Project: Kandel 4x3m | Model: Kandel 4x3m PM56-4030-4 | Date: 24.01.2025

STRUCTURAL ANALYSIS

PROJECT

Kandel 4x3m PM56-4030-4

CLIENT

AS Palmako

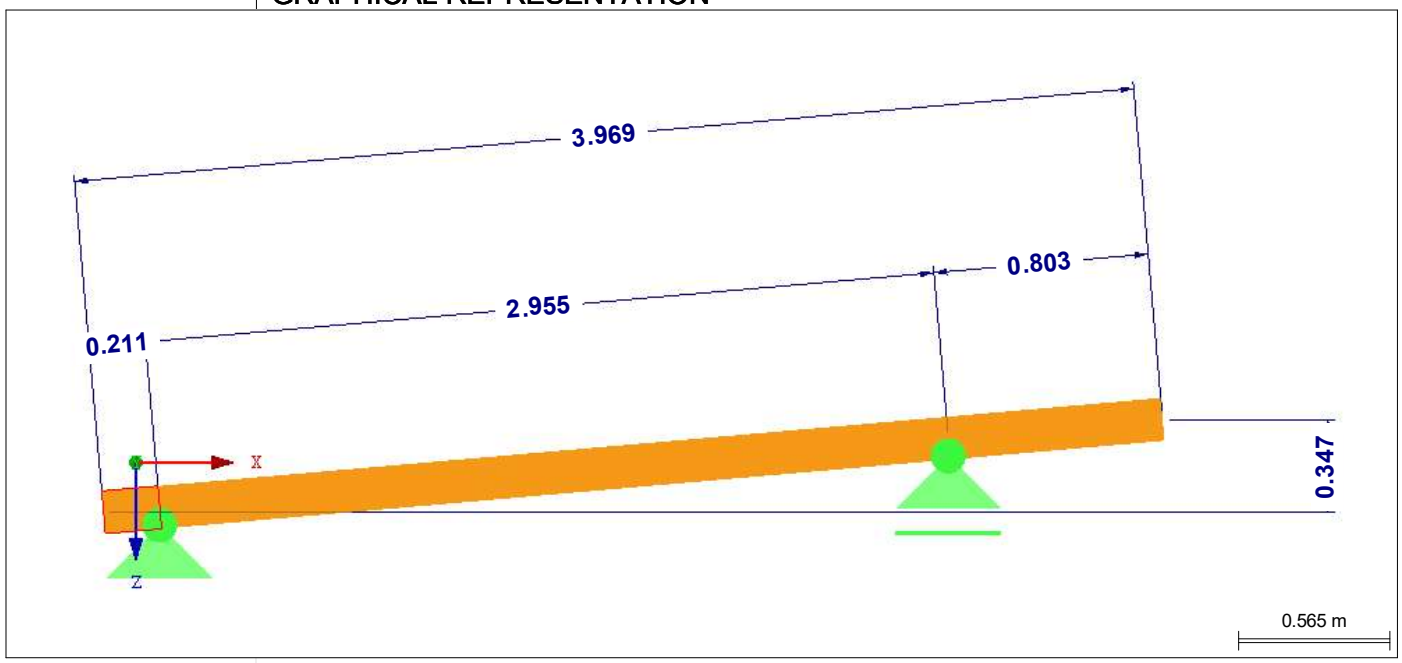
CREATED BY

M.L

Project: Kandel 4x3m | Model: Kandel 4x3m | Date: 24.01.2025
PM56-4030-4

CONTENTS

GRAPHICAL REPRESENTATION



RX-TIMBER

acc. to DIN EN 1995-1-1/NA:2013-08

DATA FOR NATIONAL ANNEX

Partial Factor for Material Properties			
Fundamental combinations for glulam timber	γ_M	:	1.300
Fundamental combinations for solid timber	γ_M	:	1.300
Accidental combinations	γ_M	:	1.000
Combinations for fire design	$\gamma_{M,fi}$	:	1.000

Modification Factor k_{mod}			
LDC	1	2	3
-Permanent	0.600	0.600	0.500
-Long-term	0.700	0.700	0.550
-Medium-term	0.800	0.800	0.650
-Short-term	0.900	0.900	0.700
-Instantaneous	1.100	1.100	0.900

USED STANDARDS

[1]	DIN EN 1995-1-1/NA:2013-08	Eurocode 5: Design of timber structures - Part 1-1: General - Common rules and rules for buildings (EN 1995-1-1:2004+AC:2006+A1:2008)
[2]	DIN EN 1995-1-2/NA:2010-12	Eurocode 5: Design of timber structures - Part 1-2: General - Structural fire design (EN 1995-1-2:2004+AC:2009)
[3]	DIN EN 1990:2010-12/NA:2010-12	Eurocode: Basis of structural design (EN 1990:2002+A1:2005+AC:2010)
[4]	DIN EN 1991-1-1:2010-12/NA:2010-12	Eurocode 1: Actions on structures - Part 1-1: General actions - Densities, self-weight, imposed loads for buildings (EN 1991-1-1:2002+AC:2009)
[5]	DIN EN 1991-1-3:2010-12/NA:2019-04	Eurocode 1: Actions on structures - Part 1-3: General actions - Snow loads (EN 1991-1-3:2003+AC:2009)
[6]	DIN EN 1991-1-4:2010-12/NA:2010-12	Eurocode 1: Actions on structures - Part 1-4: General actions - Wind loads (EN 1991-1-4:2005+AC:2010+A1:2010)
[7]	DIN EN 14080:2013-08	Timber structures - Glued laminated timber and glued solid timber - Requirements

USED STANDARDS

[8]	DIN EN 338:2016-07	Structural timber - Strength classes

GENERAL DATA

Roof Type

Monopitch Roof

GEOMETRY

Building Dimensions				
Building Height	H	:	2.737	m
Building Depth	B	:	4.000	m
Truss Spacing	a	:	0.722	m
Distance to Roof Edge	ü	:	0.000	m
Load Coeff. for Continuity	k	:	1.000	-
		:	☐	
Width of Building	L	:	3.000	m
Truss Geometry				
Slope Angle	δ	:	5.01	°
Roof Span	l	:	2.944	m
Roof Height	h	:	0.258	m
Left Cantilever Length	k_a	:	0.210	m
Right Cantilever Length	k_b	:	0.800	m
Attic				
Left Attic		:	☐	
Right Attic		:	☐	

CROSS-SECTIONS

Section No.	Cross-Section	Material	Comment
1	T-Rectangle 60/160	Glulam Timber GL24c | DIN EN 14080:2013-08	

COMPONENTS

Comp. No.	Components	Cross-Section	Precamber w_c [mm]	Comment
1	Rafter	1 - T-Rectangle 60/160 | Glulam Timber GL24c	0.0	

SUPPORTS

Supp. No.	Type of Support	Check Support Compression	Support Width b [cm]	Reduction Δ [cm]	Support Orientation	Displacement u_X	Displacement u_Z	Rotation φ_Y
1	Hinged	☒	7.00	0.00	Global	☒	☒	☐
2	Hinged free	☒	7.00	0.00	Global	☐	☒	☐

LOAD DATA

Permanent Loads

Rafter (inner span)

Roof Structure					
Softwood		:	0.095	kN/m²	RA
Bitumen Shingles		:	0.030	kN/m²	RA
Roof Structure	$g_{k,2}$	:	0.125	kN/m²	RA
	$g_{k,2}$	:	0.090	kN/m	RA
Self-weight of Beam (Average)	$g_{k,1}$	:	0.038	kN/m	RA
	g_k	:	0.129	kN/m	RA
Consider with factor		:	1.000		

LOAD DATA

Cantilever

Roof Structure	$g_{k,2}$	:	0.000	kN/m²	RA
	$g_{k,2}$	:	0.000	kN/m	RA
Self-weight of Beam (Average)	$g_{k,1}$	:	0.038	kN/m	RA
	g_k	:	0.038	kN/m	RA
Consider with factor		:	1.000		

Snow Load

Altitude	A	:	200	m	
Topography Type		:	Normal		
Exposure	Ce	:	1.0		
Snow Load - Define Manually	s_k	:	2.000	kN/m²	BA
	s_k	:	1.444	kN/m	BA

Wind Load

Building Height	H	:	2.737	m	
Wind Zone	WZ	:	1		
Terrain Category	TC	:	Category I		
Fundamental Wind Velocity	$v_{b,0}$	:	22.5	m/s	

Coefficients for Wind Load Generation

Coefficient of Orography	C_0	:	1.00		
Coefficient of Wind Direction	C_{dir}	:	1.00		
Coefficient of Seasons	C_{season}	:	1.00		
Coefficient of Turbulency	k_I	:	1.00		
Air Density	ρ	:	1.250	kg/m³	
Wind Load	q(z)	:	0.643	kN/m²	RA
	q(z)	:	0.464	kN/m	RA

Service Class

Service Class	SECL	:	2		

LC1 - SELF-WEIGHT + ROOF FINISHES

No.	Load Type	Load Direction	Load Reference	Load-Parameter Symbol	Value	Unit	Full Length
1	Line Load	ZL	Inner Span	p	0.090	kN/m	☐
	Roof Structure						

LC41 - SNOW

No.	Load Type	Load Direction	Load Reference	Load-Parameter Symbol	Value	Unit	Full Length
1	Line Load	ZP	Whole Beam	p	1.155	kN/m	☐

LC51 - WIND TRANSVERSELY TO RIDGE (LEFT)(A)

No.	Load Type	Load Direction	Load Reference	Load-Parameter Symbol	Value	Unit	Full Length
1	Trapezoidal Load	z	Whole Beam	p_1	-0.762	kN/m	☐
				p_2	-0.762	kN/m	
				A	0.000	m	
				B	0.101	m	
	Zone F, G; c_{pe} = -1.642						
2	Trapezoidal Load	z	Whole Beam	p_1	-0.278	kN/m	☐
				p_2	-0.278	kN/m	

LC51 - WIND TRANSVERSELY TO RIDGE (LEFT)(A)

No.	Load Type	Load Direction	Load Reference	Load-Parameter Symbol	Value	Unit	Full Length
				A	0.000	m	
				B	1.000	m	
	Zone H; c_{pe} = -0.600						
3	Trapezoidal Load	z	Cantilever Left	p_1	-0.366	kN/m	☐
				p_2	-0.366	kN/m	
				A	0.000	m	
				B	1.000	m	
	Zone D Wind from Bottom on Cantilevered Bracket						
4	Trapezoidal Load	z	Cantilever Right	p_1	0.221	kN/m	☐
				p_2	0.221	kN/m	
				A	0.000	m	
				B	1.000	m	
	Zone E Wind from Bottom on Cantilevered Bracket						

LC52 - WIND TRANSVERSELY TO RIDGE (LEFT)(B)

No.	Load Type	Load Direction	Load Reference	Load-Parameter Symbol	Value	Unit	Full Length
1	Trapezoidal Load	z	Whole Beam	p_1	0.000	kN/m	☐
				p_2	0.000	kN/m	
				A	0.000	m	
				B	0.101	m	
	Zone F, G; c_{pe} = 0.000						
2	Trapezoidal Load	z	Whole Beam	p_1	0.000	kN/m	☐
				p_2	0.000	kN/m	
				A	0.000	m	
				B	1.000	m	
	Zone H; c_{pe} = 0.000						
3	Trapezoidal Load	z	Cantilever Left	p_1	-0.366	kN/m	☐
				p_2	-0.366	kN/m	
				A	0.000	m	
				B	1.000	m	
	Zone D Wind from Bottom on Cantilevered Bracket						
4	Trapezoidal Load	z	Cantilever Right	p_1	0.221	kN/m	☐
				p_2	0.221	kN/m	
				A	0.000	m	
				B	1.000	m	
	Zone E Wind from Bottom on Cantilevered Bracket						

LC53 - WIND TRANSVERSELY TO RIDGE (RIGHT)(A)

No.	Load Type	Load Direction	Load Reference	Load-Parameter Symbol	Value	Unit	Full Length
1	Trapezoidal Load	z	Whole Beam	p_1	-1.015	kN/m	☐
				p_2	-1.015	kN/m	
				A	0.000	m	
				B	1.000	m	
	Zone F, G; c_{pe} = -2.185						
2	Trapezoidal Load	z	Whole Beam	p_1	-0.372	kN/m	☐
				p_2	-0.372	kN/m	
				A	0.000	m	
				B	0.899	m	

LC53 - WIND TRANSVERSELY TO RIDGE (RIGHT)(A)

No.	Load Type	Load Direction	Load Reference	Load-Parameter Symbol	Value	Unit	Full Length
	Zone H; c_{pe} = -0.800						
3	Trapezoidal Load	z	Cantilever Right	p_1	-0.366	kN/m	☐
				p_2	-0.366	kN/m	
				A	0.000	m	
				B	1.000	m	
	Zone D Wind from Bottom on Cantilevered Bracket						
4	Trapezoidal Load	z	Cantilever Left	p_1	0.221	kN/m	☐
				p_2	0.221	kN/m	
				A	0.000	m	
				B	1.000	m	
	Zone E Wind from Bottom on Cantilevered Bracket						

LC54 - WIND TRANSVERSELY TO RIDGE (RIGHT)(B)

No.	Load Type	Load Direction	Load Reference	Load-Parameter Symbol	Value	Unit	Full Length
1	Trapezoidal Load	z	Whole Beam	p_1	-1.015	kN/m	☐
				p_2	-1.015	kN/m	
				A	0.000	m	
				B	1.000	m	
	Zone F, G; c_{pe} = -2.185						
2	Trapezoidal Load	z	Whole Beam	p_1	-0.372	kN/m	☐
				p_2	-0.372	kN/m	
				A	0.000	m	
				B	0.899	m	
	Zone H; c_{pe} = -0.800						
3	Trapezoidal Load	z	Cantilever Right	p_1	-0.366	kN/m	☐
				p_2	-0.366	kN/m	
				A	0.000	m	
				B	1.000	m	
	Zone D Wind from Bottom on Cantilevered Bracket						
4	Trapezoidal Load	z	Cantilever Left	p_1	0.221	kN/m	☐
				p_2	0.221	kN/m	
				A	0.000	m	
				B	1.000	m	
	Zone E Wind from Bottom on Cantilevered Bracket						

LC55 - WIND PARALLEL TO RIDGE (A)

No.	Load Type	Load Direction	Load Reference	Load-Parameter Symbol	Value	Unit	Full Length
1	Trapezoidal Load	z	Whole Beam	p_1	-0.312	kN/m	☐
				p_2	-0.312	kN/m	
				A	0.000	m	
				B	0.250	m	
	Zone F_{low}, H; c_{pe} = -0.672						
2	Trapezoidal Load	z	Whole Beam	p_1	-0.305	kN/m	☐
				p_2	-0.305	kN/m	
				A	0.000	m	
				B	0.750	m	
	Zone G, H; c_{pe} = -0.657						
3	Trapezoidal Load	z	Whole Beam	p_1	-0.312	kN/m	☐

LC55 - WIND PARALLEL TO RIDGE (A)

No.	Load Type	Load Direction	Load Reference	Load-Parameter Symbol	Value	Unit	Full Length
				p_2	-0.312	kN/m	
				A	0.000	m	
				B	1.000	m	
	Zone F_{up}, H; c_{pe} = -0.672						
4	Trapezoidal Load	z	Cantilever Left	p_1	0.482	kN/m	☐
				p_2	0.482	kN/m	
				A	0.000	m	
				B	1.000	m	
	Zone A, B Wind from Bottom on Cantilevered Bracket						
5	Trapezoidal Load	z	Cantilever Right	p_1	0.482	kN/m	☐
				p_2	0.482	kN/m	
				A	0.000	m	
				B	1.000	m	
	Zone A, B Wind from Bottom on Cantilevered Bracket						

LC56 - WIND PARALLEL TO RIDGE (B)

No.	Load Type	Load Direction	Load Reference	Load-Parameter Symbol	Value	Unit	Full Length
1	Trapezoidal Load	z	Whole Beam	p_1	-0.232	kN/m	☐
				p_2	-0.232	kN/m	
				A	0.000	m	
				B	1.000	m	
	Zone I; c_{pe} = -0.500						
2	Trapezoidal Load	z	Cantilever Left	p_1	0.371	kN/m	☐
				p_2	0.371	kN/m	
				A	0.000	m	
				B	1.000	m	
	Zone B Wind from Bottom on Cantilevered Bracket						
3	Trapezoidal Load	z	Cantilever Right	p_1	0.371	kN/m	☐
				p_2	0.371	kN/m	
				A	0.000	m	
				B	1.000	m	
	Zone B Wind from Bottom on Cantilevered Bracket						

EFFECTIVE LENGTHS

Comp. No.	Component	Bucklin Possibl	Length l [m]	Buckling About Axis y-y Possibl	$\beta_{ef,y}$	$l_{ef,y}$ [m]	Buckling About Axis z-z Possibl	$\beta_{ef,z}$	$l_{ef,z}$ [m]	Lateral-Torsional Bucklin Possibl	Define l_{ef}	l_{ef} [m]	Commen
1	Left Cantilever	☒	0.211	☒	1.000	0.211	☒	1	0.211	☒	☐	0.211	
2	Rafter (inner span)	☒	2.955	☒	1.000	2.955	☒	1	2.955	☒	☐	2.955	
3	Right Cantilever	☒	0.803	☒	1.000	0.803	☒	1	0.803	☒	☐	0.803	

CONTROL PARAMETERS

Design of

Ultimate limit state	☒
Serviceability limit state	☐
Fire resistance	☐
Display support forces	☒
Display deformations	☐

CONTROL PARAMETERS

Increase of Bending, Shear and Tensile Strength

According to 3.2(3) for solid timber wit h h < 150 mm (Bending) or b < 150 mm (Tension) ☒

Calculation Parameters

Number of member divisions for result diagrams 10

SERVICEABILITY DATA

Reference Length No	Description	Member No.	Reference Length Definition	L[m]	Deformation Relative to	Beam Type	Co
1	Rafter	2	Total Length	2.955	Shifted Ends of Consecutive Members	Beam	
2	Rafter	1	Member Length	0.211	Shifted Ends of Separate Members	Cantilever Start Free	
3	Rafter	3	Member Length	0.803	Shifted Ends of Separate Members	Cantilever End Free	

RESULTS

RESULT COMBINATIONS

RC	Result Combinations Description	Load Cases	Design Situation	LDC	Factor k_{mod}	Max. Ratio
Ultimate Limit State Design						
RC1	g	1.35*LC1	UB	Permanent	0.60	0.06
RC2	g + s	1.35*LC1 + 1.50*LC41	UB	Short-term	0.90	0.41
RC3	g + s + w(q,l,A)	1.35*LC1 + 1.50*LC41 + 0.90*LC51	UB	Short-term / Instantaneous	1.00	0.32
RC4	g + s + w(q,l,B)	1.35*LC1 + 1.50*LC41 + 0.90*LC52	UB	Short-term / Instantaneous	1.00	0.37
RC5	g + s + w(q,r,A)	1.35*LC1 + 1.50*LC41 + 0.90*LC53	UB	Short-term / Instantaneous	1.00	0.33
RC6	g + s + w(q,r,B)	1.35*LC1 + 1.50*LC41 + 0.90*LC54	UB	Short-term / Instantaneous	1.00	0.33
RC7	g + s + w(p,A)	1.35*LC1 + 1.50*LC41 + 0.90*LC55	UB	Short-term / Instantaneous	1.00	0.30
RC8	g + s + w(p,B)	1.35*LC1 + 1.50*LC41 + 0.90*LC56	UB	Short-term / Instantaneous	1.00	0.32
RC9	g + w(q,l,A)	1.35*LC1 + 1.50*LC51	UB	Short-term / Instantaneous	1.00	0.05
RC10	g + w(q,l,B)	1.35*LC1 + 1.50*LC52	UB	Short-term / Instantaneous	1.00	0.03

RESULT COMBINATIONS

RC	Result Combinations Description	Load Cases	Design Situation	LDC	Factor k_{mod}	Max. Ratio
RC11	g + w(q,r,A)	1.35*LC1 + 1.50*LC53	UB	Short-term / Instantaneous	1.00	0.12
RC12	g + w(q,r,B)	1.35*LC1 + 1.50*LC54	UB	Short-term / Instantaneous	1.00	0.12
RC13	g + w(p,A)	1.35*LC1 + 1.50*LC55	UB	Short-term / Instantaneous	1.00	0.08
RC14	g + w(p,B)	1.35*LC1 + 1.50*LC56	UB	Short-term / Instantaneous	1.00	0.05
RC15	g + s + w(q,l,A)	1.35*LC1 + 0.75*LC41 + 1.50*LC51	UB	Short-term / Instantaneous	1.00	0.11
RC16	g + s + w(q,l,B)	1.35*LC1 + 0.75*LC41 + 1.50*LC52	UB	Short-term / Instantaneous	1.00	0.20
RC17	g + s + w(q,r, A)	1.35*LC1 + 0.75*LC41 + 1.50*LC53	UB	Short-term / Instantaneous	1.00	0.14
RC18	g + s + w(q,r, B)	1.35*LC1 + 0.75*LC41 + 1.50*LC54	UB	Short-term / Instantaneous	1.00	0.14
RC19	g + s + w(p,A)	1.35*LC1 + 0.75*LC41 + 1.50*LC55	UB	Short-term / Instantaneous	1.00	0.09
RC20	g + s + w(p,B)	1.35*LC1 + 0.75*LC41 + 1.50*LC56	UB	Short-term / Instantaneous	1.00	0.12

DESIGN - ALL

Member No	Location x [m]	RC	Ratio		Design Description
2	2.660	RC2	0.22	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
2	2.955	RC2	0.27	≤ 1	114) Cross-section resistance - Shear stress on support Vz acc. to 6.1.7
2	1.478	RC2	0.41	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
2	2.955	RC4	0.14	≤ 1	161) Cross-section resistance - Uniaxial bending about y-axis and tension acc. to 6.2.3
2	2.955	RC2	0.19	≤ 1	252) Support pressure - Compression at an angle acc. to 6.2.2
2	1.478	RC2	0.41	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
2	0.000	RC5	0.02	≤	323) Stability - Uniaxial bending and compression acc. to 6

DESIGN - ALL

Member No	Location x [m]	RC	Ratio		Design Description
2	0.000	RC5	0.02	≤ 1	6.3.2 341) Stability – Uniaxial bending and compression acc. to 6.3.3
Max			0.41	≤ 1	

DESIGN - ALL - DETAILS

111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7

Governing	Member	No.	2			
	Location	x	2.660	m		
	Result Combinations	RC	RC2			
Design Internal Forces	Normal Force	N_d	0.212	kN		
	Shear Force	$V_{z,d}$	-2.417	kN		
	Moment	$M_{y,d}$	0.226	kNm		
Design	Shear Force	$V_{z,d}$	2.417	kN		
	Cross-Section Width	b	6.00	cm		
	Cross-Section Height	h	16.00	cm		
	Crack Influence Factor	k_{cr}	0.714			6.1.7 (2)
	Effective Area	A_{ef}	68.57	cm^2		
	Shear Stress	τ_d	0.5	N/mm^2		
	Shear Strength	$f_{v,k}$	3.5	N/mm^2		[7], Tab.2
	Partial Factor	γ_M	1.300			Tab. 2.3
	Modification Factor	k_{mod}	0.900			Tab. 3.1
	Shear Strength	$f_{v,d}$	2.4	N/mm^2		Eq. (2.14)
	Design Ratio	η	0.22		≤ 1	Eq. (6.13)

114) Cross-section resistance - Shear stress on support Vz acc. to 6.1.7

Governing	Member	No.	2			
	Location	x	2.955	m		
	Result Combinations	RC	RC2			
Design Internal Forces	Normal Force	N_d	0.261	kN		
	Shear Force	$V_{z,d}$	-2.977	kN		
	Moment	$M_{y,d}$	-0.571	kNm		
Design	Shear Force	$V_{z,d}$	2.977	kN		
	Cross-Section Width	b	6.00	cm		
	Cross-Section Height	h	16.00	cm		
	Crack Influence Factor	k_{cr}	0.714			6.1.7 (2)
	Effective Area	A_{ef}	68.57	cm^2		
	Shear Stress	τ_d	0.7	N/mm^2		
	Shear Strength	$f_{v,k}$	3.5	N/mm^2		[7], Tab.2
	Partial Factor	γ_M	1.300			Tab. 2.3
	Modification Factor	k_{mod}	0.900			Tab. 3.1
	Shear Strength	$f_{v,d}$	2.4	N/mm^2		Eq. (2.14)
	Design Ratio	η	0.27		≤ 1	Eq. (6.13)

151) Cross-section resistance - Uniaxial bending acc. to 6.1.6

DESIGN - ALL - DETAILS

Governing	Member	No.	2			
	Location	x	1.478	m		
	Result Combinations	RC	RC2			
Design Internal Forces	Normal Force	N_d	0.016	kN		
	Shear Force	$V_{z,d}$	-0.180	kN		
	Moment	$M_{y,d}$	1.761	kNm		
Design	Moment	$M_{y,d}$	1.761	kNm		
	Section Modulus	W_y	256.00	cm^3		
	Bending Stress	$\sigma_{m,y,d}$	6.9	N/mm^2		
	Bending Strength	$f_{m,y,k}$	24.0	N/mm^2		[7], Tab.2
	Partial Factor	γ_M	1.300			Tab. 2.3
	Modification Factor	k_{mod}	0.900			Tab. 3.1
	Bending Strength	$f_{m,y,d}$	16.6	N/mm^2		Eq. (2.14)
	Design Ratio	η	0.41		≤ 1	Eq. (6.11)

161) Cross-section resistance - Uniaxial bending about y-axis and tension acc. to 6.2.3

Governing	Member	No.	2			
	Location	x	2.955	m		
	Result Combinations	RC	RC4			
Design Internal Forces	Normal Force	N_d	0.277	kN		
	Shear Force	$V_{z,d}$	-3.001	kN		
	Moment	$M_{y,d}$	-0.635	kNm		
Design	Normal Force (Tension)	N_d	0.277	kN		
	Cross-Sectional Area	A	96.00	cm^2		
	Tensile Stress	$\sigma_{t,0,d}$	0.0	N/mm^2		Eq. (6.36)
	Moment	$M_{y,d}$	0.635	kNm		
	Section Modulus	W_y	256.00	cm^3		
	Bending Stress	$\sigma_{m,y,d}$	2.5	N/mm^2		
	Tensile Strength	$f_{t,0,k}$	17.0	N/mm^2		[7], Tab.2
	Partial Factor	γ_M	1.300			Tab. 2.3
	Modification Factor	k_{mod}	1.000			Tab. 3.1
	Tensile Strength	$f_{t,0,d}$	13.1	N/mm^2		Eq. (2.14)
	Bending Strength	$f_{m,y,k}$	24.0	N/mm^2		[7], Tab.2
	Bending Strength	$f_{m,y,d}$	18.5	N/mm^2		Eq. (2.14)
	Design Ratio	η	0.14		≤ 1	Eq. (6.17)

252) Support pressure - Compression at an angle acc. to 6.2.2

Governing	Member	No.	2			
	Location	x	2.955	m		
	Result Combinations	RC	RC2			
Design Internal Forces	Normal Force	N_d	0.261	kN		
	Shear Force	$V_{z,d}$	-2.977	kN		
	Moment	$M_{y,d}$	-0.571	kNm		
Design	Support Force	A_d	4.416	kN		
	Angle	α	84.99	°		

DESIGN - ALL - DETAILS

	Support Length	l_A	7.00	cm		
	Effective Support Length	$l_{A,ef}$	12.98	cm		
	Beam Width	b	6.00	cm		
	Effective Area of Transversal Compression	A_{ef}	77.86	cm^2		
	Transversal Compressive Stress	$\sigma_{c,\alpha,d}$	0.6	N/mm^2		Eq. (NA.57)
	Transversal Compression Factor	$k_{c,90}$	1.750			
	Compressive Strength	$f_{c,0,k}$	21.5	N/mm^2		[7], Tab.2
	Partial Factor	γ_M	1.300			Tab. 2.3
	Modification Factor	k_{mod}	0.900			Tab. 3.1
	Compressive Strength	$f_{c,0,d}$	14.9	N/mm^2		Eq. (2.14)
	Transversal Compressive Strength	$f_{c,90,k}$	2.5	N/mm^2		[7], Tab.2
	Transversal Compressive Strength	$f_{c,90,d}$	1.7	N/mm^2		Eq. (2.14)
	Transv. Compressive Strength Under α	$f_{c,\alpha,d}$	3.0	N/mm^2		
	Design Ratio	η	0.19		≤ 1	Eq. (6.16)

311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3

Governing	Member	No.	2			
	Location	x	1.478	m		
	Result Combinations	RC	RC2			
Design Internal Forces	Normal Force	N_d	0.016	kN		
	Shear Force	$V_{z,d}$	-0.180	kN		
	Moment	$M_{y,d}$	1.761	kNm		
Design	Moment	$M_{y,d}$	1.761	kNm		
	Cross-Section Width	b	6.00	cm		
	Cross-Section Height	h	16.00	cm		
	Section Modulus	W_y	256.00	cm^3		
	Bending Stress	$\sigma_{m,y,d}$	6.9	N/mm^2		
	Equivalent Member Length	l_{ef}	2.955	m		
	Modulus of Elasticity	$E_{0,05}$	9100.0	N/mm^2		[7], Tab.2
	Multiplication Factor		1.40			NCI Zu 6.3.3 (2)
	Shear Modulus	G_{05}	540.0	N/mm^2		[7], Tab.2
	Relative Slenderness Ratio	$\lambda_{rel,m}$	0.662		≤ 0.75	Eq. (6.30)
	Moment of Inertia	I_z	288.00	cm^4		
	Torsional Moment of Inertia	I_t	880.28	cm^4		
	Critical Bending Stress	$\sigma_{m,crit}$	54.8	N/mm^2		Eq. (6.31)
	Lateral Buckling Coefficient	k_{crit}	1.000			Eq. (6.34)
	Bending Strength	$f_{m,y,k}$	24.0	N/mm^2		[7], Tab.2
	Partial Factor	γ_M	1.300			Tab. 2.3
	Modification Factor	k_{mod}	0.900			Tab. 3.1
	Bending Strength	$f_{m,y,d}$	16.6	N/mm^2		Eq. (2.14)
	Design Ratio	η	0.41		≤ 1	Eq. (6.33)

DESIGN - ALL - DETAILS

323) Stability - Uniaxial bending and compression acc. to 6.3.2

Governing	Member	No.	2			
	Location	x	0.000	m		
	Result Combinations	RC	RC5			
Design Internal Forces	Normal Force	N_d	-0.350	kN		
	Shear Force	$V_{z,d}$	2.241	kN		
	Moment	$M_{y,d}$	-0.036	kNm		
Design	Normal Force (Compression)	N_d	0.350	kN		
	Cross-Sectional Area	A	96.00	cm^2		
	Compressive Stress	$\sigma_{c,0,d}$	0.0	N/mm^2		Eq. (6.36)
	Equivalent Member Length	$l_{ef,y}$	2.955	m		
	Equivalent Member Length	$l_{ef,z}$	2.955	m		
	Radius of Inertia	i_y	4.62	cm		
	Radius of Inertia	i_z	1.73	cm		
	Slenderness Degree	λ_y	63.984			
	Slenderness Degree	λ_z	170.623			
	Relative Slenderness Ratio	$\lambda_{rel,y}$	0.990		> 0.3	Eq. (6.21), Ann. (2)
	Relative Slenderness Ratio	$\lambda_{rel,z}$	2.640		> 0.3	Eq. (6.22), Ann. (2)
	Straightness Factor	β_c	0.100			Eq. (6.29)
	Instability Factor	k_y	1.025			Eq. (6.27)
	Instability Factor	k_z	4.102			Eq. (6.28)
	Buckling Coefficient	$k_{c,y}$	0.776			Eq. (6.25)
	Buckling Coefficient	$k_{c,z}$	0.138			Eq. (6.26)
	Compressive Strength	$f_{c,0,k}$	21.5	N/mm^2		[7], Tab.2
	Partial Factor	γ_M	1.300			Tab. 2.3
	Modification Factor	k_{mod}	1.000			Tab. 3.1
	Compressive Strength	$f_{c,0,d}$	16.5	N/mm^2		Eq. (2.14)
	Modulus of Elasticity	$E_{0,05}$	9100.0	N/mm^2		[7], Tab.2
	Reduction Factor	k_m	0.700			6.1.6
	Moment	$M_{y,d}$	0.036	kNm		
	Section Modulus	W_y	256.00	cm^3		
	Bending Stress	$\sigma_{m,y,d}$	0.1	N/mm^2		
	Bending Strength	$f_{m,y,k}$	24.0	N/mm^2		[7], Tab.2
	Bending Strength	$f_{m,y,d}$	18.5	N/mm^2		Eq. (2.14)
	Design 1	η_1	0.01		≤ 1	Eq. (6.23)
	Design 2	η_2	0.02		≤ 1	Eq. (6.24)
	Design Ratio	η	0.02		≤ 1	

341) Stability – Uniaxial bending and compression acc. to 6.3.3

Governing	Member	No.	2			
	Location	x	0.000	m		
	Result Combinations	RC	RC5			
Design Internal Forces	Normal Force	N_d	-0.350	kN		

DESIGN - ALL - DETAILS

	Shear Force	$V_{z,d}$	2.241	kN		
	Moment	$M_{y,d}$	-0.036	kNm		
Design	Moment	$M_{y,d}$	0.036	kNm		
	Cross-Section Width	b	6.00	cm		
	Cross-Section Height	h	16.00	cm		
	Section Modulus	W_y	256.00	cm^3		
	Bending Stress	$\sigma_{m,y,d}$	0.1	N/mm^2		
	Equivalent Member Length	l_{ef}	2.955	m		
	Modulus of Elasticity	$E_{0,05}$	9100.0	N/mm^2		[7], Tab.2
	Multiplication Factor		1.40			NCI Zu 6.3.3 (2)
	Shear Modulus	G_{05}	540.0	N/mm^2		[7], Tab.2
	Relative Slenderness Ratio	$\lambda_{rel,m}$	0.662		≤ 0.75	Eq. (6.30)
	Moment of Inertia	I_z	288.00	cm^4		
	Torsional Moment of Inertia	I_t	880.28	cm^4		
	Critical Bending Stress	$\sigma_{m,crit}$	54.8	N/mm^2		Eq. (6.31)
	Lateral Buckling Coefficient	k_{crit}	1.000			Eq. (6.34)
	Bending Strength	$f_{m,y,k}$	24.0	N/mm^2		[7], Tab.2
	Partial Factor	γ_M	1.300			Tab. 2.3
	Modification Factor	k_{mod}	1.000			Tab. 3.1
	Bending Strength	$f_{m,y,d}$	18.5	N/mm^2		Eq. (2.14)
	Normal Force	N_d	0.350	kN		
	Cross-Sectional Area	A	96.00	cm^2		
	Compressive Stress	$\sigma_{c,0,d}$	0.0	N/mm^2		Eq. (6.36)
	Equivalent Member Length	$l_{ef,z}$	2.955	m		
	Radius of Inertia	i_z	1.73	cm		
	Slenderness Degree	λ_z	170.623			
	Relative Slenderness Ratio	$\lambda_{rel,y}$	0.000		≤ 0.3	Eq. (6.21), Ann. (2)
	Relative Slenderness Ratio	$\lambda_{rel,z}$	2.640		> 0.3	Eq. (6.22), Ann. (2)
	Straightness Factor	β_c	0.100			Eq. (6.29)
	Instability Factor	k_z	4.102			Eq. (6.28)
	Buckling Coefficient	$k_{c,z}$	0.138			Eq. (6.26)
	Compressive Strength	$f_{c,0,k}$	21.5	N/mm^2		[7], Tab.2
	Partial Factor	γ_M	1.300			Tab. 2.3
	Modification Factor	k_{mod}	1.000			Tab. 3.1
	Compressive Strength	$f_{c,0,d}$	16.5	N/mm^2		Eq. (2.14)
	Design Ratio	η	0.02		≤ 1	Eq. (6.35)

DESIGN BY COMPONENTS

Member No	Location x [m]	RC	Ratio		Design Description
Left Cantilever					
1	0.105	RC2	0.02	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	0.211	RC2	0.03	≤ 1	114) Cross-section resistance - Shear stress on support Vz acc. to 6.1.7

DESIGN BY COMPONENTS

Member No	Location x [m]	RC	Ratio		Design Description
	0.211	RC2	0.13	≤ 1	252) Support pressure - Compression at an angle acc. to 6.2.2
Rafter (inner span)					
2	2.660	RC2	0.22	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	2.955	RC2	0.27	≤ 1	114) Cross-section resistance - Shear stress on support Vz acc. to 6.1.7
	1.478	RC2	0.41	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
	2.955	RC4	0.14	≤ 1	161) Cross-section resistance - Uniaxial bending about y-axis and tension acc. to 6.2.3
	2.955	RC2	0.19	≤ 1	252) Support pressure - Compression at an angle acc. to 6.2.2
	1.478	RC2	0.41	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
	0.000	RC5	0.02	≤ 1	323) Stability - Uniaxial bending and compression acc. to 6.3.2
	0.000	RC5	0.02	≤ 1	341) Stability – Uniaxial bending and compression acc. to 6.3.3
Right Cantilever					
3	0.268	RC4	0.09	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	0.000	RC4	0.13	≤ 1	114) Cross-section resistance - Shear stress on support Vz acc. to 6.1.7
	0.000	RC4	0.13	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
	0.000	RC2	0.19	≤ 1	252) Support pressure - Compression at an angle acc. to 6.2.2
	0.000	RC4	0.13	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
Max			0.41	≤ 1	

DESIGN BY MEMBER

Member No	Location x [m]	RC	Ratio		Design Description
Member No. 1					
1	0.000	RC1	0.00	≤ 1	100) Cross-section resistance - Negligible internal forces
	0.105	RC2	0.02	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	0.211	RC2	0.03	≤ 1	114) Cross-section resistance - Shear stress on support Vz acc. to 6.1.7
	0.211	RC2	0.13	≤ 1	252) Support pressure - Compression at an angle acc. to 6.2.2
Member No. 2					
2	2.660	RC2	0.22	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	2.955	RC2	0.27	≤ 1	114) Cross-section resistance - Shear stress on support Vz acc. to 6.1.7
	1.478	RC2	0.41	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
	2.955	RC4	0.14	≤ 1	161) Cross-section resistance - Uniaxial bending about y-axis and tension acc. to 6.2.3

DESIGN BY MEMBER

Member No	Location x [m]	RC	Ratio		Design Description
	2.955	RC2	0.19	≤ 1	252) Support pressure - Compression at an angle acc. to 6.2.2
	1.478	RC2	0.41	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
	0.000	RC5	0.02	≤ 1	323) Stability - Uniaxial bending and compression acc. to 6.3.2
	0.000	RC5	0.02	≤ 1	341) Stability – Uniaxial bending and compression acc. to 6.3.3
Member No. 3					
3	0.803	RC1	0.00	≤ 1	100) Cross-section resistance - Negligible internal forces
	0.268	RC4	0.09	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	0.000	RC4	0.13	≤ 1	114) Cross-section resistance - Shear stress on support Vz acc. to 6.1.7
	0.000	RC4	0.13	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
	0.000	RC2	0.19	≤ 1	252) Support pressure - Compression at an angle acc. to 6.2.2
	0.000	RC4	0.13	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
Max			0.41	≤ 1	

DESIGN BY X-LOCATION

Member No	Location x [m]	RC	Ratio		Design Description
Member No. 1					
1	0.000	RC1	0.00	≤ 1	100) Cross-section resistance - Negligible internal forces
	0.105	RC2	0.02	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	0.211	RC2	0.03	≤ 1	114) Cross-section resistance - Shear stress on support Vz acc. to 6.1.7
	0.211	RC2	0.13	≤ 1	252) Support pressure - Compression at an angle acc. to 6.2.2
Member No. 2					
2	0.000	RC2	0.24	≤ 1	114) Cross-section resistance - Shear stress on support Vz acc. to 6.1.7
	0.000	RC2	0.13	≤ 1	252) Support pressure - Compression at an angle acc. to 6.2.2
	0.000	RC5	0.02	≤ 1	323) Stability - Uniaxial bending and compression acc. to 6.3.2
	0.000	RC5	0.02	≤ 1	341) Stability – Uniaxial bending and compression acc. to 6.3.3
	0.191	RC4	0.18	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	0.191	RC4	0.09	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
	0.191	RC4	0.09	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
	0.296	RC2	0.19	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	0.296	RC2	0.15	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6

DESIGN BY X-LOCATION

Member No	Location x [m]	RC	Ratio		Design Description
	0.296	RC2	0.15	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
	0.591	RC2	0.14	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	0.591	RC2	0.28	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
	0.591	RC2	0.28	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
	0.781	RC7	0.08	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	0.781	RC7	0.25	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
	0.781	RC7	0.25	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
	0.887	RC2	0.08	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	0.887	RC2	0.36	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
	0.887	RC2	0.36	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
	1.182	RC2	0.03	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	1.182	RC2	0.41	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
	1.182	RC2	0.41	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
	1.478	RC4	0.02	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	1.478	RC2	0.41	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
	1.478	RC2	0.41	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
	1.773	RC2	0.07	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	1.773	RC2	0.38	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
	1.773	RC2	0.38	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
	2.069	RC2	0.12	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	2.069	RC2	0.31	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
	2.069	RC2	0.31	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
	2.364	RC2	0.17	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	2.364	RC2	0.20	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
	2.364	RC2	0.20	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
	2.660	RC2	0.22	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	2.660	RC17	0.10	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
	2.660	RC17	0.10	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
	2.766	RC7	0.19	≤	111) Cross-section resistance - Shear due to shear force Vz a

DESIGN BY X-LOCATION

Member No	Location x [m]	RC	Ratio		Design Description
				1	acc. to 6.1.7
	2.766	RC19	0.04	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
	2.766	RC19	0.04	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
	2.955	RC2	0.27	≤ 1	114) Cross-section resistance - Shear stress on support Vz acc. to 6.1.7
	2.955	RC7	0.13	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
	2.955	RC4	0.14	≤ 1	161) Cross-section resistance - Uniaxial bending about y-axis and tension acc. to 6.2.3
	2.955	RC2	0.19	≤ 1	252) Support pressure - Compression at an angle acc. to 6.2.2
	2.955	RC4	0.13	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
Member No. 3					
3	0.000	RC4	0.13	≤ 1	114) Cross-section resistance - Shear stress on support Vz acc. to 6.1.7
	0.000	RC4	0.13	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
	0.000	RC2	0.19	≤ 1	252) Support pressure - Compression at an angle acc. to 6.2.2
	0.000	RC4	0.13	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
	0.268	RC4	0.09	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	0.268	RC4	0.06	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
	0.268	RC4	0.06	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
	0.402	RC11	0.07	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	0.402	RC11	0.03	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
	0.402	RC11	0.03	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
	0.535	RC11	0.04	≤ 1	111) Cross-section resistance - Shear due to shear force Vz acc. to 6.1.7
	0.535	RC11	0.02	≤ 1	151) Cross-section resistance - Uniaxial bending acc. to 6.1.6
	0.535	RC11	0.02	≤ 1	311) Stability - Uniaxial bending about y-axis without compression force acc. to 6.3.3
	0.803	RC1	0.00	≤ 1	100) Cross-section resistance - Negligible internal forces
Max			0.41	≤ 1	

SUPPORT FORCES ON LENGTH

LC RC	LC/RC Description	Support No.	Support Reactions [kN/m] P_X	P_Z	Support Moments [kNm/m] M_Y
Load Cases (Characteristic Values)					
LC1	Self-Weight + Roof Finishes	1	0.000	0.269	0.000
		2	0.000	0.311	0.000
LC41	Snow	1	0.000	2.529	0.000
		2	0.000	3.797	0.000

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SUPPORT FORCES ON LENGTH

LC RC	LC/RC Description	Support No.	Support Reactions [kN/m] P_X	P_Z	Support Moments [kNm/m] M_Y
LC51	Wind Transversely to Ridge (left)(A)	1	-0.145	-1.017	0.000
		2	0.000	-0.637	0.000
LC52	Wind Transversely to Ridge (left)(B)	1	0.012	-0.146	0.000
		2	0.000	0.285	0.000
LC53	Wind Transversely to Ridge (right)(A)	1	-0.239	-0.603	0.000
		2	0.000	-2.129	0.000
LC54	Wind Transversely to Ridge (right)(B)	1	-0.239	-0.603	0.000
		2	0.000	-2.129	0.000
LC55	Wind Parallel to Ridge (A)	1	-0.089	-0.600	0.000
		2	0.000	-0.416	0.000
LC56	Wind Parallel to Ridge (B)	1	-0.066	-0.450	0.000
		2	0.000	-0.302	0.000
Max		1	0.012	2.529	0.000
Min			-0.239	-1.017	0.000
Max		2	0.000	3.797	0.000
Min			0.000	-2.129	0.000
Result Combinations for Ultimate Limit State (Design Values) (STR)					
RC1	g	1	0.000	0.363	0.000
		2	0.000	0.420	0.000
RC2	g + s	1	0.000	4.157	0.000
		2	0.000	6.116	0.000
RC3	g + s + w(q,l,A)	1	-0.130	3.242	0.000
		2	0.000	5.543	0.000
RC4	g + s + w(q,l,B)	1	0.011	4.026	0.000
		2	0.000	6.372	0.000
RC5	g + s + w(q,r,A)	1	-0.215	3.615	0.000
		2	0.000	4.200	0.000
RC6	g + s + w(q,r,B)	1	-0.215	3.615	0.000
		2	0.000	4.200	0.000
RC7	g + s + w(p,A)	1	-0.080	3.617	0.000
		2	0.000	5.742	0.000
RC8	g + s + w(p,B)	1	-0.059	3.752	0.000
		2	0.000	5.844	0.000
RC9	g + w(q,l,A)	1	-0.217	-1.163	0.000
		2	0.000	-0.535	0.000
RC10	g + w(q,l,B)	1	0.018	0.145	0.000
		2	0.000	0.848	0.000
RC11	g + w(q,r,A)	1	-0.359	-0.541	0.000
		2	0.000	-2.774	0.000
RC12	g + w(q,r,B)	1	-0.359	-0.541	0.000
		2	0.000	-2.774	0.000
RC13	g + w(p,A)	1	-0.133	-0.536	0.000
		2	0.000	-0.203	0.000
RC14	g + w(p,B)	1	-0.099	-0.312	0.000
		2	0.000	-0.033	0.000
RC15	g + s + w(q,l,A)	1	-0.217	0.734	0.000
		2	0.000	2.313	0.000
RC16	g + s + w(q,l,B)	1	0.018	2.042	0.000
		2	0.000	3.695	0.000
RC17	g + s + w(q,r,A)	1	-0.359	1.356	0.000

Project: Kandel 4x3m
Model: Kandel 4x3m
PM56-4030-4
Date: 24.01.2025

SUPPORT FORCES ON LENGTH

LC / RC	LC/RC Description	Support No.	Support Reactions [kN/m] P_X	P_Z	Support Moments [kNm/m] M_Y
		2	0.000	0.074	0.000
RC18	g + s + w(q,r,B)	1	-0.359	1.356	0.000
		2	0.000	0.074	0.000
RC19	g + s + w(p,A)	1	-0.133	1.361	0.000
		2	0.000	2.645	0.000
RC20	g + s + w(p,B)	1	-0.099	1.585	0.000
		2	0.000	2.815	0.000
Max		1	0.018	4.157	0.000
Min			-0.359	-1.163	0.000
Max		2	0.000	6.372	0.000
Min			0.000	-2.774	0.000