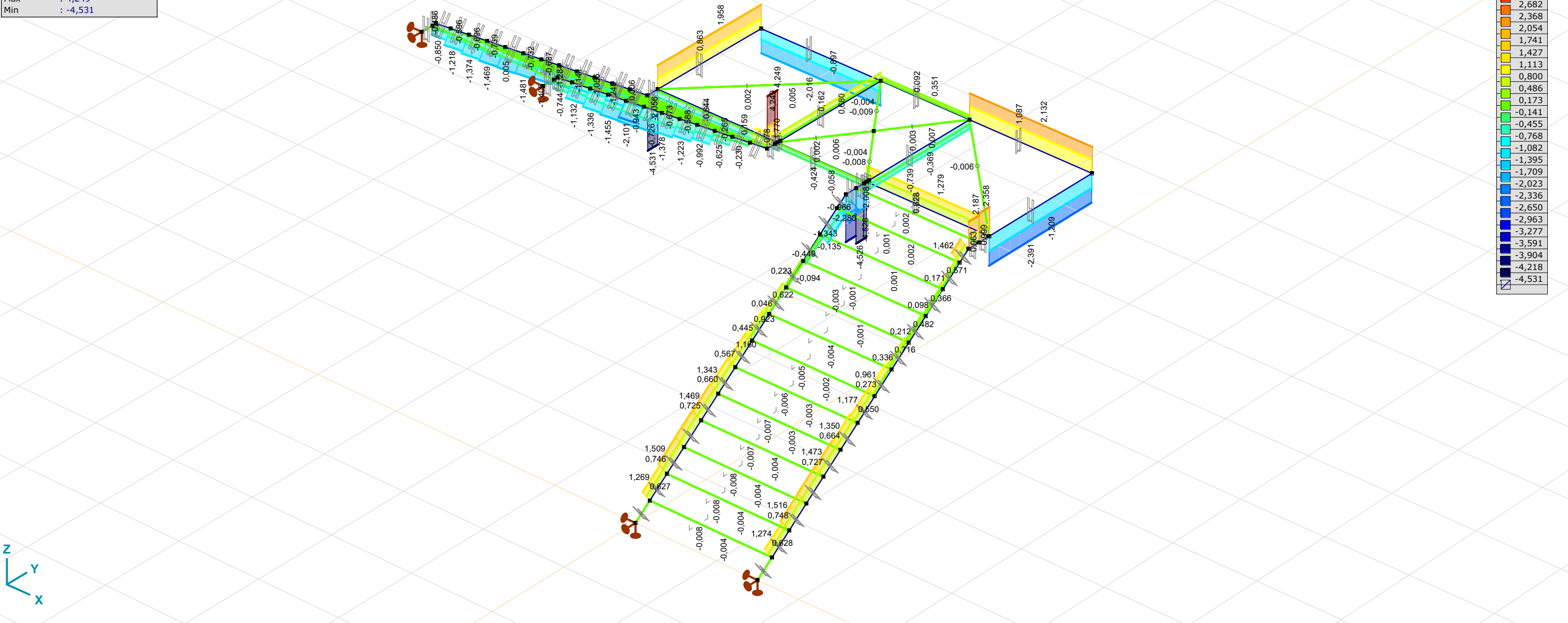
Mz
[kNm]
9,638
8,956
8,274
7,592
6,910
6,228
5,546
4,864
4,181
3,499
2,817
2,135
1,453
0,771
0,089
-0,593
-1,275
-1,957
-2,639
-3,321
-4,003
-4,685
-5,367
-6,049
-6,731
-7,413
-8,096
-8,778
-9,460



[I], Lineair, Omhullende (Alle UGT), Mz, Lijnen (gevuld)



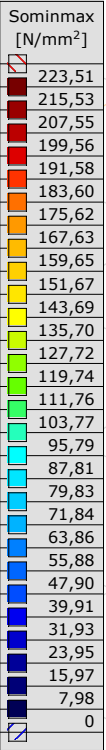
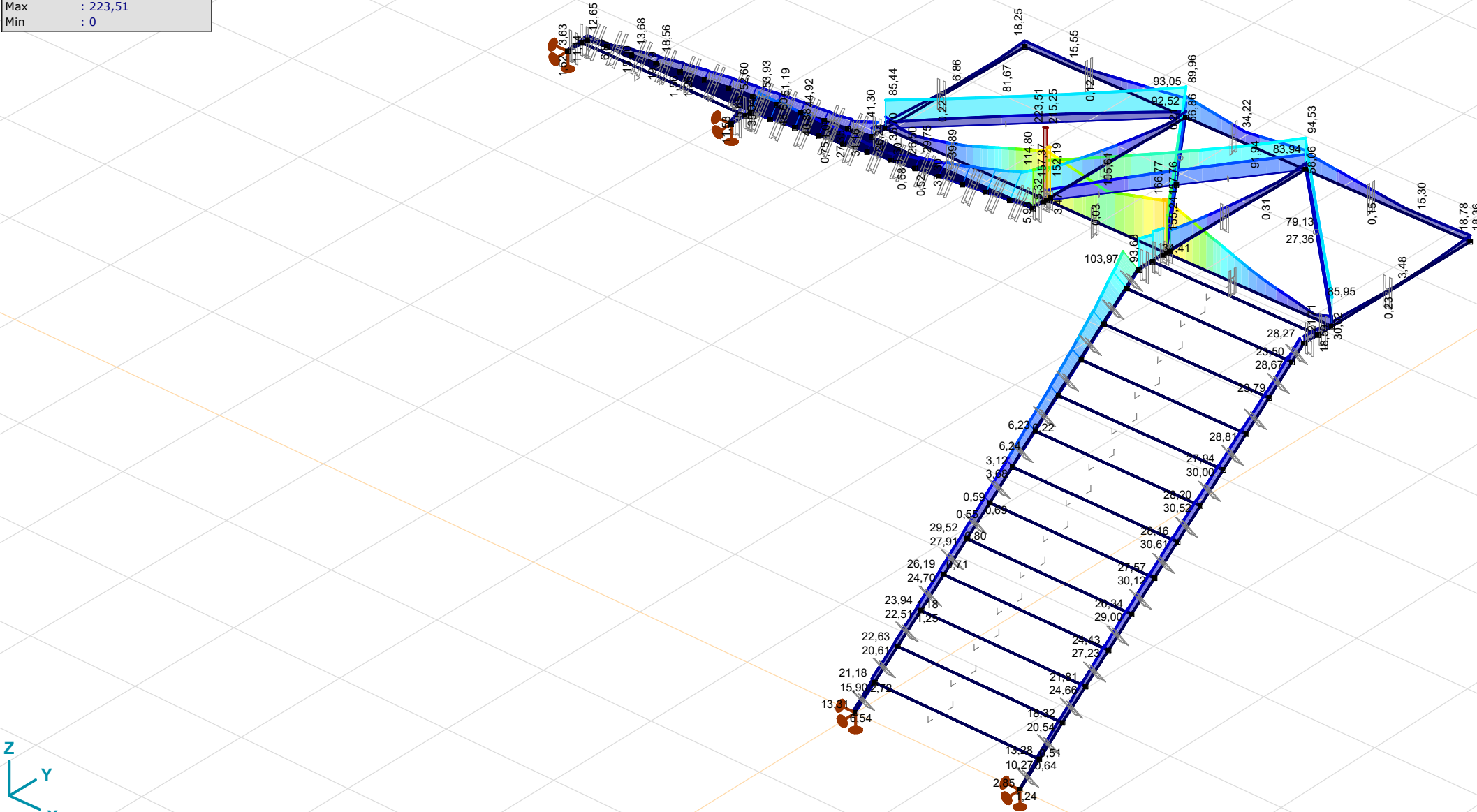
Lineaire berekening	
Norm	Eurocode-NL
Geval	: Omhullende Min,Max
Omhullende	: Alle UGT
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp.	: Tx [kNm]
Max	: 4,249
Min	: -4,531



[I], Lineair, Omhullende (Alle UGT), Tx, Lijnen (gevuld)

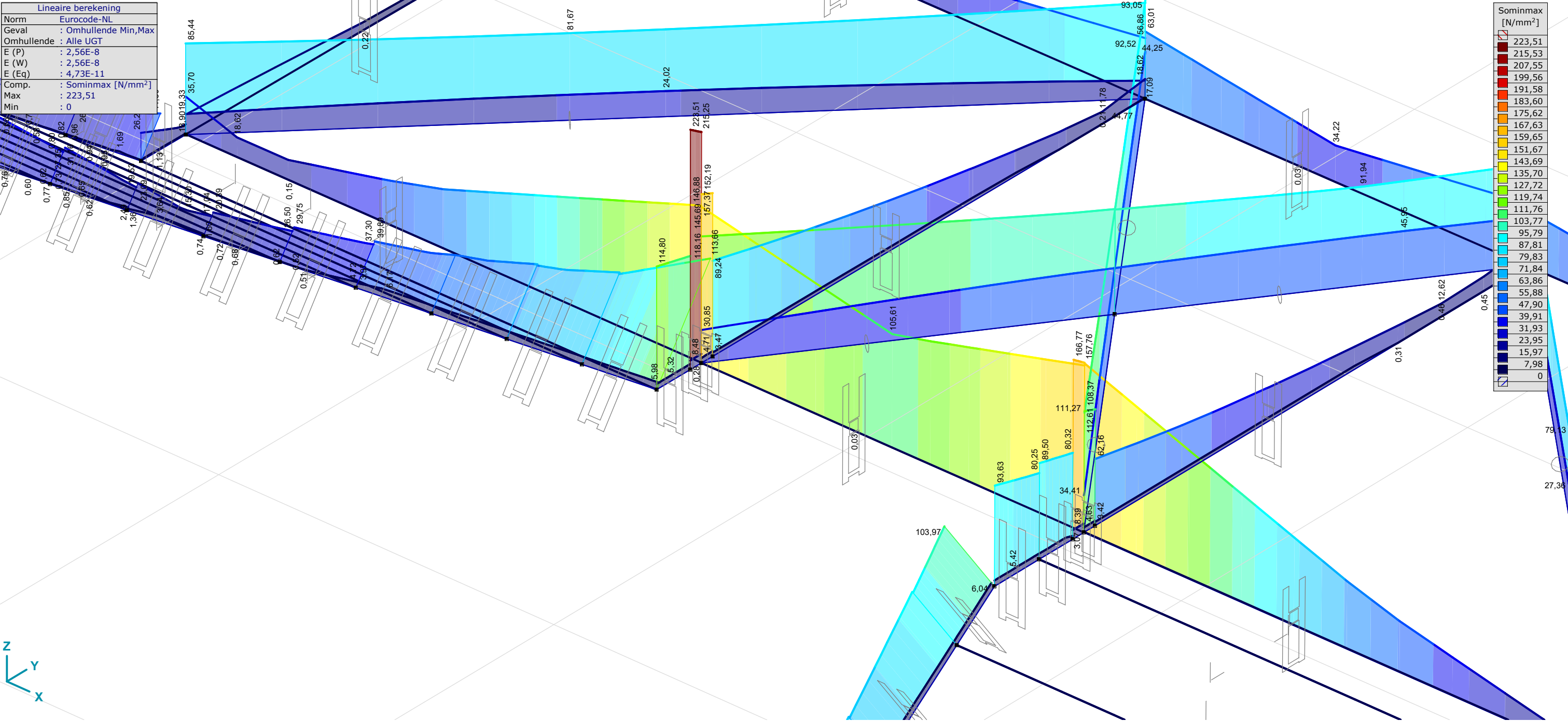


Lineaire berekening	
Norm	Eurocode-NL
Geval	: Omhullende Min,Max
Omhullende	: Alle UGT
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp.	: Sominmax [N/mm²]
Max	: 223,51
Min	: 0



[I], Lineair, Omhullende (Alle UGT), Sominmax, Lijnen (gevuld)

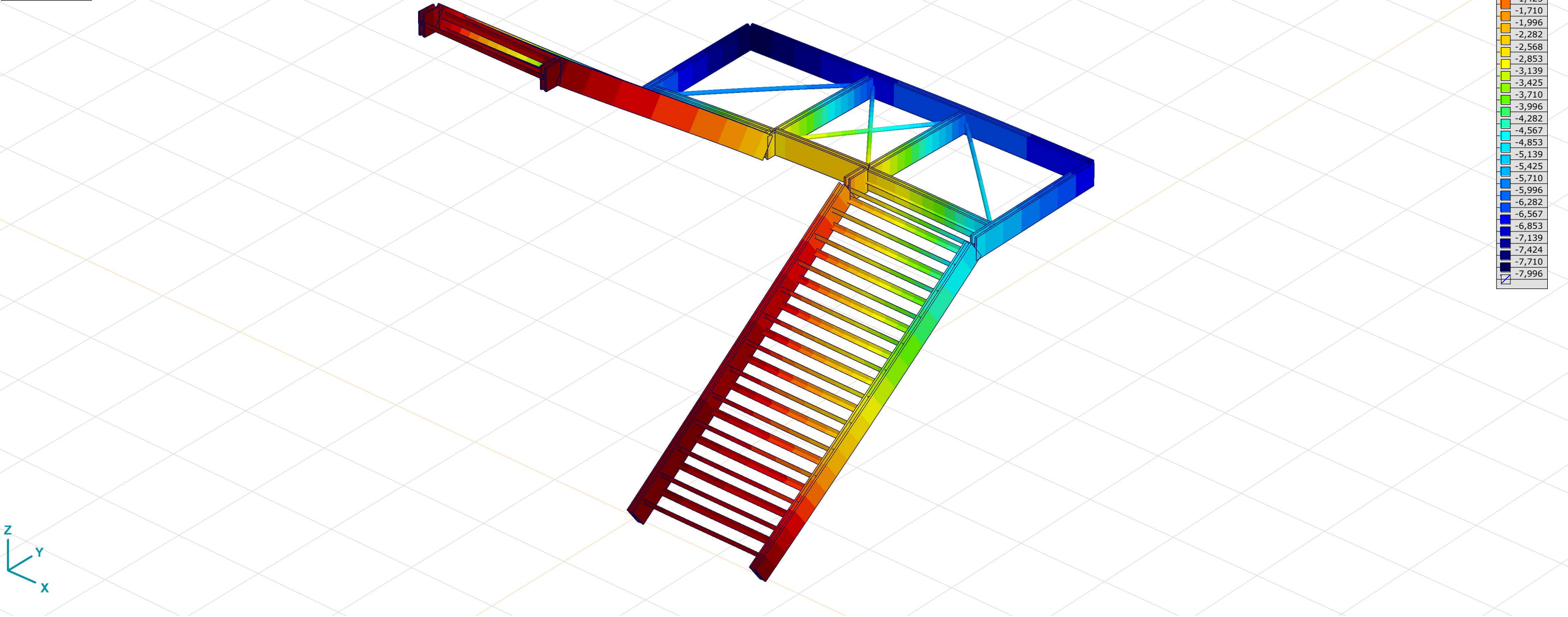
Von Mises staafspanningen



[I], Lineair, Omhullende (Alle UGT), Sominmax, Lijnen (gevuld) - detail



Lineaire berekening	
Norm	Eurocode-NL
Geval	: Co #15
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp.	: eZ [mm]
Max	: 0,004
Min	: -7,996

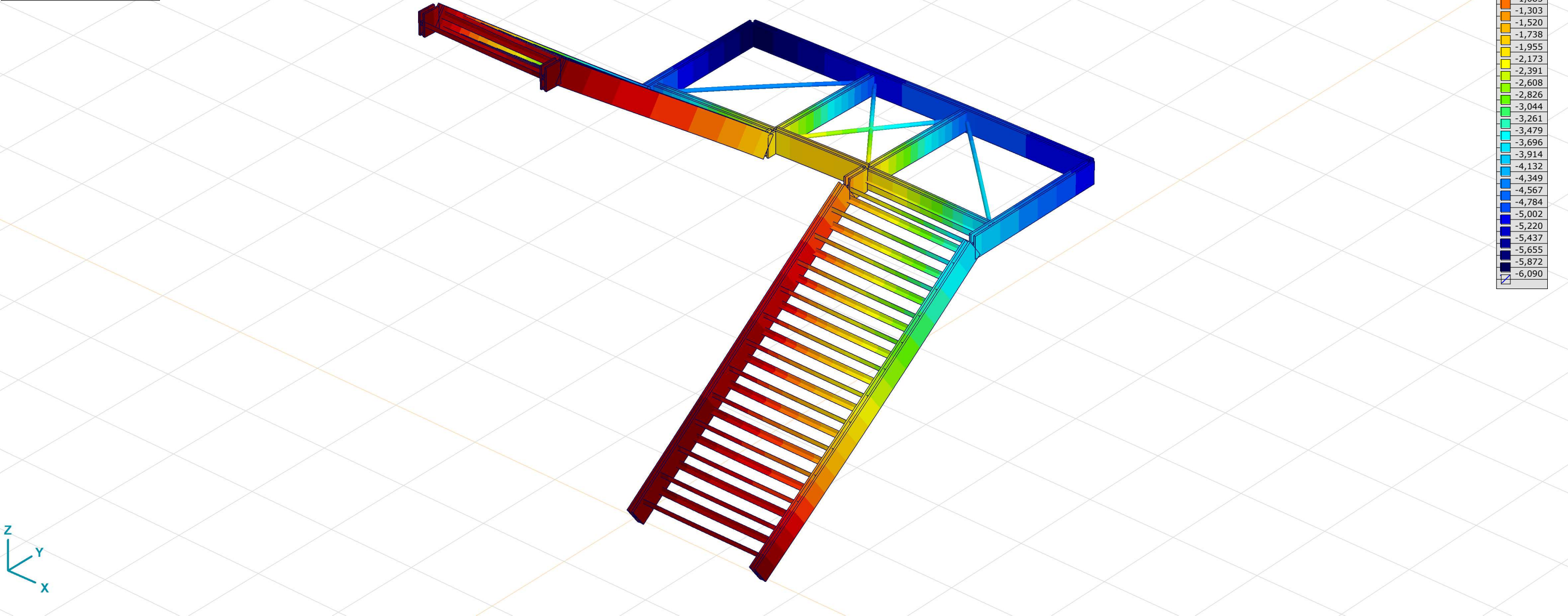


eZ	[mm]
0,004	
-0,282	
-0,568	
-0,853	
-1,139	
-1,425	
-1,710	
-1,996	
-2,282	
-2,568	
-2,853	
-3,139	
-3,425	
-3,710	
-3,996	
-4,282	
-4,567	
-4,853	
-5,139	
-5,425	
-5,710	
-5,996	
-6,282	
-6,567	
-6,853	
-7,139	
-7,424	
-7,710	
-7,996	

[I], Lineair, Co #15 (BGT Karakteristiek), eZ, Gekleurd model



Lineaire berekening	
Norm	Eurocode-NL
Geval	: Veranderlijke vlakbelasting
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp. : eZ [mm]	
Max	: 0,003
Min	: -6,090



eZ [mm]
0,003
-0,215
-0,432
-0,650
-0,867
-1,085
-1,303
-1,520
-1,738
-1,955
-2,173
-2,391
-2,608
-2,826
-3,044
-3,261
-3,479
-3,696
-3,914
-4,132
-4,349
-4,567
-4,784
-5,002
-5,220
-5,437
-5,655
-5,872
-6,090

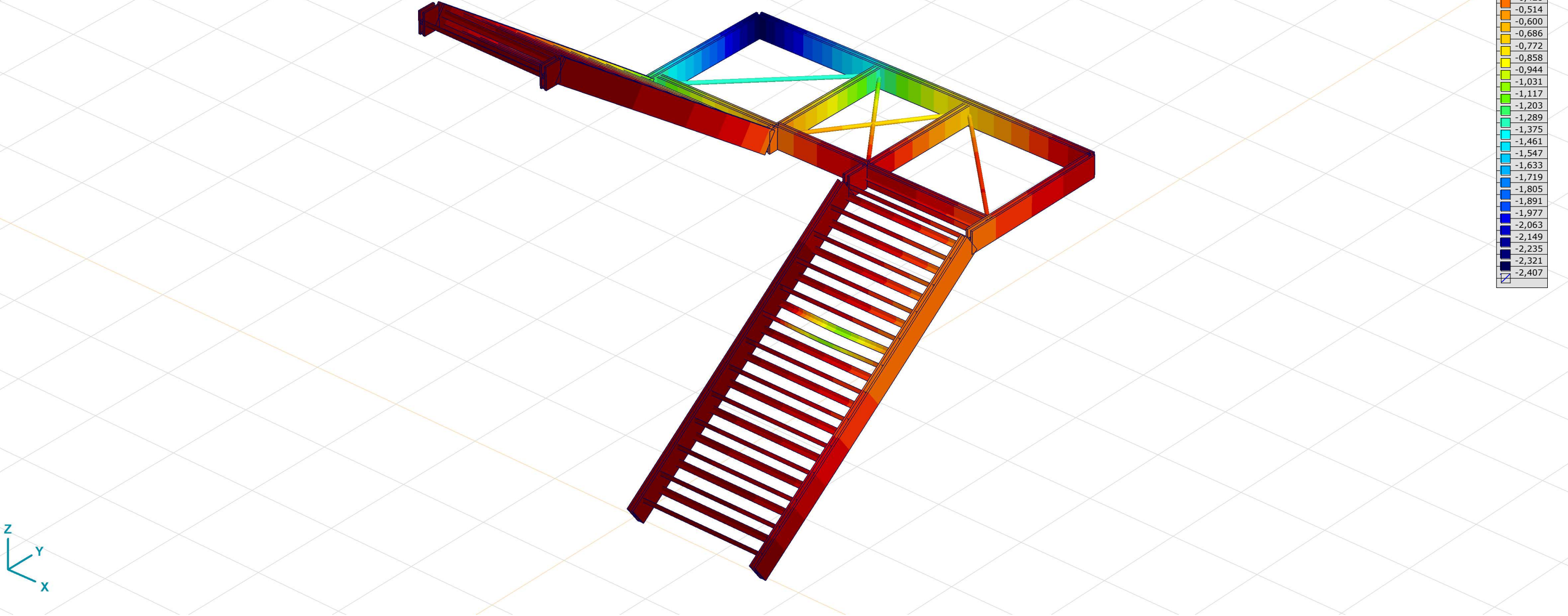
[1], Lineair, Veranderlijke vlakbelasting, eZ, Gekleurd model

P8861 - Stalen trap Stadswinkel Tilburg

Constructiebureau De Prouw B.V.
Model: Stalen trap 5.axs



Lineaire berekening	
Norm	Eurocode-NL
Geval	: Veranderlijke puntlasten
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp.	: eZ [mm]
Max	: 0,002
Min	: -2,407



eZ [mm]
0,002
-0,084
-0,170
-0,256
-0,342
-0,428
-0,514
-0,600
-0,686
-0,772
-0,858
-0,944
-1,031
-1,117
-1,203
-1,289
-1,375
-1,461
-1,547
-1,633
-1,719
-1,805
-1,891
-1,977
-2,063
-2,149
-2,235
-2,321
-2,407

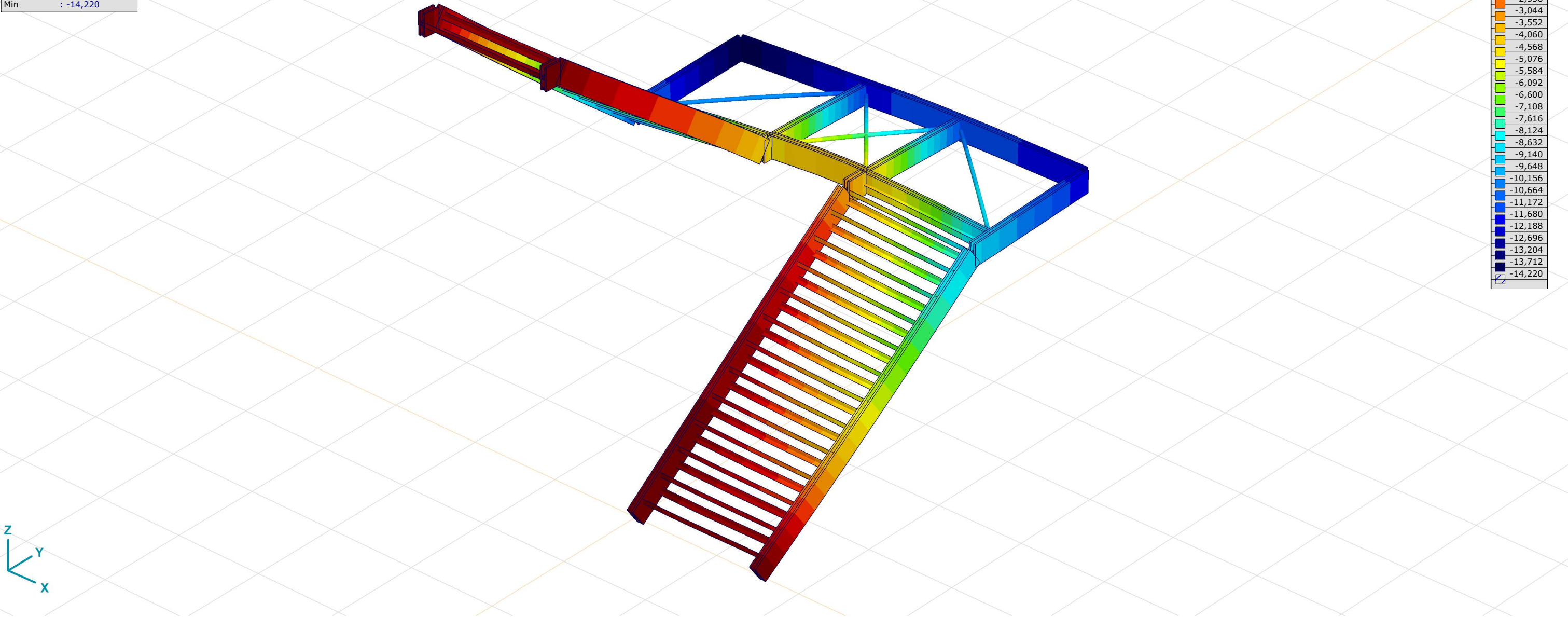
[!], Lineair, Veranderlijke puntlasten, eZ, Gekleurd model

P8861 - Stalen trap Stadswinkel Tilburg

Constructiebureau De Prouw B.V.
Model: Stalen trap 5.axs



Lineaire berekening	
Norm	Eurocode-NL
Geval	: Omhullende Min
Omhullende	: Alle BGT
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp.	: eZ [mm]
Max	: 0,004
Min	: -14,220



eZ [mm]
0,004
-0,504
-1,012
-1,520
-2,028
-2,536
-3,044
-3,552
-4,060
-4,568
-5,076
-5,584
-6,092
-6,600
-7,108
-7,616
-8,124
-8,632
-9,140
-9,648
-10,156
-10,664
-11,172
-11,680
-12,188
-12,696
-13,204
-13,712
-14,220

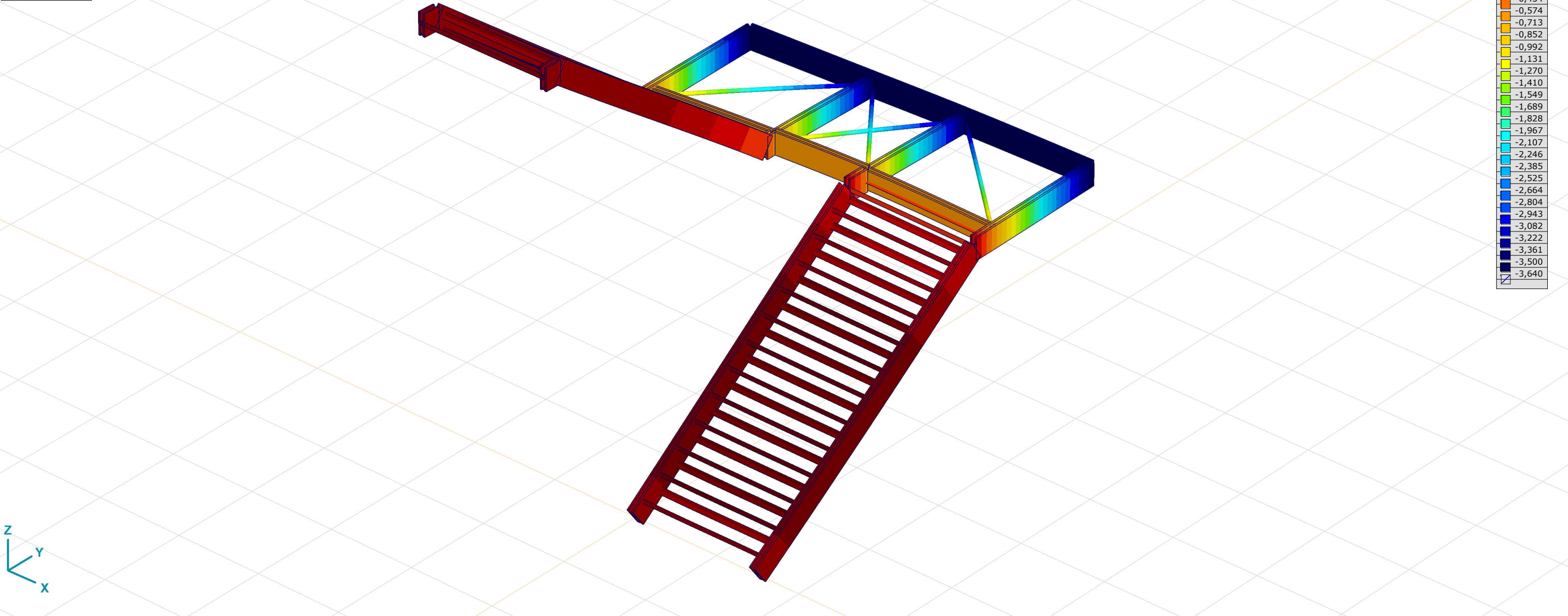
[I], Lineair, Omhullende Min (Alle BGT), eZ, Gekleurd model

P8861 - Stalen trap Stadswinkel Tilburg

Constructiebureau De Prouw B.V.
Model: Stalen trap 5.axs



Lineaire berekening	
Norm	Eurocode-NL
Geval	: Co #15
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp.	: eX [mm]
Max	: 0,263
Min	: -3,640



eX	[mm]
0,263	
0,123	
-0,016	
-0,156	
-0,295	
-0,434	
-0,574	
-0,713	
-0,852	
-0,992	
-1,131	
-1,270	
-1,410	
-1,549	
-1,689	
-1,828	
-1,967	
-2,107	
-2,246	
-2,385	
-2,525	
-2,664	
-2,804	
-2,943	
-3,082	
-3,222	
-3,361	
-3,500	
-3,640	

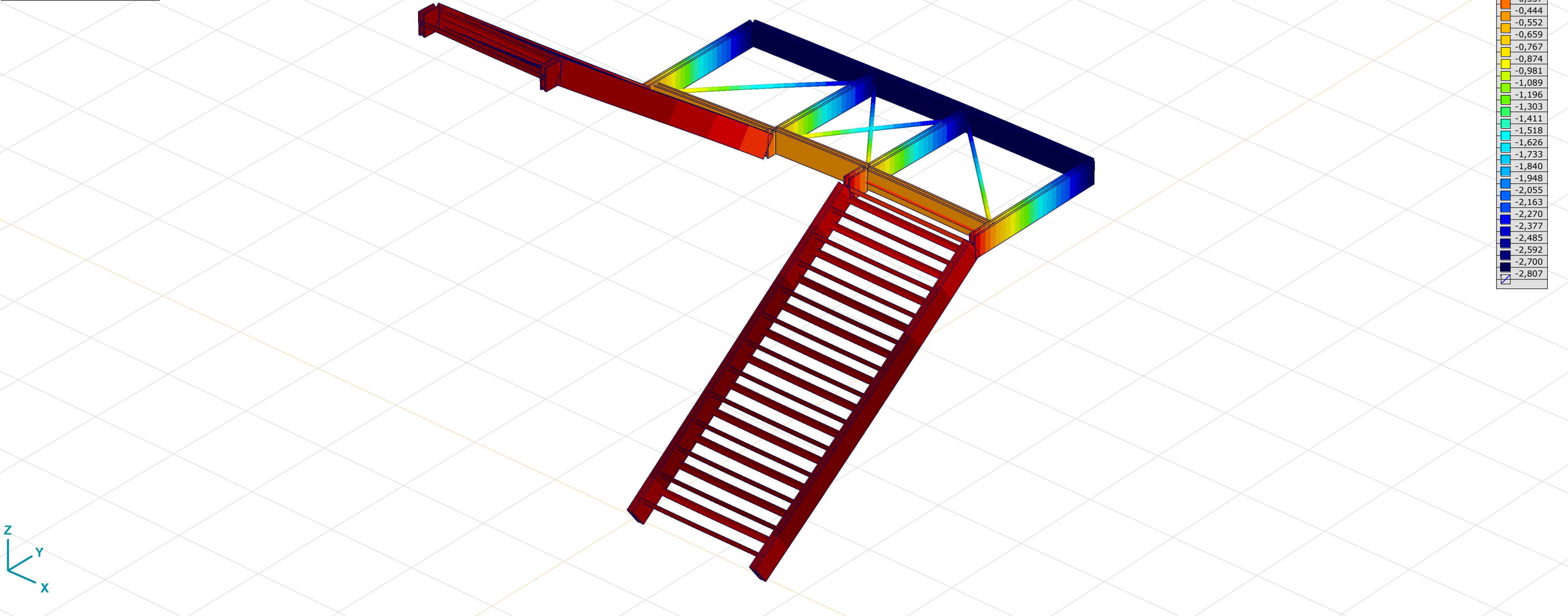
[I], Lineair, Co #15 (BGT Karakteristiek), eX, Gekleurd model

P8861 - Stalen trap Stadswinkel Tilburg

Constructiebureau De Prouw B.V.
Model: Stalen trap 5.axs



Lineaire berekening	
Norm	Eurocode-NL
Geval	: Veranderlijke vlakbelasting
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp.	: eX [mm]
Max	: 0,200
Min	: -2,807



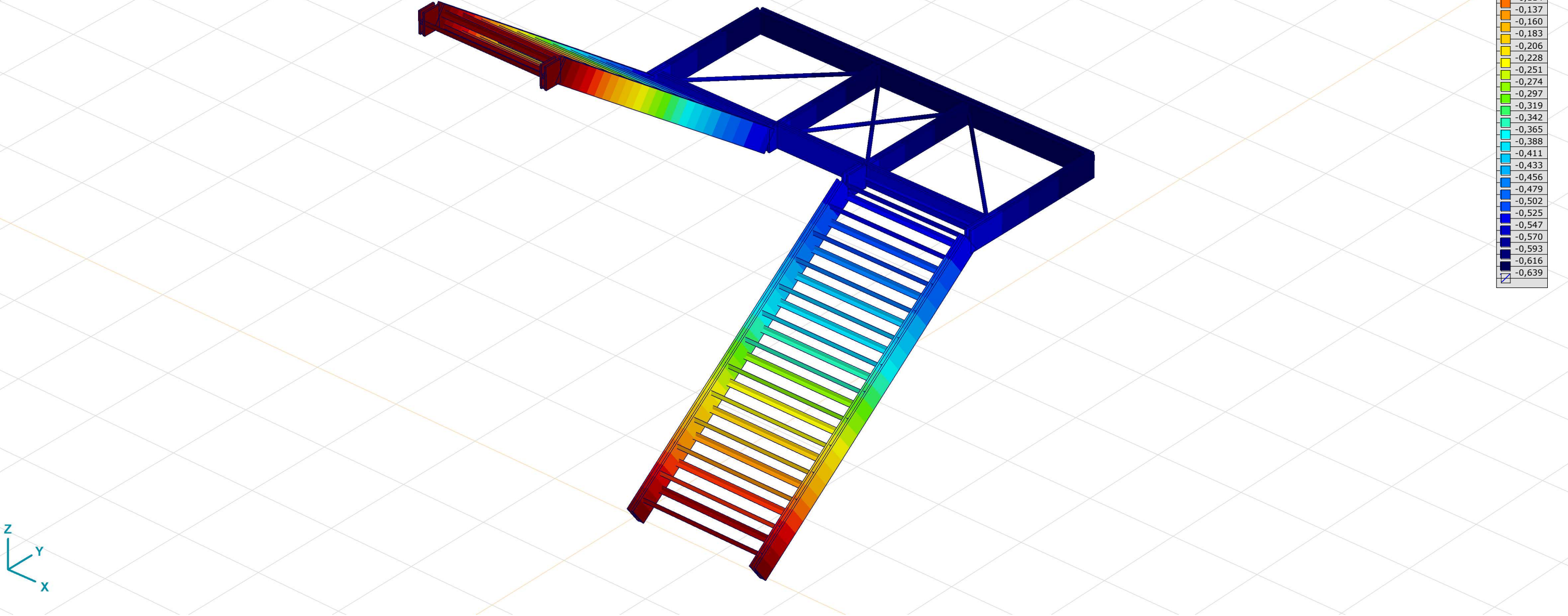
[1], Lineair, Veranderlijke vlakbelasting, eX, Gekleurd model

P8861 - Stalen trap Stadswinkel Tilburg

Constructiebureau De Prouw B.V.
Model: Stalen trap 5.axs



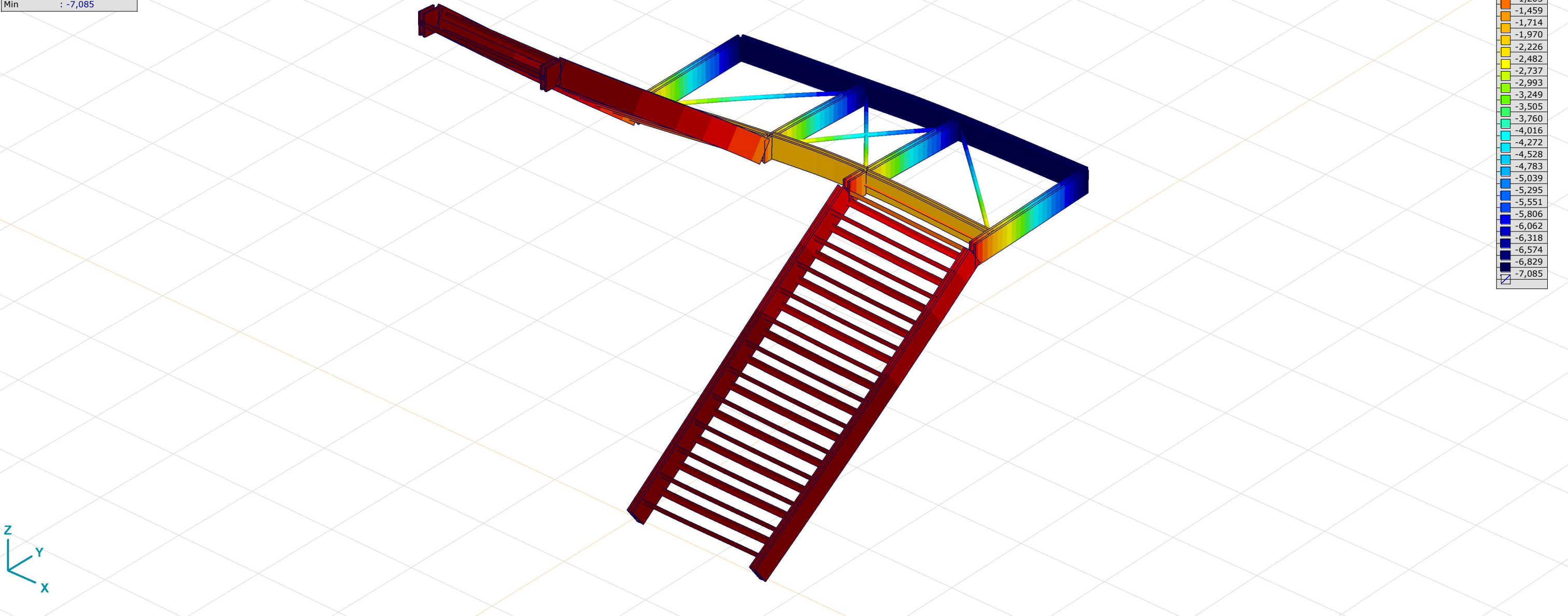
Lineaire berekening	
Norm	Eurocode-NL
Geval	: Horizontale belasting 10%
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp. : eX [mm]	
Max	: 0
Min	: -0,639



[!], Lineair, Horizontale belasting 10%, eX, Gekleurd model



Lineaire berekening	
Norm	Eurocode-NL
Geval	: Omhullende Min
Omhullende	: Alle BGT
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp.	: eX [mm]
Max	: 0,076
Min	: -7,085



eX [mm]
0,076
-0,180
-0,436
-0,691
-0,947
-1,203
-1,459
-1,714
-1,970
-2,226
-2,482
-2,737
-2,993
-3,249
-3,505
-3,760
-4,016
-4,272
-4,528
-4,783
-5,039
-5,295
-5,551
-5,806
-6,062
-6,318
-6,574
-6,829
-7,085



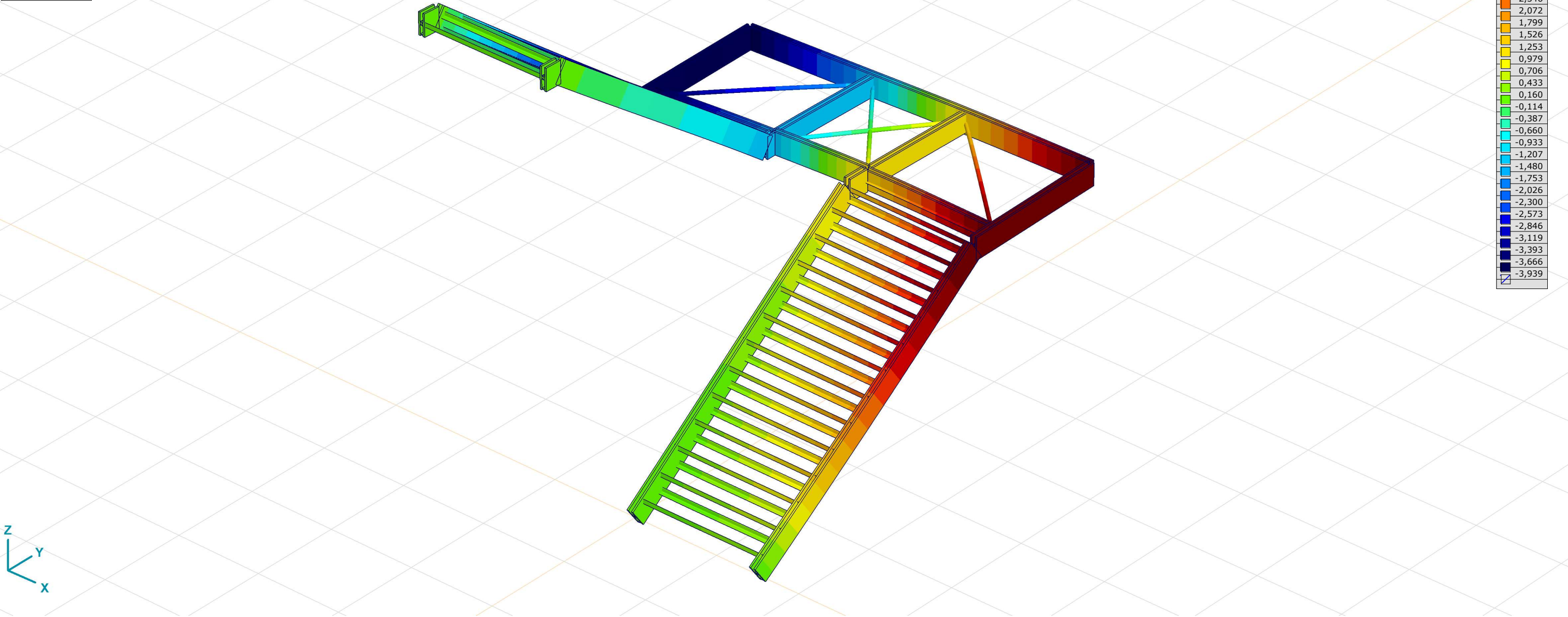
[I], Lineair, Omhullende Min (Alle BGT), eX, Gekleurd model

P8861 - Stalen trap Stadswinkel Tilburg

Constructiebureau De Prouw B.V.
Model: Stalen trap 5.axs



Lineaire berekening	
Norm	Eurocode-NL
Geval	: Co #15
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp.	: eY [mm]
Max	: 3,712
Min	: -3,939



eY	
[mm]	
3,712	
3,439	
3,165	
2,892	
2,619	
2,346	
2,072	
1,799	
1,526	
1,253	
0,979	
0,706	
0,433	
0,160	
-0,114	
-0,387	
-0,660	
-0,933	
-1,207	
-1,480	
-1,753	
-2,026	
-2,300	
-2,573	
-2,846	
-3,119	
-3,393	
-3,666	
-3,939	

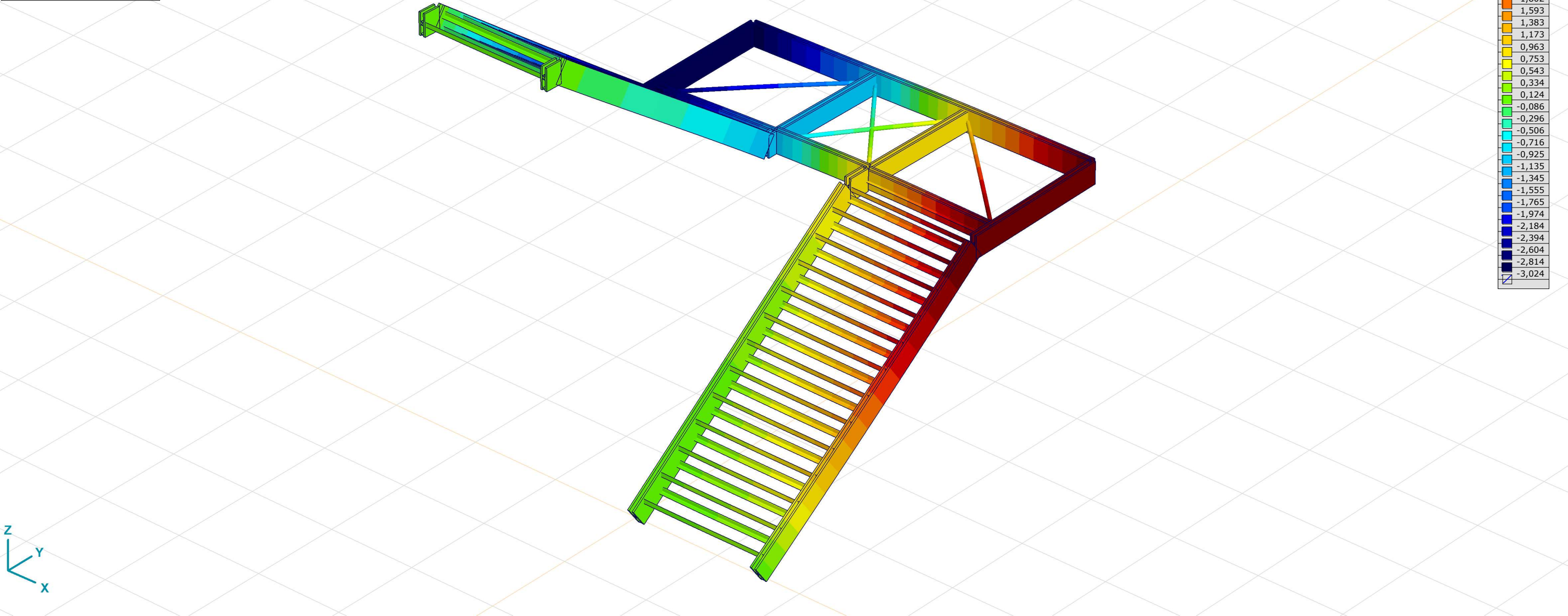
[I], Lineair, Co #15 (BGT Karakteristiek), eY, Gekleurd model

P8861 - Stalen trap Stadswinkel Tilburg

Constructiebureau De Prouw B.V.
Model: Stalen trap 5.axs



Lineaire berekening	
Norm	Eurocode-NL
Geval	: Veranderlijke vlakbelasting
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp.	: eY [mm]
Max	: 2,851
Min	: -3,024



eY [mm]
2,851
2,642
2,432
2,222
2,012
1,802
1,593
1,383
1,173
0,963
0,753
0,543
0,334
0,124
-0,086
-0,296
-0,506
-0,716
-0,925
-1,135
-1,345
-1,555
-1,765
-1,974
-2,184
-2,394
-2,604
-2,814
-3,024

[1], Lineair, Veranderlijke vlakbelasting, eY, Gekleurd model

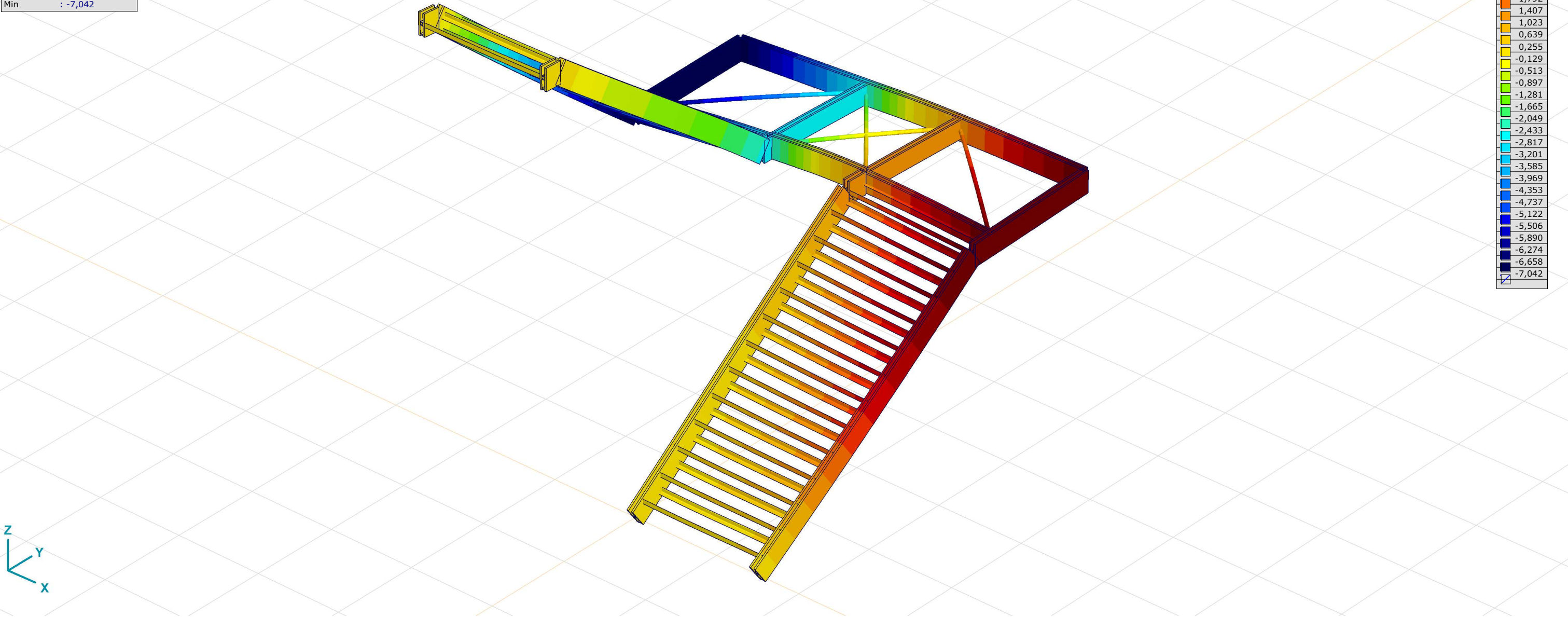
P8861 - Stalen trap Stadswinkel Tilburg

Constructiebureau De Prouw B.V.

Model: Stalen trap 5.axs



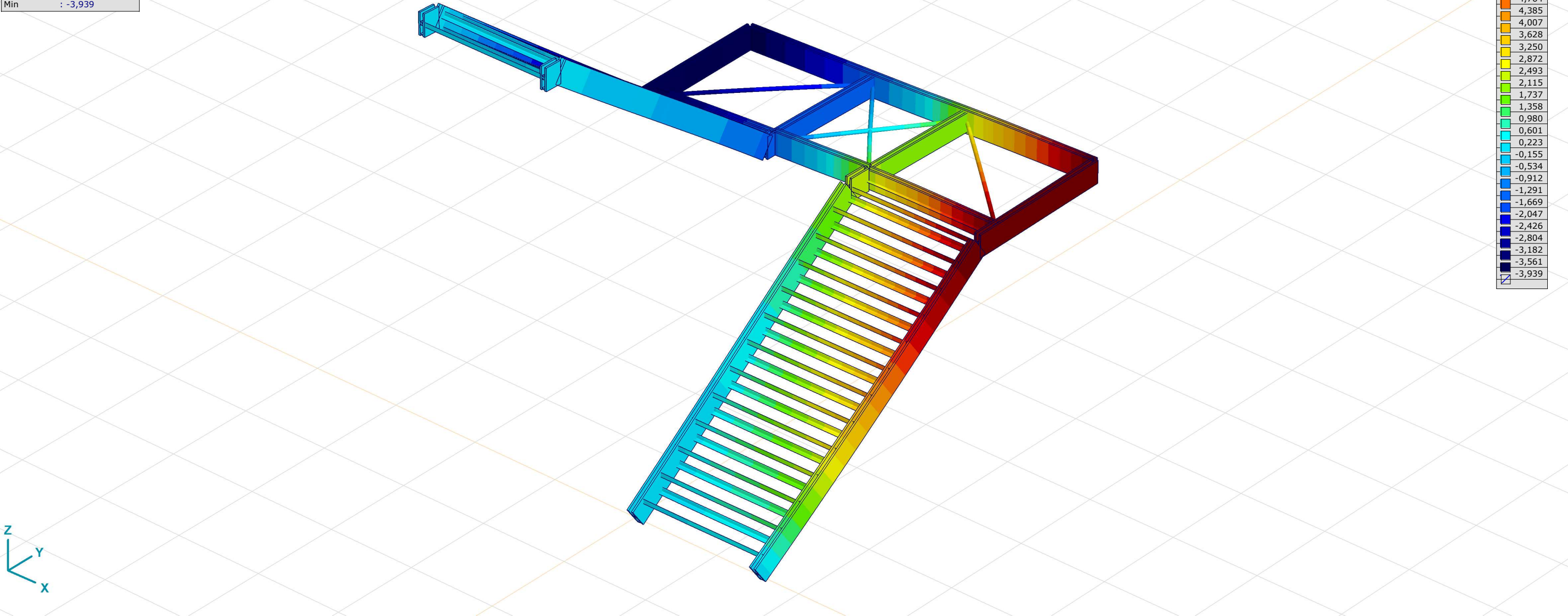
Lineaire berekening	
Norm	Eurocode-NL
Geval	: Omhullende Min
Omhullende	: Alle BGT
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp.	: eY [mm]
Max	: 3,712
Min	: -7,042



[1], Lineair, Omhullende Min (Alle BGT), eY, Gekleurd model



Lineaire berekening	
Norm	Eurocode-NL
Geval	: Omhullende Max
Omhullende	: Alle BGT
E (P)	: 2,56E-8
E (W)	: 2,56E-8
E (Eq)	: 4,73E-11
Comp.	: eY [mm]
Max	: 6,655
Min	: -3,939



eY [mm]
6,655
6,277
5,899
5,520
5,142
4,764
4,385
4,007
3,628
3,250
2,872
2,493
2,115
1,737
1,358
0,980
0,601
0,223
-0,155
-0,534
-0,912
-1,291
-1,669
-2,047
-2,426
-2,804
-3,182
-3,561
-3,939

[I], Lineair, Omhullende Max (Alle BGT), eY, Gekleurd model