DB ENGINEERING
2021 The Alameda, Suite 360
San Jose, CA 95126
Tel: (408) 621 – 0114
Email: db.dbengineering@gmail.com

STRUCTURAL CALCULATIONS

PROJECT No.: 24009

PROJECT: Addition & Remodel
20820 Scenic Vista Drive
San Jose, CA

CLIENT: ---

OWNER: ---

DESIGNED BY: Dung Bui, PE

REFERENCES:

- 2022 California Building Code

DATE: 11/2024 Revision #1

DB Engineering
2021 The Alameda, Suite 360
San Jose, CA 95126

Project Title: Addition
Engineer:
Project ID: 24009
Project Descr: 20820 Scenic Vista Drive, San Jose, CA 95120

Printed: 29 OCT 2024, 10:11AM

Wood Beam

Project File: 24009.0 scenic vista.ec6

DESCRIPTION: CEILING BEAM (1)

CODE REFERENCES

Calculations per NDS 2018, IBC 2021, ASCE 7-16
Load Combination Set : ASCE 7-16

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-16

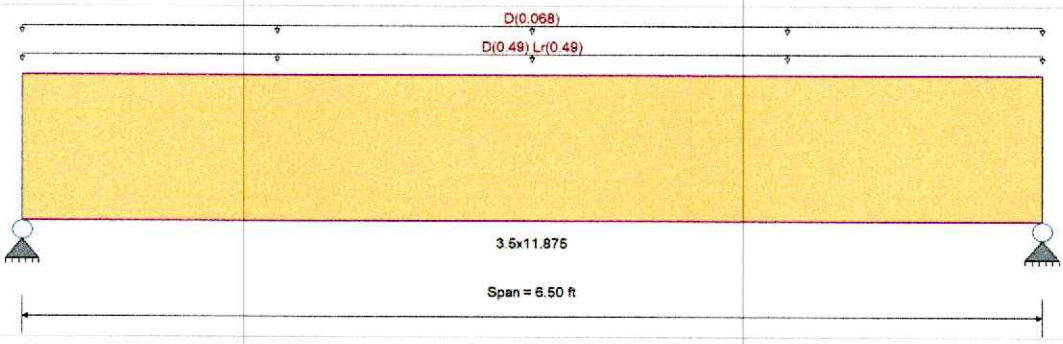
Wood Species : iLevel Truss Joist
Wood Grade : Parallam PSL 2.2E

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	2,900.0 psi
Fb -	2,900.0 psi
Fc - Prll	2,900.0 psi
Fc - Perp	750.0 psi
Fv	290.0 psi
Ft	2,025.0 psi

E : Modulus of Elasticity

Ebend- xx	2,200.0 ksi
Eminbend - xx	1,118.19 ksi
Density	45.070 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.020, Lr = 0.020 ksf, Tributary Width = 24.50 ft, (ROOF)
Uniform Load : D = 0.0170 ksf, Tributary Width = 4.0 ft, (WALL)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	0.225 : 1	Maximum Shear Stress Ratio	=	0.241 : 1
Section used for this span		3.5x11.875	Section used for this span		3.5x11.875
fb: Actual	=	817.43 psi	fv: Actual	=	87.21 psi
F'b	=	3,629.22 psi	F'v	=	362.50 psi
Load Combination		+D+Lr	Load Combination		+D+Lr
Location of maximum on span	=	3.250 ft	Location of maximum on span	=	5.527 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.018 in	Ratio =	4233 >=360	Span: 1 : Lr Only
Max Upward Transient Deflection	0 in	Ratio =	0 <360	n/a
Max Downward Total Deflection	0.040 in	Ratio =	1955 >=180	Span: 1 : +D+Lr
Max Upward Total Deflection	0 in	Ratio =	0 <180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 6.50 ft	1	0.168	0.180	0.90	1.00	1.00	1.00	1.001	1.00	1.00	1.00	3.02	439.9	2,613.0	1.30	46.9	261.0
+D+Lr					1.00	1.00	1.00	1.001	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 6.50 ft	1	0.225	0.241	1.25	1.00	1.00	1.00	1.001	1.00	1.00	1.00	5.60	817.4	3,629.2	2.42	87.2	362.5
+D+0.750Lr					1.00	1.00	1.00	1.001	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 6.50 ft	1	0.199	0.213	1.25	1.00	1.00	1.00	1.001	1.00	1.00	1.00	4.96	723.1	3,629.2	2.14	77.1	362.5
+0.60D					1.00	1.00	1.00	1.001	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 6.50 ft	1	0.057	0.061	1.60	1.00	1.00	1.00	1.001	1.00	1.00	1.00	1.81	264.0	4,645.4	0.78	28.2	464.0

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DESCRIPTION: CEILING BEAM (1)

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr	1	0.0399	3.274		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	3.448	3.448
Max Upward from Load Combinations	3.448	3.448
Max Upward from Load Cases	1.856	1.856
D Only	1.856	1.856
+D+Lr	3.448	3.448
+D+0.750Lr	3.050	3.050
+0.60D	1.113	1.113
Lr Only	1.593	1.593

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San Jose, CA 95126

Project Title: Addition
Engineer:
Project ID: 24009
Project Descr: 20820 Scenic Vista Drive, San Jose, CA 95120

Printed: 14 FEB 2024, 11:23PM

Wood Beam

Project File: 24009.0 scenic vista.ec6

DESCRIPTION: CEILING BEAM (2)

CODE REFERENCES

Calculations per NDS 2018, IBC 2021, ASCE 7-16
Load Combination Set : ASCE 7-16

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-16

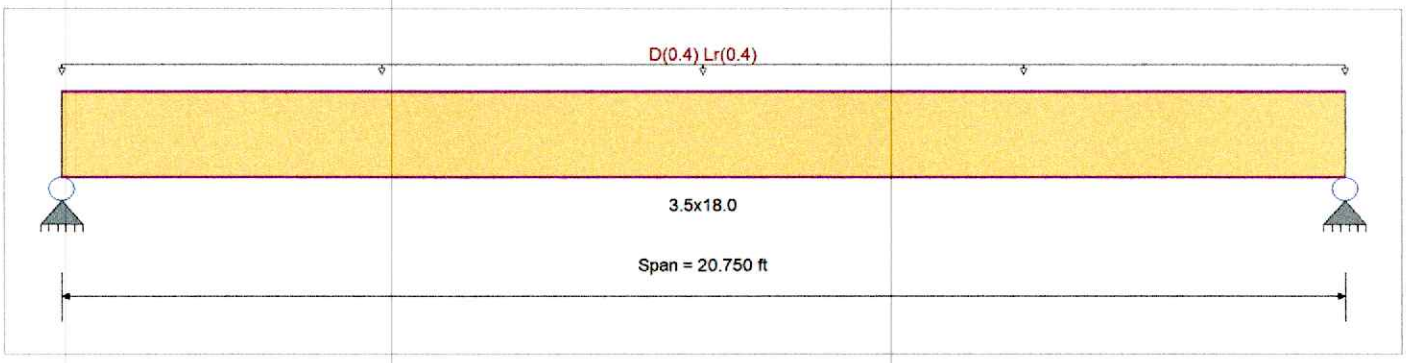
Wood Species : iLevel Truss Joist
Wood Grade : Parallam PSL 2.2E

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	2,900.0 psi
Fb -	2,900.0 psi
Fc - Prll	2,900.0 psi
Fc - Perp	750.0 psi
Fv	290.0 psi
Ft	2,025.0 psi

E : Modulus of Elasticity

Ebend- xx	2,200.0 ksi
Eminbend - xx	1,118.19 ksi
Density	45.070 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.020, Lr = 0.020 ksf, Tributary Width = 20.0 ft, (ROOF)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	0.808 : 1	Maximum Shear Stress Ratio	=	0.481 : 1
Section used for this span		3.5x18.0	Section used for this span		3.5x18.0
fb: Actual	=	2,801.11 psi	fv: Actual	=	174.41 psi
F'b	=	3,465.47 psi	F'v	=	362.50 psi
Load Combination		+D+Lr	Load Combination		+D+Lr
Location of maximum on span	=	10.375 ft	Location of maximum on span	=	19.311 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.448 in	Ratio =	555 >=360	Span: 1 : Lr Only
Max Upward Transient Deflection	0 in	Ratio =	0 <360	n/a
Max Downward Total Deflection	0.919 in	Ratio =	270 >=180	Span: 1 : +D+Lr
Max Upward Total Deflection	0 in	Ratio =	0 <180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 20.750 ft	1	0.575	0.342	0.90	1.00	1.00	1.00	0.956	1.00	1.00	1.00	22.59	1,434.2	2,495.1	3.75	89.3	261.0
+D+Lr					1.00	1.00	1.00	0.956	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 20.750 ft	1	0.808	0.481	1.25	1.00	1.00	1.00	0.956	1.00	1.00	1.00	44.12	2,801.1	3,465.5	7.33	174.4	362.5
+D+0.750Lr					1.00	1.00	1.00	0.956	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 20.750 ft	1	0.710	0.422	1.25	1.00	1.00	1.00	0.956	1.00	1.00	1.00	38.74	2,459.4	3,465.5	6.43	153.1	362.5
+0.60D					1.00	1.00	1.00	0.956	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 20.750 ft	1	0.194	0.115	1.60	1.00	1.00	1.00	0.956	1.00	1.00	1.00	13.55	860.5	4,435.8	2.25	53.6	464.0

DESCRIPTION: CEILING BEAM (2)

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr	1	0.9190	10.451		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	8.505	8.505
Max Upward from Load Combinations	8.505	8.505
Max Upward from Load Cases	4.355	4.355
D Only	4.355	4.355
+D+Lr	8.505	8.505
+D+0.750Lr	7.467	7.467
+0.60D	2.613	2.613
Lr Only	4.150	4.150

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Project Title: Addition
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Project Descr: 20820 Scenic Vista Drive, San Jose, CA 95120

Printed: 14 FEB 2024, 10:59PM

Wood Beam

Project File: 24009.0 scenic vista.ec6

DESCRIPTION: CEILING BEAM (3)

CODE REFERENCES

Calculations per NDS 2018, IBC 2021, ASCE 7-16
Load Combination Set : ASCE 7-16

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-16

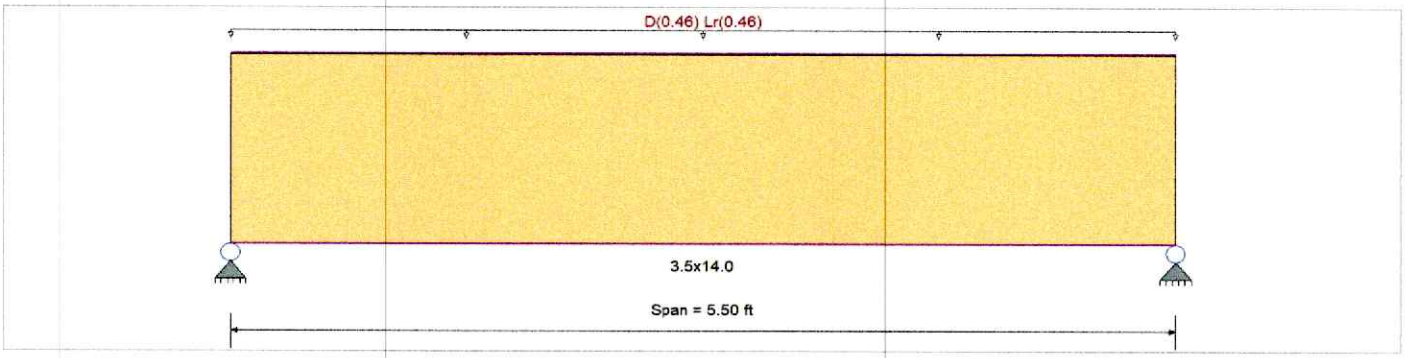
Wood Species : iLevel Truss Joist
Wood Grade : Parallam PSL 2.2E

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	2,900.0 psi
Fb -	2,900.0 psi
Fc - Prll	2,900.0 psi
Fc - Perp	750.0 psi
Fv	290.0 psi
Ft	2,025.0 psi

E : Modulus of Elasticity

Ebend- xx	2,200.0 ksi
Eminbend - xx	1,118.19 ksi
Density	45.070 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.020, Lr = 0.020 ksf, Tributary Width = 23.0 ft, (ROOF)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	0.104 : 1	Maximum Shear Stress Ratio	=	0.125 : 1
Section used for this span		3.5x14.0	Section used for this span		3.5x14.0
fb: Actual	=	371.20 psi	fv: Actual	=	45.40 psi
F'b	=	3,563.50 psi	F'v	=	362.50 psi
Load Combination		+D+Lr	Load Combination		+D+Lr
Location of maximum on span	=	2.750 ft	Location of maximum on span	=	4.336 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.005 in	Ratio =	12198 >=360	Span: 1 : Lr Only
Max Upward Transient Deflection	0 in	Ratio =	0 <360	n/a
Max Downward Total Deflection	0.011 in	Ratio =	5999 >=180	Span: 1 : +D+Lr
Max Upward Total Deflection	0 in	Ratio =	0 <180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 5.50 ft	1	0.074	0.088	0.90	1.00	1.00	1.00	0.983	1.00	1.00	1.00	1.80	188.6	2,565.7	0.75	23.1	261.0
+D+Lr					1.00	1.00	1.00	0.983	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 5.50 ft	1	0.104	0.125	1.25	1.00	1.00	1.00	0.983	1.00	1.00	1.00	3.54	371.2	3,563.5	1.48	45.4	362.5
+D+0.750Lr					1.00	1.00	1.00	0.983	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 5.50 ft	1	0.091	0.110	1.25	1.00	1.00	1.00	0.983	1.00	1.00	1.00	3.10	325.6	3,563.5	1.30	39.8	362.5
+0.60D					1.00	1.00	1.00	0.983	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 5.50 ft	1	0.025	0.030	1.60	1.00	1.00	1.00	0.983	1.00	1.00	1.00	1.08	113.2	4,561.3	0.45	13.8	464.0

DESCRIPTION: CEILING BEAM (3)

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr	1	0.0110	2.770		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	2.572	2.572
Max Upward from Load Combinations	2.572	2.572
Max Upward from Load Cases	1.307	1.307
D Only	1.307	1.307
+D+Lr	2.572	2.572
+D+0.750Lr	2.256	2.256
+0.60D	0.784	0.784
Lr Only	1.265	1.265

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Project Title: Addition
Engineer:
Project ID: 24009
Project Descr: 20820 Scenic Vista Drive, San Jose, CA 95120

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Wood Beam

Project File: 24009.0 scenic vista.ec6

DESCRIPTION: CEILING BEAM (4)

CODE REFERENCES

Calculations per NDS 2018, IBC 2021, ASCE 7-16
Load Combination Set : ASCE 7-16

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-16

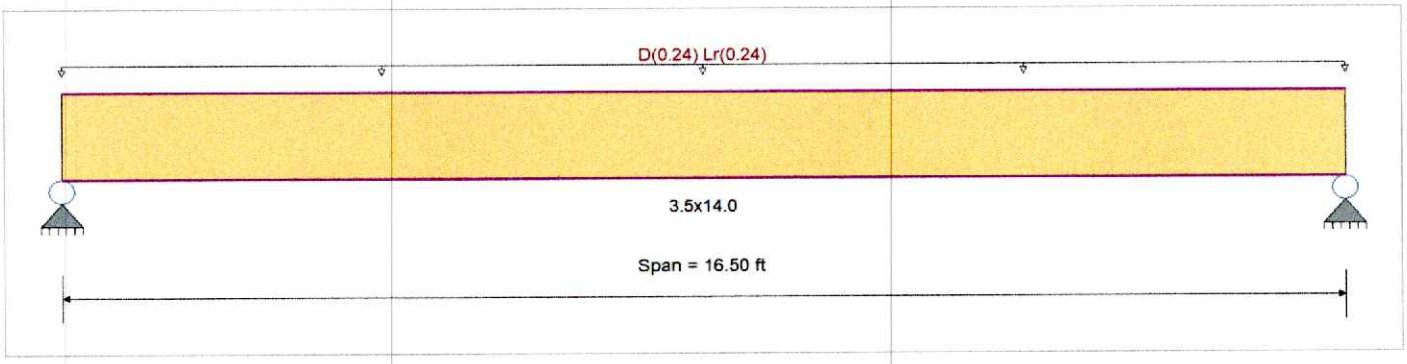
Wood Species : iLevel Truss Joist
Wood Grade : Parallam PSL 2.2E

Fb +	2,900.0 psi
Fb -	2,900.0 psi
Fc - Prll	2,900.0 psi
Fc - Perp	750.0 psi
Fv	290.0 psi
Ft	2,025.0 psi

E : Modulus of Elasticity

Ebend- xx	2,200.0 ksi
Eminbend - xx	1,118.19 ksi
Density	45.070 pcf

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.020, Lr = 0.020 ksf, Tributary Width = 12.0 ft, (ROOF)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	0.496 : 1	Maximum Shear Stress Ratio	=	0.297 : 1
Section used for this span		3.5x14.0	Section used for this span		3.5x14.0
fb: Actual	=	1,769.24 psi	fv: Actual	=	107.75 psi
F'b	=	3,563.50 psi	F'v	=	362.50 psi
Load Combination		+D+Lr	Load Combination		+D+Lr
Location of maximum on span	=	8.250 ft	Location of maximum on span	=	0.000 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.229 in	Ratio =	865 >=360	Span: 1 : Lr Only
Max Upward Transient Deflection	0 in	Ratio =	0 <360	n/a
Max Downward Total Deflection	0.472 in	Ratio =	419 >=180	Span: 1 : +D+Lr
Max Upward Total Deflection	0 in	Ratio =	0 <180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 16.50 ft	1	0.355	0.213	0.90	1.00	1.00	1.00	0.983	1.00	1.00	1.00	8.69	912.0	2,565.7	1.81	55.5	261.0
+D+Lr					1.00	1.00	1.00	0.983	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 16.50 ft	1	0.496	0.297	1.25	1.00	1.00	1.00	0.983	1.00	1.00	1.00	16.86	1,769.2	3,563.5	3.52	107.7	362.5
+D+0.750Lr					1.00	1.00	1.00	0.983	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 16.50 ft	1	0.436	0.261	1.25	1.00	1.00	1.00	0.983	1.00	1.00	1.00	14.82	1,554.9	3,563.5	3.09	94.7	362.5
+0.60D					1.00	1.00	1.00	0.983	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 16.50 ft	1	0.120	0.072	1.60	1.00	1.00	1.00	0.983	1.00	1.00	1.00	5.21	547.2	4,561.3	1.09	33.3	464.0

DESCRIPTION: CEILING BEAM (4)

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr	1	0.4719	8.310		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	4.087	4.087
Max Upward from Load Combinations	4.087	4.087
Max Upward from Load Cases	2.107	2.107
D Only	2.107	2.107
+D+Lr	4.087	4.087
+D+0.750Lr	3.592	3.592
+0.60D	1.264	1.264
Lr Only	1.980	1.980

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Project Title: Addition
Engineer:
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Printed: 14 FEB 2024, 11:40PM

Wood Beam

Project File: 24009.0 scenic vista.ec6

DESCRIPTION: HEADER BEAM (1)

CODE REFERENCES

Calculations per NDS 2018, IBC 2021, ASCE 7-16
Load Combination Set : ASCE 7-16

Material Properties

Analysis Method : Allowable Stress Design
Load Combination ASCE 7-16

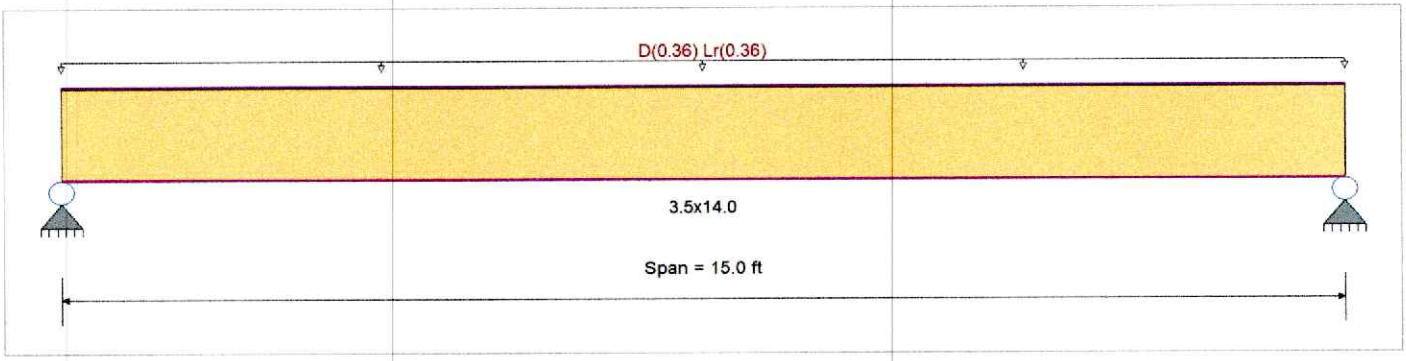
Wood Species : iLevel Truss Joist
Wood Grade : Parallam PSL 2.2E

Fb +	2,900.0 psi
Fb -	2,900.0 psi
Fc - Prll	2,900.0 psi
Fc - Perp	750.0 psi
Fv	290.0 psi
Ft	2,025.0 psi

E : Modulus of Elasticity

Ebend- xx	2,200.0 ksi
Eminbend - xx	1,118.19 ksi
Density	45.070 pcf

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.020, Lr = 0.020 ksf, Tributary Width = 18.0 ft, (ROOF)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	0.609 : 1	Maximum Shear Stress Ratio	=	0.394 : 1
Section used for this span		**3.5x14.0**	Section used for this span		**3.5x14.0**
fb: Actual	=	2,170.64 psi	fv: Actual	=	142.95 psi
F'b	=	3,563.50 psi	F'v	=	362.50 psi
Load Combination		+D+Lr	Load Combination		+D+Lr
Location of maximum on span	=	7.500 ft	Location of maximum on span	=	13.850 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.234 in	Ratio =	768 >=360	Span: 1 : Lr Only
Max Upward Transient Deflection	0 in	Ratio =	0 <360	n/a
Max Downward Total Deflection	0.478 in	Ratio =	376 >=180	Span: 1 : +D+Lr
Max Upward Total Deflection	0 in	Ratio =	0 <180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 15.0 ft	1	0.432	0.280	0.90	1.00	1.00	1.00	0.983	1.00	1.00	1.00	10.56	1,108.0	2,565.7	2.38	73.0	261.0
+D+Lr					1.00	1.00	1.00	0.983	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 15.0 ft	1	0.609	0.394	1.25	1.00	1.00	1.00	0.983	1.00	1.00	1.00	20.68	2,170.6	3,563.5	4.67	142.9	362.5
+D+0.750Lr					1.00	1.00	1.00	0.983	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 15.0 ft	1	0.535	0.346	1.25	1.00	1.00	1.00	0.983	1.00	1.00	1.00	18.15	1,905.0	3,563.5	4.10	125.5	362.5
+0.60D					1.00	1.00	1.00	0.983	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 15.0 ft	1	0.146	0.094	1.60	1.00	1.00	1.00	0.983	1.00	1.00	1.00	6.33	664.8	4,561.3	1.43	43.8	464.0

DB Engineering
2021 The Alameda, Suite 360
San Jose, CA 95126

Project Title: Addition
Engineer:
Project ID: 24009
Project Descr: 20820 Scenic Vista Drive, San Jose, CA 95120

Printed: 14 FEB 2024, 11:40PM

Wood Beam

Project File: 24009.0 scenic vista.ec6

DESCRIPTION: HEADER BEAM (1)

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr	1	0.4785	7.555		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	5.515	5.515
Max Upward from Load Combinations	5.515	5.515
Max Upward from Load Cases	2.815	2.815
D Only	2.815	2.815
+D+Lr	5.515	5.515
+D+0.750Lr	4.840	4.840
+0.60D	1.689	1.689
Lr Only	2.700	2.700

DB Engineering
2021 The Alameda, Suite 360
San Jose, CA 95126

Project Title: Addition
Engineer:
Project ID: 24009
Project Descr: 20820 Scenic Vista Drive, San Jose, CA 95120

Printed: 29 OCT 2024, 10:21AM

Wood Beam

Project File: 24009.0 scenic vista.ec6

DESCRIPTION: HEADER BEAM (2)

CODE REFERENCES

Calculations per NDS 2018, IBC 2021, ASCE 7-16
Load Combination Set : ASCE 7-16

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-16

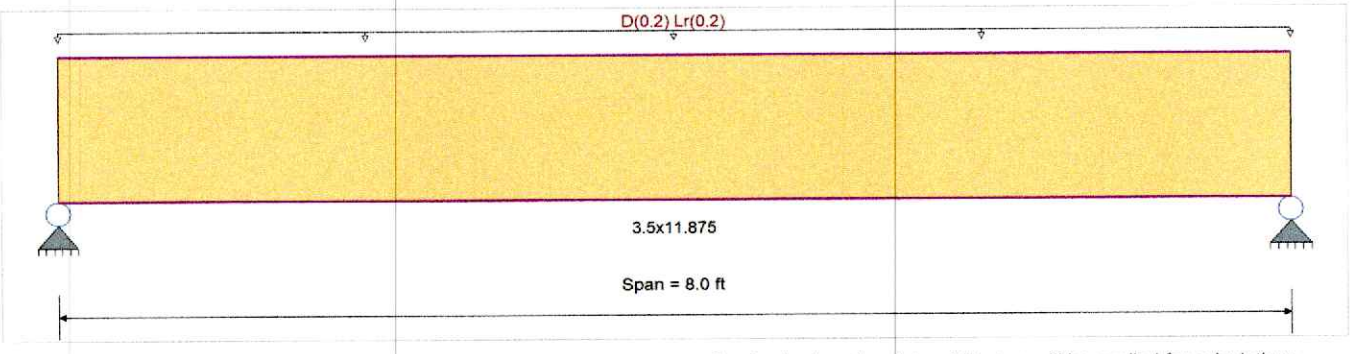
Wood Species : iLevel Truss Joist
Wood Grade : Parallam PSL 2.2E

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	2,900.0 psi
Fb -	2,900.0 psi
Fc - Prll	2,900.0 psi
Fc - Perp	750.0 psi
Fv	290.0 psi
Ft	2,025.0 psi

E : Modulus of Elasticity

Ebend- xx	2,200.0 ksi
Eminbend - xx	1,118.19 ksi
Density	45.070 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.020, Lr = 0.020 ksf, Tributary Width = 10.0 ft, (ROOF)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	0.133 : 1	Maximum Shear Stress Ratio	=	0.125 : 1
Section used for this span		3.5x11.875	Section used for this span		3.5x11.875
fb: Actual	=	482.00 psi	fv: Actual	=	45.26 psi
F'b	=	3,629.22 psi	F'v	=	362.50 psi
Load Combination		+D+Lr	Load Combination		+D+Lr
Location of maximum on span	=	4.000 ft	Location of maximum on span	=	7.036 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.017 in	Ratio =	5563 >=360	Span: 1 : Lr Only
Max Upward Transient Deflection	0 in	Ratio =	0 <360	n/a
Max Downward Total Deflection	0.036 in	Ratio =	2694 >=180	Span: 1 : +D+Lr
Max Upward Total Deflection	0 in	Ratio =	0 <180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 8.0 ft	1	0.095	0.089	0.90	1.00	1.00	1.00	1.001	1.00	1.00	1.00	1.70	248.6	2,613.0	0.65	23.3	261.0
+D+Lr					1.00	1.00	1.00	1.001	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 8.0 ft	1	0.133	0.125	1.25	1.00	1.00	1.00	1.001	1.00	1.00	1.00	3.30	482.0	3,629.2	1.25	45.3	362.5
+D+0.750Lr					1.00	1.00	1.00	1.001	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 8.0 ft	1	0.117	0.110	1.25	1.00	1.00	1.00	1.001	1.00	1.00	1.00	2.90	423.6	3,629.2	1.10	39.8	362.5
+0.60D					1.00	1.00	1.00	1.001	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 8.0 ft	1	0.032	0.030	1.60	1.00	1.00	1.00	1.001	1.00	1.00	1.00	1.02	149.2	4,645.4	0.39	14.0	464.0

DB Engineering
2021 The Alameda, Suite 360
San Jose, CA 95126

Project Title: Addition
Engineer:
Project ID: 24009
Project Descr: 20820 Scenic Vista Drive, San Jose, CA 95120

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Wood Beam

Project File: 24009.0 scenic vista.ec6

DESCRIPTION: HEADER BEAM (2)

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr	1	0.0356	4.029		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	1.652	1.652
Max Upward from Load Combinations	1.652	1.652
Max Upward from Load Cases	0.852	0.852
D Only	0.852	0.852
+D+Lr	1.652	1.652
+D+0.750Lr	1.452	1.452
+0.60D	0.511	0.511
Lr Only	0.800	0.800

DB Engineering
2021 The Alameda, Suite 360
San Jose, CA 95126

Project Title: Addition
Engineer:
Project ID: 24009
Project Descr: 20820 Scenic Vista Drive, San Jose, CA 95120

Printed: 29 OCT 2024, 10:26AM

Wood Beam

Project File: 24009.0 scenic vista.ec6

DESCRIPTION: HEADER BEAM (3)

CODE REFERENCES

Calculations per NDS 2018, IBC 2021, ASCE 7-16
Load Combination Set : ASCE 7-16

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-16

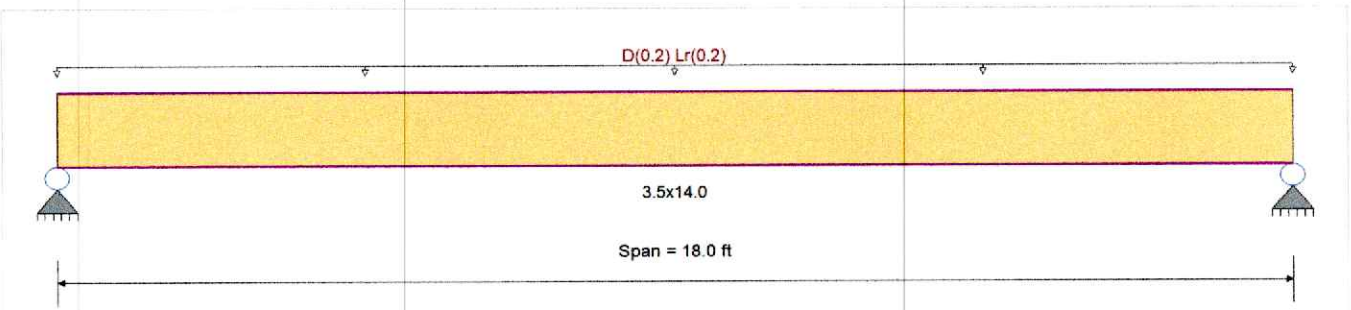
Wood Species : iLevel Truss Joist
Wood Grade : Parallam PSL 2.2E

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	2,900.0 psi
Fb -	2,900.0 psi
Fc - Prll	2,900.0 psi
Fc - Perp	750.0 psi
Fv	290.0 psi
Ft	2,025.0 psi

E : Modulus of Elasticity

Ebend- xx	2,200.0 ksi
Eminbend - xx	1,118.19 ksi
Density	45.070 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.020, Lr = 0.020 ksf, Tributary Width = 10.0 ft, (ROOF)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	0.495 : 1	Maximum Shear Stress Ratio	=	0.276 : 1
Section used for this span		3.5x14.0	Section used for this span		3.5x14.0
fb: Actual	=	1,765.48 psi	fv: Actual	=	100.23 psi
F'b	=	3,563.50 psi	F'v	=	362.50 psi
Load Combination		+D+Lr	Load Combination		+D+Lr
Location of maximum on span	=	9.000 ft	Location of maximum on span	=	16.883 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.270 in	Ratio =	800 >=360	Span: 1 : Lr Only
Max Upward Transient Deflection	0 in	Ratio =	0 <360	n/a
Max Downward Total Deflection	0.560 in	Ratio =	385 >=180	Span: 1 : +D+Lr
Max Upward Total Deflection	0 in	Ratio =	0 <180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 18.0 ft	1	0.357	0.199	0.90	1.00	1.00	1.00	0.983	1.00	1.00	1.00	8.72	915.3	2,565.7	1.70	52.0	261.0
+D+Lr					1.00	1.00	1.00	0.983	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 18.0 ft	1	0.495	0.276	1.25	1.00	1.00	1.00	0.983	1.00	1.00	1.00	16.82	1,765.5	3,563.5	3.27	100.2	362.5
+D+0.750Lr					1.00	1.00	1.00	0.983	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 18.0 ft	1	0.436	0.243	1.25	1.00	1.00	1.00	0.983	1.00	1.00	1.00	14.80	1,552.9	3,563.5	2.88	88.2	362.5
+0.60D					1.00	1.00	1.00	0.983	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 18.0 ft	1	0.120	0.067	1.60	1.00	1.00	1.00	0.983	1.00	1.00	1.00	5.23	549.2	4,561.3	1.02	31.2	464.0

DESCRIPTION: HEADER BEAM (3)

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr	1	0.5604	9.066		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	3.738	3.738
Max Upward from Load Combinations	3.738	3.738
Max Upward from Load Cases	1.938	1.938
D Only	1.938	1.938
+D+Lr	3.738	3.738
+D+0.750Lr	3.288	3.288
+0.60D	1.163	1.163
Lr Only	1.800	1.800

DB Engineering
2021 The Alameda, Suite 360
San Jose, CA 95126

Project Title: Addition
Engineer:
Project ID: 24009
Project Descr: 20820 Scenic Vista Drive, San Jose, CA 95120

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Wood Beam

Project File: 24009.0 scenic vista.ec6

DESCRIPTION: HEADER BEAM (4)

CODE REFERENCES

Calculations per NDS 2018, IBC 2021, ASCE 7-16
Load Combination Set : ASCE 7-16

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-16

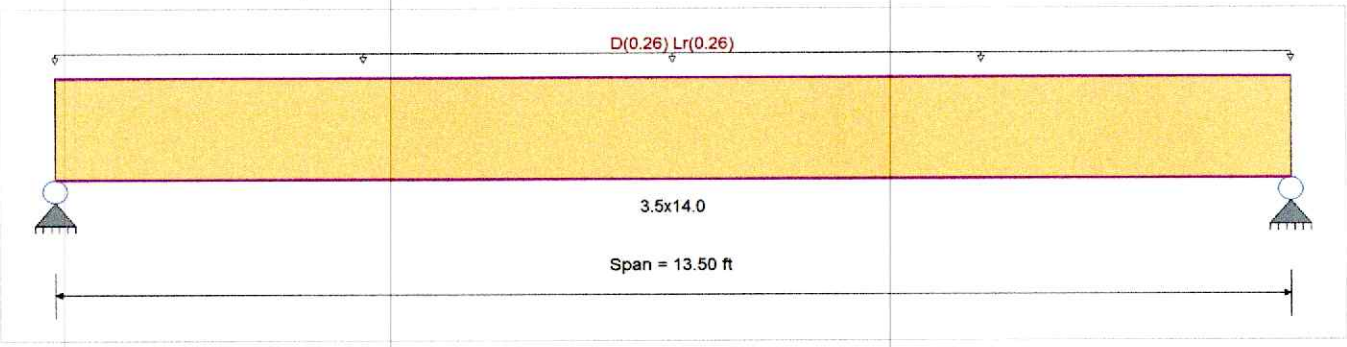
Wood Species : iLevel Truss Joist
Wood Grade : Parallam PSL 2.2E

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	2,900.0 psi
Fb -	2,900.0 psi
Fc - Prll	2,900.0 psi
Fc - Perp	750.0 psi
Fv	290.0 psi
Ft	2,025.0 psi

E : Modulus of Elasticity

Ebend- xx	2,200.0 ksi
Eminbend - xx	1,118.19 ksi
Density	45.070 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.020, Lr = 0.020 ksf, Tributary Width = 13.0 ft, (ROOF)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	0.359 : 1	Maximum Shear Stress Ratio	=	0.254 : 1
Section used for this span		3.5x14.0	Section used for this span		3.5x14.0
fb: Actual	=	1,280.01 psi	fv: Actual	=	92.05 psi
F'b	=	3,563.50 psi	F'v	=	362.50 psi
Load Combination		+D+Lr	Load Combination		+D+Lr
Location of maximum on span	=	6.750 ft	Location of maximum on span	=	0.000 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.111 in	Ratio =	1459 >=360	Span: 1 : Lr Only
Max Upward Transient Deflection	0 in	Ratio =	0 <360	n/a
Max Downward Total Deflection	0.229 in	Ratio =	708 >=180	Span: 1 : +D+Lr
Max Upward Total Deflection	0 in	Ratio =	0 <180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 13.451 ft	1	0.257	0.181	0.90	1.00	1.00	1.00	0.983	1.00	1.00	1.00	6.27	658.3	2,565.7	1.55	47.3	261.0
Length = 0.04927 ft	1	0.004	0.181	0.90	1.00	1.00	1.00	0.983	1.00	1.00	1.00	0.09	9.6	2,565.7	1.55	47.3	261.0
+D+Lr					1.00	1.00	1.00	0.983	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 13.451 ft	1	0.359	0.254	1.25	1.00	1.00	1.00	0.983	1.00	1.00	1.00	12.20	1,280.0	3,563.5	3.01	92.0	362.5
Length = 0.04927 ft	1	0.005	0.254	1.25	1.00	1.00	1.00	0.983	1.00	1.00	1.00	0.18	18.6	3,563.5	3.01	92.0	362.5
+D+0.750Lr					1.00	1.00	1.00	0.983	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 13.451 ft	1	0.316	0.223	1.25	1.00	1.00	1.00	0.983	1.00	1.00	1.00	10.71	1,124.6	3,563.5	2.64	80.9	362.5
Length = 0.04927 ft	1	0.005	0.223	1.25	1.00	1.00	1.00	0.983	1.00	1.00	1.00	0.16	16.4	3,563.5	2.64	80.9	362.5
+0.60D					1.00	1.00	1.00	0.983	1.00	1.00	1.00			0.0	0.00	0.0	0.0

DB Engineering
2021 The Alameda, Suite 360
San Jose, CA 95126

Project Title: Addition
Engineer:
Project ID: 24009
Project Descr: 20820 Scenic Vista Drive, San Jose, CA 95120

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Wood Beam

Project File: 24009.0 scenic vista.ec6

DESCRIPTION: HEADER BEAM (4)

Maximum Forces & Stresses for Load Combinations

Load Combination — Max Stress Ratios — Moment Values — Shear Values

Segment Length	Span #	M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	M	fb	F'b	V	fv	F'v
Length = 13.451 ft	1	0.087	0.061	1.60	1.00	1.00	1.00	0.983	1.00	1.00	1.00	3.76	395.0	4,561.3	0.93	28.4	464.0
Length = 0.04927 ft	1	0.001	0.061	1.60	1.00	1.00	1.00	0.983	1.00	1.00	1.00	0.05	5.7	4,561.3	0.93	28.4	464.0

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr	1	0.2285	6.799		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 — Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	3.614	3.614
Max Upward from Load Combinations	3.614	3.614
Max Upward from Load Cases	1.859	1.859
D Only	1.859	1.859
+D+Lr	3.614	3.614
+D+0.750Lr	3.175	3.175
+0.60D	1.115	1.115
Lr Only	1.755	1.755

DB Engineering
2021 The Alameda, Suite 360
San Jose, CA 95126

Project Title: Addition
Engineer:
Project ID: 24009
Project Descr: 20820 Scenic Vista Drive, San Jose, CA 95120

Printed: 14 FEB 2024, 11:32PM

General Footing

Project File: 24009.0 scenic vista.ec6

DESCRIPTION: CBM (1)

Code References

Calculations per ACI 318-19, IBC 2021, ASCE 7-16
Load Combinations Used : ASCE 7-16

General Information

Material Properties

f'c : Concrete 28 day strength	=	2.50 ksi
fy : Rebar Yield	=	40.0 ksi
Ec : Concrete Elastic Modulus	=	2,850.0 ksi
Concrete Density	=	145.0 pcf
φ Values Flexure	=	0.90
Shear	=	0.750

Analysis Settings

Min Steel % Bending Reinf.	=	
Min Allow % Temp Reinf.	=	0.00180
Min. Overturning Safety Factor	=	1.0 : 1
Min. Sliding Safety Factor	=	1.0 : 1
Add Ftg Wt for Soil Pressure	:	Yes
Use ftg wt for stability, moments & shears	:	Yes
Add Pedestal Wt for Soil Pressure	:	No
Use Pedestal wt for stability, mom & shear	:	No

Soil Design Values

Allowable Soil Bearing	=	1.50 ksf
Soil Density	=	110.0 pcf
Increase Bearing By Footing Weight	=	No
Soil Passive Resistance (for Sliding)	=	250.0 pcf
Soil/Concrete Friction Coeff.	=	0.30

Increases based on footing Depth

Footing base depth below soil surface	=	1.50 ft
Allow press. increase per foot of depth	=	ksf
when footing base is below	=	ft

Increases based on footing plan dimension

Allowable pressure increase per foot of depth	=	ksf
when max. length or width is greater than	=	ft

Dimensions

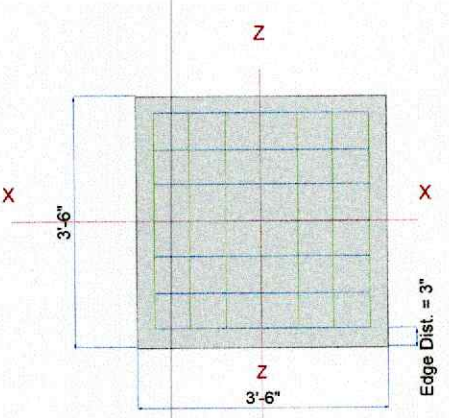
Width parallel to X-X Axis	=	3.50 ft
Length parallel to Z-Z Axis	=	3.50 ft
Footing Thickness	=	18.0 in

Pedestal dimensions...

px : parallel to X-X Axis	=	in
pz : parallel to Z-Z Axis	=	in
Height	=	in

Rebar Centerline to Edge of Concrete...

at Bottom of footing	=	3.0 in

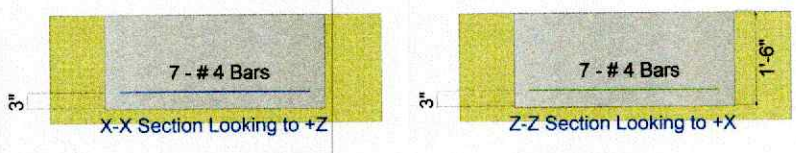


Reinforcing

Bars parallel to X-X Axis			
Number of Bars	=		7
Reinforcing Bar Size	=	#	4
Bars parallel to Z-Z Axis			
Number of Bars	=		7
Reinforcing Bar Size	=	#	4

Bandwidth Distribution Check (ACI 15.4.4.2)

Direction Requiring Closer Separation	n/a
# Bars required within zone	n/a
# Bars required on each side of zone	n/a



Applied Loads

		D	Lr	L	S	W	E	H	
P : Column Load	=	7.097	6.60						k
OB : Overburden	=								ksf
M-xx	=								k-ft
M-zz	=								k-ft
V-x	=								k
V-z	=								k

DESCRIPTION: CBM (1)

DESIGN SUMMARY

Design OK

	Min. Ratio	Item	Applied	Capacity	Governing Load Combination
PASS	0.8907	Soil Bearing	1.336 ksf	1.50 ksf	+D+Lr about Z-Z axis
PASS	n/a	Overturning - X-X	0.0 k-ft	0.0 k-ft	No Overturning
PASS	n/a	Overturning - Z-Z	0.0 k-ft	0.0 k-ft	No Overturning
PASS	n/a	Sliding - X-X	0.0 k	0.0 k	No Sliding
PASS	n/a	Sliding - Z-Z	0.0 k	0.0 k	No Sliding
PASS	n/a	Uplift	0.0 k	0.0 k	No Uplift
PASS	0.1353	Z Flexure (+X)	2.385 k-ft/ft	17.624 k-ft/ft	+1.20D+1.60Lr
PASS	0.1353	Z Flexure (-X)	2.385 k-ft/ft	17.624 k-ft/ft	+1.20D+1.60Lr
PASS	0.1353	X Flexure (+Z)	2.385 k-ft/ft	17.624 k-ft/ft	+1.20D+1.60Lr
PASS	0.1353	X Flexure (-Z)	2.385 k-ft/ft	17.624 k-ft/ft	+1.20D+1.60Lr
PASS	0.05652	1-way Shear (+X)	4.239 psi	75.0 psi	+1.20D+1.60Lr
PASS	0.05652	1-way Shear (-X)	4.239 psi	75.0 psi	+1.20D+1.60Lr
PASS	0.05652	1-way Shear (+Z)	4.239 psi	75.0 psi	+1.20D+1.60Lr
PASS	0.05652	1-way Shear (-Z)	4.239 psi	75.0 psi	+1.20D+1.60Lr
PASS	0.1230	2-way Punching	18.449 psi	150.0 psi	+1.20D+1.60Lr

Detailed Results

Soil Bearing

Rotation Axis & Load Combination...	Gross Allowable	Xecc (in)	Zecc (in)	Actual Soil Bearing Stress @ Location: Bottom, -Z	Top, +Z	Left, -X	Right, +X	Actual / Allow Ratio
X-X, D Only	1.50	n/a	0.0	0.7968	0.7968	n/a	n/a	0.531
X-X, +D+Lr	1.50	n/a	0.0	1.336	1.336	n/a	n/a	0.891
X-X, +D+0.750Lr	1.50	n/a	0.0	1.201	1.201	n/a	n/a	0.801
X-X, +0.60D	1.50	n/a	0.0	0.4781	0.4781	n/a	n/a	0.319
Z-Z, D Only	1.50	0.0	n/a	n/a	n/a	0.7968	0.7968	0.531
Z-Z, +D+Lr	1.50	0.0	n/a	n/a	n/a	1.336	1.336	0.891
Z-Z, +D+0.750Lr	1.50	0.0	n/a	n/a	n/a	1.201	1.201	0.801
Z-Z, +0.60D	1.50	0.0	n/a	n/a	n/a	0.4781	0.4781	0.319

Overturning Stability

Rotation Axis & Load Combination...	Overturning Moment	Resisting Moment	Stability Ratio	Status
Footing Has NO Overturning				

All units k

Sliding Stability

Force Application Axis Load Combination...	Sliding Force	Resisting Force	Stability Ratio	Status
Footing Has NO Sliding				

Footing Flexure

Flexure Axis & Load Combination	Mu k-ft	Side	Tension Surface	As Req'd in^2	Gvrn. As in^2	Actual As in^2	Phi*Mn k-ft	Status
X-X, +1.20D+0.50Lr	1.477	+Z	Bottom	0.3888	AsMin	0.40	17.624	OK
X-X, +1.20D+0.50Lr	1.477	-Z	Bottom	0.3888	AsMin	0.40	17.624	OK
X-X, +1.20D	1.065	+Z	Bottom	0.3888	AsMin	0.40	17.624	OK
X-X, +1.20D	1.065	-Z	Bottom	0.3888	AsMin	0.40	17.624	OK
X-X, +1.20D+1.60Lr	2.385	+Z	Bottom	0.3888	AsMin	0.40	17.624	OK
X-X, +1.20D+1.60Lr	2.385	-Z	Bottom	0.3888	AsMin	0.40	17.624	OK
X-X, +0.90D	0.7984	+Z	Bottom	0.3888	AsMin	0.40	17.624	OK
X-X, +0.90D	0.7984	-Z	Bottom	0.3888	AsMin	0.40	17.624	OK
Z-Z, +1.20D+0.50Lr	1.477	-X	Bottom	0.3888	AsMin	0.40	17.624	OK
Z-Z, +1.20D+0.50Lr	1.477	+X	Bottom	0.3888	AsMin	0.40	17.624	OK
Z-Z, +1.20D	1.065	-X	Bottom	0.3888	AsMin	0.40	17.624	OK
Z-Z, +1.20D	1.065	+X	Bottom	0.3888	AsMin	0.40	17.624	OK
Z-Z, +1.20D+1.60Lr	2.385	-X	Bottom	0.3888	AsMin	0.40	17.624	OK
Z-Z, +1.20D+1.60Lr	2.385	+X	Bottom	0.3888	AsMin	0.40	17.624	OK
Z-Z, +0.90D	0.7984	-X	Bottom	0.3888	AsMin	0.40	17.624	OK
Z-Z, +0.90D	0.7984	+X	Bottom	0.3888	AsMin	0.40	17.624	OK

DESCRIPTION: CBM (1)

One Way Shear

Load Combination...	Vu @ -X	Vu @ +X	Vu @ -Z	Vu @ +Z	Vu:Max	Phi Vn	Vu / Phi*Vn	Status
+1.20D+0.50Lr	2.63 psi	2.63 psi	2.63 psi	2.63 psi	2.63 psi	75.00 psi	0.04	OK
+1.20D	1.89 psi	1.89 psi	1.89 psi	1.89 psi	1.89 psi	75.00 psi	0.03	OK
+1.20D+1.60Lr	4.24 psi	4.24 psi	4.24 psi	4.24 psi	4.24 psi	75.00 psi	0.06	OK
+0.90D	1.42 psi	1.42 psi	1.42 psi	1.42 psi	1.42 psi	75.00 psi	0.02	OK

Two-Way "Punching" Shear All units k

Load Combination...	Vu	Phi*Vn	Vu / Phi*Vn	Status
+1.20D+0.50Lr	11.43 psi	150.00 psi	0.07619	OK
+1.20D	8.24 psi	150.00 psi	0.05491	OK
+1.20D+1.60Lr	18.45 psi	150.00 psi	0.123	OK
+0.90D	6.18 psi	150.00 psi	0.04118	OK

DB Engineering
2021 The Alameda, Suite 360
San Jose, CA 95126

Project Title: Addition
Engineer:
Project ID: 24009
Project Descr: 20820 Scenic Vista Drive, San Jose, CA 95120

Printed: 14 FEB 2024, 11:32PM

General Footing

Project File: 24009.0 scenic vista.ec6

DESCRIPTION: CBM (2)

Code References

Calculations per ACI 318-19, IBC 2021, ASCE 7-16
Load Combinations Used : ASCE 7-16

General Information

Material Properties

f'c : Concrete 28 day strength	=	2.50 ksi
fy : Rebar Yield	=	40.0 ksi
Ec : Concrete Elastic Modulus	=	2,850.0 ksi
Concrete Density	=	145.0 pcf
φ Values Flexure	=	0.90
Shear	=	0.750

Analysis Settings

Min Steel % Bending Reinf.	=	
Min Allow % Temp Reinf.	=	0.00180
Min. Overturning Safety Factor	=	1.0 : 1
Min. Sliding Safety Factor	=	1.0 : 1
Add Ftg Wt for Soil Pressure	:	Yes
Use ftg wt for stability, moments & shears	:	Yes
Add Pedestal Wt for Soil Pressure	:	No
Use Pedestal wt for stability, mom & shear	:	No

Soil Design Values

Allowable Soil Bearing	=	1.50 ksf
Soil Density	=	110.0 pcf
Increase Bearing By Footing Weight	=	No
Soil Passive Resistance (for Sliding)	=	250.0 pcf
Soil/Concrete Friction Coeff.	=	0.30

Increases based on footing Depth

Footing base depth below soil surface	=	1.50 ft
Allow press. increase per foot of depth	=	ksf
when footing base is below	=	ft

Increases based on footing plan dimension

Allowable pressure increase per foot of depth	=	ksf
when max. length or width is greater than	=	ft

Dimensions

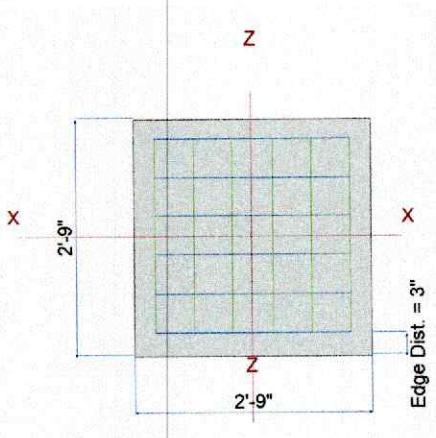
Width parallel to X-X Axis	=	2.750 ft
Length parallel to Z-Z Axis	=	2.750 ft
Footing Thickness	=	18.0 in

Pedestal dimensions...

px : parallel to X-X Axis	=	in
pz : parallel to Z-Z Axis	=	in
Height	=	in

Rebar Centerline to Edge of Concrete...

at Bottom of footing	=	3.0 in

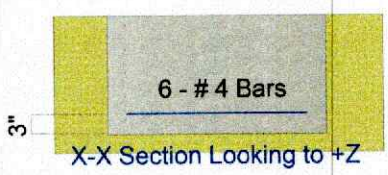


Reinforcing

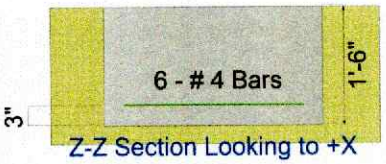
Bars parallel to X-X Axis			
Number of Bars	=		6
Reinforcing Bar Size	=	#	4
Bars parallel to Z-Z Axis			
Number of Bars	=		6
Reinforcing Bar Size	=	#	4

Bandwidth Distribution Check (ACI 15.4.4.2)

Direction Requiring Closer Separation	n/a
# Bars required within zone	n/a
# Bars required on each side of zone	n/a



X-X Section Looking to +Z



Z-Z Section Looking to +X

Applied Loads

		D	Lr	L	S	W	E	H	
P : Column Load	=	4.355	4.150						k
OB : Overburden	=								ksf
M-xx	=								k-ft
M-zz	=								k-ft
V-x	=								k
V-z	=								k

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General Footing

Project File: 24009.0 scenic vista.ec6

DESCRIPTION: CBM (2)

DESIGN SUMMARY

Design OK

	Min. Ratio	Item	Applied	Capacity	Governing Load Combination
PASS	0.8947	Soil Bearing	1.342 ksf	1.50 ksf	+D+Lr about Z-Z axis
PASS	n/a	Overturning - X-X	0.0 k-ft	0.0 k-ft	No Overturning
PASS	n/a	Overturning - Z-Z	0.0 k-ft	0.0 k-ft	No Overturning
PASS	n/a	Sliding - X-X	0.0 k	0.0 k	No Sliding
PASS	n/a	Sliding - Z-Z	0.0 k	0.0 k	No Sliding
PASS	n/a	Uplift	0.0 k	0.0 k	No Uplift
PASS	0.07730	Z Flexure (+X)	1.483 k-ft/ft	19.188 k-ft/ft	+1.20D+1.60Lr
PASS	0.07730	Z Flexure (-X)	1.483 k-ft/ft	19.188 k-ft/ft	+1.20D+1.60Lr
PASS	0.07730	X Flexure (+Z)	1.483 k-ft/ft	19.188 k-ft/ft	+1.20D+1.60Lr
PASS	0.07730	X Flexure (-Z)	1.483 k-ft/ft	19.188 k-ft/ft	+1.20D+1.60Lr
PASS	0.01598	1-way Shear (+X)	1.199 psi	75.0 psi	+1.20D+1.60Lr
PASS	0.01598	1-way Shear (-X)	1.199 psi	75.0 psi	+1.20D+1.60Lr
PASS	0.01598	1-way Shear (+Z)	1.199 psi	75.0 psi	+1.20D+1.60Lr
PASS	0.01598	1-way Shear (-Z)	1.199 psi	75.0 psi	+1.20D+1.60Lr
PASS	0.06930	2-way Punching	10.395 psi	150.0 psi	+1.20D+1.60Lr

Detailed Results

Soil Bearing

Rotation Axis & Load Combination...	Gross Allowable	Xecc (in)	Zecc (in)	Actual Soil Bearing Stress @ Location: Bottom, -Z	Top, +Z	Left, -X	Right, +X	Actual / Allow Ratio
X-X, D Only	1.50	n/a	0.0	0.7934	0.7934	n/a	n/a	0.529
X-X, +D+Lr	1.50	n/a	0.0	1.342	1.342	n/a	n/a	0.895
X-X, +D+0.750Lr	1.50	n/a	0.0	1.205	1.205	n/a	n/a	0.803
X-X, +0.60D	1.50	n/a	0.0	0.4760	0.4760	n/a	n/a	0.317
Z-Z, D Only	1.50	0.0	n/a	n/a	n/a	0.7934	0.7934	0.529
Z-Z, +D+Lr	1.50	0.0	n/a	n/a	n/a	1.342	1.342	0.895
Z-Z, +D+0.750Lr	1.50	0.0	n/a	n/a	n/a	1.205	1.205	0.803
Z-Z, +0.60D	1.50	0.0	n/a	n/a	n/a	0.4760	0.4760	0.317

Overturning Stability

Rotation Axis & Load Combination...	Overturning Moment	Resisting Moment	Stability Ratio	Status
Footing Has NO Overturning				

All units k

Sliding Stability

Force Application Axis Load Combination...	Sliding Force	Resisting Force	Stability Ratio	Status
Footing Has NO Sliding				

Footing Flexure

Flexure Axis & Load Combination	Mu k-ft	Side	Tension Surface	As Req'd in^2	Gvrn. As in^2	Actual As in^2	Phi*Mn k-ft	Status
X-X, +1.20D+0.50Lr	0.9126	+Z	Bottom	0.3888	AsMin	0.4364	19.188	OK
X-X, +1.20D+0.50Lr	0.9126	-Z	Bottom	0.3888	AsMin	0.4364	19.188	OK
X-X, +1.20D	0.6533	+Z	Bottom	0.3888	AsMin	0.4364	19.188	OK
X-X, +1.20D	0.6533	-Z	Bottom	0.3888	AsMin	0.4364	19.188	OK
X-X, +1.20D+1.60Lr	1.483	+Z	Bottom	0.3888	AsMin	0.4364	19.188	OK
X-X, +1.20D+1.60Lr	1.483	-Z	Bottom	0.3888	AsMin	0.4364	19.188	OK
X-X, +0.90D	0.4899	+Z	Bottom	0.3888	AsMin	0.4364	19.188	OK
X-X, +0.90D	0.4899	-Z	Bottom	0.3888	AsMin	0.4364	19.188	OK
Z-Z, +1.20D+0.50Lr	0.9126	-X	Bottom	0.3888	AsMin	0.4364	19.188	OK
Z-Z, +1.20D+0.50Lr	0.9126	+X	Bottom	0.3888	AsMin	0.4364	19.188	OK
Z-Z, +1.20D	0.6533	-X	Bottom	0.3888	AsMin	0.4364	19.188	OK
Z-Z, +1.20D	0.6533	+X	Bottom	0.3888	AsMin	0.4364	19.188	OK
Z-Z, +1.20D+1.60Lr	1.483	-X	Bottom	0.3888	AsMin	0.4364	19.188	OK
Z-Z, +1.20D+1.60Lr	1.483	+X	Bottom	0.3888	AsMin	0.4364	19.188	OK
Z-Z, +0.90D	0.4899	-X	Bottom	0.3888	AsMin	0.4364	19.188	OK
Z-Z, +0.90D	0.4899	+X	Bottom	0.3888	AsMin	0.4364	19.188	OK

DESCRIPTION: CBM (2)

One Way Shear

Load Combination...	Vu @ -X	Vu @ +X	Vu @ -Z	Vu @ +Z	Vu:Max	Phi Vn	Vu / Phi*Vn	Status
+1.20D+0.50Lr	0.74 psi	0.74 psi	0.74 psi	0.74 psi	0.74 psi	75.00 psi	0.01	OK
+1.20D	0.53 psi	0.53 psi	0.53 psi	0.53 psi	0.53 psi	75.00 psi	0.01	OK
+1.20D+1.60Lr	1.20 psi	1.20 psi	1.20 psi	1.20 psi	1.20 psi	75.00 psi	0.02	OK
+0.90D	0.40 psi	0.40 psi	0.40 psi	0.40 psi	0.40 psi	75.00 psi	0.01	OK

All units k

Two-Way "Punching" Shear

Load Combination...	Vu	Phi*Vn	Vu / Phi*Vn	Status
+1.20D+0.50Lr	6.40 psi	150.00psi	0.04264	OK
+1.20D	4.58 psi	150.00psi	0.03052	OK
+1.20D+1.60Lr	10.40 psi	150.00psi	0.0693	OK
+0.90D	3.43 psi	150.00psi	0.02289	OK

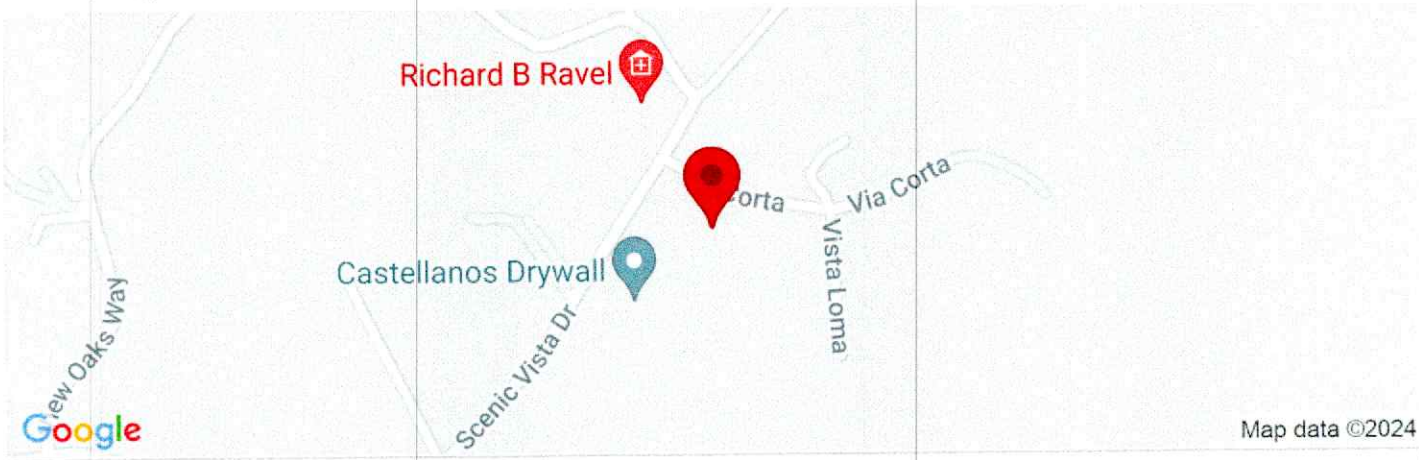
USGS web services were down for some period of time and as a result this tool wasn't operational, resulting in *timeout* error.
USGS web services are now operational so this tool should work as expected.

OSHPD

24009

20820 Scenic Vista Dr, San Jose, CA 95120, USA

Latitude, Longitude: 37.217503, -121.8232102



Date	2/26/2024, 9:07:55 AM
Design Code Reference Document	ASCE7-16
Risk Category	II
Site Class	D - Default (See Section 11.4.3)

Type	Value	Description
S_S	2.187	MCE_R ground motion. (for 0.2 second period)
S_1	0.785	MCE_R ground motion. (for 1.0s period)
S_{MS}	2.624	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	1.749	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1.2	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.903	MCE_G peak ground acceleration
F_{PGA}	1.2	Site amplification factor at PGA
PGA_M	1.084	Site modified peak ground acceleration
T_L	12	Long-period transition period in seconds
SsRT	2.268	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	2.393	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	2.187	Factored deterministic acceleration value. (0.2 second)
S1RT	0.838	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.908	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.785	Factored deterministic acceleration value. (1.0 second)
PGAd	0.903	Factored deterministic acceleration value. (Peak Ground Acceleration)
PGA_{UH}	0.913	Uniform-hazard (2% probability of exceedance in 50 years) Peak Ground Acceleration
C_{RS}	0.948	Mapped value of the risk coefficient at short periods
C_{R1}	0.924	Mapped value of the risk coefficient at a period of 1 s
C_V	1.5	Vertical coefficient

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DB Engineering
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Project Title: Addition
Engineer:
Project ID: 24009
Project Descr: 20820 Scenic Vista Drive, San Jose, CA 95120

Printed: 26 FEB 2024, 9:11AM

ASCE 7-16 Seismic Base Shear

Project File: 24009.0 scenic vista.ec6

DESCRIPTION: Seismic Base Shear Analysis

Specific Description: BUILDING

Risk Category

Calculations per ASCE 7-16

Risk Category of Building or Other Structure : "II" : All Buildings and other structures except those listed as Category I, III, and IV — *SCE 7-16, Page 4, Table 1.5-1*

Seismic Importance Factor = 1 — *ASCE 7-16, Page 5, Table 1.5-2*

USER DEFINED Ground Motion — ASCE 7-16 11.4.2

Max. Ground Motions, 5% Damping

S_S = 2.187 g, 0.2 sec response
S_1 = 0.7850 g, 1.0 sec response

For the closest datapoint grid location . . .

Latitude = 0.000 deg North
Longitude = 0.000 deg West

Site Class, Site Coeff. and Design Category

Classification: "D" : Shear Wave Velocity 600 to 1,200 ft/sec = **D** (By Default per 11.4.3) — *ASCE 7-16 Table 20.3-1*

Site Coefficients Fa & Fv — *ASCE 7-16 Table 11.4-1 & 11.4-2*
(using straight-line interpolation from table val
Fa = 1.20
Fv = 1.70

Maximum Considered Earthquake Accelerat
S_{MS} = Fa * Ss = 2.624 — *ASCE 7-16 Eq. 11.4-1*
S_{M1} = Fv * S1 = 1.335 — *ASCE 7-16 Eq. 11.4-2*

Design Spectral Acceleration
$S_{DS} = S_{MS} * 2/3$ = 1.750 — *ASCE 7-16 Eq. 11.4-3*
$S_{D1} = S_{M1} * 2/3$ = 0.890 — *ASCE 7-16 Eq. 11.4-4*

Seismic Design Category = **E** *S1 >= 0.75* — *ASCE 7-16 Table 11.6-1 & -2*

Resisting System

ASCE 7-16 Table 12.2-1

Basic Seismic Force Resisting System . . . **Bearing Wall Systems**
15.Light-frame (wood) walls sheathed w/wood structural panels rated for shear resistance.

Response Modification Coefficient " R " = 6.50
System Overstrength Factor " Wo " = 2.50
Deflection Amplification Factor " Cd " = 4.00

NOTE! See ASCE 7-16 for all applicable footno

Building height Limits :
Category "A & B" Limit: No Limit
Category "C" Limit: No Limit
Category "D" Limit: Limit = 65
Category "E" Limit: Limit = 65
Category "F" Limit: Limit = 65

Lateral Force Procedure

ASCE 7-16 Section 12.8.2

Equivalent Lateral Force Procedure
The "Equivalent Lateral Force Procedure" is being used according to the provisions of ASCE 7-16 12.8

Determine Building Period

Use ASCE 12.8-7

Structure Type for Building Period CalculaAll Other Structural Systems
" Ct " value = 0.020
" x " value = 0.75
" hn " : Height from base to highest level 18.0 ft
" Ta " Approximate fundemental period using Eq. 12.8-7 : Ta = Ct * (hn ^ x) = 0.175 sec
"TL" : Long-period transition period per ASCE 7-16 Maps 22-14 -> 22-17 12.000 sec

Building Period " Ta " Calculated from Approximate Method sele= 0.175

" Cs " Response Coefficient

ASCE 7-16 Section 12.8.1.1

S_{DS} : Short Period Design Spectral Response = 1.750
" R " : Response Modification Factor = 6.50
" I " : Seismic Importance Factor = 1

From Eq. 12.8-2, Preliminary Cs = 0.269
From Eq. 12.8-3 & 12.8-4 , Cs need not excee = 0.783
From Eq. 12.8-5 & 12.8-6, Cs not be less than = 0.060

Cs : Seismic Response Coefficient = = 0.2692

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ASCE 7-16 Seismic Base Shear

Project File: 24009.0 scenic vista.ec6

DESCRIPTION: Seismic Base Shear Analysis

Seismic Base Shear

ASCE 7-16 Section 12.8.1

Cs = 0.2692 from 12.8.1.1

W (see Sum Wi below) = 0.00 k

Seismic Base Shear V = Cs * W = 0.00 k

Vertical Distribution of Seismic Forces

ASCE 7-16 Section 12.8.3

" k " : hx exponent based on Ta = 1.00

Table of building Weights by Floor Level...

Level #	Wi : Weight	Hi : Height	(Wi * Hi^k)	Cvx	Fx=Cvx * V	Sum Story Shear	Sum Story Moment

Sum Wi = 0.00 k Sum Wi * Hi = 0.00 k-ft Total Base Shear = 0.00 k

Base Moment = 0.0 k-ft

Diaphragm Forces : Seismic Design Category "B" to "F"

ASCE 7-16 12.10.1.1

Level #	Wi	Fi	Sum Fi	Sum Wi	Fpx : Calcd	Fpx : Min	Fpx : Max	Fpx Dsgn. Force

Wpx . . . . . Weight at level of diaphragm and other structure elements attached to it.

Fi . . . . . Design Lateral Force applied at the level.

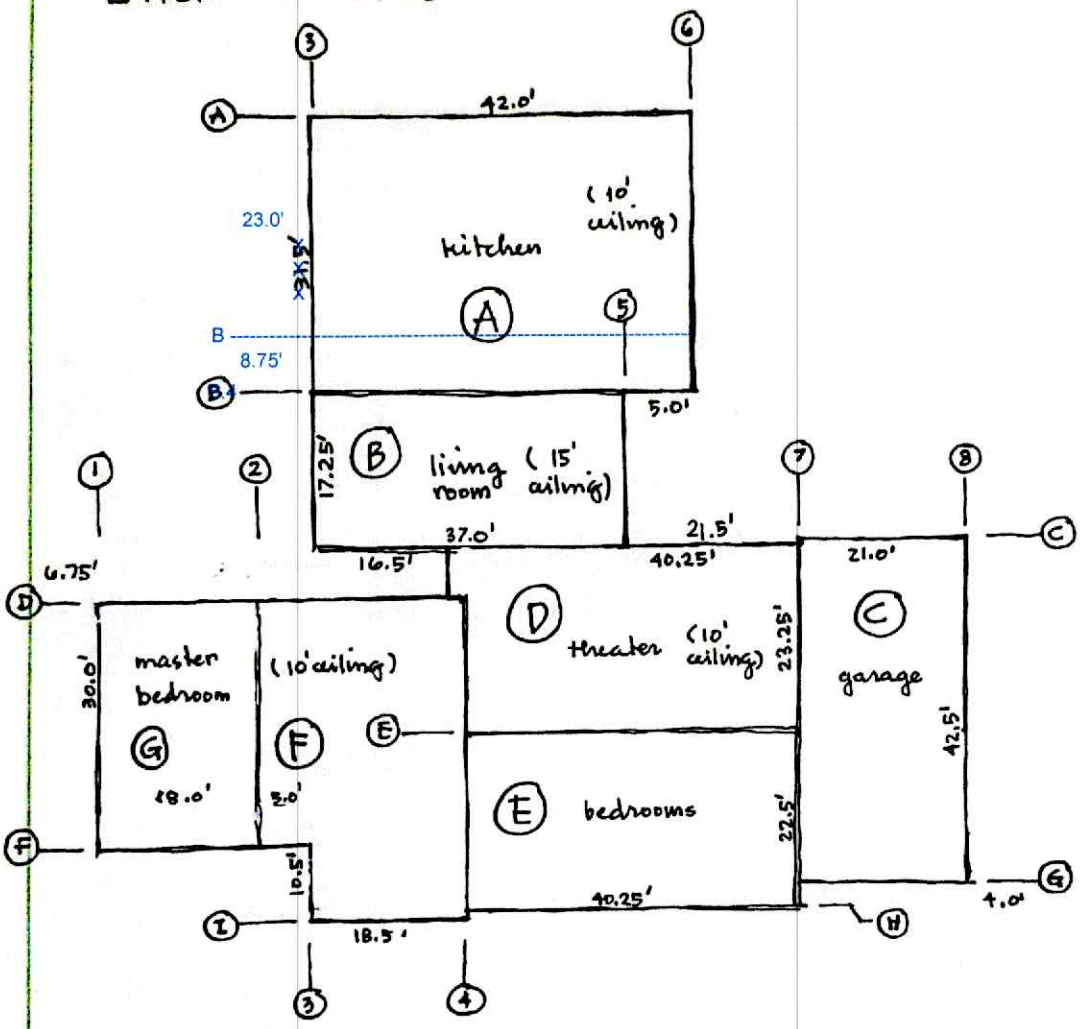
Sum Fi . . . . . Sum of "Lat. Force" current level plus all levels above

MIN Req'd Force @ Level . . . $0.20 * S_{DS} * I * Wpx$

MAX Req'd Force @ Level . . . $0.40 * S_{DS} * I * Wpx$

Fpx : Design Force @ Level . . Wpx * SUM(x->n) Fi / SUM(x->n) wi, x = Current level, n = Top Level

LATERAL ANALYSIS



BASE SHEAR : $V = 0.2692W \times 0.7 = 0.19W$

BUILDING WEIGHT

* AREA "A" :

(42 ft + 8ft) x (23 ft + 4 ft) = 1,350 ft²

$A_{roof} = (42ft + 8ft) \times (31.5ft + 8ft) = 1975\,ft^2$

$A_{wall} = \frac{10ft}{2} \times (23 ft + 42ft + 23 ft + 5.0ft) = 550\,ft^2$

$A_{int} = \frac{10ft}{2} \times (42ft) = 210\,ft^2$

$W_A = 1350\,ft^2 \times 20\,psf + 550\,ft^2 \times 17\,psf + 210\,ft^2 \times 9\,psf = 50740\,lbs$

$V_A = 0.19\,(50740\,lbs) = 9641\,lbs$

* AREA "B"

$A_{roof} = (37ft + 8ft) \times (17.25ft + 8ft) = 1136\ ft^2$

$A_{wall} = \frac{15ft}{2} \times (16.5ft + 17.25ft \times 2) + 5ft \times 37ft + 5ft \times 18.75ft = 661\ ft^2$

$A_{int} = \frac{15ft}{2} \times (9.5ft + 6.5ft) = 120\ ft^2$

$W_B = 1136\ ft^2 \times 20\ psf + 661\ ft^2 \times 17\ psf + 120\ ft^2 \times 9\ psf = 35037\ lbs$

$V_B = 0.19(35037\ lbs) = 6657\ lbs$

* AREA "C"

$A_{roof} = (21ft + 8ft) \times (42.5ft + 8ft) = 1465\ ft^2$

$A_{wall} = \frac{10ft}{2} \times (21ft \times 2 + 42.5ft) = 423\ ft^2$

$A_{int} = \frac{10ft}{2} \times (42.5ft) = 213\ ft^2$

$W_C = 1465\ ft^2 \times 20\ psf + 423\ ft^2 \times 17\ psf + 213\ ft^2 \times 9\ psf = 38408\ lbs$

$V_C = 0.19(38408\ lbs) = 7297\ lbs$

* AREA "D" & "E"

$A_{roof} = (40.25ft + 8ft) \times (45.75ft + 8ft) = 2593\ ft^2$

$A_{wall} = \frac{10ft}{2} \times (21.5ft + 4.0ft + 40.25ft + 6.75ft) = 363\ ft^2$

$A_{int} = \frac{10ft}{2} \times (40.25ft + 45.75ft \times 4) = 1116\ ft^2$

$W_{D+E} = 2593\ ft^2 \times 20\ psf + 363\ ft^2 \times 17\ psf + 1116\ ft^2 \times 9\ psf = 68075\ lbs$

$V_{D+E} = 0.19(68075\ lbs) = 12934\ lbs$

* AREA "F"

$A_{roof} = (23.5ft \times 30ft) + (18.5ft \times 10.5ft) = 899\ ft^2$

$A_{wall} = \frac{10ft}{2} \times (23.5ft + 5ft + 10.5ft + 18.5ft) = 288\ ft^2$

$A_{int} = \frac{10ft}{2} \times (23.5ft + 16.25ft) = 199\ ft^2$

$W_F = 899\ ft^2 \times 20\ psf + 288\ ft^2 \times 17\ psf + 199\ ft^2 \times 9\ psf = 24667\ lbs$

$V_F = 0.19(24667\ lbs) = 4687\ lbs$

* AREA "G"

$A_{roof} = (30ft + 8ft) \times (18ft + 4ft) = 836 ft^2$

$A_{wall} = \frac{10ft}{2} \times (18ft \times 2 + 30ft) = 330 ft^2$

$A_{int} = \frac{10ft}{2} \times (30ft) = 150 ft^2$

$W_G = 836 ft^2 \times 20 psf + 330 ft^2 \times 17 psf + 150 ft^2 \times 9 psf = 23680 lbs$

$V_G = 0.19 (23680 lbs) = 4499 lbs$

SHEAR WALL DESIGN

N-S DIRECTION

Line 1

$F_1 = \frac{V_G}{2} = \frac{4499 lbs}{2} = 2250 lbs$

$L_1 =$ ~~6x25 ft~~ 12 ft

$v_1 = \frac{2250 lbs}{12 ~~6x25~~ ft} =$ 188 ~~300~~ plf → 4 type 6

$T_1 = \frac{2250 lbs \times 10 ft}{12 ~~6x25~~ ft - 0.5 ft} =$ 1957 ~~3813~~ lbs → HDU2 ~~HDU4~~

Line 2 & 3

$F_2 = \frac{V_G + V_F}{2} = \frac{4499 lbs + 4687 lbs}{2} = 4593 lbs$

$L_2 = 12.5 ft + 10.25 ft = 22.75 ft$

$v_2 = \frac{4593 lbs}{22.75 ft} = 202 plf \rightarrow$ 6

$T_2 = \frac{(202 plf \times 10.25 ft) \times 10 ft}{10.25 ft - 0.5 ft} = 2124 lbs \rightarrow$ HDU2

Line 3 (kitchen)

$F_3 = \frac{V_A + V_B}{2} = \frac{9641 lbs + 6657 lbs}{2} = 8149 lbs$

$L_3 =$ STRONG WALLS

Line 4

$$F_4 = \frac{V_F + V_{D+E}}{2} = \frac{4087\ lbs + 12934\ lbs}{2} = 8811\ lbs$$

$L_4 = 23.5\ ft$

$$v_4 = \frac{8811\ lbs}{23.5\ ft} = 375\ plf \rightarrow \boxed{4}$$

$$T_4 = \frac{8811\ lbs \times 10\ ft}{23.5\ ft - 0.5\ ft} = 3831\ lbs \rightarrow HDU4$$

Line 5

$$F_5 = \frac{V_B}{2} = \frac{6657\ lbs}{2} = 3329\ lbs$$

$L_5 =$ STRONG WALLS (STACKED)

Line 6

$$F_6 = \frac{V_A}{2} = \frac{9641\ lbs}{2} = 4821\ lbs$$

$L_6 = 3.25\ ft + 6.75\ ft = 10\ ft$ $\quad (h/w = 10/3.25 = 3.1)$

$$v_6 = \frac{4821\ lbs}{10\ ft} \times \frac{10\ ft}{2 \times 3.25\ ft} = 742\ plf \rightarrow \boxed{2}$$

$$T_6 = \frac{(742\ plf \times 3.25\ ft) \times 10\ ft}{3.25\ ft - 0.5\ ft} = 8769\ lbs \rightarrow HDU11$$

Line 7

$$F_7 = \frac{V_{D+E} + V_C}{2} = \frac{12934\ lbs + 7297\ lbs}{2} = 10116\ lbs$$

$L_7 = 14.5\ ft + 9.0\ ft + 10.0\ ft = 33.5\ ft$ (X)

$$v_7 = \frac{10116\ lbs}{33.5\ ft} = 302\ plf \rightarrow \boxed{4}$$

$$T_7 = \frac{(302\ plf \times 9.0\ ft) \times 10\ ft}{9.0\ ft - 0.5\ ft} = 3197\ lbs \rightarrow HDU2$$

Line 8

$$F_8 = \frac{V_C}{2} = \frac{7297\ lbs}{2} = 3649\ lbs$$

$L_8 =$ STRONG WALLS

E-W DIRECTION

Line A

$$F_A = \frac{V_A}{2} = \frac{9641\ lbs}{2} = 4821\ lbs$$

L_A = ~~STRONG WALLS~~

L_A = 10.75 ft
v_A = 4821 lbs / 10.75 ft = 448 plf (type 3)
T_A = 4821 lbs x 10 ft / (10.25 ft) = 4703 lbs (HDU4)

Line B

$$F_B = \frac{V_A + V_B}{2} = \frac{9641\ lbs + 6657\ lbs}{2} = 8149\ lbs$$

L_B = 9.5 ft + 17.5 ft = 27 ft

$$v_B = \frac{8149\ lbs}{27\ ft} = 301\ plf \rightarrow \text{type 6}$$

$$T_B = \frac{(301\ plf \times 9.5\ ft) \times 15\ ft}{9.5\ ft - 0.5\ ft} = 4779\ lbs \rightarrow HDU4$$

Line C

$$F_C = \frac{V_B + V_C + V_D}{2} = \frac{6657\ lbs + 7297\ lbs + 0.5 \times 12934\ lbs}{2} = 10211\ lbs$$

L_C = 8.0 ft + 8.0 ft + 20.5 ft = 36.5 ft

$$v_C = \frac{10211\ lbs}{36.5\ ft} = 280\ plf \rightarrow 6$$

$$T_C = \frac{(280\ plf \times 8.0\ ft) \times 15\ ft}{8.0\ ft - 0.5\ ft} = 4,480\ lbs \rightarrow HDU4$$

Line D

$$F_D = \frac{V_G + V_F}{2} = \frac{4499\ lbs + 4687\ lbs}{2} = 4593\ lbs$$

L_D = 1.75 ft + 9.25 ft = 11 ft

$$v_D = \frac{4593\ lbs}{9.25\ ft} = 497\ plf \rightarrow 3$$

$$T_D = \frac{(497\ plf \times 9.25\ ft) \times 10\ ft}{9.25\ ft - 0.5\ ft} = 5254\ lbs \rightarrow HDU5$$

Line E

$$F_E = \frac{V_{D+E}}{2} = \frac{12934\ lbs}{2} = 6467\ lbs$$

$$L_E = 16.5\ ft$$

$$v_E = \frac{6467\ lbs}{16.5\ ft} = 392\ plf \rightarrow (4)$$

$$T_E = \frac{6467\ lbs \times 10\ ft}{16.5\ ft - 0.5\ ft} = 4042\ lbs \rightarrow HDU4$$

Line F

$$F_F = \frac{V_G + V_F}{2} = \frac{4499\ lbs + 4687\ lbs}{2} = 4593\ lbs$$

L_F = ~~9.0 ft + 6.5 ft = 15.5 ft~~ 8.0 ft

v_F = ~~4593 lbs / 15.5 ft = 296 plf~~ 4593 lbs / 8.0 ft = 574 plf → (2)

T_F = ~~(296 plf × 6.5 ft) × 10 ft / 6.5 ft − 0.5 ft = 3210 lbs → HDU2~~ (574 plf × 6.5 ft) × 10 ft / 6.5 ft − 0.5 ft = 6124 lbs → HDU8

Line G

$$F_G = \frac{V_C}{2} = \frac{7297\ lbs}{2} = 3649\ lbs$$

$$L_G = 3.75\ ft + 4.0\ ft = 7.75\ ft \qquad (h/w = 10/3.75 = 2.7)$$

$$v_G = \frac{3649\ lbs}{7.75\ ft} \times \frac{10\ ft}{2 \times 3.75\ ft} = 628\ plf \rightarrow (2)$$

$$T_G = \frac{(628\ plf \times 3.75\ ft) \times 10\ ft}{3.75\ ft - 0.5\ ft} = 7243\ lbs \rightarrow HDU8$$

Line H

$$F_H = \frac{V_E}{2} = \frac{0.5 \times 12934\ lbs}{2} = 3234\ lbs$$

L_H = ~~4.75 ft + 5.0 ft + 5.5 ft = 15.25 ft~~ 3.5 ft X 4 = 14 ft

v_H = ~~3234 lbs / 15.25 ft = 212 plf~~ 3234 lbs / 14 ft = 231 plf → (4) Modified capacity: 231 * 10/(2*3.5) = 330 plf (TYPE 4)

T_H = ~~(212 plf × 4.75 ft) × 10 ft / 4.75 ft − 0.5 ft = 2369 lbs → HDU2~~ (330 plf × 3.5 ft) × 10 ft / 3.5 ft − 0.5 ft = 3850 lbs → HDU4

Line I

$$F_I = \frac{V_I}{2} = \frac{4687\ lbs}{2} = 2344\ lbs$$

$$L_I = 18.5\ ft$$

$$v_I = \frac{2344\ lbs}{18.5\ ft} = 127\ plf \rightarrow \triangle 6$$

$$T_I = \frac{2344\ lbs \times 10\ ft}{18.5\ ft - 0.5\ ft} = 1302\ lbs \rightarrow HDU2$$

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www.strongtie.com

Job Name: 24009
Wall Name: Line 3
Application: Standard Wall on Concrete

Design Criteria:

* 2021 International Bldg Code
* Seismic R=6.5
* 2500 psi concrete
* ASD Design Shear = 8149 lbs
* Nominal wall height = 10 ft

Selected Strong-Wall® Panel Solution:

Model	Type	W (in)	H (in)	T (in)	Sill Anchor	End Anchor Bolts	Total Axial Load (lbs)	Actual Uplift (lbs)
WSWH24x10	Wood	24	117.25	3.5	N/A	2 - 1"	0	18199 lb
WSWH24x10	Wood	24	117.25	3.5	N/A	2 - 1"	0	18199 lb
WSWH24x10	Wood	24	117.25	3.5	N/A	2 - 1"	0	18199 lb

Actual Shear & Drift Distribution:

Model	RR Relative Rigidity	Actual Shear (lbs)		Allowable Shear (lbs)		Actual / Allow Shear	Actual Drift (in)	Drift Limit (in)
WSWH24x10	0.33	2716	≤	4010	OK	0.68	0.33	0.52
WSWH24x10	0.33	2716	≤	4010	OK	0.68	0.33	0.52
WSWH24x10	0.33	2716	≤	4010	OK	0.68	0.33	0.52

Notes:

1. Strong-Wall High-Strength Wood Shearwalls have been evaluated to the 2021 IBC/IRC. See www.strongtie.com for additional design and installation information.

2. Anchor templates are recommended for proper anchor bolt placement, and are required in some jurisdictions.

3. The applied vertical load shall be a concentric point load or a uniformly distributed load not exceeding the allowable vertical load. Alternatively, the load may be applied anywhere along the width of the panel if imposed by a continuous bearing vertical load transfer element such as a rimboard or beam. For eccentric axial loads applied directly to the panel, the allowable vertical load shall be divided by two.

4. Panels may be trimmed to a minimum height of 74½".

Disclaimer:

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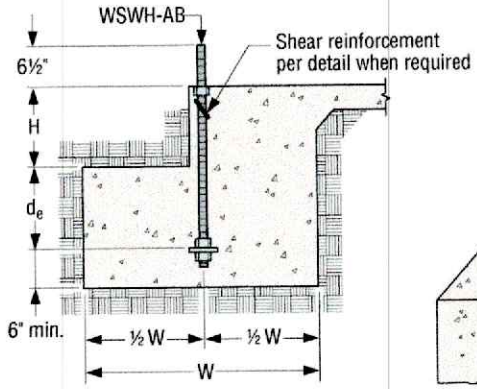
Job Name: 24009
Wall Name: Line 3
Application: Standard Wall on Concrete

Design Criteria:

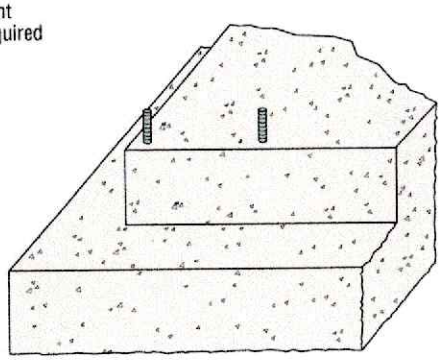
* Slab on grade - Slab edge
* 2021 International Bldg Code
* Seismic R=6.5
* 2500 psi concrete

Anchor Solution Details:

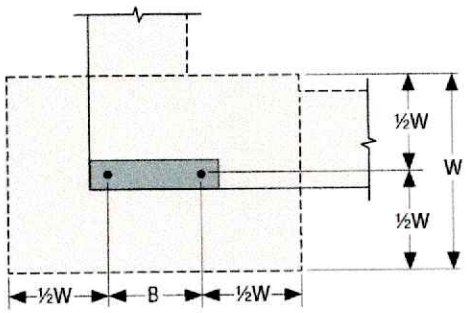
Slab-on-Grade Installation



Slab-on-Grade Section View



Perspective View



Footing Plan

Anchor Solution Assuming Cracked Concrete Design:

Model	W	de	B	Anchor Bolt	Strength
WSWH24x10	52	18	20	WSWH-AB	High Strength

Anchor Solution Assuming Uncracked Concrete Design:

Model	W	de	B	Anchor Bolt	Strength
WSWH24x10	45	15	20	WSWH-AB	High Strength

Notes:

1. Anchorage designs conform to ACI 318-19, ACI 318-14 and 318-11 Appendix D with no supplementary reinforcement for cracked and uncracked concrete as noted.
2. Anchorage strength indicates required grade of anchor bolt. Standard (ASTM F1554 grade 36) or High Strength (HS)(ASTM A193 Grade B7).
3. Seismic indicates Seismic Design Category C though F. Detached 1 & 2 family dwellings in SDC C may use wind anchorage solutions. Seismic anchorage designs conform to ACI 318-11 section D.3.3.4.3 and ACI 318-14 section 17.2.3.4.3 and ACI 318-19 section 17.10.5.3.
4. Foundation dimensions are for anchorage only. Foundation design (size and reinforcement) by others. The registered design professional may specify alternate embedment, footing size or anchor bolt.

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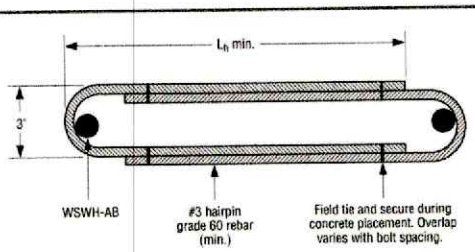
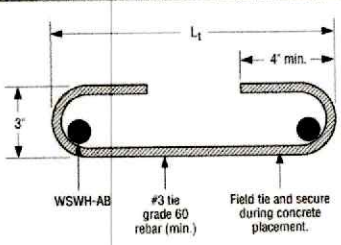
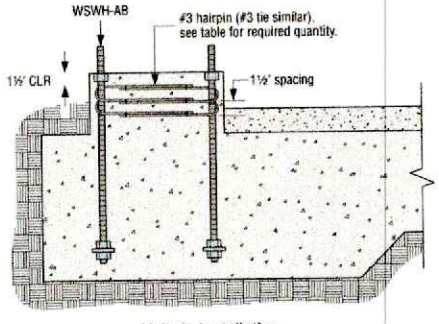


Hairpin Shear Reinforcement



Tie Shear Reinforcement



Hairpin Installation
(Garage curb shown, other footing types similar)

Shear Anchorage Solutions

Strong-Wall High-Strength Wood Shearwall Model No.	L_t or L_h (in.)	Seismic[3]		Wind[4]			
		Shear Reinforcement	Minimum Curb/ Stemwall Width (in.)	Shear Reinforcement	Minimum Curb/ Stemwall Width (in.)	ASD Allowable Shear Load, V (lb.)[7]	
						Uncracked	Cracked
WSWH12	10¼	(1) #3 Tie	6	See Note 7	6	1,080	770
WSWH18	15	(2) #3 hairpins[5,6]	6	(1) #3 hairpin	6	Hairpin reinforcement achieves maximum allowable shear load of the Strong-Wall® WSWH	
WSWH24	19	(2) #3 hairpins[5]	6	(2) #3 hairpins[5]	6		

1. Shear anchorage designs conform to ACI 318-14 Chapter 17 and ACI 318-11 and assume minimum 2,500 psi concrete.
2. Shear reinforcement is not required for interior foundation applications (panel installed away from edge of concrete), or braced wall panel applications.
3. Seismic indicates seismic design category C through F. Detached one- and two-family dwellings in SDC C may use wind anchorage solutions. Seismic shear reinforcement designs conform to ACI 318-14, section 17.2.3.5.3 and ACI 318-11 section D.3.3.5.
4. Wind includes seismic design category A and B and detached one- and two-family dwellings in SDC C.
5. Additional ties may be required at garage curb or stemwall installations below anchor reinforcement per designer.
6. Use (1) #3 hairpin for WSWH18 when standard strength anchor is used.
7. Use (1) #3 tie for WSWH12 when panel design shear force exceeds tabulated anchorage allowable shear load.
8. No. 4 grade 40 shear reinforcement may be substituted for WSWH shear anchorage solutions.
9. Concrete edge distance for anchors must comply with ACI 318-14 section 17.7.2 and ACI 318-11 section D.8.2.
10. The designer may specify alternate shear anchorage.

STRONG-WALL® WSWH SHEAR ANCHORAGE SCHEDULE AND DETAILS

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Job Name: 24009
Wall Name: Line 5
Application: Balloon Framed

Design Criteria:

* 2021 International Bldg Code
* Seismic R=6.5
* 2500 psi concrete
* ASD Design Shear = 3329 lbs
* Nominal wall height = 15 ft

Selected Strong-Wall® Panel Solution:

Model	Type	W (in)	H (in)	T (in)	Sill Anchor	End Anchor Bolts	Total Axial Load (lbs)	Actual Uplift (lbs)
SSW24x7 over SSW24x8-STK	Steel	24	173.25	5.5	N/A	2 - 1"	0	15977 lb
SSW24x7 over SSW24x8-STK	Steel	24	173.25	5.5	N/A	2 - 1"	0	15977 lb

Actual Shear & Drift Distribution:

Model	RR Relative Rigidity	Actual Shear (lbs)		Allowable Shear (lbs)		Actual / Allow Shear	Actual Drift (in)	Drift Limit (in)
SSW24x7 over SSW24x8-STK	0.50	1664	≤	1680	OK	0.99	0.71	0.79
SSW24x7 over SSW24x8-STK	0.50	1664	≤	1680	OK	0.99	0.71	0.79

Notes:

1. Steel Strong-Wall Shearwalls have been evaluated to the 2021 IBC/IRC.
See www.strongtie.com for additional design and installation information.

2. Anchor templates are recommended for proper anchor bolt placement, and are required in some jurisdictions.

3. Balloon Framing Application requires SSWBF-KT Connection Kit.

4. Full height studs are required each side of wall as designed by others for out-of plane loading.
Use 2-2x6 minimum with 10d at 16" o.c. – stud to stud and stud to SSW nailer.

5. Allowable shear, drift and uplift values apply to the nominal wall heights and may be linearly interpolated for intermediate heights. Solid shim blocks (12" maximum) shall be used to attain specified nominal wall height.

Disclaimer:

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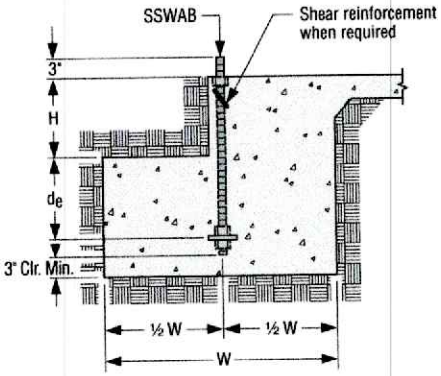
Job Name: 24009
Wall Name: Line 5
Application: Balloon Framed

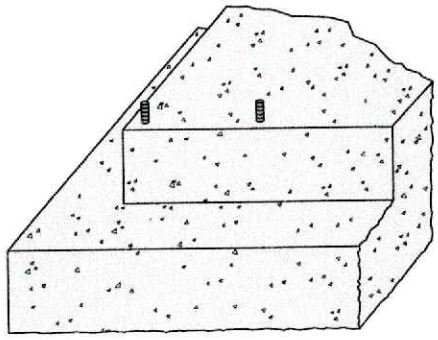
Design Criteria:

* Slab on grade - Slab edge
* 2021 International Bldg Code
* Seismic R=6.5
* 2500 psi concrete

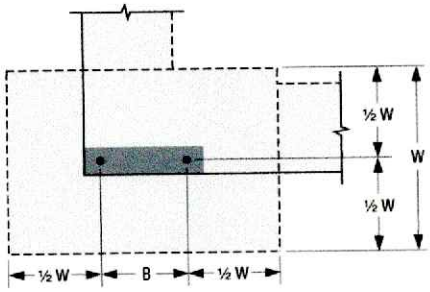
Anchor Solution Details:



Slab-on-Grade Section View



Perspective View



Footing Plan

Anchor Solution Assuming Cracked Concrete Design:

Model	W	de	B	Anchor Bolt	Strength
SSW24	33	11	18.25	SSWAB1	Standard

Anchor Solution Assuming Uncracked Concrete Design:

Model	W	de	B	Anchor Bolt	Strength
SSW24	30	10	18.25	SSWAB1	Standard

Notes:

1. Anchorage designs conform to ACI 318-19, ACI 318-14 and 318-11 Appendix D with no supplementary reinforcement for cracked and uncracked concrete as noted.
2. Anchorage strength indicates required grade of SSWAB anchor bolt. Standard (ASTM F1554 Grade 36) or High Strength (HS)(ASTM A193 Grade B7).
3. Seismic indicates Seismic Design Category C though F. Detached 1 & 2 family dwellings in SDC C may use wind anchorage solutions. Seismic anchorage designs conform to ACI 318-11 section D.3.3.4.3 and ACI 318-14 section 17.2.3.4.3 and ACI 318-19 section 17.10.5.3.
4. Footing dimensions are for anchorage only. Foundation design (size and reinforcement) by Designer. The registered design professional may specify alternate embedment, footing size or anchor bolt.

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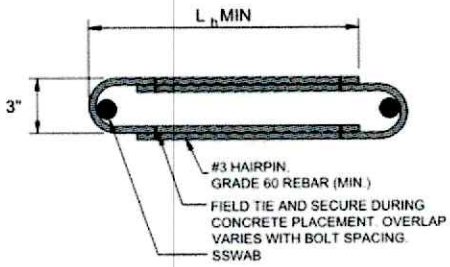
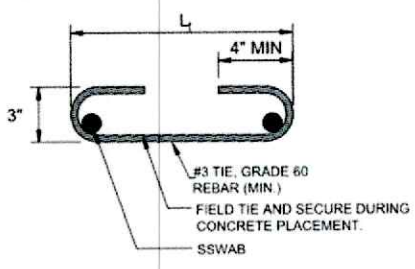
SIMPSON Strong-Tie®

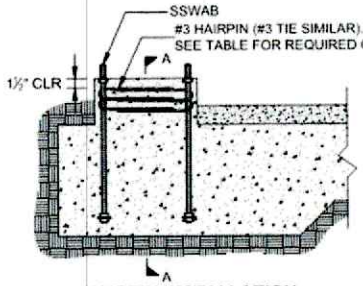
STEEL STRONG-WALL® SHEAR ANCHORAGE



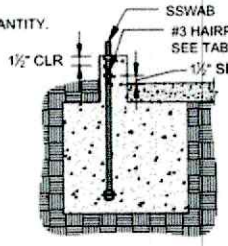
HAIRPIN SHEAR REINFORCEMENT



TIE SHEAR REINFORCEMENT



HAIRPIN INSTALLATION
(GARAGE CURB SHOWN. OTHER FOOTING TYPES SIMILAR.)



SECTION A-A

REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

STEEL STRONG-WALL SHEAR ANCHORAGE

MODEL	SEISMIC[3]			WIND[4]					
	L_e OR L_h (in.)	SHEAR REINFORCEMENT	MIN. CURB / STEMWALL WIDTH (in.)	SHEAR REINFORCEMENT	MIN. CURB / STEMWALL WIDTH (in.)	ASD ALLOWABLE SHEAR LOAD V (lbs)[5]			
						6" MIN CURB / STEMWALL		8" MIN CURB / STEMWALL	
						UNCRACKED	CRACKED	UNCRACKED	CRACKED
SSW12	9	(1) #3 TIE	6	NONE REQUIRED	-	1230	880	1440	1030
SSW15	12	(2) #3 TIES	6	NONE REQUIRED	-	1590	1135	1810	1295
SSW18	14	(1) #3 HAIRPIN	8[6]	(1) #3 HAIRPIN	6	HAIRPIN REINFORCEMENT ACHIEVES MAXIMUM ALLOWABLE SHEAR LOAD OF THE STEEL STRONG-WALL PANEL			
SSW21	15	(2) #3 HAIRPIN	8[6]	(1) #3 HAIRPIN	6				
SSW24	17	(2) #3 HAIRPIN	8[6]	(1) #3 HAIRPIN	6				

NOTES:
1. SHEAR ANCHORAGE DESIGNS CONFORM TO ACI 318-14 AND ACI 318-11 AND ASSUME MINIMUM f'c=2,500 PSI CONCRETE. SEE DETAILS 1/SSW1 TO 3/SSW1 FOR TENSION ANCHORAGE.
2. SHEAR REINFORCEMENT IS NOT REQUIRED FOR PANELS INSTALLED ON A WOOD FLOOR, INTERIOR FOUNDATION APPLICATIONS (PANEL INSTALLED AWAY FROM EDGE OF CONCRETE), OR BRACED WALL PANEL APPLICATIONS.
3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS.
4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B.
5. MINIMUM CURB/STEMWALL WIDTH IS 6" WHEN STANDARD STRENGTH SSWAB IS USED.
6. USE (1) #3 TIE FOR SSW12 AND SSW15 WHEN THE STEEL STRONG-WALL PANEL DESIGN SHEAR FORCE EXCEEDS THE TABULATED ANCHORAGE ALLOWABLE SHEAR LOAD.
7. CONCRETE EDGE DISTANCE FOR ANCHORS MUST COMPLY WITH ACI 318-14 SECTION 17.7.2 AND ACI 318-11 D.8.2.

SIMPSON STRONG-TIE COMPANY INC.
(800) 999-5099
5956 W. Las Positas Blvd., Pleasanton, CA 94588.
www.strongtie.com

Job Name: 24009
Wall Name: Line 8
Application: Standard Wall on Concrete

Design Criteria:

* 2021 International Bldg Code
* Seismic R=6.5
* 2500 psi concrete
* ASD Design Shear = 3649 lbs
* Nominal wall height = 10 ft

Selected Strong-Wall® Panel Solution:

Model	Type	W (in)	H (in)	T (in)	Sill Anchor	End Anchor Bolts	Total Axial Load (lbs)	Actual Uplift (lbs)
WSWH18x10	Wood	18	117.25	3.5	N/A	2 - 1"	0	17114 lb
WSWH18x10	Wood	18	117.25	3.5	N/A	2 - 1"	0	17114 lb

Actual Shear & Drift Distribution:

Model	RR Relative Rigidity	Actual Shear (lbs)		Allowable Shear (lbs)		Actual / Allow Shear	Actual Drift (in)	Drift Limit (in)
WSWH18x10	0.50	1824	≤	2140	OK	0.85	0.43	0.52
WSWH18x10	0.50	1824	≤	2140	OK	0.85	0.43	0.52

Notes:

1. Strong-Wall High-Strength Wood Shearwalls have been evaluated to the 2021 IBC/IRC. See www.strongtie.com for additional design and installation information.

2. Anchor templates are recommended for proper anchor bolt placement, and are required in some jurisdictions.

3. The applied vertical load shall be a concentric point load or a uniformly distributed load not exceeding the allowable vertical load. Alternatively, the load may be applied anywhere along the width of the panel if imposed by a continuous bearing vertical load transfer element such as a rimboard or beam. For eccentric axial loads applied directly to the panel, the allowable vertical load shall be divided by two.

4. Panels may be trimmed to a minimum height of 74½".

Disclaimer:

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www.strongtie.com

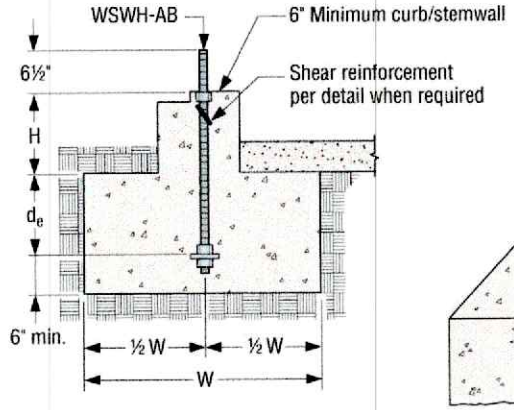
Job Name: 24009
Wall Name: Line 8
Application: Standard Wall on Concrete

Design Criteria:

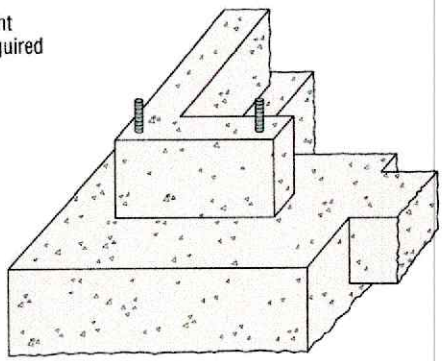
* Slab on grade - Garage curb
* 2021 International Bldg Code
* Seismic R=6.5
* 2500 psi concrete

Anchor Solution Details:

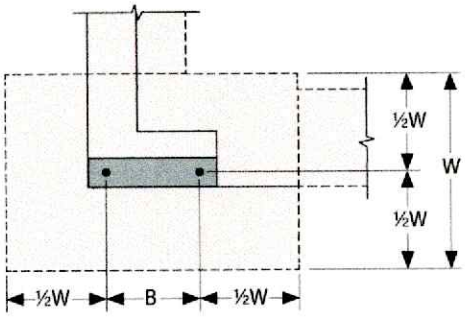
Curb Installation



Curb Section View



Perspective View
(Slab not shown for clarity)



Footing Plan

Anchor Solution Assuming Cracked Concrete Design:

Model	W	de	B	Anchor Bolt	Strength
WSWH18x10	52	18	14	WSWH-AB	High Strength

Anchor Solution Assuming Uncracked Concrete Design:

Model	W	de	B	Anchor Bolt	Strength
WSWH18x10	45	15	14	WSWH-AB	High Strength

Notes:

1. Anchorage designs conform to ACI 318-19, ACI 318-14 and 318-11 Appendix D with no supplementary reinforcement for cracked and uncracked concrete as noted.
2. Anchorage strength indicates required grade of anchor bolt. Standard (ASTM F1554 grade 36) or High Strength (HS)(ASTM A193 Grade B7).
3. Seismic indicates Seismic Design Category C though F. Detached 1 & 2 family dwellings in SDC C may use wind anchorage solutions. Seismic anchorage designs conform to ACI 318-11 section D.3.3.4.3 and ACI 318-14 section 17.2.3.4.3 and ACI 318-19 section 17.10.5.3.
4. Foundation dimensions are for anchorage only. Foundation design (size and reinforcement) by others. The registered design professional may specify alternate embedment, footing size or anchor bolt.

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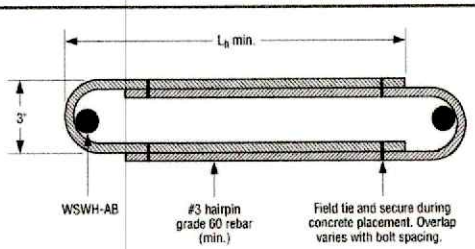
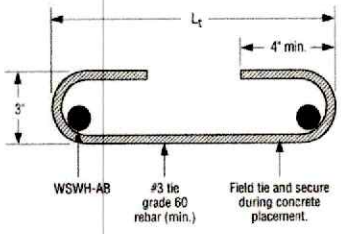
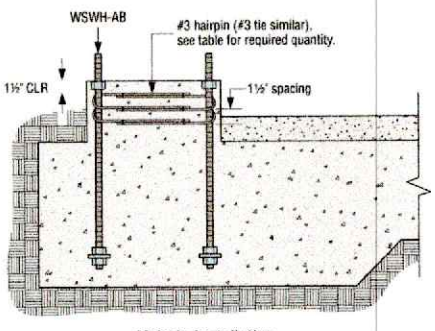


Hairpin Shear Reinforcement



Tie Shear Reinforcement



Hairpin Installation
(Garage curb shown, other footing types similar)

Shear Anchorage Solutions

Strong-Wall High-Strength Wood Shearwall Model No.	L_t or L_h (in.)	Seismic[3]		Wind[4]			
		Shear Reinforcement	Minimum Curb/ Stemwall Width (in.)	Shear Reinforcement	Minimum Curb/ Stemwall Width (in.)	ASD Allowable Shear Load, V (lb.)[7]	
						Uncracked	Cracked
WSWH12	10¼	(1) #3 Tie	6	See Note 7	6	1,080	770
WSWH18	15	(2) #3 hairpins[5, 6]	6	(1) #3 hairpin	6	Hairpin reinforcement achieves maximum allowable shear load of the Strong-Wall® WSWH	
WSWH24	19	(2) #3 hairpins[5]	6	(2) #3 hairpins[5]	6		

1. Shear anchorage designs conform to ACI 318-14 Chapter 17 and ACI 318-11 and assume minimum 2,500 psi concrete.
2. Shear reinforcement is not required for interior foundation applications (panel installed away from edge of concrete), or braced wall panel applications.
3. Seismic indicates seismic design category C through F. Detached one- and two-family dwellings in SDC C may use wind anchorage solutions. Seismic shear reinforcement designs conform to ACI 318-14, section 17.2.3.5.3 and ACI 318-11 section D.3.3.5.
4. Wind includes seismic design category A and B and detached one- and two-family dwellings in SDC C.
5. Additional ties may be required at garage curb or stemwall installations below anchor reinforcement per designer.
6. Use (1) #3 hairpin for WSWH18 when standard strength anchor is used.
7. Use (1) #3 tie for WSWH12 when panel design shear force exceeds tabulated anchorage allowable shear load.
8. No. 4 grade 40 shear reinforcement may be substituted for WSWH shear anchorage solutions.
9. Concrete edge distance for anchors must comply with ACI 318-14 section 17.7.2 and ACI 318-11 section D.8.2.
10. The designer may specify alternate shear anchorage.

STRONG-WALL® WSWH SHEAR ANCHORAGE SCHEDULE AND DETAILS

SIMPSON STRONG-TIE COMPANY INC.
(800) 999-5099
5956 W. Las Positas Blvd., Pleasanton, CA 94588.
www.strongtie.com

Job Name: 24009
Wall Name: Line A
Application: Standard Wall on Concrete

Design Criteria:

* 2021 International Bldg Code
* Seismic R=6.5
* 2500 psi concrete
* ASD Design Shear = 4821 lbs
* Nominal wall height = 10 ft

Selected Strong-Wall® Panel Solution:

Model	Type	W (in)	H (in)	T (in)	Sill Anchor	End Anchor Bolts	Total Axial Load (lbs)	Actual Uplift (lbs)
WSWH18x10	Wood	18	117.25	3.5	N/A	2 - 1"	0	15074 lb
WSWH18x10	Wood	18	117.25	3.5	N/A	2 - 1"	0	15074 lb
WSWH18x10	Wood	18	117.25	3.5	N/A	2 - 1"	0	15074 lb

Actual Shear & Drift Distribution:

Model	RR Relative Rigidity	Actual Shear (lbs)	Allowable Shear (lbs)			Actual / Allow Shear	Actual Drift (in)	Drift Limit (in)
WSWH18x10	0.33	1607	≤	2140	OK	0.75	0.38	0.52
WSWH18x10	0.33	1607	≤	2140	OK	0.75	0.38	0.52
WSWH18x10	0.33	1607	≤	2140	OK	0.75	0.38	0.52

Notes:

1. Strong-Wall High-Strength Wood Shearwalls have been evaluated to the 2021 IBC/IRC. See www.strongtie.com for additional design and installation information.
2. Anchor templates are recommended for proper anchor bolt placement, and are required in some jurisdictions.
3. The applied vertical load shall be a concentric point load or a uniformly distributed load not exceeding the allowable vertical load. Alternatively, the load may be applied anywhere along the width of the panel if imposed by a continuous bearing vertical load transfer element such as a rimboard or beam. For eccentric axial loads applied directly to the panel, the allowable vertical load shall be divided by two.
4. Panels may be trimmed to a minimum height of 74½".

Disclaimer:

SIMPSON STRONG-TIE COMPANY INC.
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5956 W. Las Positas Blvd., Pleasanton, CA 94588.
www.strongtie.com

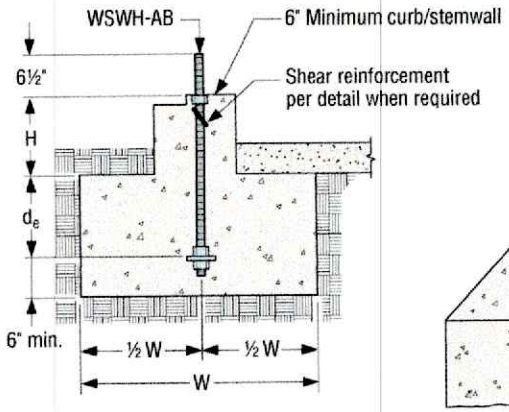
Job Name: 24009
Wall Name: Line A
Application: Standard Wall on Concrete

Design Criteria:

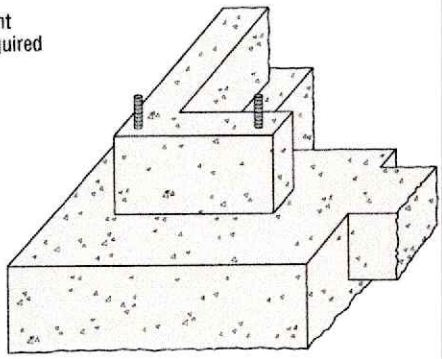
* Slab on grade - Garage curb
* 2021 International Bldg Code
* Seismic R=6.5
* 2500 psi concrete

Anchor Solution Details:

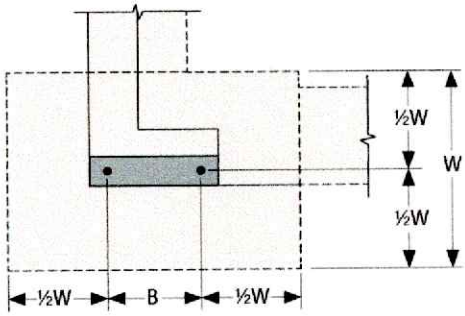
Curb Installation



Curb Section View



Perspective View
(Slab not shown for clarity)



Footing Plan

Anchor Solution Assuming Cracked Concrete Design:

Model	W	de	B	Anchor Bolt	Strength
WSWH18x10	33	11	14	WSWH-AB	Standard

Anchor Solution Assuming Uncracked Concrete Design:

Model	W	de	B	Anchor Bolt	Strength
WSWH18x10	28	10	14	WSWH-AB	Standard

Notes:

1. Anchorage designs conform to ACI 318-19, ACI 318-14 and 318-11 Appendix D with no supplementary reinforcement for cracked and uncracked concrete as noted.
2. Anchorage strength indicates required grade of anchor bolt. Standard (ASTM F1554 grade 36) or High Strength (HS)(ASTM A193 Grade B7).
3. Seismic indicates Seismic Design Category C though F. Detached 1 & 2 family dwellings in SDC C may use wind anchorage solutions. Seismic anchorage designs conform to ACI 318-11 section D.3.3.4.3 and ACI 318-14 section 17.2.3.4.3 and ACI 318-19 section 17.10.5.3.
4. Foundation dimensions are for anchorage only. Foundation design (size and reinforcement) by others. The registered design professional may specify alternate embedment, footing size or anchor bolt.

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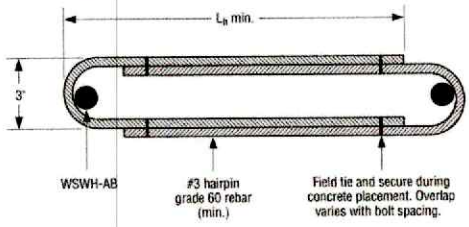
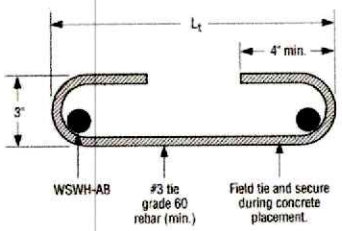
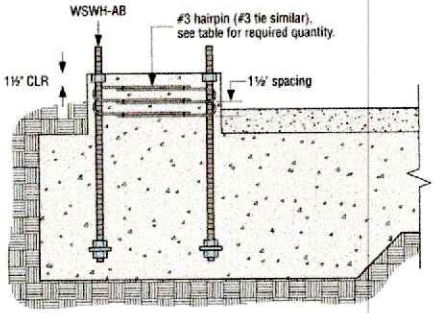


Hairpin Shear Reinforcement



Tie Shear Reinforcement



Hairpin Installation
(Garage curb shown, other footing types similar)

Shear Anchorage Solutions

Strong-Wall High-Strength Wood Shearwall Model No.	L_t or L_h (in.)	Seismic[3]		Wind[4]			
		Shear Reinforcement	Minimum Curb/ Stemwall Width (in.)	Shear Reinforcement	Minimum Curb/ Stemwall Width (in.)	ASD Allowable Shear Load, V (lb.)[7]	
						Uncracked	Cracked
WSWH12	10¼	(1) #3 Tie	6	See Note 7	6	1,080	770
WSWH18	15	(2) #3 hairpins[5,6]	6	(1) #3 hairpin	6	Hairpin reinforcement achieves maximum allowable shear load of the Strong-Wall® WSWH	
WSWH24	19	(2) #3 hairpins[5]	6	(2) #3 hairpins[5]	6		

1. Shear anchorage designs conform to ACI 318-14 Chapter 17 and ACI 318-11 and assume minimum 2,500 psi concrete.
2. Shear reinforcement is not required for interior foundation applications (panel installed away from edge of concrete), or braced wall panel applications.
3. Seismic indicates seismic design category C through F. Detached one- and two-family dwellings in SDC C may use wind anchorage solutions. Seismic shear reinforcement designs conform to ACI 318-14, section 17.2.3.5.3 and ACI 318-11 section D.3.3.5.
4. Wind includes seismic design category A and B and detached one- and two-family dwellings in SDC C.
5. Additional ties may be required at garage curb or stemwall installations below anchor reinforcement per designer.
6. Use (1) #3 hairpin for WSWH18 when standard strength anchor is used.
7. Use (1) #3 tie for WSWH12 when panel design shear force exceeds tabulated anchorage allowable shear load.
8. No. 4 grade 40 shear reinforcement may be substituted for WSWH shear anchorage solutions.
9. Concrete edge distance for anchors must comply with ACI 318-14 section 17.7.2 and ACI 318-11 section D.8.2.
10. The designer may specify alternate shear anchorage.

STRONG-WALL® WSWH SHEAR ANCHORAGE SCHEDULE AND DETAILS

BUILDING ENERGY ANALYSIS REPORT

PROJECT:

Zafiris Residence
20820 Scenic Vista Dr
San Jose, CA 95120

Project Designer:

Pacific Blue Developments
35 Colleen Way
Campbell, CA 95008
408-504-6826

Report Prepared by:

Adam Bailey
FRI Energy Consultants, LLC
5770 Winfield Blvd #15
San Jose, CA 95123
408-866-1620

Job Number:

0240056

Date:

10/10/2024

GENERAL INFORMATION					
01	**Project Name**	Zafiris Residence			
02	**Run Title**	Title 24 Analysis			
03	**Project Location**	20820 Scenic Vista Dr			
04	**City**	San Jose	05	**Standards Version**	2022
06	**Zip code**	95120	07	**Software Version**	EnergyPro 9.3
08	**Climate Zone**	4	09	**Front Orientation (deg/ Cardinal)**	10
10	**Building Type**	Single family	11	**Number of Dwelling Units**	1
12	**Project Scope**	Addition and/or Alteration	13	**Number of Bedrooms**	4
14	**Addition Cond. Floor Area (ft^2)**	885	15	**Number of Stories**	1
16	**Existing Cond. Floor Area (ft^2)**	4555.5	17	**Fenestration Average U-factor**	0.34
18	**Total Cond. Floor Area (ft^2)**	5440.5	19	**Glazing Percentage (%)**	23.61%
20	**ADU Bedroom Count**	n/a	21	**ADU Conditioned Floor Area**	n/a
22	**Fuel Type**	Propane	23	**No Dwelling Unit:**	No

COMPLIANCE RESULTS	
01	**Building Complies with Computer Performance**
02	**This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.**
03	**This building incorporates one or more Special Features shown below**

ENERGY USE SUMMARY

Energy Use	Standard Design Source Energy (EDR1) (kBtu/ft^2 -yr)	Standard Design TDV Energy (EDR2) (kTDV/ft^2 -yr)	Proposed Design Source Energy (EDR1) (kBtu/ft^2 -yr)	Proposed Design TDV Energy (EDR2) (kTDV/ft^2 -yr)	Compliance Margin (EDR1)	Compliance Margin (EDR2)
Space Heating	0	70.91	0	70.32	0	0.59
Space Cooling	0	29.79	0	26.77	0	3.02
IAQ Ventilation	0	0	0	0	0	0
Water Heating	0	14.71	0	15.06	0	-0.35
Self Utilization/Flexibility Credit				0		0
Efficiency Compliance Total	**0**	**115.41**	**0**	**112.15**	**0**	**3.26**
Photovoltaics		0		0		
Battery				0		
Flexibility						
Indoor Lighting	0	4.67	0	4.67		
Appl. & Cooking	0	9.55	0	9.54		
Plug Loads	0	12.19	0	12.19		
Outdoor Lighting	0	1.25	0	1.25		
TOTAL COMPLIANCE	**0**	**143.07**	**0**	**139.8**		

ENERGY USE INTENSITY

	Standard Design (kBtu/ft^2 - yr)	Proposed Design (kBtu/ft^2 - yr)	Compliance Margin (kBtu/ft^2 - yr)	Margin Percentage
Gross EUI[1]	17.33	17.09	0.24	1.38
Net EUI[2]	17.33	17.09	0.24	1.38

Notes
1. Gross EUI is Energy Use Total (not including PV) / Total Building Area.
2. Net EUI is Energy Use Total (including PV) / Total Building Area.

REQUIRED SPECIAL FEATURES

The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.

- Non-standard duct location (any location other than attic)

HERS FEATURE SUMMARY

The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry

- Kitchen range hood
- Verified Existing Conditions
- Minimum Airflow
- Fan Efficacy Watts/CFM
- Duct leakage testing
- Ducts located entirely in conditioned space confirmed by duct leakage testing

BUILDING - FEATURES INFORMATION

01	02	03	04	05	06	07
Project Name	**Conditioned Floor Area (ft^2)**	**Number of Dwelling Units**	**Number of Bedrooms**	**Number of Zones**	**Number of Ventilation Cooling Systems**	**Number of Water Heating Systems**
Zafiris Residence	5440.5	1	4	2	0	1

ZONE INFORMATION

01	02	03	04	05	06	07
Zone Name	**Zone Type**	**HVAC System Name**	**Zone Floor Area (ft^2)**	**Avg. Ceiling Height**	**Water Heating System 1**	**Status**
Existing	Conditioned	HVAC System1	4555.5	11	DHW Sys 1	Existing Unchanged
Addition	Conditioned	HVAC System1	885	12.5	DHW Sys 1	New

OPAQUE SURFACES

01	02	03	04	05	06	07	08	09	10	11
Name	**Zone**	**Construction**	**Azimuth**	**Orientation**	**Gross Area (ft^2)**	**Window and Door Area (ft2)**	**Tilt (deg)**	**Wall Exceptions**	**Status**	**Verified Existing Condition**
Front Wall	Existing	R-0 Wall	10	Front	370	136	90	none	Existing	No
Left Wall	Existing	R-0 Wall	100	Left	870	176.5	90	none	Existing	No
Rear Wall	Existing	R-0 Wall	190	Back	790	175	90	none	Existing	No
Right Wall	Existing	R-0 Wall	280	Right	820	282.3	90	none	Existing	No
Front Wall 2	Addition	R-15 Wall	10	Front	258	87.25	90	none	New	n/a
Left Wall 2	Addition	R-15 Wall	100	Left	245	33.75	90	Extension	New	n/a
Rear Wall 2	Addition	R-15 Wall	190	Back	290	269.8	90	Extension	New	n/a
Right Wall 2	Addition	R-15 Wall	280	Right	210	64	90	none	New	n/a
Interior Surface	Addition>>Existing	R-0 Wall1	n/a	n/a	10	0	n/a		New	No

OPAQUE SURFACES - CATHEDRAL CEILINGS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	**Zone**	**Construction**	**Azimuth**	**Orientation**	**Area (ft^2)**	**Skylight Area (ft^2)**	**Roof Rise (x in 12)**	**Roof Reflectance**	**Roof Emittance**	**Cool Roof**	**Status**	**Verified Existing Condition**	**Existing Construction**
Flat Roof	Existing	R-30 Roof No Attic	40	n/a	4555.5	60	0.25	0.1	0.85	No	Altered	Yes	R-19 Roof No Attic
Flat Roof 2	Addition	R-30 Roof No Attic	50	n/a	885	0	0.25	0.1	0.85	No	New	n/a	

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
Window	Window	Front Wall	Front	10			1	32	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Window 2	Window	Front Wall	Front	10			1	32	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Window 3	Window	Front Wall	Front	10			1	24	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Window 4	Window	Front Wall	Front	10			1	24	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Window 5	Window	Front Wall	Front	10			1	24	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Window 6	Window	Left Wall	Left	100			1	28	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Window 7	Window	Left Wall	Left	100			1	17.5	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Window 8	Window	Left Wall	Left	100			1	17.5	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Window 9	Window	Left Wall	Left	100			1	28	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Door	Window	Left Wall	Left	100			1	20	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Window 10	Window	Left Wall	Left	100			1	17.5	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Window 11	Window	Left Wall	Left	100			1	24	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Window 12	Window	Left Wall	Left	100			1	24	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Window 13	Window	Rear Wall	Back	190			1	30	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Door 2	Window	Rear Wall	Back	190			1	80	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Window 14	Window	Rear Wall	Back	190			1	4.5	0.55	Table 110.6-A	0.67	Table 110.6-B	Bug Screen	Existing	No
Door 3	Window	Rear Wall	Back	190			1	48	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
Window 15	Window	Rear Wall	Back	190			1	12.5	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Window 16	Window	Right Wall	Right	280			1	14	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Door 4	Window	Right Wall	Right	280			1	64	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Window 17	Window	Right Wall	Right	280			1	28.3	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Window 18	Window	Right Wall	Right	280			1	27.5	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Window 19	Window	Right Wall	Right	280			1	25	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Window 20	Window	Right Wall	Right	280			1	27.5	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Door 5	Window	Right Wall	Right	280			1	48	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Window 21	Window	Right Wall	Right	280			1	48	0.34	NFRC	0.22	NFRC	Bug Screen	Altered	No
Door&Sidelites	Window	Front Wall 2	Front	10			1	66	0.34	NFRC	0.22	NFRC	Bug Screen	New	NA
Transom	Window	Front Wall 2	Front	10			1	21.25	0.34	NFRC	0.22	NFRC	Bug Screen	New	NA
Window 22	Window	Left Wall 2	Left	100			1	33.75	0.34	NFRC	0.22	NFRC	Bug Screen	New	NA
Door 6	Window	Rear Wall 2	Back	190			1	168.75	0.34	NFRC	0.22	NFRC	Bug Screen	New	NA
Transom 2	Window	Rear Wall 2	Back	190			1	63.75	0.34	NFRC	0.22	NFRC	Bug Screen	New	NA
Window 23	Window	Rear Wall 2	Back	190			1	37.3	0.34	NFRC	0.22	NFRC	Bug Screen	New	NA

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
Window 24	Window	Right Wall 2	Right	280			1	32	0.34	NFRC	0.22	NFRC	Bug Screen	New	NA
Window 25	Window	Right Wall 2	Right	280			1	32	0.34	NFRC	0.22	NFRC	Bug Screen	New	NA
Skylight	Skylight	Flat Roof		40			1	24	0.42	NFRC	0.32	NFRC		New	NA
Skylight 2	Skylight	Flat Roof		40			1	24	0.42	NFRC	0.32	NFRC		New	NA
Skylight 3	Skylight	Flat Roof		40			1	12	0.42	NFRC	0.32	NFRC		New	NA

SLAB FLOORS

01	02	03	04	05	06	07	08	09	10
Name	Zone	Area (ft^2)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated	Status	Verified Existing Condition
Slab	Existing	4555.5	285	none	0	80%	No	Existing	No
Slab 2	Addition	885	72	none	0	80%	No	New	n/a

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-0 Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-0	None / None	0.361	Inside Finish: Gypsum Board Cavity / Frame: no insul. / 2x4 Exterior Finish: 3 Coat Stucco

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	**Surface Type**	**Construction Type**	**Framing**	**Total Cavity R-value**	**Interior / Exterior Continuous R-value**	**U-factor**	**Assembly Layers**
R-15 Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-15	None / None	0.095	Inside Finish: Gypsum Board Cavity / Frame: R-15 / 2x4 Exterior Finish: 3 Coat Stucco
R-19 Roof No Attic	Cathedral Ceilings	Wood Framed Ceiling	2x8 @ 16 in. O. C.	R-19	None / None	0.054	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 / 2x8 Inside Finish: Gypsum Board
R-30 Roof No Attic	Cathedral Ceilings	Wood Framed Ceiling	2x10 @ 24 in. O. C.	R-30	None / None	0.035	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-30 / 2x10 Inside Finish: Gypsum Board
R-0 Wall1	Interior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-0	None / None	0.277	Inside Finish: Gypsum Board Cavity / Frame: no insul. / 2x4 Other Side Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION

01	02	03	04	05
Quality Insulation Installation (QII)	**High R-value Spray Foam Insulation**	**Building Envelope Air Leakage**	**CFM50**	**CFM50**
Not Required	Not Required	N/A	n/a	n/a

WATER HEATING SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
Name	**System Type**	**Distribution Type**	**Water Heater Name**	**Number of Units**	**Solar Heating System**	**Compact Distribution**	**HERS Verification**	**Water Heater Name (#)**	**Status**	**Verified Existing Condition**	**Existing Water Heating System**
DHW Sys 1	Domestic Hot Water (DHW)	Standard	DHW Heater 1	2	n/a	None	n/a	DHW Heater 1 (2)	New	NA	

WATER HEATERS

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
Name	**Heating Element Type**	**Tank Type**	**# of Units**	**Tank Vol. (gal)**	**Heating Efficiency Type**	**Efficiency**	**Rated Input Type**	**Input Rating or Pilot**	**Tank Insulation R-value (Int/Ext)**	**Standby Loss or Recovery Eff**	**1st Hr. Rating or Flow Rate**	**Tank Location**	**Status**	**Verified Existing Condition**
DHW Heater 1	Propane	Consumer Instantaneous	2	0	UEF	0.96	Btu/Hr	200000	0	n/a	n/a		New	n/a

WATER HEATING - HERS VERIFICATION

01	02	03	04	05	06	07
Name	**Pipe Insulation**	**Parallel Piping**	**Compact Distribution**	**Compact Distribution Type**	**Recirculation Control**	**Shower Drain Water Heat Recovery**
DHW Sys 1 - 1/2	Not Required	Not Required	Not Required	None	Not Required	Not Required

SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
Name	**System Type**	**Heating Unit Name**	**Heating Equipment Count**	**Cooling Unit Name**	**Cooling Equipment Count**	**Fan Name**	**Distribution Name**	**Required Thermostat Type**	**Status**	**Verified Existing Condition**	**Existing HVAC System**
HVAC System1	Heating and cooling system other	Heating Component 1	2	Cooling Component 1	2	HVAC Fan 1	Air Distribution System 1	n/a	Existing	No	

HVAC - HEATING UNIT TYPES

01	02	03	04	05
Name	**System Type**	**Number of Units**	**Heating Efficiency**	**Heating Unit Brand**
Heating Component 1	Packaged Gas Furnace	2	AFUE - 80	n/a

HVAC - COOLING UNIT TYPES

01	02	03	04	05	06	07	08	09
Name	**System Type**	**Number of Units**	**Efficiency Metric**	**Efficiency EER/EER2/CEER**	**Efficiency SEER/SEER2**	**Zonally Controlled**	**Mulit-speed Compressor**	**HERS Verification**
Cooling Component 1	Central packaged AC	2	EER/SEER	11.7	14	Not Zonal	Single Speed	Cooling Component 1-hers-cool

HVAC - DISTRIBUTION SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	**Type**	**Design Type**	**Duct Ins. R-value**		**Duct Location**		**Surface Area**		**Bypass Duct**	**Duct Leakage**	**HERS Verification**	**Status**	**Verified Existing Condition**	**Existing Distribution system**	**New Ducts >= 25 ft**
			Supply	**Return**	**Supply**	**Return**	**Supply**	**Return**							
Air Distribution System 1	Conditioned space-entirely	Non-Verified	R-0.0	R-0.0	Conditioned Zone	Conditioned Zone	n/a	n/a	No Bypass Duct	Sealed and Tested	Air Distribution System 1-hers-dist	New	n/a		n/a

HVAC DISTRIBUTION - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	Duct Leakage Verification	Duct Leakage Target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler	Low Leakage Ducts Entirely in Conditioned Space
Air Distribution System 1-hers-dist	Yes	5.0	Required	Not Required	Not Required	Credit not taken	Not Required	No

HVAC - FAN SYSTEMS

01	02	03	04
Name	Type	Fan Power (Watts/CFM)	Name
HVAC Fan 1	HVAC Fan	0.58	HVAC Fan 1-hers-fan

HVAC FAN SYSTEMS - HERS VERIFICATION

01	02	03
Name	Verified Fan Watt Draw	Required Fan Efficacy (Watts/CFM)
HVAC Fan 1-hers-fan	Required	0.58

HERS RATER VERIFICATION OF EXISTING CONDITIONS

CATHEDRAL CEILING - VERIFIED AND ALTERED

01	02	03	04	05	06	07	08	09	10	11	12
Name	Zone	Existing Construction	Surface Type	Azimuth	Orientation	Total Cavity R-value	Rise	Reflectance	Emittance	Radiant Barrier	Cool Roof
Flat Roof	Existing	R-19 Roof No Attic	Wood Framed Ceiling	40	n/a	R-19	0.25			No	No

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: Adam Bailey	Documentation Author Signature: Adam Bailey
Company: FRI Energy Consultants, LLC.	Signature Date: 10/10/2024
Address: 5770 WINFIELD BLVD SPC 15	CEA/ HERS Certification Identification (If applicable):
City/State/Zip: San Jose, CA 95123	Phone: (408) 866-1620

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.
2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Responsible Designer Name: Adam Bailey	Responsible Designer Signature: Adam Bailey
Company: FRI Energy Consultants, LLC.	Date Signed: 10/10/2024
Address: 5770 WINFIELD BLVD SPC 15	License:
City/State/Zip: San Jose, CA 95123	Phone: (408) 866-1620

2022 Single-Family Residential Mandatory Requirements Summary

NOTE: Single-family residential buildings subject to the Energy Codes must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information.
(04/2022)

Building Envelope:

§ 110.6(a)1:	**Air Leakage.** Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 CFM per square foot or less when tested per NFRC-400, ASTM E283, or AAMA/WDMA/CSA 101/I.S.2/A440-2011. *
§ 110.6(a)5:	**Labeling.** Fenestration products and exterior doors must have a label meeting the requirements of § 10-111(a).
§ 110.6(b):	**Field fabricated exterior doors and fenestration** products must use U-factors and solar heat gain coefficient (SHGC) values from Tables 110.6-A, 110.6-B, or JA4.5 for exterior doors. They must be caulked and/or weather-stripped. *
§ 110.7:	**Air Leakage.** All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather stripped.
§ 110.8(a):	**Insulation Certification by Manufacturers.** Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS).
§ 110.8(g):	**Insulation Requirements for Heated Slab Floors.** Heated slab floors must be insulated per the requirements of § 110.8(g).
§ 110.8(i):	**Roofing Products Solar Reflectance and Thermal Emittance.** The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(i) and be labeled per §10-113 when the installation of a cool roof is specified on the CF1R.
§ 110.8(j):	**Radiant Barrier.** When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs.
§ 150.0(a):	**Roof Deck, Ceiling and Rafter Roof Insulation.** Roof decks in newly constructed attics in climate zones 4 and 8-16 area-weighted average U-factor not exceeding U-0.184. Ceiling and rafter roofs minimum R-22 insulation in wood-frame ceiling; or area-weighted average U-factor must not exceed 0.043. Rafter roof alterations minimum R-19 or area-weighted average U-factor of 0.054 or less. Attic access doors must have permanently attached insulation using adhesive or mechanical fasteners. The attic access must be gasketed to prevent air leakage. Insulation must be installed in direct contact with a roof or ceiling which is sealed to limit infiltration and exfiltration as specified in § 110.7, including but not limited to placing insulation either above or below the roof deck or on top of a drywall ceiling. *
§ 150.0(b):	**Loose-fill Insulation.** Loose fill insulation must meet the manufacturer's required density for the labeled R-value.
§ 150.0(c):	**Wall Insulation.** Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less, or R-20 in 2x6 inch wood framing or have a U-factor of 0.071 or less. Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102. Masonry walls must meet Tables 150.1-A or B. *
§ 150.0(d):	**Raised-floor Insulation.** Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor. *
§ 150.0(f):	**Slab Edge Insulation.** Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facings, no greater than 0.3 percent; have a water vapor permeance no greater than 2.0 perm per inch; be protected from physical damage and UV light deterioration; and, when installed as part of a heated slab floor, meet the requirements of § 110.8(g).
§ 150.0(g)1:	**Vapor Retarder.** In climate zones 1 through 16, the earth floor of unvented crawl space must be covered with a Class I or Class II vapor retarder. This requirement also applies to controlled ventilation crawl space for buildings complying with the exception to §150.0(d).
§ 150.0(g)2:	**Vapor Retarder.** In climate zones 14 and 16, a Class I or Class II vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation.
§ 150.0(q):	**Fenestration Products.** Fenestration, including skylights, separating conditioned space from unconditioned space or outdoors must have a maximum U-factor of 0.45; or area-weighted average U-factor of all fenestration must not exceed 0.45. *

Fireplaces, Decorative Gas Appliances, and Gas Log:

§ 110.5(e)	**Pilot Light.** Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces.
§ 150.0(e)1:	**Closable Doors.** Masonry or factory-built fireplaces must have a closable metal or glass door covering the entire opening of the firebox.
§ 150.0(e)2:	**Combustion Intake.** Masonry or factory-built fireplaces must have a combustion outside air intake, which is at least six square inches in area and is equipped with a readily accessible, operable, and tight-fitting damper or combustion-air control device. *
§ 150.0(e)3:	**Flue Damper.** Masonry or factory-built fireplaces must have a flue damper with a readily accessible control. *

Space Conditioning, Water Heating, and Plumbing System:

§ 110.0-§ 110.3:	**Certification.** Heating, ventilation, and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the California Energy Commission. *
§ 110.2(a):	**HVAC Efficiency.** Equipment must meet the applicable efficiency requirements in Table 110.2-A through Table 110.2-N. *
§ 110.2(b):	**Controls for Heat Pumps with Supplementary Electric Resistance Heaters.** Heat pumps with supplementary electric resistance heaters must have controls that prevent supplementary heater operation when the heating load can be met by the heat pump alone; and in which the cut-on temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating. *
§ 110.2(c):	**Thermostats.** All heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat. *
§ 110.3(c)3:	**Insulation.** Unfired service water heater storage tanks and solar water-heating backup tanks must have adequate insulation, or tank surface heat loss rating.
§ 110.3(c)6:	**Isolation Valves.** Instantaneous water heaters with an input rating greater than 6.8 kBtu per hour (2 kW) must have isolation valves with hose bibbs or other fittings on both cold and hot water lines to allow for flushing the water heater when the valves are closed.

§ 110.5:	**Pilot Lights.** Continuously burning pilot lights are prohibited for natural gas: fan-type central furnaces; household cooking appliances (except appliances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu per hour); and pool and spa heaters. *
§ 150.0(h)1:	**Building Cooling and Heating Loads.** Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Applications Volume, and Fundamentals Volume; the SMACNA Residential Comfort System Installation Standards Manual; or the ACCA Manual J using design conditions specified in § 150.0(h)2.
§ 150.0(h)3A:	**Clearances.** Air conditioner and heat pump outdoor condensing units must have a clearance of at least five feet from the outlet of any dryer.
§ 150.0(h)3B:	**Liquid Line Drier.** Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions.
§ 150.0(j)1:	**Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation.** All domestic hot water piping must be insulated as specified in § 609.11 of the California Plumbing Code. *
§ 150.0(j)2:	**Insulation Protection.** Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment` maintenance, and wind as required by §120.3(b). Insulation exposed to weather must be water retardant and protected from UV light (no adhesive tapes). Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, a Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.
§ 150.0(n)1:	**Gas or Propane Water Heating Systems.** Systems using gas or propane water heaters to serve individual dwelling units must designate a space at least 2.5' x 2.5' x 7' suitable for the future installation of a heat pump water heater, and meet electrical and plumbing requirements, based on the distance between this designated space and the water heater location; and a condensate drain no more than 2" higher than the base of the water heater
§ 150.0(n)3:	**Solar Water-heating Systems.** Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a listing agency that is approved by the executive director.

Ducts and Fans:

§ 110.8(d)3:	**Ducts.** Insulation installed on an existing space-conditioning duct must comply with § 604.0 of the California Mechanical Code (CMC). If a contractor installs the insulation, the contractor must certify to the customer, in writing, that the insulation meets this requirement.
§ 150.0(m)1:	**CMC Compliance.** All air-distribution system ducts and plenums must meet CMC §§ 601.0-605.0 and ANSI/SMACNA-006-2006 HVAC Duct Construction Standards Metal and Flexible 3rd Edition. Portions of supply-air and return-air ducts and plenums must be insulated to R-6.0 or higher; ducts located entirely in conditioned space as confirmed through field verification and diagnostic testing (RA3.1.4.3.8) do not require insulation. Connections of metal ducts and inner core of flexible ducts must be mechanically fastened. Openings must be sealed with mastic, tape, or other duct-closure system that meets the applicable UL requirements, or aerosol sealant that meets UL 723. The combination of mastic and either mesh or tape must be used to seal openings greater than ¼", If mastic or tape is used. Building cavities, air handler support platforms, and plenums designed or constructed with materials other than sealed sheet metal, duct board or flexible duct must not be used to convey conditioned air. Building cavities and support platforms may contain ducts; ducts installed in these spaces must not be compressed. *
§ 150.0(m)2:	**Factory-Fabricated Duct Systems.** Factory-fabricated duct systems must comply with applicable requirements for duct construction, connections, and closures; joints and seams of duct systems and their components must not be sealed with cloth back rubber adhesive duct tapes unless such tape is used in combination with mastic and draw bands.
§ 150.0(m)3:	**Field-Fabricated Duct Systems.** Field-fabricated duct systems must comply with applicable requirements for: pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.
§ 150.0(m)7:	**Backdraft Damper.** Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic dampers.
§ 150.0(m)8:	**Gravity Ventilation Dampers.** Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.
§ 150.0(m)9:	**Protection of Insulation.** Insulation must be protected from damage due tosunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather must be suitable for outdoor service (e.g., protected by aluminum, sheet metal, painted canvas, or plastic cover). Cellular foam insulation must be protected as above or painted with a water retardant and solar radiation-resistant coating.
§ 150.0(m)10:	**Porous Inner Core Flex Duct.** Porous inner cores of flex ducts must have a non-porous layer or air barrier between the inner core and outer vapor barrier.
§ 150.0(m)11:	**Duct System Sealing and Leakage Test.** When space conditioning systems use forced air duct systems to supply conditioned air to an occupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field verification and diagnostic testing, in accordance with Reference Residential Appendix RA3.1.
§ 150.0(m)12:	**Air Filtration.** Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have a two inch depth or can be one inch if sized per Equation 150.0-A. Clean-filter pressure drop and labeling must meet the requirements in §150.0(m)12. Filters must be accessible for regular service. Filter racks or grilles must use gaskets, sealing, or other means to close gaps around the inserted filters to and prevents air from bypassing the filter. *

§ 150.0(m)13:	**Space Conditioning System Airflow Rate and Fan Efficacy.** Space conditioning systems that use ducts to supply cooling must have a hole for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must be ≥ 350 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.45 watts per CFM for gas furnace air handlers and ≤ 0.58 watts per CFM for all others. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.62 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3. *

Ventilation and Indoor Air Quality:

§ 150.0(o)1:	**Requirements for Ventilation and Indoor Air Quality**. All dwelling units must meet the requirements of ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality in Residential Buildings subject to the amendments specified in § 150.0(o)1. *
§ 150.0(o)1B:	**Central Fan Integrated (CFI) Ventilation Systems.** Continuous operation of CFI air handlers is not allowed to provide the whole-dwelling unit ventilation airflow required per §150.0(o)1C. A motorized damper(s) must be installed on the ventilation duct(s) that prevents all airflow through the space conditioning duct system when the damper(s) is closed andcontrolled per §150.0(o)1Biii&iv. CFI ventilation systems must have controls that track outdoor air ventilation run time, and either open or close the motorized damper(s) for compliance with §150.0(o)1C.
§ 150.0(o)1C:	**Whole-Dwelling Unit Mechanical Ventilation for Single-Family Detached and townhouses .** Single-family detached dwelling units, and attached dwelling units not sharing ceilings or floors with other dwelling units, occupiable spaces, public garages, or commercial spaces must have mechanical ventilation airflow specified in § 150.0(o)1Ci-iii.
§ 150.0(o)1G:	**Local Mechanical Exhaust.** Kitchens and bathrooms must have local mechanical exhaust; nonenclosed kitchens must have demand-controlled exhaust system meeting requirements of §150.0(o)1Giii,enclosed kitchens and bathrooms can use demand-controlled or continuous exhaust meeting §150.0(o)1Giii-iv. Airflow must be measured by the installer per §150.0(o)1Gv, and rated for sound per §150.0(o)1Gvi. *
§ 150.0(o)1H&I:	**Airflow Measurement and Sound Ratings of Whole-Dwelling Unit Ventilation Systems.** The airflow required per § 150.0(o)1C must be measured by using a flow hood, flow grid, or other airflow measuring device at the fan's inlet or outlet terminals/grilles per Reference Residential Appendix RA3.7. Whole-Dwelling unit ventilation systems must be rated for sound per ASHRAE 62.2 §7.2 at no less than the minimum airflow rate required by §150.0(o)1C.
§ 150.0(o)2:	**Field Verification and Diagnostic Testing.** Whole-Dwelling Unit ventilation airflow, vented range hood airflow and sound rating, and HRV and ERV fan efficacy must be verified in accordance with Reference Residential Appendix RA3.7. Vented range hoods must be verified per Reference Residential Appendix RA3.7.4.3 to confirm if it is rated by HVI or AHAM to comply with the airflow rates and sound requirements per §150.0(o)1G

Pool and Spa Systems and Equipment:

§ 110.4(a):	**Certification by Manufacturers.** Any pool or spa heating system or equipment must be certified to have all of the following: compliance with the Appliance Efficiency Regulations and listing in MAEDbS; an on-off switch mounted outside of the heater that allows shutting off the heater without adjusting the thermostat setting; a permanent weatherproof plate or card with operating instructions; and must not use electric resistance heating. *
§ 110.4(b)1:	**Piping.** Any pool or spa heating system or equipment must be installed with at least 36 inches of pipe between the filter and the heater, or dedicated suction and return lines, or built-in or built-up connections to allow for future solar heating.
§ 110.4(b)2:	**Covers.** Outdoor pools or spas that have a heat pump or gas heater must have a cover.
§ 110.4(b)3:	**Directional Inlets and Time Switches for Pools.** Pools must have directional inlets that adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.
§ 110.5:	**Pilot Light.** Natural gas pool and spa heaters must not have a continuously burning pilot light.
§ 150.0(p):	**Pool Systems and Equipment Installation.** Residential pool systems or equipment must meet the specified requirements for pump sizing, flow rate, piping, filters, and valves. *

Lighting:

§ 110.9:	**Lighting Controls and Components.** All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9. *
§ 150.0(k)1A:	**Luminaire Efficacy.** All installed luminaires must meet the requirements in Table 150.0-A, except lighting integral to exhaust fans, kitchen range hoods, bath vanity mirrors, and garage door openers; navigation lighting less than 5 watts; and lighting internal to drawers, cabinets, and linen closets with an efficacy of at least 45 lumens per watt.
§ 150.0(k)1B:	**Screw based luminaires.** Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8. *
§ 150.0(k)1C:	**Recessed Downlight Luminaires in Ceilings.** Luminaires recessed into ceilings must not contain screw based sockets, must be airtight, and must be sealed with a gasket or caulk. California Electrical Code § 410.116 must also be met.
§ 150.0(k)1D:	**Light Sources in Enclosed or Recessed Luminaires.** Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.
§ 150.0(k)1E:	**Blank Electrical Boxes.** The number of electrical boxes that are more than five feet above the finished floor and do not contain a luminaire or other device shall be no more than the number of bedrooms. These boxes must be served by a dimmer, vacancy sensor control, low voltage wiring, or fan speed control.
§ 150.0(k)1F:	**Lighting Integral to Exhaust Fans.** Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k). *

§ 150.0(k)1G:	**Screw based luminaires.** Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8. *
§ 150.0(k)1H:	**Light Sources in Enclosed or Recessed Luminaires.** Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.
§ 150.0(k)1I:	**Light Sources in Drawers, Cabinets, and Linen Closets.** Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, emit no more than 150 lumens, and are equipped with controls that automatically turn the lighting off when the drawer, cabinet or linen closet is closed.
§ 150.0(k)2A:	**Interior Switches and Controls.** All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A.
§ 150.0(k)2B:	**Interior Switches and Controls.** Exhaust fans must be controlled separately from lighting systems. *
§ 150.0(k)2A:	**Accessible Controls.** Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned on and off. *
§ 150.0(k)2B:	**Multiple Controls.** Controls must not bypass a dimmer, occupant sensor, or vacancy sensor function if the dimmer or sensor is installed to comply with § 150.0(k).
§ 150.0(k)2C:	**Mandatory Requirements.** Lighting controls must comply with the applicable requirements of § 110.9.
§ 150.0(k)2D:	**Energy Management Control Systems.** An energy management control system (EMCS) may be used to comply with dimming, occupancy, and control requirements if it provides the functionality of the specified control per § 110.9 and the physical controls specified in § 150.0(k)2A.
§ 150.0(k)2E:	**Automatic Shutoff Controls.** In bathrooms, garages, laundry rooms, utility rooms and walk-in closets, at least one installed luminaire must be controlled by an occupancy or vacancy sensor providing automatic-off functionality. Lighting inside drawers and cabinets with opaque fronts or doors must have controls that turn the light off when the drawer or door is closed.
§ 150.0(k)2F:	**Dimmers.** Lighting in habitable spaces (e.g., living rooms, dining rooms, kitchens, and bedrooms) must have readily accessible wall-mounted dimming controls that allow the lighting to be manually adjusted up and down. Forward phase cut dimmers controlling LED light sources in these spaces must comply with NEMA SSL 7A.
§ 150.0(k)2K:	**Independent controls.** Integrated lighting of exhaust fans shall be controlled independently from the fans. Lighting under cabinets or shelves, lighting in display cabinets, and switched outlets must be controlled separately from ceiling-installed lighting.
§ 150.0(k)3A:	**Residential Outdoor Lighting.** For single-family residential buildings, outdoor lighting permanently mounted to a residential building, or to other buildings on the same lot, must have a manual on/off switch and either a photocell and motion sensor or automatic time switch control) or an astronomical time clock. An energy management control system that provides the specified control functionality and meets all applicable requirements may be used to meet these requirements.
§ 150.0(k)4:	**Internally illuminated address signs.** Internally illuminated address signs must either comply with § 140.8 or consume no more than 5 watts of power.
§ 150.0(k)5:	**Residential Garages for Eight or More Vehicles.** Lighting for residential parking garages for eight or more vehicles must comply with the applicable requirements for nonresidential garages in §§ 110.9, 130.0, 130.1, 130.4, 140.6, and 141.0.

Solar Readiness:

§ 110.10(a)1:	**Single-family Residences.** Single-family residences located in subdivisions with 10 or more single-family residences and where the application for a tentative subdivision map for the residences has been deemed complete and approved by the enforcement agency, which do not have a photovoltaic system installed, must comply with the requirements of § 110.10(b)-(e).
§110.10(b)1A:	**Minimum Solar Zone Area.** The solar zone must have a minimum total area as described below. The solar zone must comply with access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 9 or other parts of Title 24 or in any requirements adopted by a local jurisdiction. The solar zone total area must be comprised of areas that have no dimension less than 5 feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 160 square feet each for buildings with roof areas greater than 10,000 square feet. For single-family residences, the solar zone must be located on the roof or overhang of the building and have a total area no less than 250 square feet. *
§ 110.10(b)2:	**Azimuth.** All sections of the solar zone located on steep-sloped roofs must have an azimuth between 90-300° of true north.
§ 110.10(b)3A:	**Shading.** The solar zone must not contain any obstructions, including but not limited to: vents, chimneys, architectural features, and roof mounted equipment. *
§ 110.10(b)3B:	**Shading.** Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the horizontal distance of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane. *
§ 110.10(b)4:	**Structural Design Loads on Construction Documents.** For areas of the roof designated as a solar zone, the structural design loads for roof dead load and roof live load must be clearly indicated on the construction documents.
§ 110.10(c):	**Interconnection Pathways.** The construction documents must indicate: a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service; and for single-family residences and central water-heating systems, a pathway reserved for routing plumbing from the solar zone to the water-heating system.
§ 110.10(d):	**Documentation.** A copy of the construction documents or a comparable document indicating the information from § 110.10(b)-(c) must be provided to the occupant.
§ 110.10(e)1:	**Main Electrical Service Panel.** The main electrical service panel must have a minimum busbar rating of 200 amps.
§ 110.10(e)2:	**Main Electrical Service Panel.** The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit breaker for a future solar electric installation. The reserved space must be permanently marked as "For Future Solar Electric."

Electric and Energy Storage Ready:

2022 Single-Family Residential Mandatory Requirements Summary

§ 150.0(s)	**Energy Storage System (ESS) Ready.** All single-family residences must meet all of the following: Either ESS-ready interconnection equipment with backed up capacity of 60 amps or more and four or more ESS supplied branch circuits, *or* a dedicated raceway from the main service to a subpanel that supplies the branch circuits in § 150.0(s); at least four branch circuits must be identified and have their source collocated at a single panelboard suitable to be supplied by the ESS, with one circuit supplying the refrigerator, one lighting circuit near the primary exit, and one circuit supplying a sleeping room receptacle outlet; main panelboard must have a minimum busbar rating of 225 amps; sufficient space must be reserved to allow future installation of a system isolation equipment/transfer switch within 3' of the main panelboard, with raceways installed between the panelboard and the switch location to allow the connection of backup power source.
§ 150.0(t)	**Heat Pump Space Heater Ready.** Systems using gas or propane furnaces to serve individual dwelling units must include: A dedicated unobstructed 240V branch circuit wiring installed within 3' of the furnace with circuit conductors rated at least 30 amps with the blank cover identified as "240V ready;" and a reserved main electrical service panel space to allow for the installation of a double pole circuit breaker permanently marked as "For Future 240V use."
§ 150.0(u)	**Electric Cooktop Ready.** Systems using gas or propane cooktop to serve individual dwelling units must include: A dedicated unobstructed 240V branch circuit wiring installed within 3' of the cooktop with circuit conductors rated at least 50 amps with the blank cover identified as "240V ready;" and a reserved main electrical service panel space to allow for the installation of a double pole circuit breaker permanently marked as "For Future 240V use."
§ 150.0(v)	**Electric Clothes Dryer Ready.** Clothes dryer locations with gas or propane plumbing to serve individual dwelling units must include: A dedicated unobstructed 240V branch circuit wiring installed within 3' of the dryer location with circuit conductors rated at least 30 amps with the blank cover identified as "240V ready;" and a reserved main electrical service panel space to allow for the installation of a double pole circuit breaker permanently marked as "For Future 240V use."

*Exceptions may apply.

HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name	Date
Zafiris Residence	10/10/2024
System Name	**Floor Area**
HVAC System	5,441

ENGINEERING CHECKS

Number of Systems	2
Heating System	
Output per System	80,000
Total Output (Btuh)	160,000
Output (Btuh/sqft)	29.4
Cooling System	
Output per System	36,000
Total Output (Btuh)	72,000
Total Output (Tons)	6.0
Total Output (Btuh/sqft)	13.2
Total Output (sqft/Ton)	906.8
Air System	
CFM per System	0
Airflow (cfm)	0
Airflow (cfm/sqft)	0.00
Airflow (cfm/Ton)	0.0
Outside Air (%)	0.0%
Outside Air (cfm/sqft)	0.00
Note: values above given at ARI conditions	

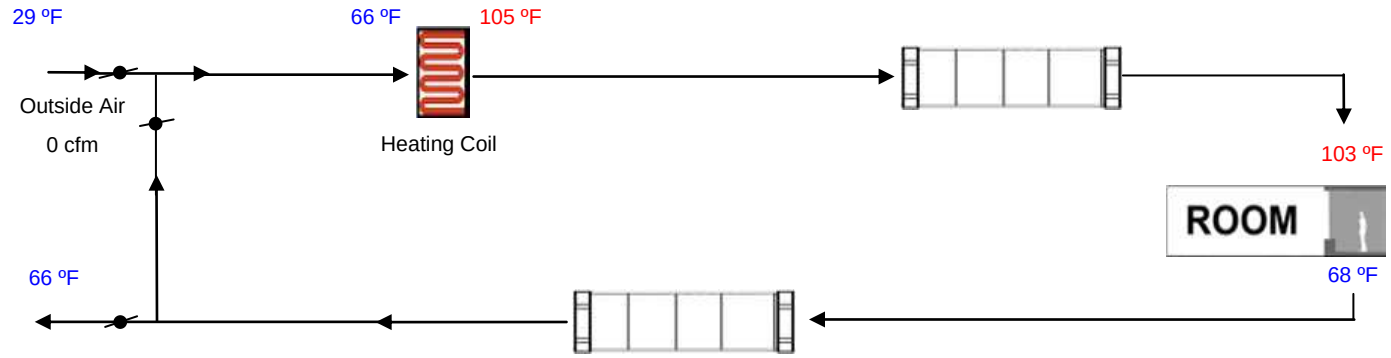
SYSTEM LOAD

	COIL COOLING PEAK			COIL HTG. PEAK	
	CFM	**Sensible**	**Latent**	**CFM**	**Sensible**
Total Room Loads	2,849	55,248	2,403	2,134	80,451
Return Vented Lighting		0			
Return Air Ducts		12,478			22,967
Return Fan		0			0
Ventilation	0	0	0	0	0
Supply Fan		0			0
Supply Air Ducts		12,478			22,967
TOTAL SYSTEM LOAD		80,203	2,403		126,384

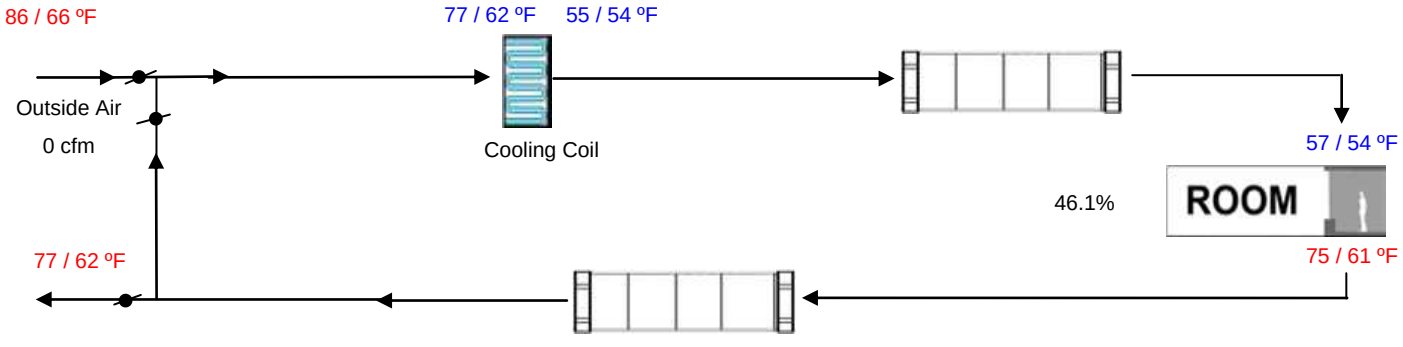
HVAC EQUIPMENT SELECTION

Furnace - A/C	69,497	0		160,000
Total Adjusted System Output (Adjusted for Peak Design conditions)	69,497	0		160,000
TIME OF SYSTEM PEAK		Aug 3 PM		Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Cooling Peak)



Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	A01	Flat Girder	1	2	Job Reference (optional)

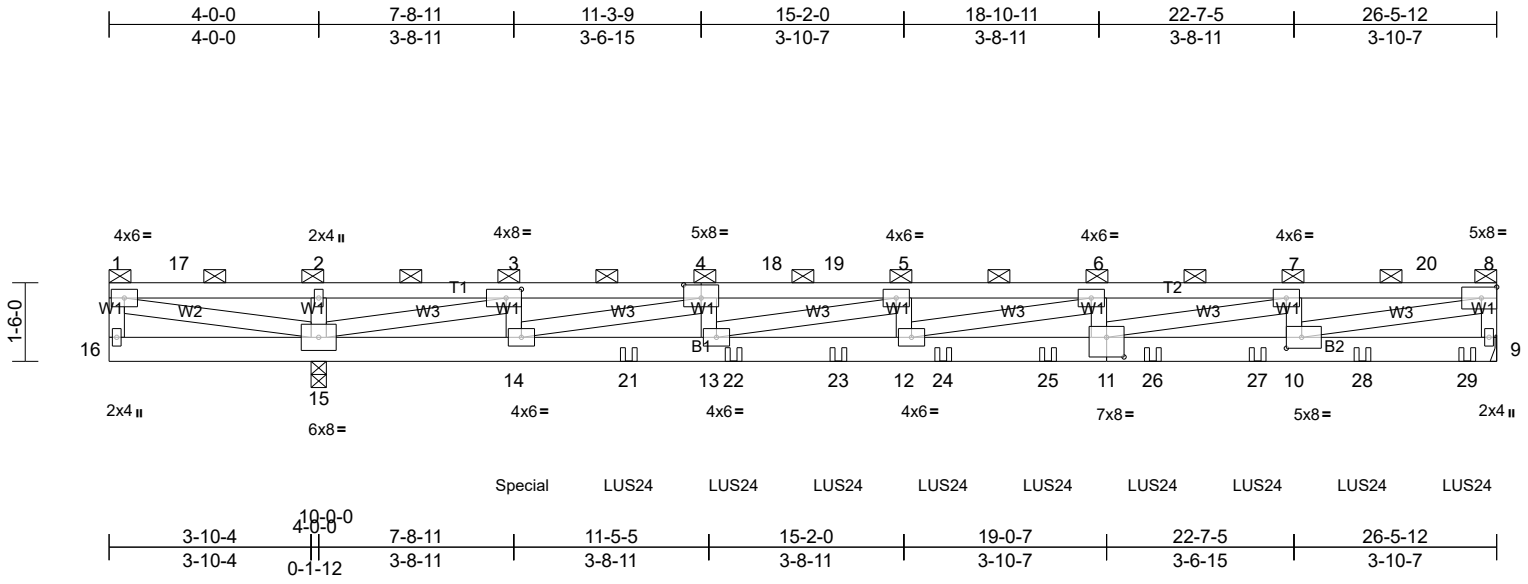


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Plate Offsets (X, Y): [3:0-3-8,0-2-0], [4:0-4-0,0-3-0], [10:0-3-8,0-2-8], [11:0-4-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.25	Vert(LL)	-0.23	12	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.65	Vert(CT)	-0.60	12	>449	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.65	Horz(CT)	0.06	9	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MS							Weight: 267 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X6 DF No.2 G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (5-4-6 max.): 1-8, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 15-16.

REACTIONS (lb/size) 9=1177/ Mechanical, (min. 0-1-8), 15=1912/0-3-8, (min. 0-1-8)
Max Horiz 15=28 (LC 23)
Max Uplift 9=-153 (LC 5), 15=-494 (LC 4)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 8-9=-1062/156, 1-17=-212/965, 2-17=-212/965, 2-3=-212/965, 3-4=-2691/1124, 4-18=-5950/1218, 18-19=-5950/1218, 5-19=-5950/1218, 5-6=-6888/1096, 6-7=-5560/800, 7-20=-3259/435, 8-20=-3259/435
BOT CHORD 14-15=-1137/2678, 14-21=-1231/5847, 13-21=-1231/5847, 13-22=-1108/6888, 22-23=-1108/6888, 12-23=-1108/6888, 12-24=-831/5639, 24-25=-831/5639, 11-25=-831/5639, 11-26=-447/3259, 26-27=-447/3259, 10-27=-447/3259
WEBS 2-15=-320/90, 1-15=-967/227, 8-10=-435/3220, 3-14=-315/898, 3-15=-3645/1130, 4-14=-3367/99, 4-13=-1/798, 5-13=-1076/0, 6-12=-328/1305, 6-11=-613/146, 7-11=-382/2412, 7-10=-931/174

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc,
Except member 3-14 2x4 - 2 rows staggered at 0-3-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=26ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) A plate rating reduction of 20% has been applied for the green lumber members.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 153 lb uplift at joint 9 and 494 lb uplift at joint 15.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 9-11-0 from the left end to 25-11-0 to connect truss(es) JA4A (1 ply 2x4 DF), J01A (1 ply 2x4 DF), J01 (1 ply 2x4 DF) to front face of bottom chord.
12) Fill all nail holes where hanger is in contact with lumber.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 243 lb down and 11 lb up at 0-1-12 on top chord, and 106 lb down and 488 lb up at 7-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-8=-60, 9-16=-20
Concentrated Loads (lb)
Vert: 1=-230, 14=177, 21=-214, 22=-242, 23=-242, 24=-242

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	A02	Flat	11	1	Job Reference (optional)

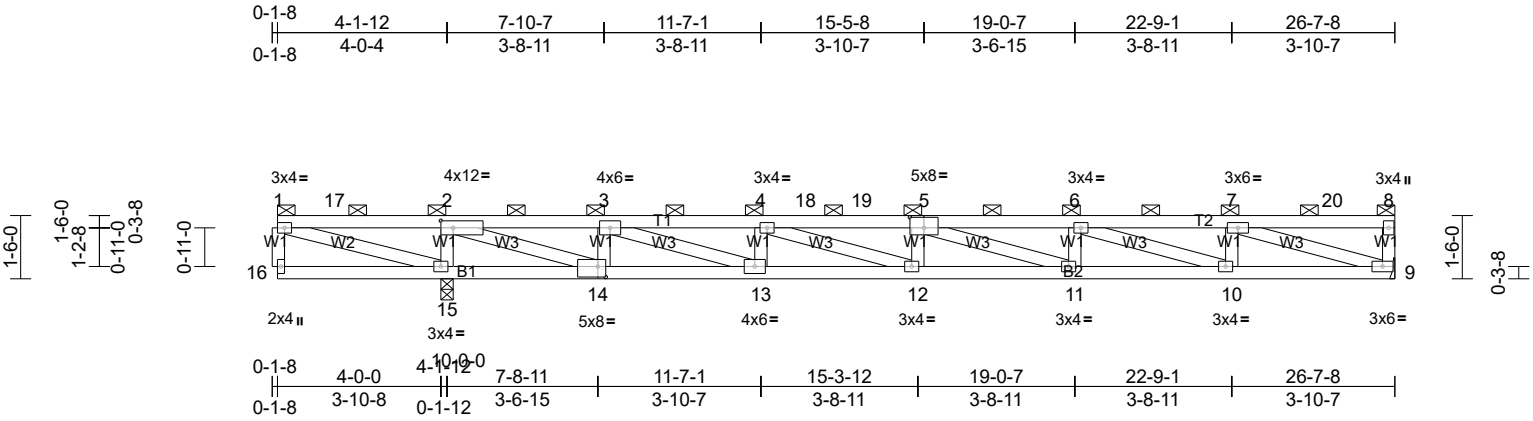

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Plate Offsets (X, Y): [2:0-3-8,0-2-0], [5:0-4-0,0-3-0], [14:0-2-4,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.31	Vert(LL)	-0.25	12	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.50	Vert(CT)	-0.77	12	>350	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.10	9	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 116 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (3-3-1 max.): 1-8, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

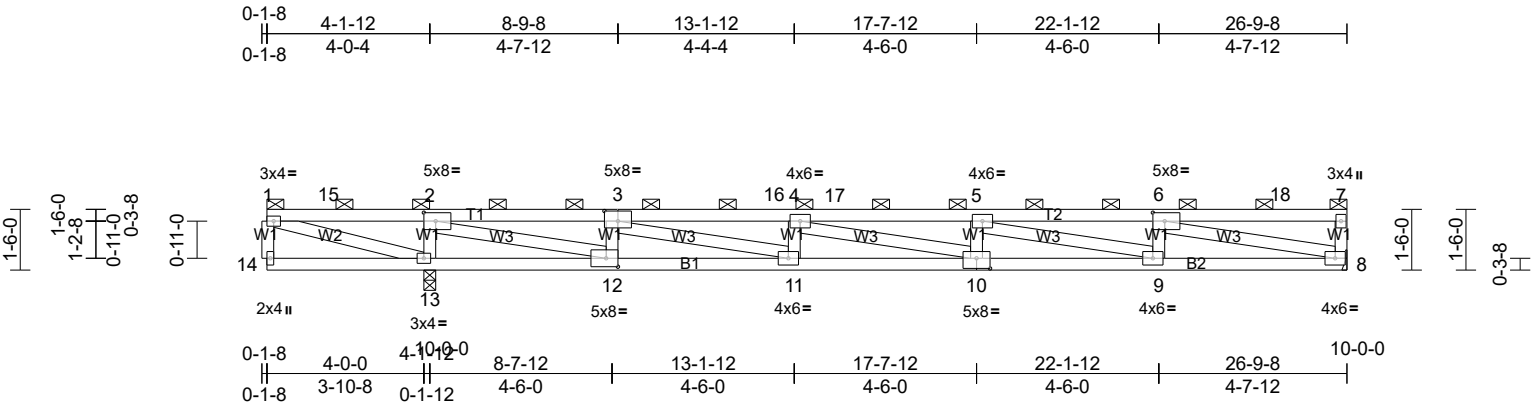
REACTIONS (lb/size) 9=865/ Mechanical, (min. 0-1-8), 15=1242/0-3-8, (min. 0-1-8)
Max Horiz 15=30 (LC 11)
Max Uplift 9=-23 (LC 9), 15=-82 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-17=-216/351, 2-17=-216/351, 2-3=-1770/300, 3-4=-3321/696, 4-18=-3834/832, 18-19=-3834/832, 5-19=-3834/832, 5-6=-3484/781, 6-7=-2210/510
BOT CHORD 14-15=-351/251, 13-14=-349/1851, 12-13=-718/3321, 11-12=-865/3846, 10-11=-793/3484, 9-10=-513/2210
WEBS 1-15=-384/233, 2-15=-1006/309, 7-9=-2197/499, 3-14=-675/229, 2-14=-526/2238, 3-13=-397/1546, 4-13=-398/166, 4-12=-153/540, 5-11=-383/75, 6-10=-1339/294, 7-10=-36/464

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=27ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 9 and 82 lb uplift at joint 15.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	A03	Flat	5	1	Job Reference (optional)



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.40	Vert(LL)	-0.28	10-11	>978	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.52	Vert(CT)	-0.84	10-11	>323	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.10	8	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 115 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1) *Except* W3:2X4 DF No.2 G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (3-2-8 max.): 1-7, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

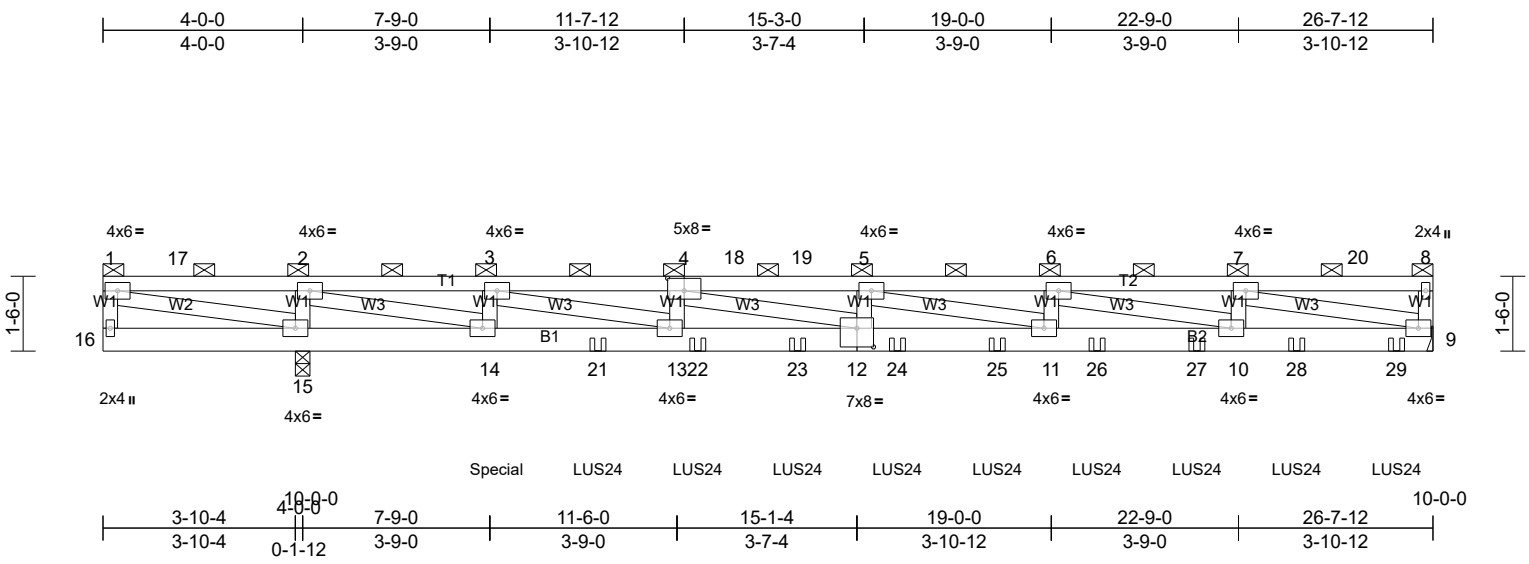
REACTIONS (lb/size) 8=872/ Mechanical, (min. 0-1-8), 13=1248/0-3-8, (min. 0-1-8)
Max Horiz 13=-30 (LC 10)
Max Uplift 8=-22 (LC 9), 13=-80 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-15=-209/317, 2-15=-209/317, 2-3=-2263/417, 3-16=-3727/792, 4-16=-3727/792, 4-17=-3829/846, 5-17=-3829/846, 5-6=-2603/593
BOT CHORD 12-13=-317/244, 11-12=-467/2339, 10-11=-814/3727, 9-10=-862/3829, 8-9=-598/2603
WEBS 1-13=-340/224, 2-13=-1014/319, 6-8=-2541/572, 3-12=-635/233, 2-12=-632/2672, 3-11=-372/1440, 4-11=-293/151, 5-9=-1269/273, 6-9=-7/419

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=27ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 8 and 80 lb uplift at joint 13.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	A04	Flat Girder	1	2	Job Reference (optional)



Scale = 1:46.2

Plate Offsets (X, Y): [4:0-4-0,0-3-0], [12:0-4-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.20	Vert(LL)	-0.14	12	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.33	Vert(CT)	-0.30	11-12	>891	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.36	Horz(CT)	0.03	9	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MS							Weight: 269 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X6 DF No.2 G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-8, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

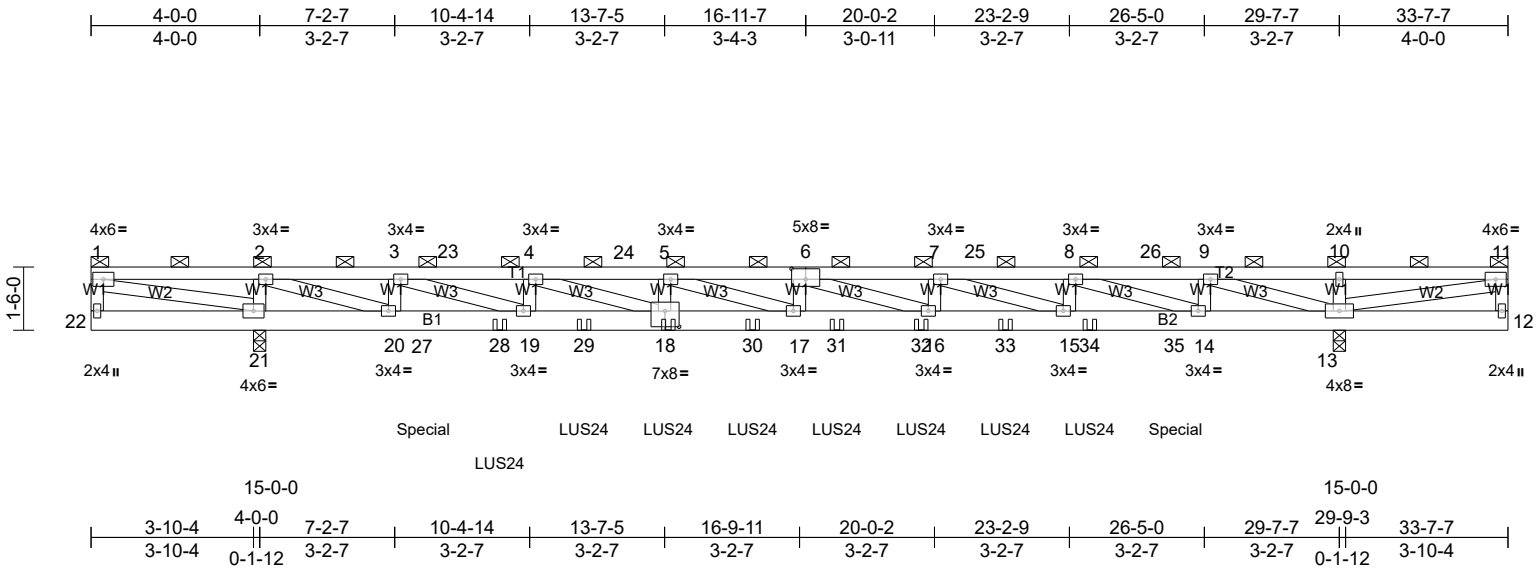
REACTIONS (lb/size) 9=961/ Mechanical, (min. 0-1-8), 15=1295/0-3-8, (min. 0-1-8)
Max Horiz 15=28 (LC 7)
Max Uplift 9=-166 (LC 5), 15=-562 (LC 4)
Max Grav 9=1052 (LC 13), 15=1420 (LC 16)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-17=-176/1040, 2-17=-176/1040, 2-3=-1307/1373, 3-4=-3096/1489, 4-18=-4024/1180, 18-19=-4024/1180, 5-19=-4024/1180, 5-6=-3975/874, 6-7=-2823/482
BOT CHORD 14-15=-1040/191, 14-21=-1386/1309, 13-21=-1386/1309, 13-22=-1493/3162, 22-23=-1493/3162, 12-23=-1493/3162, 12-24=-1188/4049, 24-25=-1188/4049, 11-25=-1188/4049, 11-26=-887/3980, 26-27=-887/3980, 10-27=-887/3980, 10-28=-494/2828, 28-29=-494/2828, 9-29=-494/2828
WEBS 2-15=-908/489, 1-15=-1056/184, 7-9=-2782/482, 3-14=-729/59, 2-14=-1379/2259, 3-13=-121/1885, 4-13=-634/18, 4-12=0/1318, 5-12=-312/106, 5-11=-183/350, 6-10=-1215/410, 7-10=-68/397

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc,
Except member 3-14 2x4 - 2 rows staggered at 0-3-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=27ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) A plate rating reduction of 20% has been applied for the green lumber members.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 166 lb uplift at joint 9 and 562 lb uplift at joint 15.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 9-11-0 from the left end to 25-11-0 to connect truss(es) JA4 (1 ply 2x4 DF), J01 (1 ply 2x4 DF) to back face of bottom chord.
12) Fill all nail holes where hanger is in contact with lumber.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 243 lb down and 11 lb up at 0-1-12, and 243 lb down and 11 lb up at 22-9-0 on top chord, and 106 lb down and 488 lb up at 7-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-8=-60, 9-16=-20
Concentrated Loads (lb)
Vert: 1=-230, 7=-230, 14=177, 21=135

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	B01	Flat Girder	1	2	Job Reference (optional)



Scale = 1:54.7

Plate Offsets (X, Y): [6:0-4-0,0-3-0], [18:0-4-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.17	Vert(LL)	-0.17	17	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.28	Vert(CT)	-0.24	17	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.31	Horz(CT)	-0.02	13	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MS							Weight: 341 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X6 DF No.2 G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-11, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 17-18,16-17,15-16.

REACTIONS (lb/size) 13=1267/0-3-8, (min. 0-1-8), 21=1235/0-3-8, (min. 0-1-8)
Max Horiz 21=28 (LC 7)
Max Uplift 13=-639 (LC 5), 21=-627 (LC 4)
Max Grav 13=1441 (LC 13), 21=1404 (LC 16)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-133/1056, 2-3=-974/1484, 3-23=-2630/2104, 4-23=-2630/2104, 4-24=-3687/2059, 5-24=-3687/2059, 5-6=-4002/2068, 6-7=-3609/2064, 7-25=-2487/2099, 8-25=-2487/2099, 8-26=-811/1468, 9-26=-811/1468, 9-10=-143/1199, 10-11=-131/1131
BOT CHORD 20-21=-1056/148, 20-27=-1486/958, 27-28=-1486/958, 19-28=-1486/958, 19-29=-2084/2614, 18-29=-2084/2614, 18-30=-2039/3668, 17-30=-2039/3668, 17-31=-2052/3988, 31-32=-2052/3988, 16-32=-2052/3988, 16-33=-2044/3592, 15-33=-2044/3592, 15-34=-2079/2471, 34-35=-2079/2471, 14-35=-2079/2471, 13-14=-1448/830
WEBS 1-21=-1075/140, 11-13=-1138/136, 10-13=-287/75, 2-21=-891/587, 9-13=-1863/1471, 3-20=-707/228, 2-20=-1532/1942, 3-19=-656/1755, 4-19=-574/15, 4-18=0/1136, 5-18=-293/41, 5-17=-10/336, 6-16=-445/10, 7-16=0/252, 7-15=-1212/0, 8-15=-195/435, 8-14=-1811/684, 9-14=-513/539

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=34ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) A plate rating reduction of 20% has been applied for the green lumber members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 627 lb uplift at joint 21 and 639 lb uplift at joint 13.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 9-8-6 from the left end to 23-8-6 to connect truss(es) JA4 (1 ply 2x4 DF), J01 (1 ply 2x4 DF), JA4 (1 ply 2x4 DF) to back face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 243 lb down and 2 lb up at 0-1-12, and 243 lb down and 2 lb up at 33-5-11 on top chord, and 106 lb down and 488 lb up at 7-10-4, and 106 lb down and 488 lb up at 25-8-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-11=-60, 12-22=-20
Concentrated Loads (lb)
Vert: 1=-230, 11=-230, 27=177, 28=135, 34=135, 35=177

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	B02	Flat	16	1	Job Reference (optional)

Better Built Truss, Ripon, CA, user — Run: 8.81 S Jun 18 2024 Print: 8.810 S Jun 18 2024 MiTek Industries, Inc. Thu Nov 14 15:25:48 — Page: 1

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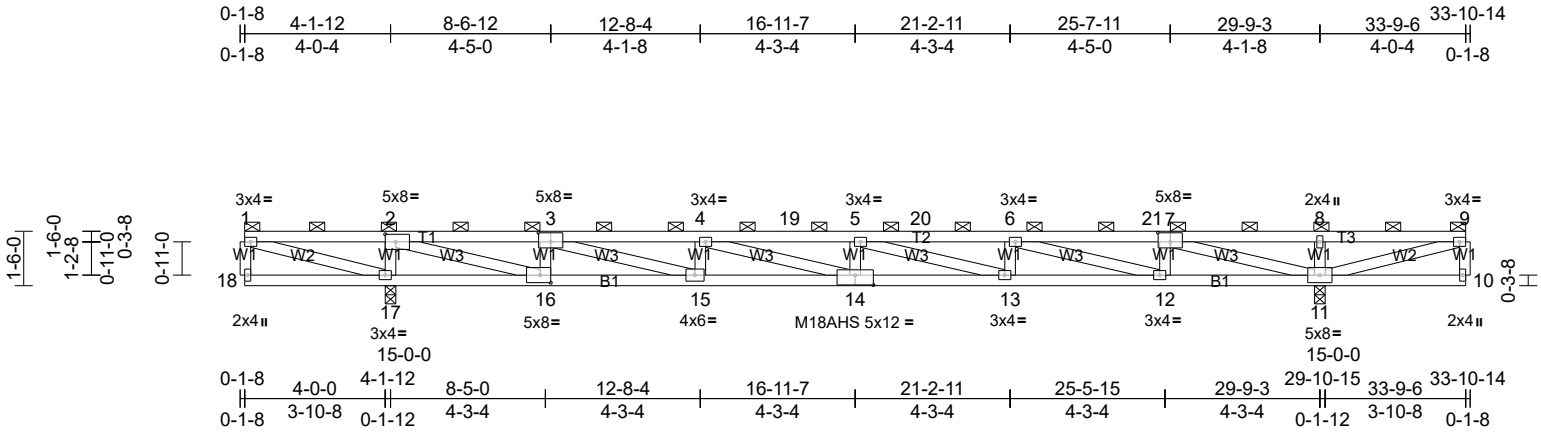


Scale = 1:63.5

Plate Offsets (X, Y): [2:0-3-8,0-2-8], [3:0-4-0,0-3-0], [7:0-4-0,0-3-0], [14:0-6-0,0-3-4], [16:0-3-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.42	Vert(LL)	-0.41	14	>743	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.65	Vert(CT)	-1.24	14	>247	180	M18AHS	169/162
BCLL	0.0*	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.15	11	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 146 lb	FT = 20%

LUMBER

TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1) *Except* W3:2X4 DF No.2 G(1)

BRACING

TOP CHORD 2-0-0 oc purlins (2-9-5 max.): 1-9, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 11=1345/0-3-8, (min. 0-1-8), 17=1345/0-3-8, (min. 0-1-8)
Max Horiz 17=30 (LC 11)
Max Uplift 11=-48 (LC 9), 17=-47 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

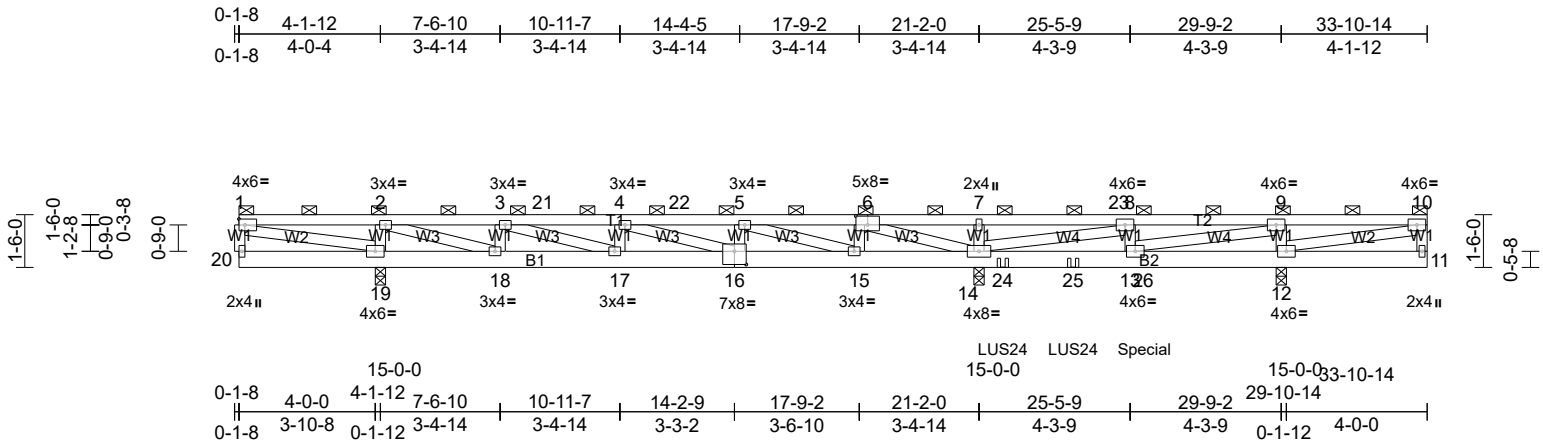
TOP CHORD 1-2=-191/319, 2-3=-2478/282, 3-4=-4304/595, 4-19=-4886/684, 5-19=-4886/684, 5-20=-4307/597, 6-20=-4307/597, 6-21=-2487/284, 7-21=-2487/284, 7-8=-195/331, 8-9=-195/331
BOT CHORD 16-17=-319/225, 15-16=-327/2567, 14-15=-617/4304, 13-14=-706/4886, 12-13=-610/4307, 11-12=-284/2417
WEBS 1-17=-342/204, 9-11=-358/209, 2-17=-1108/256, 8-11=-303/121, 7-11=-2864/476, 3-16=-742/194, 2-16=-473/2907, 3-15=-311/1810, 4-15=-418/136, 4-14=-102/605, 5-13=-602/100, 6-13=0/295, 6-12=-1891/335, 7-12=-29/580

NOTES

1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=34ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) 0-1-12 to 15-1-12, Exterior (2) 15-1-12 to 18-9-2, Corner (3) 18-9-2 to 33-9-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) A plate rating reduction of 20% has been applied for the green lumber members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 17 and 48 lb uplift at joint 11.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	B03	Flat Girder	1	2	Job Reference (optional)



Scale = 1:65.5

Plate Offsets (X, Y): [6:0-4-0,0-3-0], [16:0-4-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.17	Vert(LL)	-0.03	16-17	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.15	Vert(CT)	-0.09	16-17	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.26	Horz(CT)	0.01	14	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MS							Weight: 341 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X6 DF No.2 G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-10, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

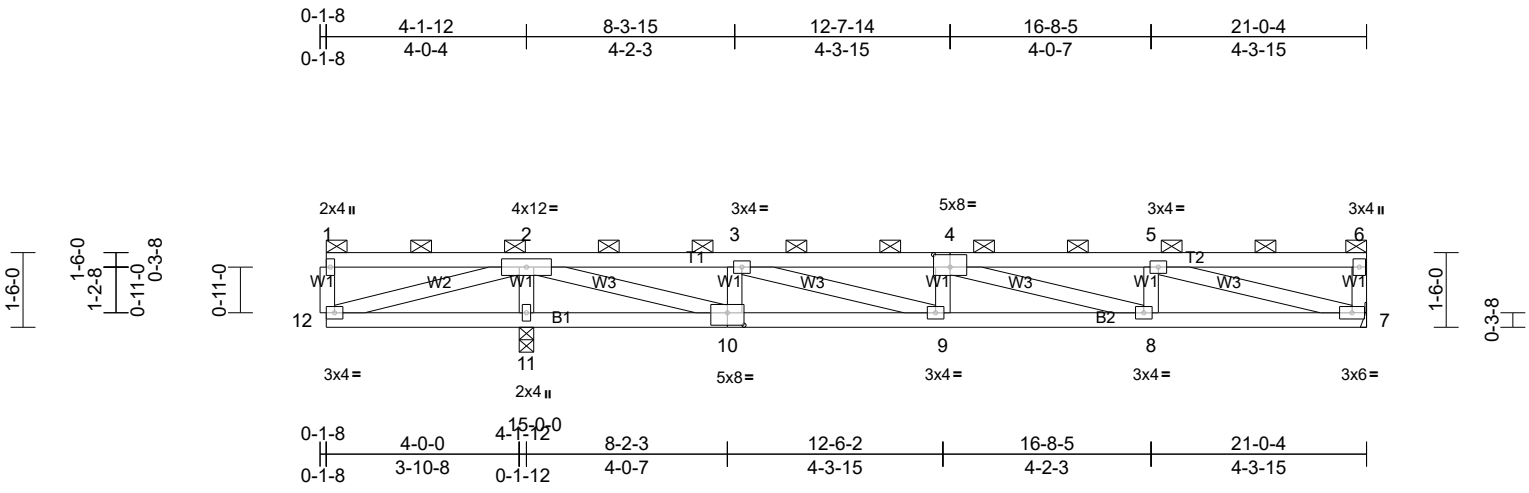
REACTIONS (lb/size) 12=853/0-3-8, (min. 0-1-8), 14=1144/0-3-8, (min. 0-1-8), 19=935/0-3-8, (min. 0-1-8)
Max Horiz 19=-28 (LC 6)
Max Uplift 12=-301 (LC 5), 14=-193 (LC 8), 19=-76 (LC 22)
Max Grav 12=875 (LC 13), 14=1144 (LC 1), 19=945 (LC 19)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-94/334, 2-3=-873/0, 3-21=-1534/0, 4-21=-1534/0, 4-22=-1383/0, 5-22=-1383/0, 5-6=-399/53, 6-7=-20/1063, 7-23=-4/993, 8-23=-4/993, 8-9=-257/1299, 9-10=-119/1173
BOT CHORD 18-19=-334/109, 17-18=0/873, 16-17=0/1534, 15-16=0/1368, 14-15=-44/327, 14-24=-1299/244, 24-25=-1299/244, 13-25=-1299/244, 13-26=-1173/106, 12-26=-1173/106
WEBS 1-19=-354/96, 2-19=-672/56, 7-14=-264/61, 9-12=-397/229, 3-18=-394/50, 2-18=-8/1269, 3-17=-32/696, 5-15=-1069/0, 6-15=0/346, 6-14=-1446/3, 8-13=-340/144, 8-14=-456/651, 9-13=-609/535, 10-12=-1198/123

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=34ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) A plate rating reduction of 20% has been applied for the green lumber members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 19, 193 lb uplift at joint 14 and 301 lb uplift at joint 12.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 21-10-2 from the left end to 23-10-2 to connect truss(es) JA3 (1 ply 2x4 DF) to front face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 243 lb down and 2 lb up at 33-9-2 on top chord, and 106 lb down and 488 lb up at 25-10-1 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-10=-60, 11-20=-20
Concentrated Loads (lb)
Vert: 10=-230, 24=-95, 25=-95, 26=177

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	C01	Flat	3	1	Job Reference (optional)



Scale = 1:46.3

Plate Offsets (X, Y): [4:0-4-0,0-3-0], [10:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.32	Vert(LL)	-0.09	9	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.29	Vert(CT)	-0.28	8-9	>704	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 91 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (4-5-15 max.): 1-6, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

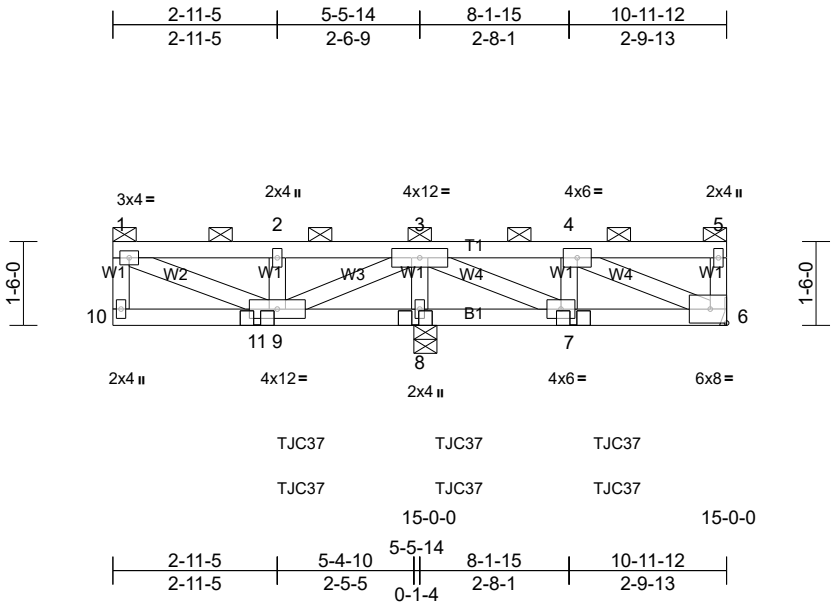
REACTIONS (lb/size) 7=631/ Mechanical, (min. 0-1-8), 11=1027/0-3-8, (min. 0-1-8)
Max Horiz 11=-30 (LC 8)
Max Uplift 7=-37 (LC 9), 11=-105 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1317/283, 3-4=-2082/544, 4-5=-1634/458
BOT CHORD 11-12=-351/245, 10-11=-351/273, 9-10=-331/1370, 8-9=-579/2095, 7-8=-466/1634
WEBS 2-11=-904/393, 2-12=-254/382, 5-7=-1579/438, 3-10=-444/219, 2-10=-530/1740, 3-9=-259/741, 4-8=-481/119, 5-8=0/260

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 7 and 105 lb uplift at joint 11.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	CG01	Flat Girder	8	1	Job Reference (optional)



Scale = 1:41.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.35	Vert(LL)	0.01	7-8	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.25	Vert(CT)	0.02	7-8	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.75	Horz(CT)	-0.02	6	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MS							Weight: 50 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (10-0-0 max.): 1-5, except end verticals.
BOT CHORD Rigid ceiling directly applied or 3-8-12 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 6=-497/ Mechanical, (min. 0-1-8), 8=2137/0-4-15, (min. 0-2-4)
Max Horiz 8=-30 (LC 6)
Max Uplift 6=-516 (LC 16), 8=-315 (LC 4)
Max Grav 6=75 (LC 4), 8=2137 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-130/1318, 2-3=-130/1318, 3-4=-172/1322
BOT CHORD 8-9=-2968/376, 7-8=-2968/406, 6-7=-1314/188
WEBS 3-9=-288/1844, 3-8=-1778/276, 4-6=-195/1433, 4-7=-721/123, 3-7=-239/1829, 1-9=-1424/138

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 516 lb uplift at joint 6 and 315 lb uplift at joint 8.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Use Simpson Strong-Tie TJC37 (4 nail, 30-90) or equivalent spaced at 2-9-15 oc max. starting at 2-6-15 from the left end to 8-2-14 to connect truss(es) JA (1 ply 2x4 DF), JA1 (1 ply 2x4 DF), JA2 (1 ply 2x4 DF) to front face of bottom chord.
10) Use Simpson Strong-Tie TJC37 (4 nail,90-150) or equivalent at 2-6-15 from the left end to connect truss (es) JA (1 ply 2x4 DF) to back face of bottom chord, skewed 45.0 deg.to the right, sloping 0.0 deg. down.
11) Use Simpson Strong-Tie TJC37 (4 nail,90-150) or equivalent spaced at 2-9-15 oc max. starting at 5-4-14 from the left end to 8-2-14 to connect truss(es) JA1 (1 ply 2x4 DF), JA2 (1 ply 2x4 DF) to back face of bottom chord.
12) Fill all nail holes where hanger is in contact with lumber.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 485 lb down and 27 lb up at 0-1-12 on top chord. The design/ selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-5=-60, 6-10=-20
Concentrated Loads (lb)
Vert: 1=-460, 8=-221, 7=-19, 11=-85

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	CG02	Flat Girder	1	1	Job Reference (optional)

Better Built Truss, Ripon, CA, user — Run: 8.81 S Jun 18 2024 Print: 8.810 S Jun 18 2024 MiTek Industries, Inc. Thu Nov 14 15:25:50 — Page: 1

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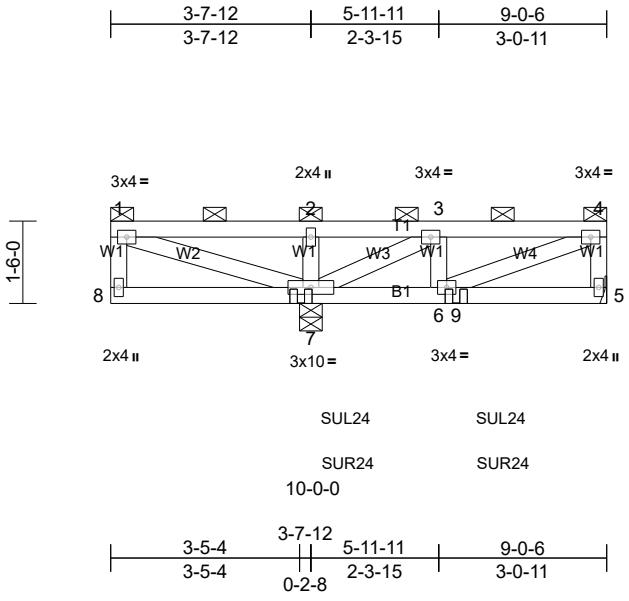


Scale = 1:42

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.37	Vert(LL)	0.00	6-7	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.13	Vert(CT)	0.01	6-7	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.40	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MP							Weight: 41 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins: 1-4, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

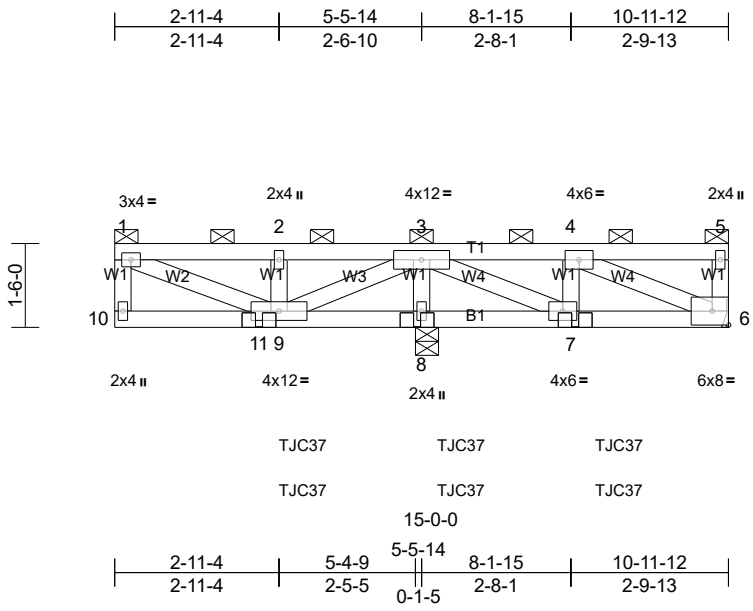
REACTIONS (lb/size) 5=-169/ Mechanical, (min. 0-1-8), 7=1538/0-4-15, (min. 0-1-10)
Max Horiz 7=-30 (LC 6)
Max Uplift 5=-196 (LC 16), 7=-203 (LC 4)
Max Grav 5=42 (LC 19), 7=1538 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-158/1574, 2-3=-158/1574, 3-4=-104/697
BOT CHORD 6-7=-689/120
WEBS 2-7=-251/61, 3-7=-1016/115, 3-6=-11/350, 4-6=-750/122, 1-7=-1661/160

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 196 lb uplift at joint 5 and 203 lb uplift at joint 7.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Use Simpson Strong-Tie SUL24 (4-10dx1 1/2 Girder, 4-10dx1 1/2 Truss, Single Ply Girder) or equivalent at 3-5-9 from the left end to connect truss(es) JC1 (1 ply 2x4 DF) to front face of bottom chord, skewed 45.0 deg.to the left, sloping 0.0 deg. down.
10) Use Simpson Strong-Tie SUL24 (4-10dx1 1/2 Girder, 4-10dx1 1/2 Truss, Single Ply Girder) or equivalent at 6-3-8 from the left end to connect truss(es) JC2 (1 ply 2x4 DF) to front face of bottom chord, skewed 45.0 deg.to the left, sloping 0.0 deg. down.
11) Use Simpson Strong-Tie SUR24 (4-10dx1 1/2 Girder, 4-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-9-15 oc max. starting at 3-5-9 from the left end to 6-3-8 to connect truss(es) JA1 (1 ply 2x4 DF), JA2 (1 ply 2x4 DF) to back face of bottom chord.
12) Fill all nail holes where hanger is in contact with lumber.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 485 lb down and 27 lb up at 0-1-12 on top chord. The design/ selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-4=-60, 5-8=-20
Concentrated Loads (lb)
Vert: 1=-460, 7=-166, 9=-44

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	CG03	Flat Girder	1	1	Job Reference (optional)



Scale = 1:41.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.35	Vert(LL)	0.01	7-8	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.25	Vert(CT)	0.02	7-8	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.75	Horz(CT)	-0.02	6	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MS							Weight: 50 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (10-0-0 max.): 1-5, except end verticals.
BOT CHORD Rigid ceiling directly applied or 3-8-12 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

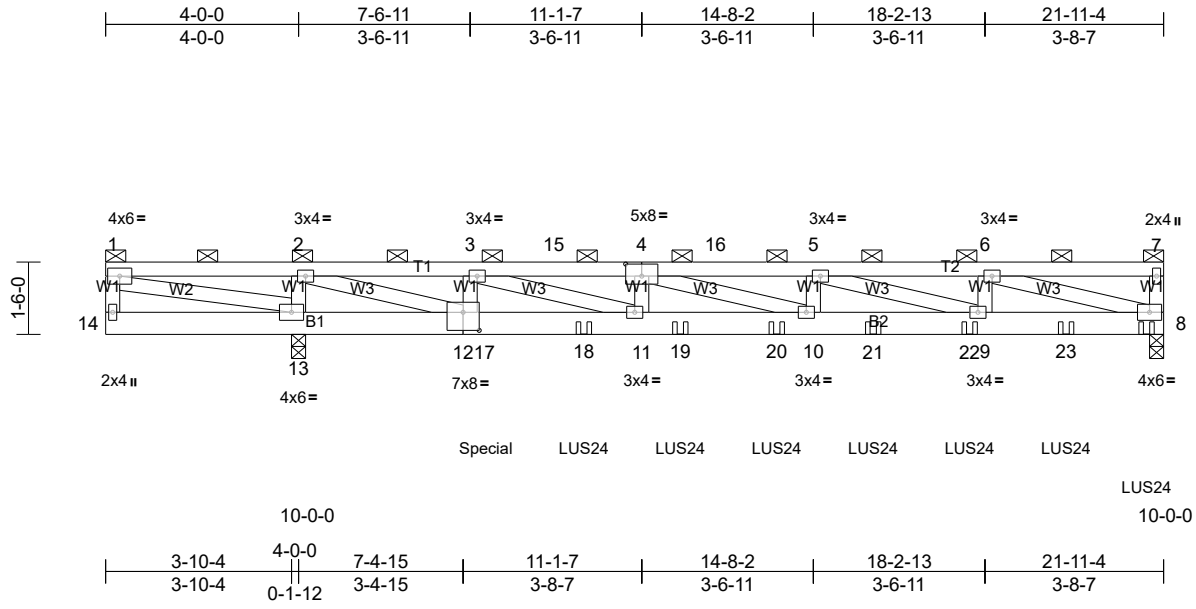
REACTIONS (lb/size) 6=-497/ Mechanical, (min. 0-1-8), 8=2137/0-4-15, (min. 0-2-4)
Max Horiz 8=-30 (LC 4)
Max Uplift 6=-516 (LC 16), 8=-315 (LC 4)
Max Grav 6=75 (LC 4), 8=2137 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-130/1317, 2-3=-130/1317, 3-4=-172/1322
BOT CHORD 8-9=-2968/376, 7-8=-2968/406, 6-7=-1314/188
WEBS 3-9=-288/1845, 3-8=-1777/276, 1-9=-1423/138, 4-6=-195/1433, 4-7=-721/123, 3-7=-239/1829

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 516 lb uplift at joint 6 and 315 lb uplift at joint 8.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Use Simpson Strong-Tie TJC37 (4 nail, 30-90) or equivalent at 2-6-15 from the left end to connect truss (es) JA (1 ply 2x4 DF) to front face of bottom chord, skewed 45.0 deg.to the left, sloping 0.0 deg. down.
10) Use Simpson Strong-Tie TJC37 (4 nail, 30-90) or equivalent at 5-4-15 from the left end to connect truss (es) JA1 (1 ply 2x4 DF) to front face of bottom chord, skewed 45.0 deg.to the left, sloping 0.0 deg. down.
11) Use Simpson Strong-Tie TJC37 (4 nail, 30-90) or equivalent at 8-2-14 from the left end to connect truss (es) JA2 (1 ply 2x4 DF) to front face of bottom chord, skewed 45.0 deg.to the left, sloping 0.0 deg. down.
12) Use Simpson Strong-Tie TJC37 (4 nail,90-150) or equivalent at 2-6-15 from the left end to connect truss (es) JA (1 ply 2x4 DF) to back face of bottom chord, skewed 45.0 deg.to the right, sloping 0.0 deg. down.
13) Use Simpson Strong-Tie TJC37 (4 nail,90-150) or equivalent at 5-4-14 from the left end to connect truss (es) JA1 (1 ply 2x4 DF) to back face of bottom chord, skewed 45.0 deg.to the right, sloping 0.0 deg. down.
14) Use Simpson Strong-Tie TJC37 (4 nail,90-150) or equivalent at 8-2-13 from the left end to connect truss (es) JA2 (1 ply 2x4 DF) to back face of bottom chord, skewed 45.0 deg.to the right, sloping 0.0 deg. down.
15) Fill all nail holes where hanger is in contact with lumber.
16) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 485 lb down and 27 lb up at 0-1-12 on top chord. The design/ selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-5=-60, 6-10=-20
Concentrated Loads (lb)
Vert: 1=-460, 8=-221, 7=-19, 11=-85

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	D01	Flat Girder	2	2	Job Reference (optional)



Scale = 1:47.8

Plate Offsets (X, Y): [4:0-4-0,0-3-0], [12:0-4-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.15	Vert(LL)	-0.05	10-11	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.16	Vert(CT)	-0.08	10-11	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.24	Horz(CT)	-0.01	8	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MS							Weight: 222 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X6 DF No.2 G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-7, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

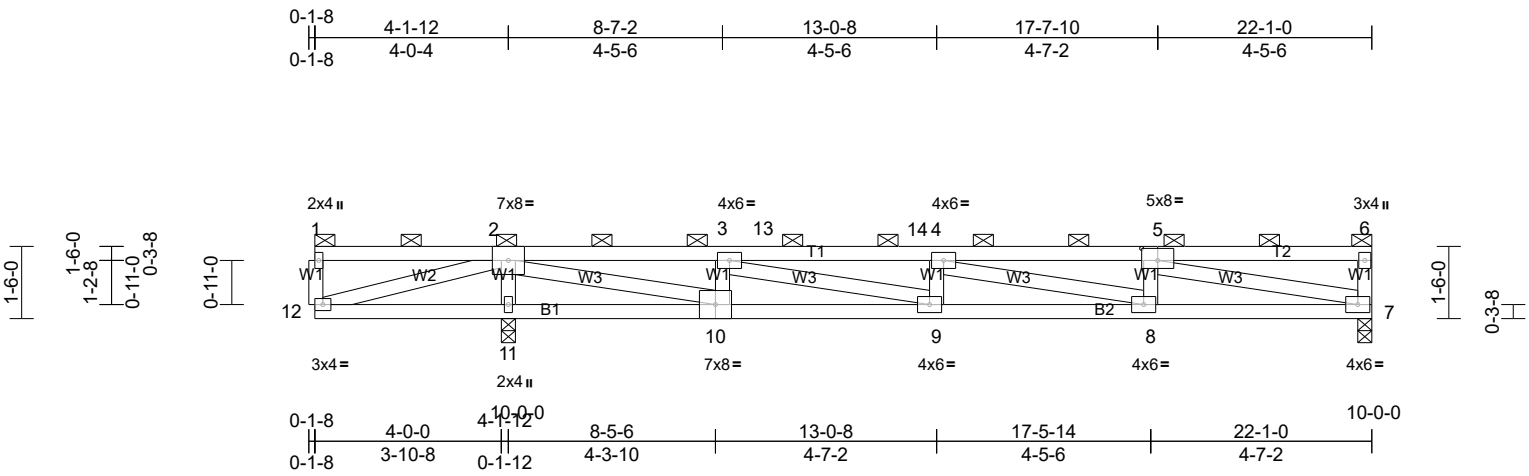
REACTIONS (lb/size) 8=600/0-3-8, (min. 0-1-8), 13=1104/0-3-8, (min. 0-1-8)
Max Horiz 13=28 (LC 7)
Max Uplift 8=-210 (LC 5), 13=-548 (LC 4)
Max Grav 8=683 (LC 14), 13=1209 (LC 16)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-170/1060, 2-3=-597/1274, 3-15=-1699/1474, 4-15=-1699/1474, 4-16=-2048/1017, 5-16=-2048/1017, 5-6=-1483/545
BOT CHORD 12-13=-1060/185, 12-17=-1295/612, 17-18=-1295/612, 11-18=-1295/612, 11-19=-1486/1687, 19-20=-1486/1687, 10-20=-1486/1687, 10-21=-1029/2039, 21-22=-1029/2039, 9-22=-1029/2039, 9-23=-558/1476, 8-23=-558/1476
WEBS 2-13=-710/494, 1-13=-1079/176, 6-8=-1450/549, 3-12=-531/81, 2-12=-1283/1481, 3-11=-200/1192, 4-11=-499/79, 4-10=-75/937, 5-9=-592/495, 6-9=-107/260

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) A plate rating reduction of 20% has been applied for the green lumber members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 210 lb uplift at joint 8 and 548 lb uplift at joint 13.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 9-11-0 from the left end to 21-7-0 to connect truss(es) JA4 (1 ply 2x4 DF), J01 (1 ply 2x4 DF), JGR (1 ply 2x6 DF) to front face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 243 lb down and 13 lb up at 0-1-12 on top chord, and 106 lb down and 488 lb up at 7-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-7=-60, 8-14=-20
Concentrated Loads (lb)
Vert: 1=-230, 8=-55, 17=177, 18=135

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	D02	Flat	10	1	Job Reference (optional)



Scale = 1:47.9

Plate Offsets (X, Y): [5:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.34	Vert(LL)	-0.13	9	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.33	Vert(CT)	-0.38	9-10	>566	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 95 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (4-2-1 max.): 1-6, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 7=676/0-3-8, (min. 0-1-8), 11=1068/0-3-8, (min. 0-1-8)
Max Horiz 11=30 (LC 11)
Max Uplift 7=-36 (LC 9), 11=-103 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1539/330, 3-13=-2407/615, 13-14=-2407/615, 4-14=-2407/615, 4-5=-1860/498
BOT CHORD 11-12=-261/195, 10-11=-496/321, 9-10=-379/1596, 8-9=-636/2407, 7-8=-509/1834
WEBS 2-11=-963/404, 2-12=-197/276, 5-7=-1777/483, 3-10=-479/229, 2-10=-623/2103, 3-9=-281/841, 4-8=-567/136, 5-8=0/283

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 7 and 103 lb uplift at joint 11.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	F01	Flat Girder	1	2	Job Reference (optional)

Better Built Truss, Ripon, CA, user — Run: 8.81 S Jun 18 2024 Print: 8.810 S Jun 18 2024 MiTek Industries, Inc. Thu Nov 14 15:25:52 — Page: 1

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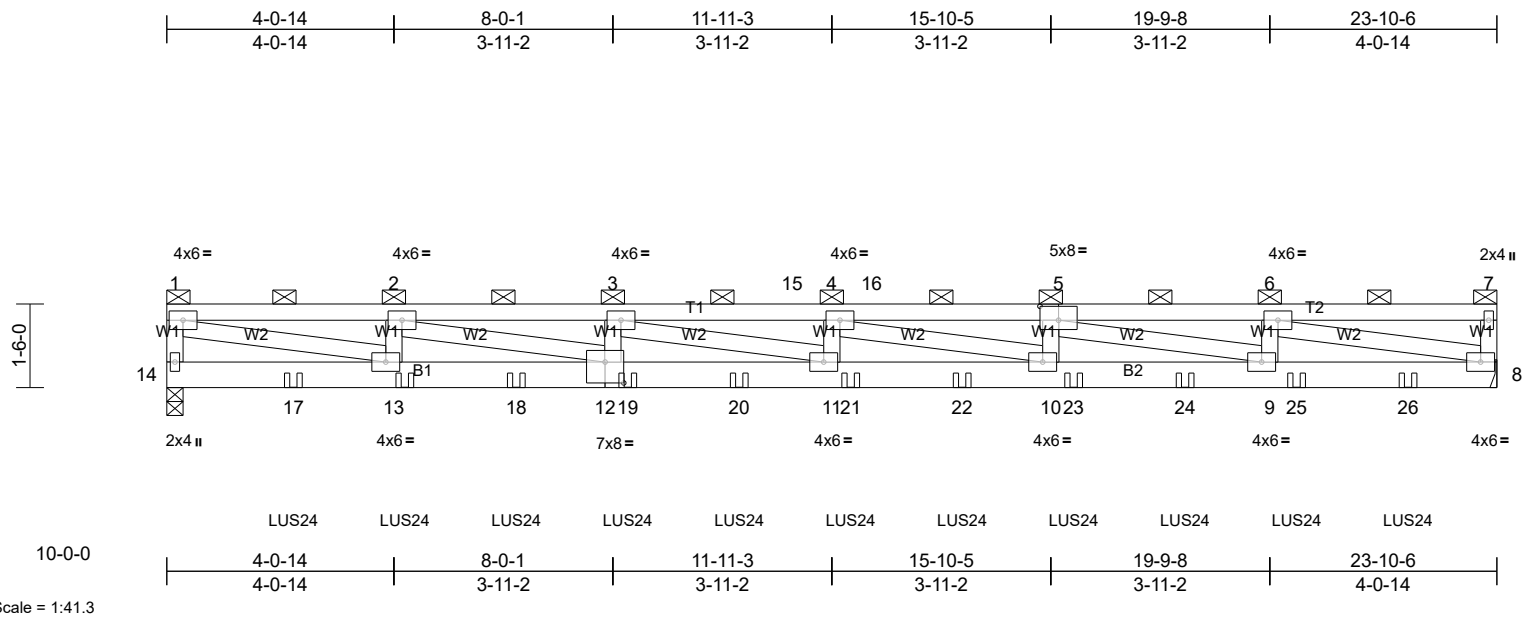


Scale = 1:41.3

Plate Offsets (X, Y): [5:0-4-0,0-3-0], [12:0-4-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.21	Vert(LL)	-0.17	11	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.43	Vert(CT)	-0.50	11-12	>568	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.53	Horz(CT)	0.05	8	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MS							Weight: 241 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X6 DF No.2 G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-7, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

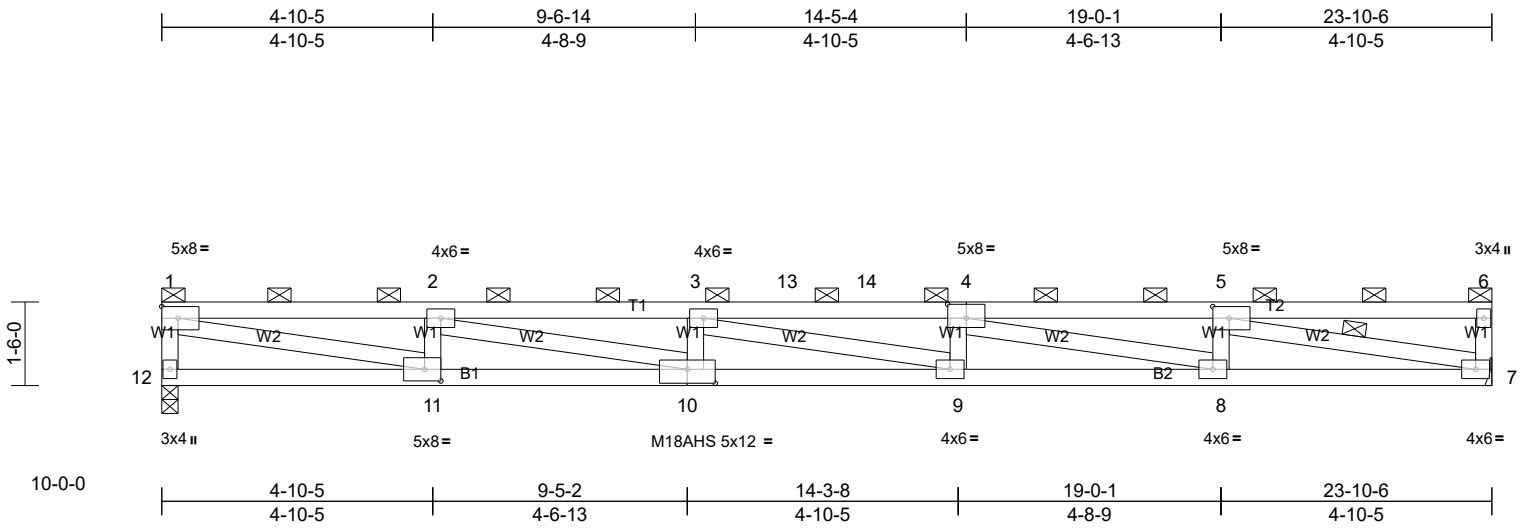
REACTIONS (lb/size) 8=943/ Mechanical, (min. 0-1-8), 14=943/0-3-8, (min. 0-1-8)
Max Horiz 14=28 (LC 7)
Max Uplift 8=-51 (LC 5), 14=-50 (LC 4)
Max Grav 8=978 (LC 13), 14=970 (LC 14)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-14=-857/64, 1-2=-2760/125, 2-3=-4394/163, 3-15=-4987/111, 4-15=-4987/111, 4-16=-4439/163, 5-16=-4439/163, 5-6=-2766/125
BOT CHORD 13-18=-110/2765, 12-18=-110/2765, 12-19=-154/4443, 19-20=-154/4443, 11-20=-154/4443, 11-21=-123/4991, 21-22=-123/4991, 10-22=-123/4991, 10-23=-182/4404, 23-24=-182/4404, 9-24=-182/4404, 9-25=-137/2764, 25-26=-137/2764, 8-26=-137/2764
WEBS 6-8=-2707/123, 2-13=-692/80, 1-13=-124/2701, 2-12=-39/1708, 3-12=-386/50, 3-11=-97/574, 4-10=-574/99, 5-10=0/292, 5-9=-1711/47, 6-9=0/563

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) Concentrated loads from layout are not present in Load Case(s): #1 Dead + Roof Live (balanced); #2 Dead + 0.75 Roof Live (balanced); #3 Dead + Uninhabitable Attic Without Storage; #12 Dead.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) A plate rating reduction of 20% has been applied for the green lumber members.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 14 and 51 lb uplift at joint 8.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-3-4 from the left end to 22-3-4 to connect truss(es) JB1 (1 ply 2x4 DF) to back face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-7=-60, 8-14=-20

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	F02	Flat	6	1	Job Reference (optional)



Scale = 1:41.3

Plate Offsets (X, Y): [4:0-4-0,0-3-0], [5:0-3-8,0-2-8], [10:0-6-0,0-3-0], [11:0-3-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.47	Vert(LL)	-0.35	9-10	>804	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.60	Vert(CT)	-1.07	9-10	>265	180	M18AHS	169/162
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.14	7	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 103 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1) *Except* W2:2X4 DF No.2 G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (2-10-12 max.): 1-6, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-7

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 7=943/ Mechanical, (min. 0-1-8), 12=943/0-3-8, (min. 0-1-8)
Max Horiz 12=-30 (LC 8)
Max Uplift 7=-26 (LC 9), 12=-26 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-12=-872/268, 1-2=-2964/795, 2-3=-4399/1163, 3-13=-4419/1167, 13-14=-4419/1167, 4-14=-4419/1167, 4-5=-2963/793
BOT CHORD 10-11=-817/2964, 9-10=-1204/4433, 8-9=-1189/4407, 7-8=-798/2963
WEBS 5-7=-2884/766, 2-11=-648/258, 1-11=-768/2884, 2-10=-393/1484, 3-10=-287/157, 4-8=-1494/405, 5-8=-35/461

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) A plate rating reduction of 20% has been applied for the green lumber members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 12 and 26 lb uplift at joint 7.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	F03	Flat	6	1	Job Reference (optional)

Better Built Truss, Ripon, CA, user — Run: 8.81 S Jun 18 2024 Print: 8.810 S Jun 18 2024 MiTek Industries, Inc. Thu Nov 14 15:25:53 — Page: 1

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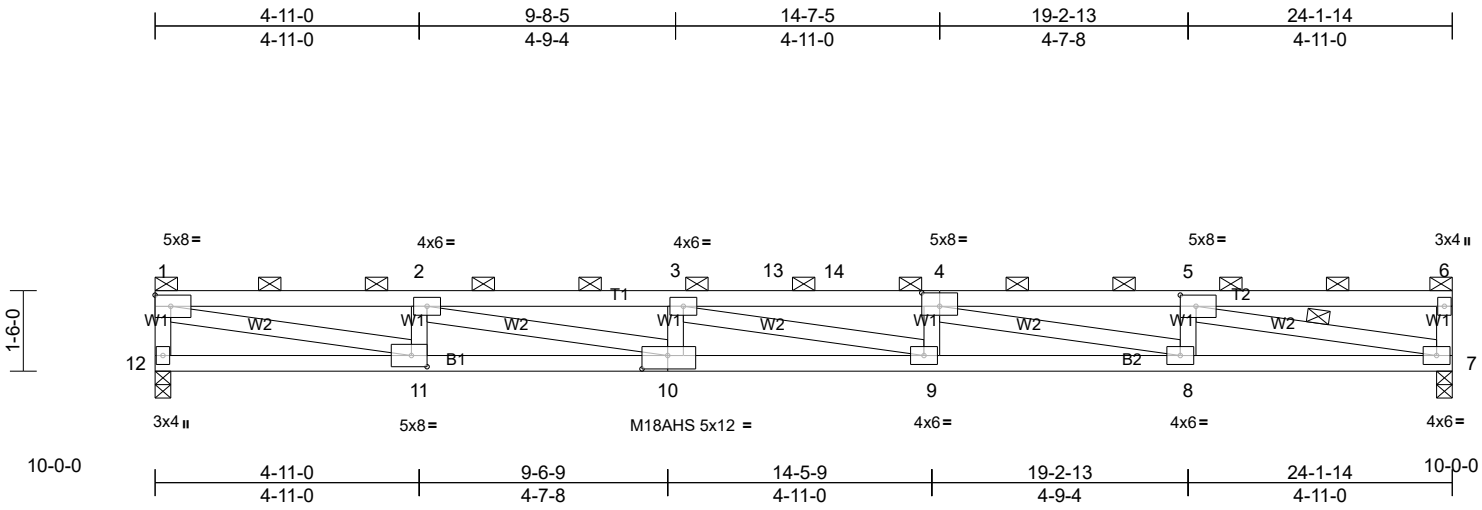

Scale = 1:42.9

Plate Offsets (X, Y): [4:0-4-0,0-3-0], [5:0-3-8,0-2-8], [10:0-5-12,0-3-0], [11:0-3-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.48	Vert(LL)	-0.37	9-10	>774	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.62	Vert(CT)	-1.12	9-10	>255	180	M18AHS	169/162
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.14	7	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 104 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1) *Except* W2:2X4 DF No.2 G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (2-10-2 max.): 1-6, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-7

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 7=955/0-3-8, (min. 0-1-8), 12=955/0-3-8, (min. 0-1-8)
Max Horiz 12=-30 (LC 8)
Max Uplift 7=-25 (LC 9), 12=-25 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-12=-882/268, 1-2=-3038/805, 2-3=-4508/1178, 3-13=-4529/1182, 13-14=-4529/1182, 4-14=-4529/1182, 4-5=-3037/803
BOT CHORD 10-11=-827/3038, 9-10=-1219/4543, 8-9=-1204/4517, 7-8=-808/3037
WEBS 5-7=-2953/775, 2-11=-656/259, 1-11=-777/2953, 2-10=-398/1520, 3-10=-290/158, 4-8=-1530/409, 5-8=-34/467

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) A plate rating reduction of 20% has been applied for the green lumber members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 12 and 25 lb uplift at joint 7.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	F04	Flat	2	1	Job Reference (optional)

Better Built Truss, Ripon, CA, user — Run: 8.81 S Jun 18 2024 Print: 8.810 S Jun 18 2024 MiTek Industries, Inc. Thu Nov 14 15:25:54 — Page: 1

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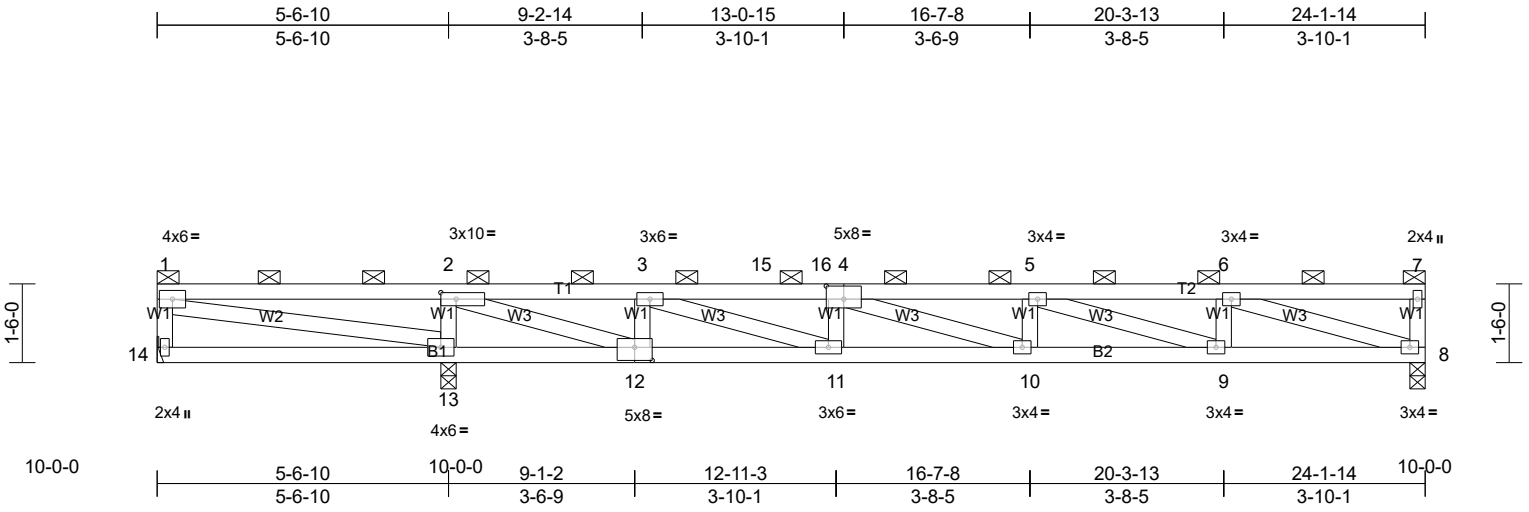

Scale = 1:43.9

Plate Offsets (X, Y): [2:0-3-8,0-1-8], [4:0-4-0,0-3-0], [12:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.37	Vert(LL)	-0.10	10-11	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.29	Vert(CT)	-0.32	10-11	>694	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 105 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (4-6-0 max.): 1-7, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 8=644/0-3-8, (min. 0-1-8), 13=1369/0-3-8, (min. 0-1-8), 14=-104/ Mechanical, (min. 0-1-8)
Max Horiz 14=-30 (LC 8)
Max Uplift 8=-31 (LC 9), 13=-3 (LC 8), 14=-104 (LC 1)
Max Grav 8=644 (LC 1), 13=1369 (LC 1), 14=24 (LC 9)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-306/1165, 2-3=-597/164, 3-15=-1865/494, 15-16=-1865/494, 4-16=-1865/494, 4-5=-2148/574, 5-6=-1540/418
BOT CHORD 12-13=-1165/330, 11-12=-195/665, 10-11=-515/1903, 9-10=-574/2148, 8-9=-414/1540
WEBS 1-13=-1233/340, 2-13=-951/336, 6-8=-1518/398, 3-12=-570/204, 2-12=-486/1862, 3-11=-321/1263, 4-11=-316/148, 4-10=-65/258, 5-9=-640/168, 6-9=0/291

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 104 lb uplift at joint 14, 31 lb uplift at joint 8 and 3 lb uplift at joint 13.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	H01	Flat Girder	1	2	Job Reference (optional)

Better Built Truss, Ripon, CA, user — Run: 8.81 S Jun 18 2024 Print: 8.810 S Jun 18 2024 MiTek Industries, Inc. Thu Nov 14 15:25:54 — Page: 1

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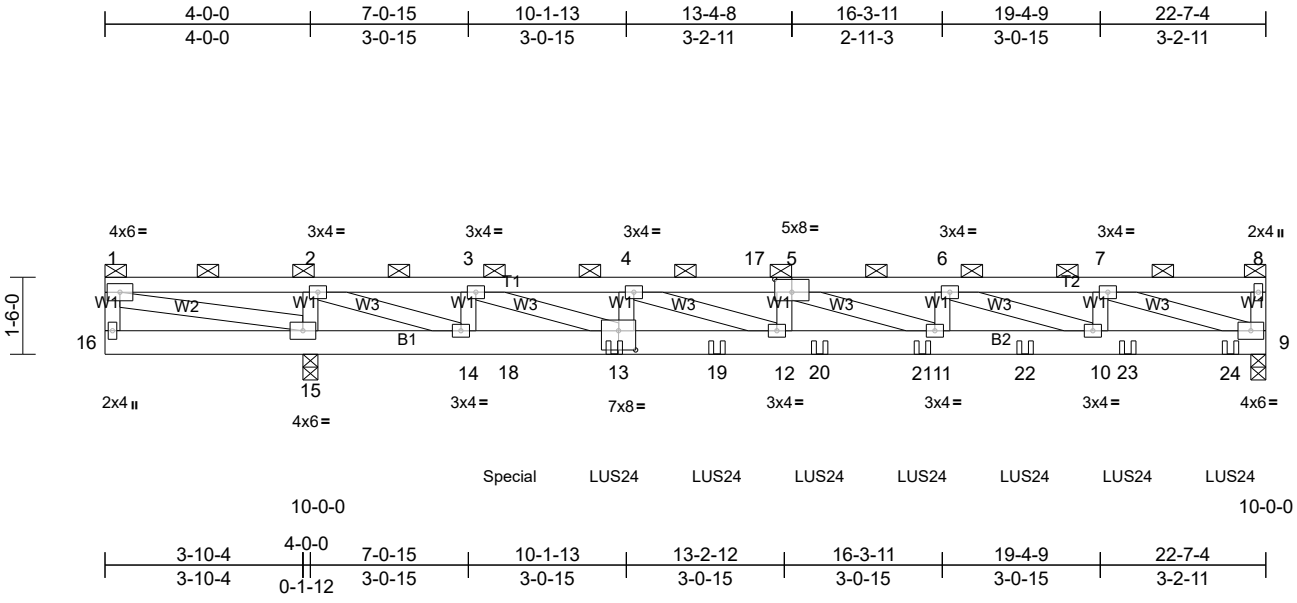


Scale = 1:44.9

Plate Offsets (X, Y): [5:0-4-0,0-3-0], [13:0-4-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.16	Vert(LL)	-0.08	11-12	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.26	Vert(CT)	-0.17	11-12	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.35	Horz(CT)	0.02	9	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MS							Weight: 230 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X6 DF No.2 G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-8, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 15-16,14-15.

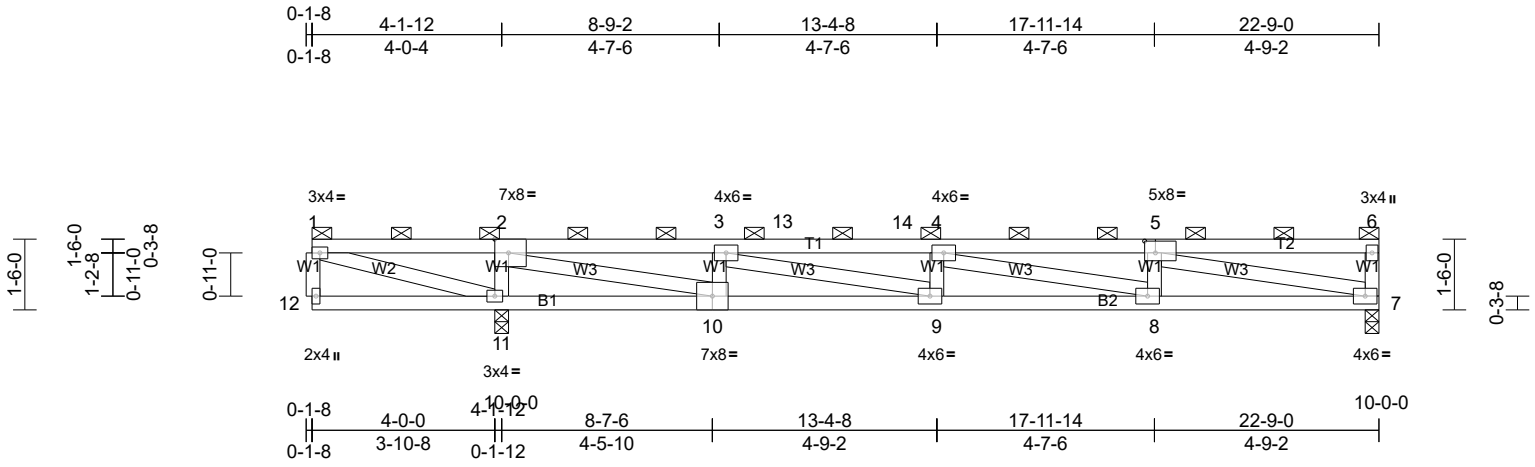
REACTIONS (lb/size) 9=868/0-3-8, (min. 0-1-8), 15=1404/0-3-8, (min. 0-1-8)
Max Horiz 15=-28 (LC 6)
Max Uplift 9=-184 (LC 5), 15=-359 (LC 4)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-165/1002, 2-3=-766/634, 3-4=-2074/931, 4-17=-2835/875, 5-17=-2835/875, 5-6=-2773/707, 6-7=-1826/411
BOT CHORD 14-15=-1002/180, 14-18=-646/753, 13-18=-646/753, 13-19=-946/2118, 12-19=-946/2118, 12-20=-887/2854, 20-21=-887/2854, 11-21=-887/2854, 11-22=-719/2773, 10-22=-719/2773, 10-23=-424/1826, 23-24=-424/1826, 9-24=-424/1826
WEBS 1-15=-1012/171, 2-15=-881/308, 7-9=-1834/421, 3-14=-659/141, 2-14=-663/1753, 3-13=-319/1454, 4-13=-485/14, 4-12=0/809, 6-10=-1008/314, 7-10=-92/458

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) A plate rating reduction of 20% has been applied for the green lumber members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 184 lb uplift at joint 9 and 359 lb uplift at joint 15.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 9-11-0 from the left end to 21-11-0 to connect truss(es) JC4 (1 ply 2x4 DF), JC (1 ply 2x4 DF) to front face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 243 lb down and 13 lb up at 0-1-12 on top chord, and 77 lb down and 192 lb up at 7-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-8=-60, 9-16=-20
Concentrated Loads (lb)
Vert: 1=-230, 13=56, 18=15, 19=-54, 20=-54, 21=-54, 22=-54, 23=-54, 24=-59

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	H02	Flat	1	1	Job Reference (optional)



Scale = 1:48.9

Plate Offsets (X, Y): [2:0-3-8,Edge], [5:0-2-12,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.39	Vert(LL)	-0.14	9	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.36	Vert(CT)	-0.43	9	>519	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 98 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (3-11-11 max.): 1-6, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 7=704/0-3-8, (min. 0-1-8), 11=1093/0-3-8, (min. 0-1-8)
Max Horiz 11=30 (LC 11)
Max Uplift 7=-36 (LC 9), 11=-101 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-226/329, 2-3=-1695/360, 3-13=-2607/651, 13-14=-2607/651, 4-14=-2607/651, 4-5=-2022/533
BOT CHORD 10-11=-329/260, 9-10=-408/1753, 8-9=-673/2607, 7-8=-541/2018
WEBS 2-11=-860/324, 1-11=-356/242, 5-7=-1940/508, 3-10=-483/226, 2-10=-592/2097, 3-9=-288/883, 4-8=-604/137, 5-8=0/291

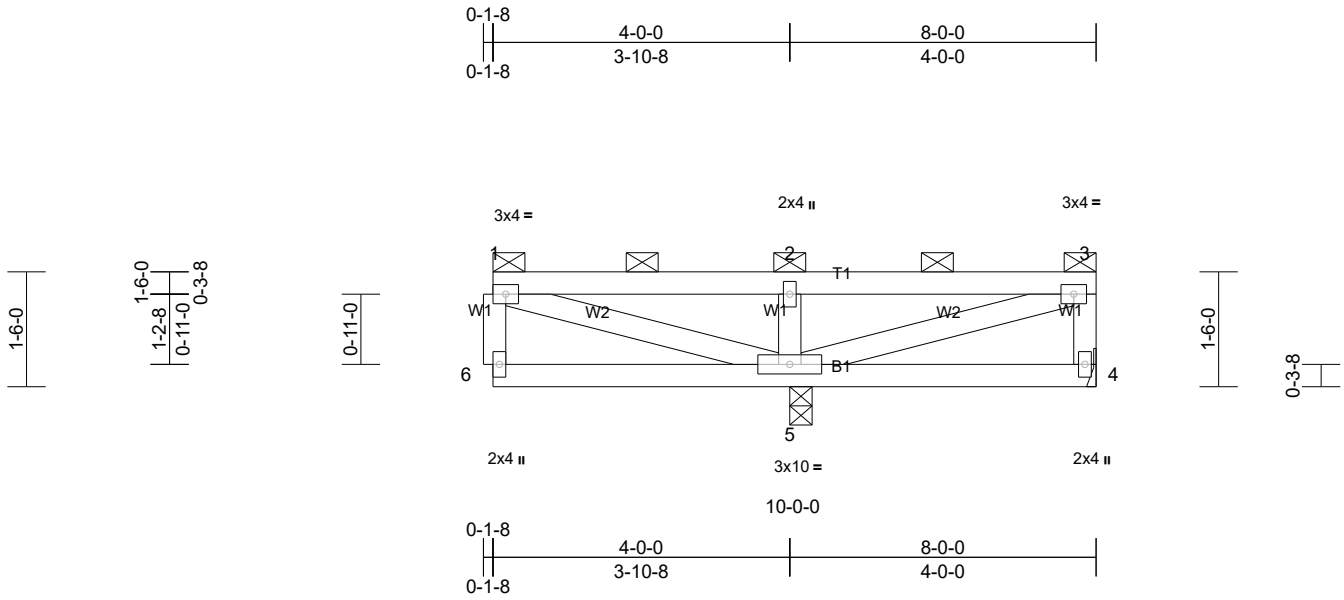
NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 7 and 101 lb uplift at joint 11.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	J01	Flat	37	1	Job Reference (optional)

Better Built Truss, Ripon, CA, user — Run: 8.81 S Jun 18 2024 Print: 8.810 S Jun 18 2024 MiTek Industries, Inc. Thu Nov 14 15:25:55 — Page: 1

ID:dlkfFkDtF5BGT609haoXU?yJGSX-m?GHcS9n?dCTES0ZTE6NShIwpaHxv7ebu8uHEyyJC5w



Scale = 1:30.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.19	Vert(LL)	0.00	4-5	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.10	Vert(CT)	-0.01	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 35 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins: 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

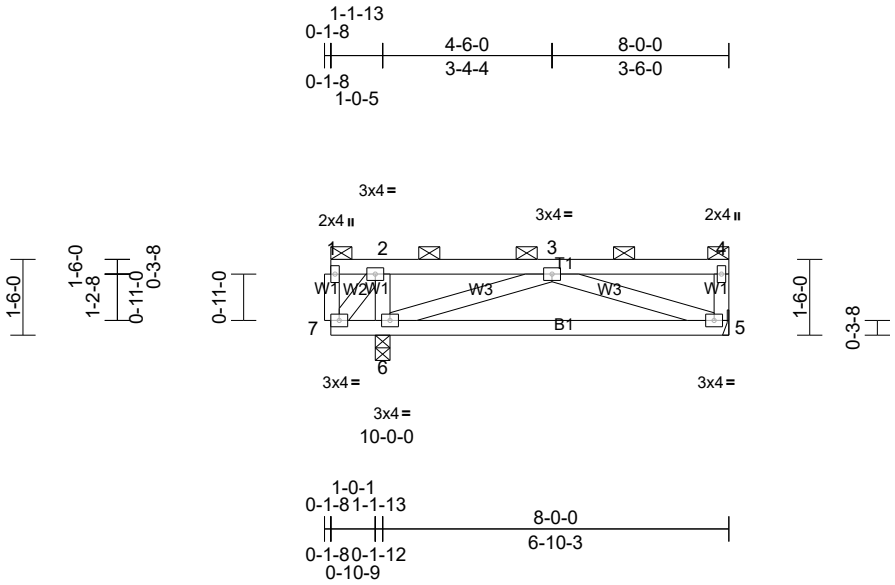
REACTIONS (lb/size) 4=0/ Mechanical, (min. 0-1-8), 5=617/0-3-8, (min. 0-1-8)
Max Horiz 5=-30 (LC 10)
Max Uplift 4=-5 (LC 9), 5=-128 (LC 8)
Max Grav 4=34 (LC 8), 5=617 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-309/344, 2-3=-309/344
WEBS 3-5=-361/342, 2-5=-297/274, 1-5=-361/315

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 4 and 128 lb uplift at joint 5.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	J01A	Flat	3	1	Job Reference (optional)



Scale = 1:45.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.08	Vert(LL)	-0.05	5-6	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.26	Vert(CT)	-0.14	5-6	>567	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 36 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-4, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

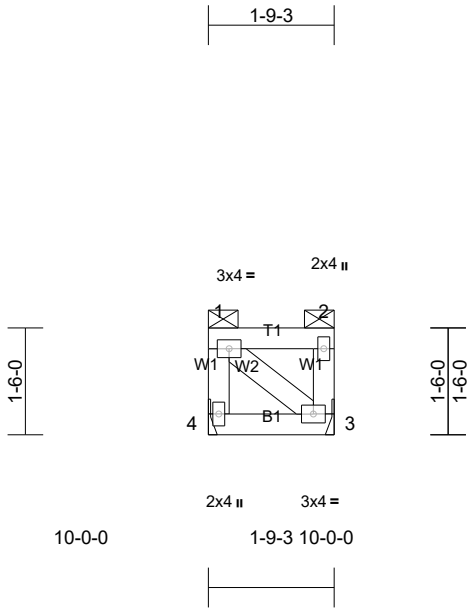
REACTIONS (lb/size) 5=262/ Mechanical, (min. 0-1-8), 6=355/0-3-8, (min. 0-1-8)
Max Horiz 6=-30 (LC 8)
Max Uplift 5=-18 (LC 9), 6=-40 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD 5-6=-290/349
WEBS 3-6=-284/335, 3-5=-371/296

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 6 and 18 lb uplift at joint 5.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	JA	Flat	18	1	Job Reference (optional)



Scale = 1:32.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.01	Vert(CT)	0.00	3-4	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MP							Weight: 9 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins: 1-2, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

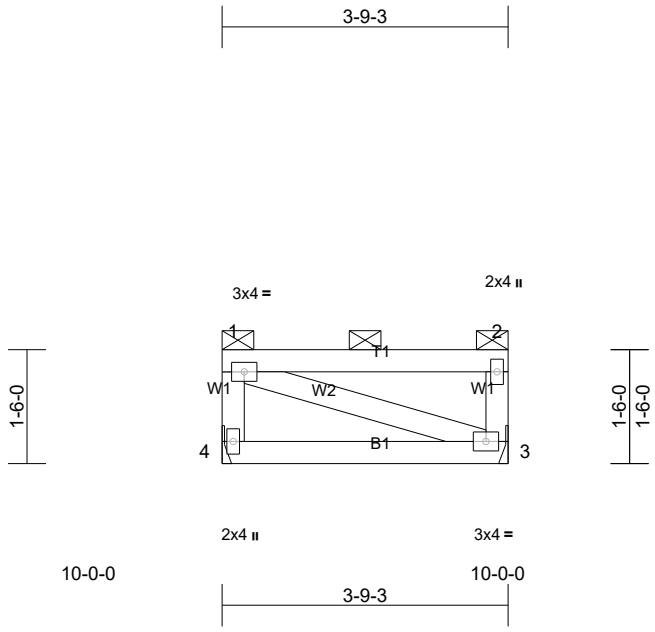
REACTIONS (lb/size) 3=59/ Mechanical, (min. 0-1-8), 4=59/ Mechanical, (min. 0-1-8)
Max Horiz 4=-30 (LC 8)
Max Uplift 3=-16 (LC 9), 4=-16 (LC 8)
Max Grav 3=61 (LC 17), 4=61 (LC 18)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 4 and 16 lb uplift at joint 3.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	JA1	Flat	19	1	Job Reference (optional)



Scale = 1:30.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.13	Vert(LL)	-0.01	3-4	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.09	Vert(CT)	-0.02	3-4	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MP							Weight: 17 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins: 1-2, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

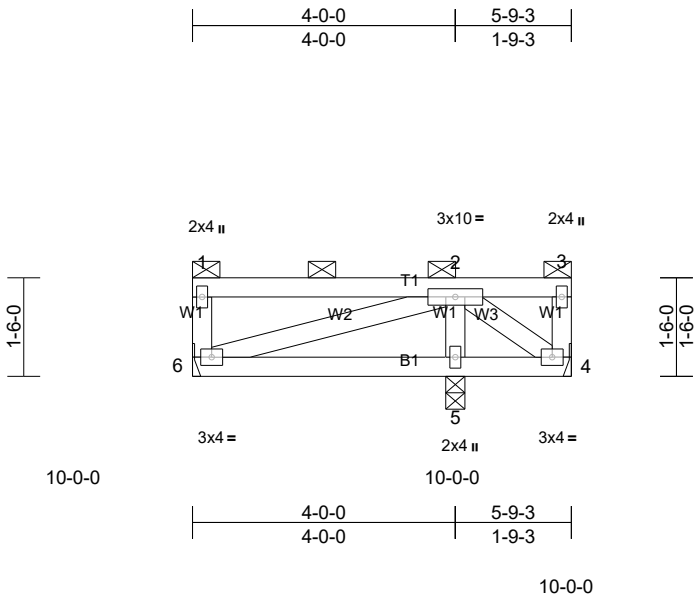
REACTIONS (lb/size) 3=139/ Mechanical, (min. 0-1-8), 4=139/ Mechanical, (min. 0-1-8)
Max Horiz 4=-30 (LC 8)
Max Uplift 3=-13 (LC 9), 4=-13 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 4 and 13 lb uplift at joint 3.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	JA2	Flat	19	1	Job Reference (optional)



Scale = 1:35.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.11	Vert(LL)	-0.01	5-6	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.07	Vert(CT)	-0.02	5-6	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 27 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins: 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

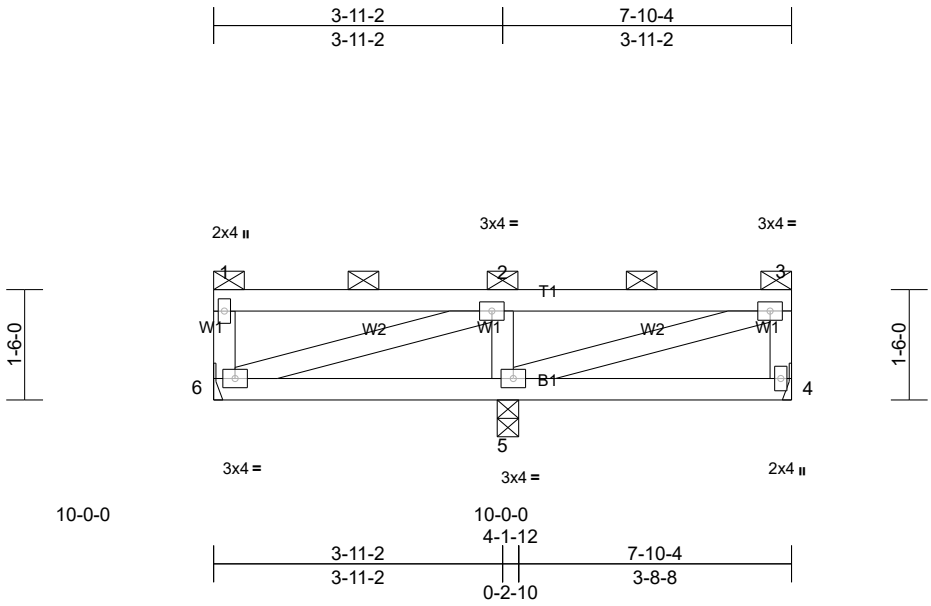
REACTIONS (lb/size) 4=13/ Mechanical, (min. 0-1-8), 5=292/0-3-8, (min. 0-1-8), 6=132/ Mechanical, (min. 0-1-8)
Max Horiz 6=-30 (LC 8)
Max Uplift 4=-7 (LC 9), 5=-13 (LC 9), 6=-13 (LC 8)
Max Grav 4=13 (LC 17), 5=292 (LC 1), 6=132 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 5, 7 lb uplift at joint 4 and 13 lb uplift at joint 6.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	JA3	Flat	19	1	Job Reference (optional)



Scale = 1:31.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.13	Vert(LL)	0.00	5-6	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.09	Vert(CT)	-0.01	5-6	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 35 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

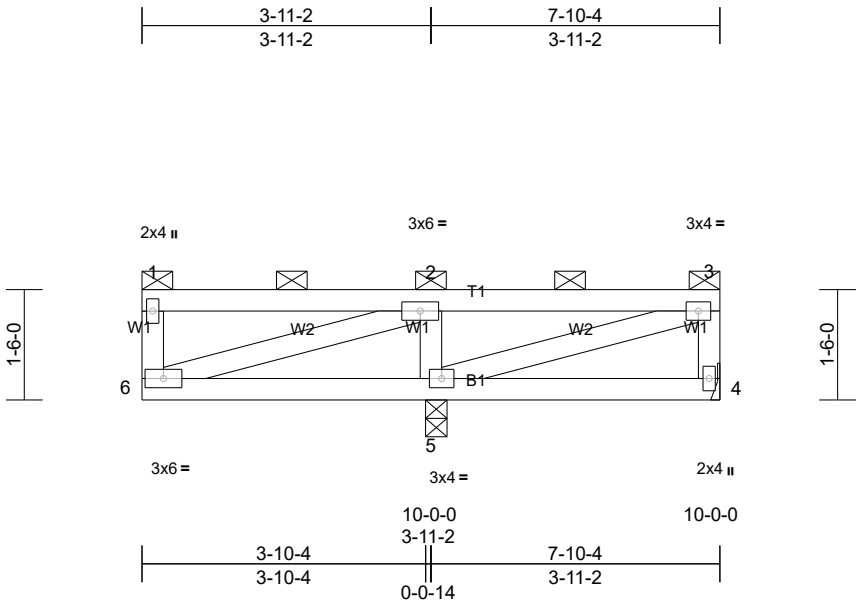
REACTIONS (lb/size) 4=115/ Mechanical, (min. 0-1-8), 5=375/0-3-8, (min. 0-1-8), 6=115/ Mechanical, (min. 0-1-8)
Max Horiz 6=30 (LC 9)
Max Uplift 4=-8 (LC 9), 5=-23 (LC 9), 6=-10 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-282/269

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 4, 23 lb uplift at joint 5 and 10 lb uplift at joint 6.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	JA4	Flat	6	1	Job Reference (optional)



Scale = 1:31.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.32	Vert(LL)	-0.01	4-5	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.14	Vert(CT)	-0.01	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.43	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 35 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins: 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

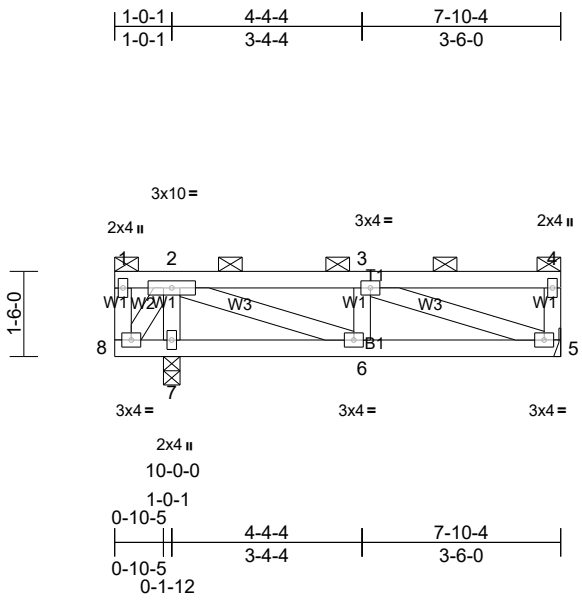
REACTIONS (lb/size) 4=-230/ Mechanical, (min. 0-1-8), 5=1065/0-3-8, (min. 0-1-8)
Max Horiz 5=30 (LC 11)
Max Uplift 4=-238 (LC 20), 5=-152 (LC 8)
Max Grav 4=47 (LC 8), 5=1065 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-6=-304/198, 2-3=-668/1002, 3-4=-147/255
BOT CHORD 5-6=-1002/675
WEBS 3-5=-1052/719, 2-5=-627/489, 2-6=-691/1052

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 238 lb uplift at joint 4 and 152 lb uplift at joint 5.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 243 lb down and 126 lb up at 0-1-12 on top chord. The design/ selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-3=-60, 4-6=-20
Concentrated Loads (lb)
Vert: 1=-230

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	JA4A	Flat	1	1	Job Reference (optional)



Scale = 1:40.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.10	Vert(LL)	0.01	5-6	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.09	Vert(CT)	-0.02	5-6	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.18	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 36 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-4, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

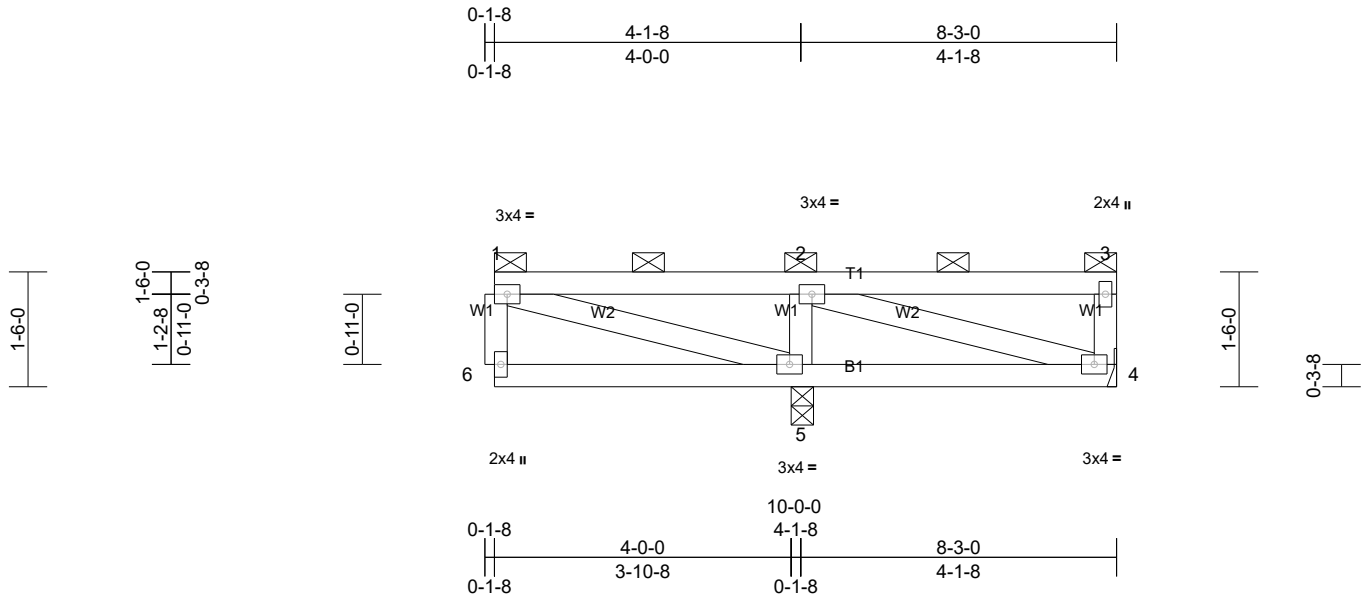
REACTIONS (lb/size) 5=234/ Mechanical, (min. 0-1-8), 7=601/0-3-8, (min. 0-1-8)
Max Horiz 7=-30 (LC 8)
Max Uplift 5=-16 (LC 9), 7=-51 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-323/177
BOT CHORD 5-6=-198/323
WEBS 2-7=-499/347, 3-5=-343/199, 2-6=-263/451

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 5 and 51 lb uplift at joint 7.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 243 lb down and 126 lb up at 0-1-12 on top chord. The design/ selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-4=-60, 5-8=-20
Concentrated Loads (lb)
Vert: 1=-230

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	JB1	Flat	11	1	Job Reference (optional)



Scale = 1:30.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.20	Vert(LL)	0.00	4-5	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.11	Vert(CT)	-0.01	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 36 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins: 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

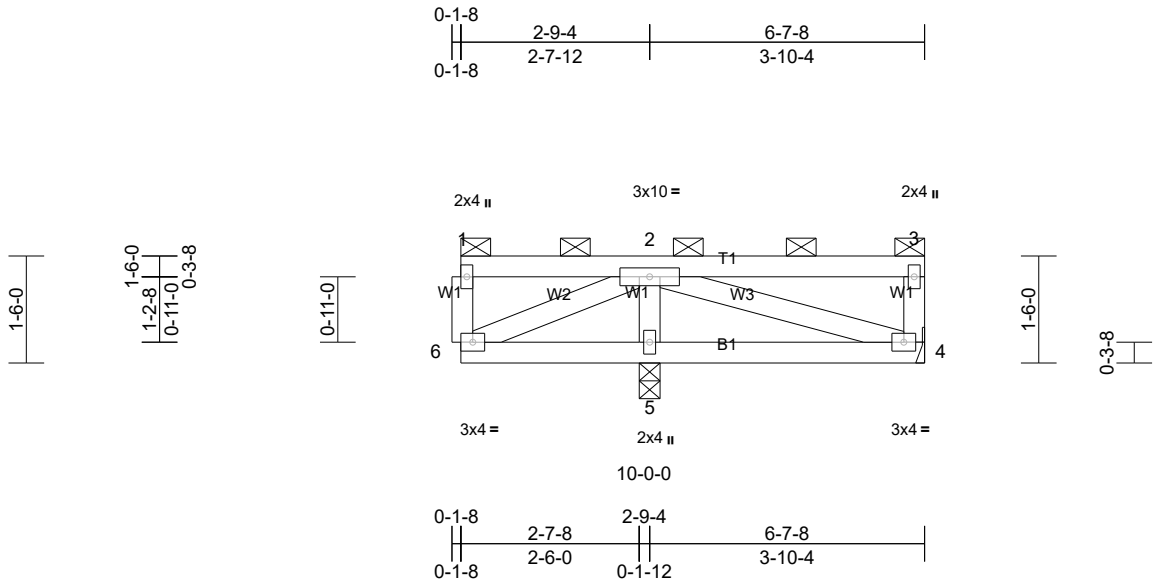
REACTIONS (lb/size) 4=0/ Mechanical, (min. 0-1-8), 5=637/0-3-8, (min. 0-1-8)
Max Horiz 5=-30 (LC 8)
Max Uplift 4=-5 (LC 9), 5=-132 (LC 8)
Max Grav 4=35 (LC 10), 5=637 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-325/367
BOT CHORD 4-5=-367/360
WEBS 2-4=-358/383, 2-5=-418/384, 1-5=-383/331

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 4 and 132 lb uplift at joint 5.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	JC	Flat	6	1	Job Reference (optional)



Scale = 1:32.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.11	Vert(LL)	0.00	4-5	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.07	Vert(CT)	-0.01	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 30 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins: 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

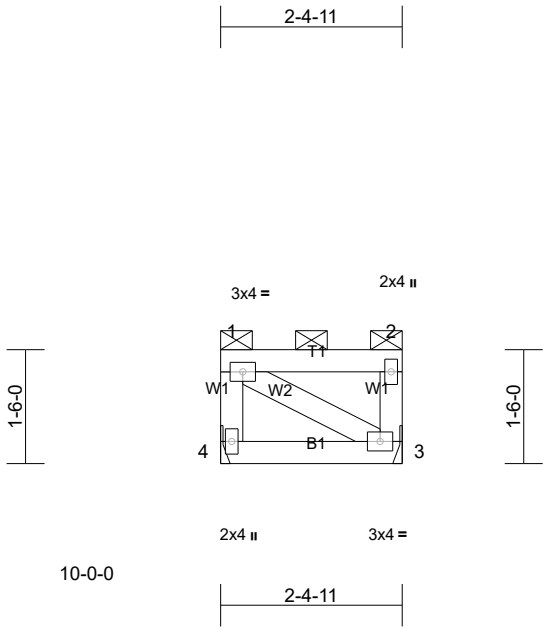
REACTIONS (lb/size) 4=74/ Mechanical, (min. 0-1-8), 5=433/0-3-8, (min. 0-1-8)
Max Horiz 5=-30 (LC 8)
Max Uplift 4=-9 (LC 9), 5=-84 (LC 8)
Max Grav 4=79 (LC 17), 5=433 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-347/354

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 84 lb uplift at joint 5 and 9 lb uplift at joint 4.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	JC1	Flat	1	1	Job Reference (optional)



Scale = 1:30.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.04	Vert(LL)	0.00	3-4	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.03	Vert(CT)	0.00	3-4	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MP							Weight: 12 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins: 1-2, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

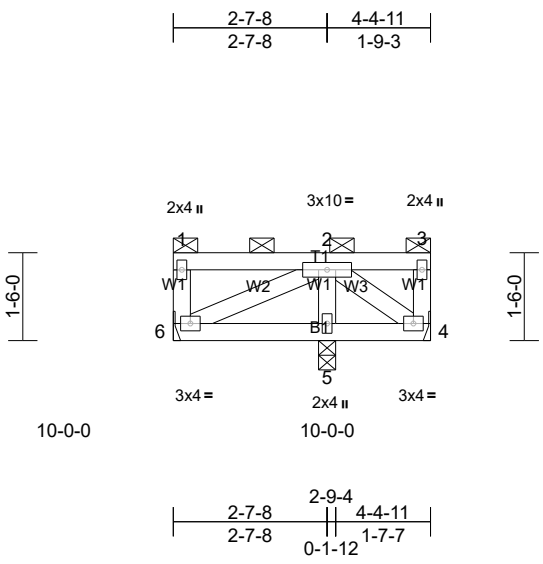
REACTIONS (lb/size) 3=84/ Mechanical, (min. 0-1-8), 4=84/ Mechanical, (min. 0-1-8)
Max Horiz 4=-30 (LC 8)
Max Uplift 3=-13 (LC 9), 4=-13 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 4 and 13 lb uplift at joint 3.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	JC2	Flat	1	1	Job Reference (optional)



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.04	Vert(LL)	0.00	5-6	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.03	Vert(CT)	0.00	5-6	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 21 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins: 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

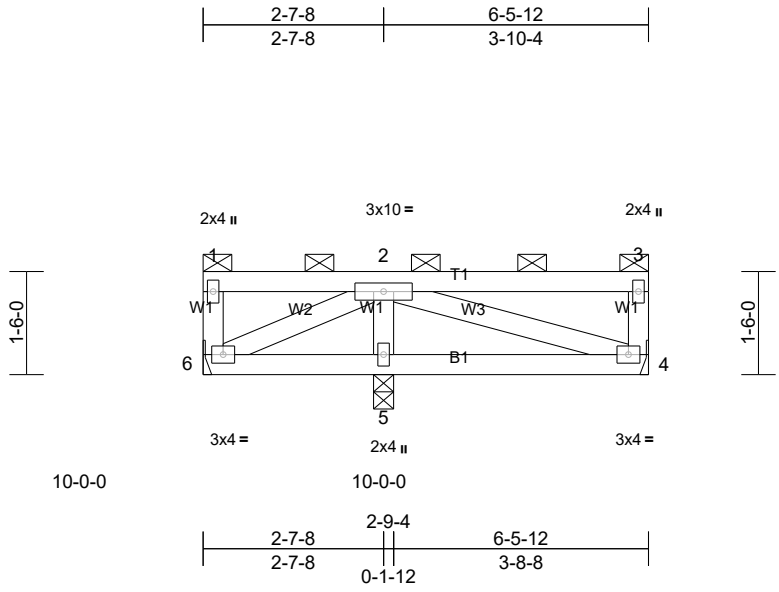
REACTIONS (lb/size) 4=51/ Mechanical, (min. 0-1-8), 5=187/0-3-8, (min. 0-1-8), 6=90/ Mechanical, (min. 0-1-8)
Max Horiz 6=30 (LC 9)
Max Uplift 4=-9 (LC 9), 5=-8 (LC 9), 6=-13 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 5, 9 lb uplift at joint 4 and 13 lb uplift at joint 6.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	JC3	Flat	1	1	Job Reference (optional)



Scale = 1:33.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.10	Vert(LL)	0.00	4-5	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.07	Vert(CT)	-0.01	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 29 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins: 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

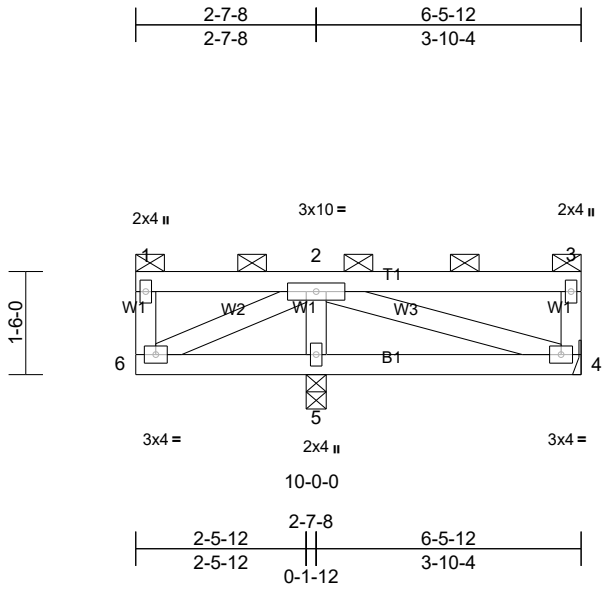
REACTIONS (lb/size) 4=125/ Mechanical, (min. 0-1-8), 5=305/0-3-8, (min. 0-1-8), 6=65/ Mechanical, (min. 0-1-8)
Max Horiz 6=-30 (LC 8)
Max Uplift 4=-9 (LC 9), 5=-20 (LC 9), 6=-12 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 5, 12 lb uplift at joint 6 and 9 lb uplift at joint 4.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	JC4	Flat	1	1	Job Reference (optional)



Scale = 1:33.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.14	Vert(LL)	0.00	4-5	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.10	Vert(CT)	-0.01	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.25	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 29 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins: 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

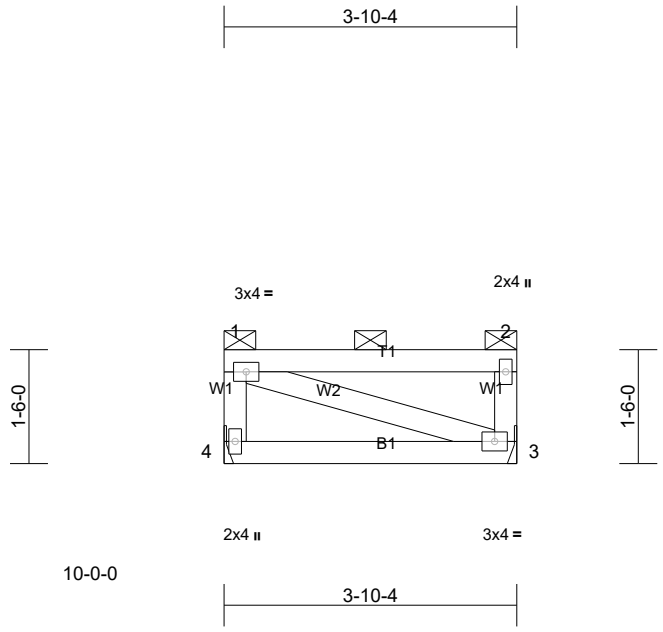
REACTIONS (lb/size) 4=-72/ Mechanical, (min. 0-1-8), 5=797/0-3-8, (min. 0-1-8)
Max Horiz 5=30 (LC 9)
Max Uplift 4=-87 (LC 20), 5=-101 (LC 8)
Max Grav 4=22 (LC 8), 5=797 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-6=-268/173
BOT CHORD 5-6=-543/390, 4-5=-543/416
WEBS 2-5=-698/562, 2-6=-415/608, 2-4=-419/575

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 101 lb uplift at joint 5 and 87 lb uplift at joint 4.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 243 lb down and 138 lb up at 0-1-12 on top chord. The design/ selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-3=-60, 4-6=-20
Concentrated Loads (lb)
Vert: 1=-230

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	JD	Flat	2	1	Job Reference (optional)



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.14	Vert(LL)	-0.01	3-4	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.09	Vert(CT)	-0.02	3-4	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MP							Weight: 18 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins: 1-2, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

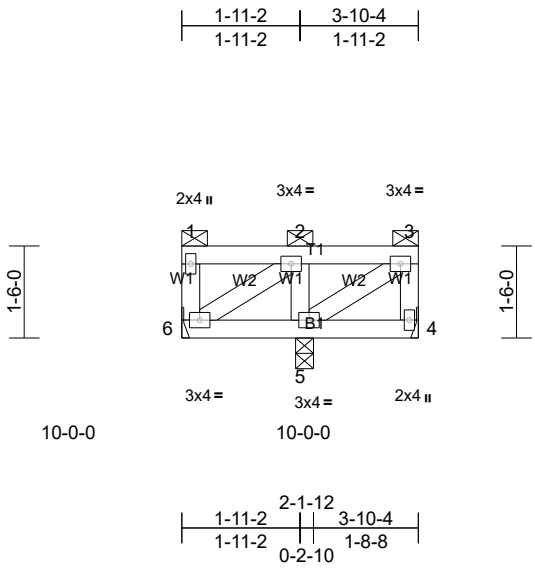
REACTIONS (lb/size) 3=143/ Mechanical, (min. 0-1-8), 4=143/ Mechanical, (min. 0-1-8)
Max Horiz 4=-30 (LC 8)
Max Uplift 3=-13 (LC 9), 4=-13 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 4 and 13 lb uplift at joint 3.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	JF1	Flat	1	1	Job Reference (optional)



Scale = 1:37.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.02	Vert(CT)	0.00	5-6	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MP							Weight: 19 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins: 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

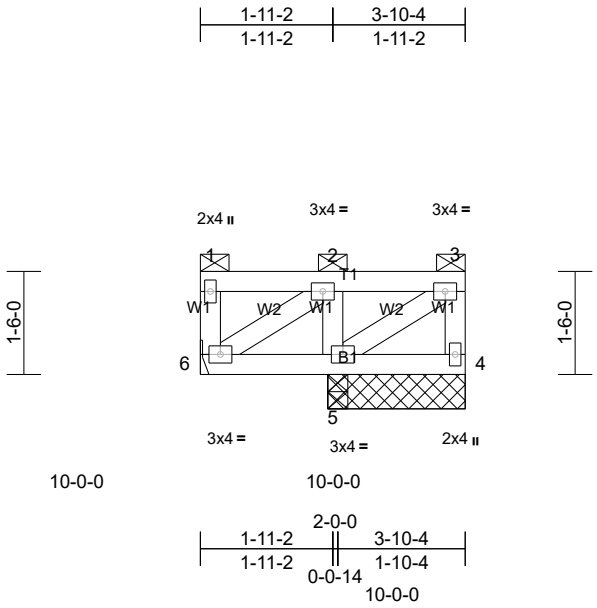
REACTIONS (lb/size) 4=59/ Mechanical, (min. 0-1-8), 5=167/0-3-8, (min. 0-1-8), 6=59/ Mechanical, (min. 0-1-8)
Max Horiz 6=-30 (LC 8)
Max Uplift 4=-8 (LC 9), 5=-10 (LC 9), 6=-11 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

LOAD CASE(S) Standard

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 4, 10 lb uplift at joint 5 and 11 lb uplift at joint 6.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	JF2	Flat Structural Gable	1	1	Job Reference (optional)



Scale = 1:33.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.02	Vert(CT)	0.00	5-6	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MP							Weight: 19 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins: 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

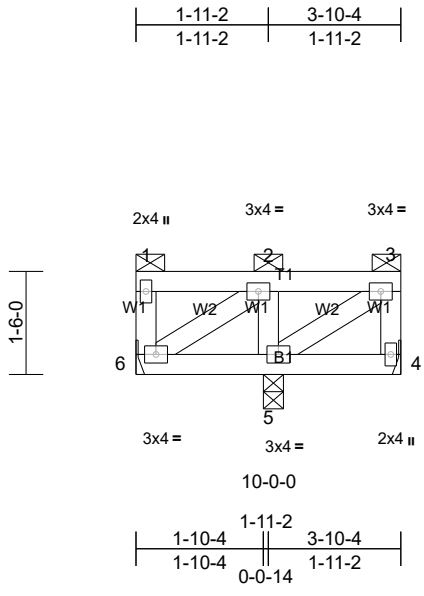
REACTIONS (lb/size) 4=59/2-0-0, (min. 0-1-8), 5=167/2-0-0, (min. 0-1-8), 6=59/Mechanical, (min. 0-1-8)
Max Horiz 6=-30 (LC 8)
Max Uplift 4=-8 (LC 9), 5=-10 (LC 9), 6=-11 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Provide adequate drainage to prevent water ponding.
4) Gable studs spaced at 1-4-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) A plate rating reduction of 20% has been applied for the green lumber members.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 4, 10 lb uplift at joint 5 and 11 lb uplift at joint 6.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	JF3	Flat	2	1	Job Reference (optional)



Scale = 1:33.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.02	Vert(CT)	0.00	5-6	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MP							Weight: 19 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins: 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

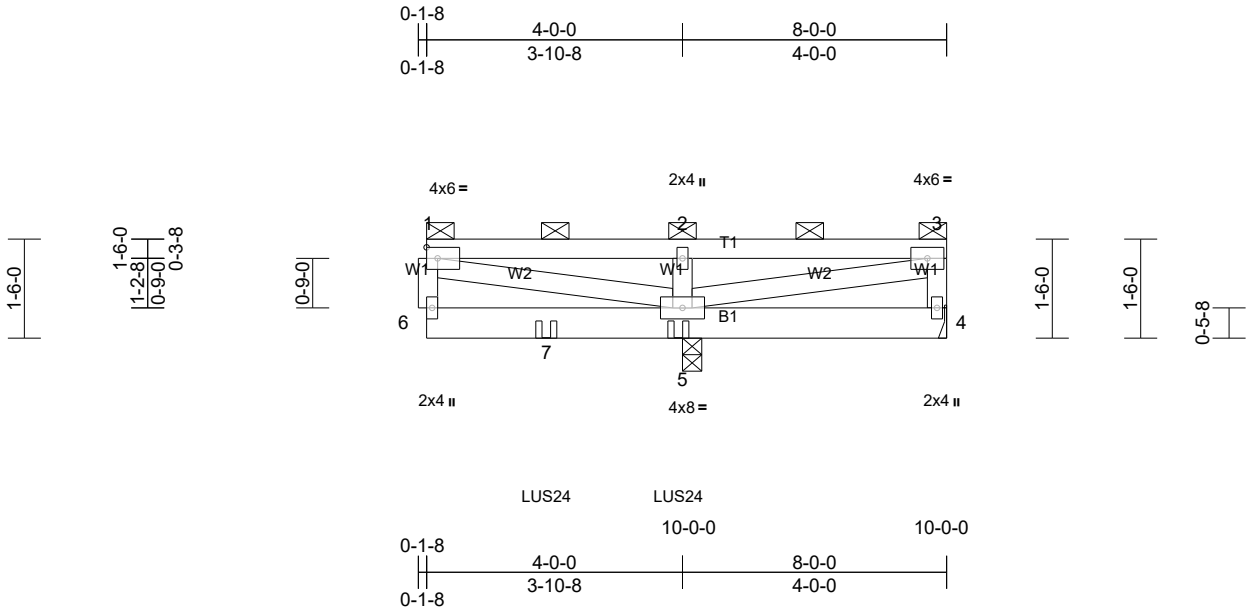
REACTIONS (lb/size) 4=59/ Mechanical, (min. 0-1-8), 5=167/0-3-8, (min. 0-1-8), 6=59/ Mechanical, (min. 0-1-8)
Max Horiz 6=-30 (LC 8)
Max Uplift 4=-8 (LC 9), 5=-10 (LC 9), 6=-11 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

LOAD CASE(S) Standard

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 4, 10 lb uplift at joint 5 and 11 lb uplift at joint 6.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	JGR	Flat Girder	1	1	Job Reference (optional)



Scale = 1:34.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.19	Vert(LL)	0.00	4-5	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.09	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.07	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MP							Weight: 40 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X6 DF No.2 G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins: 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 4=39/ Mechanical, (min. 0-1-8), 5=434/0-3-8, (min. 0-1-8)
Max Horiz 5=-28 (LC 4)
Max Uplift 4=-11 (LC 23), 5=-267 (LC 4)
Max Grav 4=67 (LC 19), 5=469 (LC 14)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-166/260, 2-3=-166/260
WEBS 1-5=-266/166, 2-5=-295/84, 3-5=-277/181

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 4 and 267 lb uplift at joint 5.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Use Simpson Strong-Tie LUS24 (4-10dx1 1/2 Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-11-4 from the left end to 3-11-4 to connect truss(es) F04 (1 ply 2x4 DF) to front face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-3=-60, 4-6=-20
Concentrated Loads (lb)
Vert: 5=72, 7=72

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	K01	Flat	3	1	Job Reference (optional)

Better Built Truss, Ripon, CA, user — Run: 8.81 S Jun 18 2024 Print: 8.810 S Jun 18 2024 MiTek Industries, Inc. Thu Nov 14 15:26:13 — Page: 1

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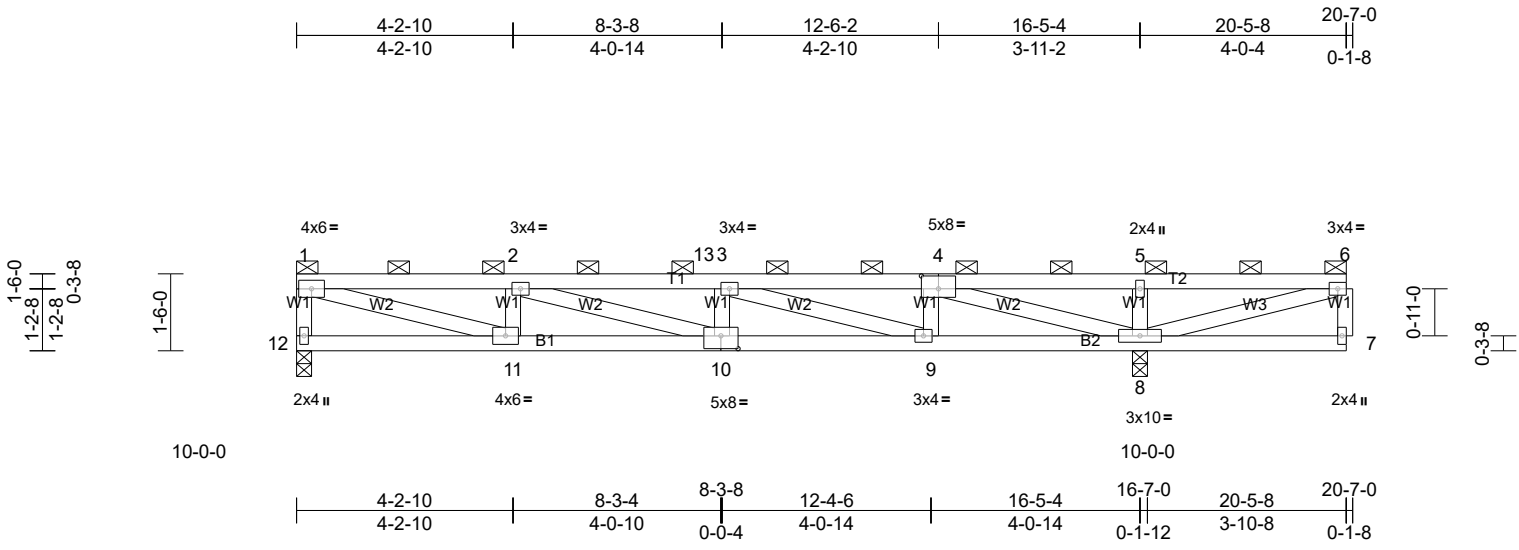

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Plate Offsets (X, Y): [4:0-4-0,0-3-0], [10:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.31	Vert(LL)	-0.09	10	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.28	Vert(CT)	-0.26	10	>764	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 89 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (4-7-15 max.): 1-6, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

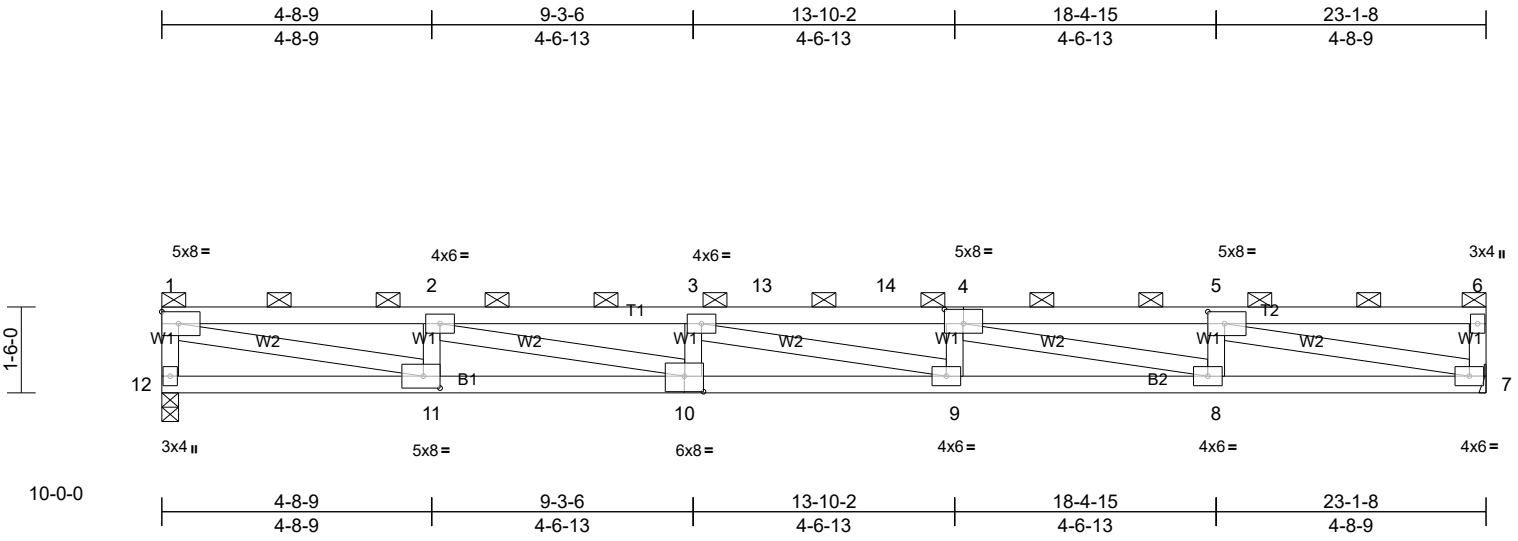
REACTIONS (lb/size) 8=1011/0-3-8, (min. 0-1-8), 12=612/0-3-8, (min. 0-1-8)
Max Horiz 12=-30 (LC 8)
Max Uplift 8=-106 (LC 9), 12=-37 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-12=-555/191, 1-2=-1546/441, 2-13=-1974/529, 3-13=-1974/529, 3-4=-1267/276, 4-5=-245/360, 5-6=-245/360
BOT CHORD 10-11=-463/1546, 9-10=-551/1975, 8-9=-281/1234
WEBS 5-8=-286/165, 6-8=-396/265, 2-11=-363/180, 1-11=-422/1498, 2-10=-106/447, 3-9=-739/280, 4-9=-17/303, 4-8=-1668/527

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 12 and 106 lb uplift at joint 8.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	L01	Flat	5	1	Job Reference (optional)



Scale = 1:40.2

Plate Offsets (X, Y): [4:0-4-0,0-3-0], [5:0-3-8,0-2-8], [10:0-4-0,0-3-4], [11:0-3-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.44	Vert(LL)	-0.31	9-10	>884	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.56	Vert(CT)	-0.94	9-10	>291	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.12	7	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 100 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1) *Except* W2:2X4 DF No.2 G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (3-0-6 max.): 1-6, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 7=913/ Mechanical, (min. 0-1-8), 12=913/0-3-8, (min. 0-1-8)
Max Horiz 12=30 (LC 9)
Max Uplift 7=-27 (LC 9), 12=-27 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-12=-844/267, 1-2=-2781/769, 2-3=-4124/1124, 3-13=-4145/1128, 13-14=-4145/1128, 4-14=-4145/1128, 4-5=-2779/767
BOT CHORD 10-11=-791/2781, 9-10=-1165/4159, 8-9=-1150/4132, 7-8=-772/2779
WEBS 5-7=-2711/742, 2-11=-628/256, 1-11=-744/2711, 2-10=-380/1393, 3-10=-279/155, 4-8=-1403/392, 5-8=-37/447

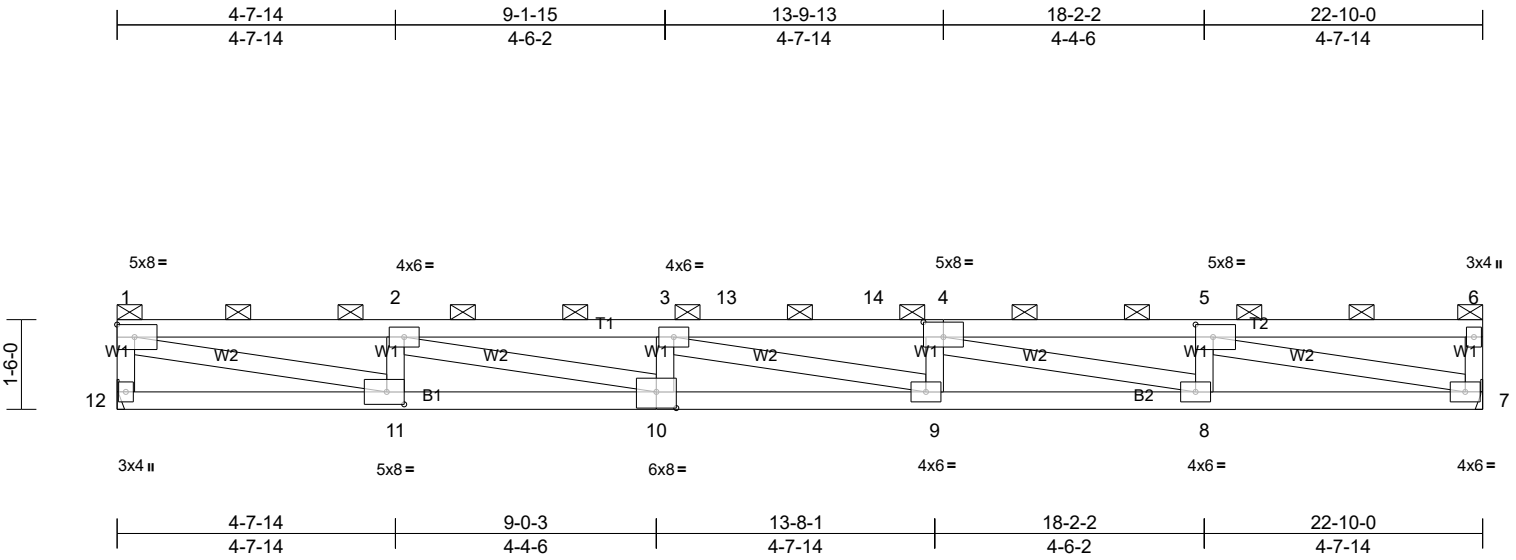
NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 12 and 27 lb uplift at joint 7.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	L02	Flat	2	1	Job Reference (optional)

Better Built Truss, Ripon, CA, user — Run: 8.81 S Jun 18 2024 Print: 8.810 S Jun 18 2024 MiTek Industries, Inc. Thu Nov 14 15:26:14 — Page: 1

ID:QbjIne7R35BXsK6zzPEluTyJHhP-jfvTcyOhXTbm0NzC4jyrkib6FEfMsXmOFb_nPLyJC5d



Scale = 1:38.5

Plate Offsets (X, Y): [4:0-4-0,0-3-0], [5:0-3-8,0-2-8], [10:0-4-0,0-3-4], [11:0-3-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.43	Vert(LL)	-0.29	9-10	>917	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.55	Vert(CT)	-0.90	9-10	>302	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.12	7	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 98 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1) *Except* W2:2X4 DF No.2 G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (3-1-1 max.): 1-6, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 7=902/ Mechanical, (min. 0-1-8), 12=902/ Mechanical, (min. 0-1-8)
Max Horiz 12=30 (LC 9)
Max Uplift 7=-28 (LC 9), 12=-28 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-12=-833/266, 1-2=-2710/758, 2-3=-4021/1109, 3-13=-4040/1113, 13-14=-4040/1113, 4-14=-4040/1113, 4-5=-2709/757
BOT CHORD 10-11=-780/2710, 9-10=-1149/4054, 8-9=-1135/4029, 7-8=-762/2709
WEBS 5-7=-2645/732, 2-11=-620/255, 1-11=-735/2645, 2-10=-376/1360, 3-10=-275/154, 4-8=-1369/387, 5-8=-37/441

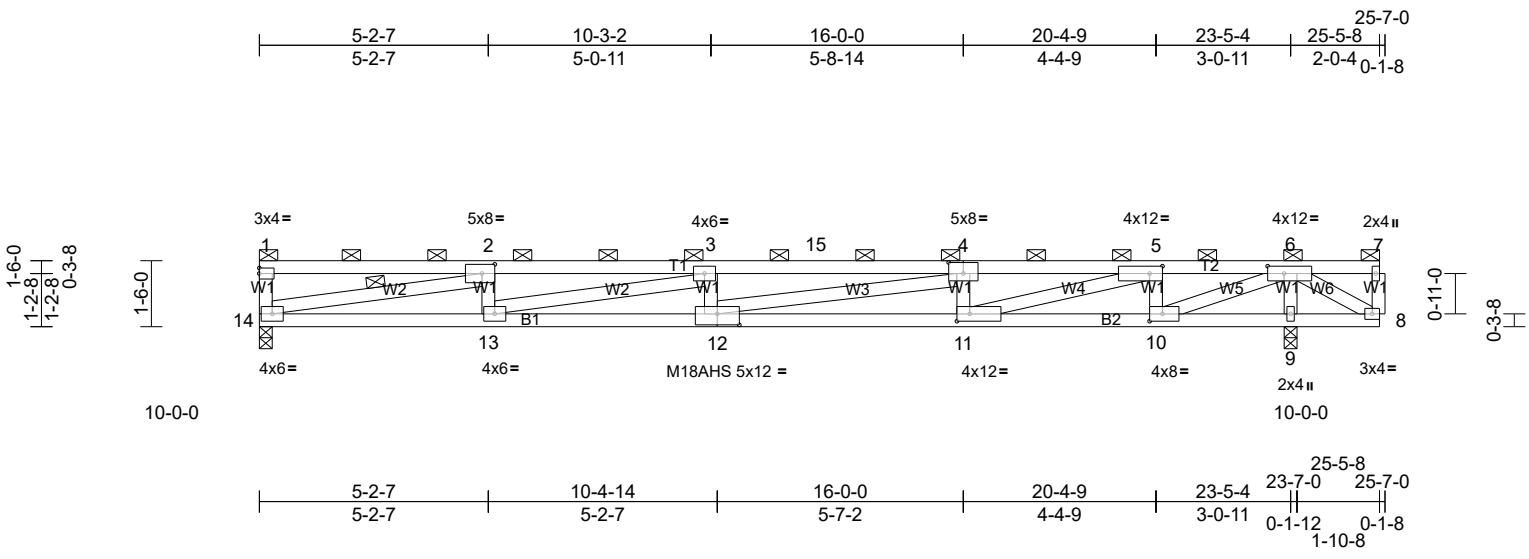
NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 12 and 28 lb uplift at joint 7.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	L03	Flat	7	1	Job Reference (optional)

Better Built Truss, Ripon, CA, user — Run: 8.81 S Jun 18 2024 Print: 8.810 S Jun 18 2024 MiTek Industries, Inc. Thu Nov 14 15:26:14 — Page: 1

ID:CDJ1kd269Smk_0waQMbazVyJHgD-jfvTcyOhXTbm0NzC4jyrkib4iEeQsXSOFb_nPLyJC5d



Scale = 1:52.4

Plate Offsets (X, Y): [2:0-3-8,0-2-8], [4:0-4-0,0-3-0], [5:0-3-8,0-2-0], [6:0-4-8,0-2-0], [10:0-3-8,0-2-0], [11:0-3-8,0-2-0], [12:0-6-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.53	Vert(LL)	-0.34	11-12	>822	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.61	Vert(CT)	-1.03	11-12	>271	180	M18AHS	169/162
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.13	9	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 111 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (2-9-2 max.): 1-7, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 2-14

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

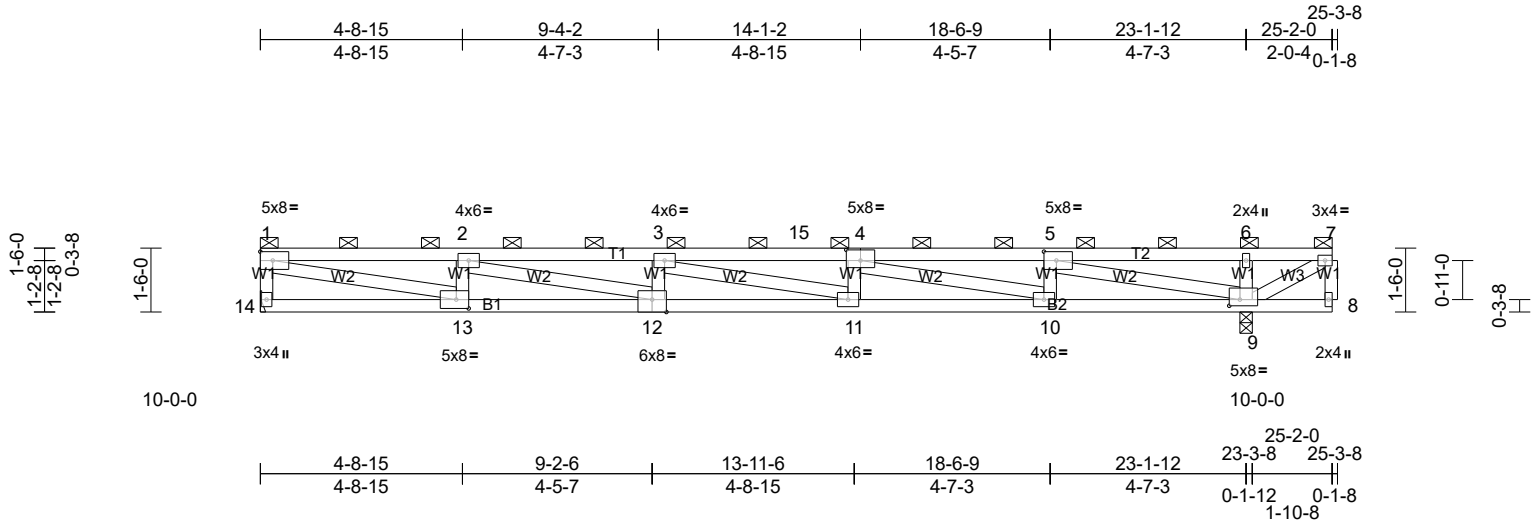
REACTIONS (lb/size) 9=1099/0-3-8, (min. 0-1-8), 14=925/0-3-8, (min. 0-1-8)
Max Horiz 14=-30 (LC 10)
Max Uplift 9=-55 (LC 9), 14=-24 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3055/754, 3-15=-4403/1067, 4-15=-4403/1067, 4-5=-3875/939, 5-6=-1968/465
BOT CHORD 13-14=-776/3055, 12-13=-1101/4404, 11-12=-951/3875, 10-11=-466/1968
WEBS 2-13=-8/431, 2-14=-2941/721, 3-13=-1386/346, 4-12=-141/540, 4-11=-429/198, 5-11=-503/1978, 5-10=-727/243, 6-10=-528/2134, 6-9=-991/311

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=26ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) A plate rating reduction of 20% has been applied for the green lumber members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 14 and 55 lb uplift at joint 9.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	L04	Flat	2	1	Job Reference (optional)



Scale = 1:54.1

Plate Offsets (X, Y): [4:0-4-0,0-3-0], [5:0-3-8,0-2-8], [9:0-3-0,0-1-12], [12:0-4-0,Edge], [13:0-3-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.44	Vert(LL)	-0.32	11-12	>858	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.57	Vert(CT)	-0.98	11-12	>282	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.13	9	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 109 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1) *Except* W2:2X4 DF No.2 G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (3-0-1 max.): 1-7, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

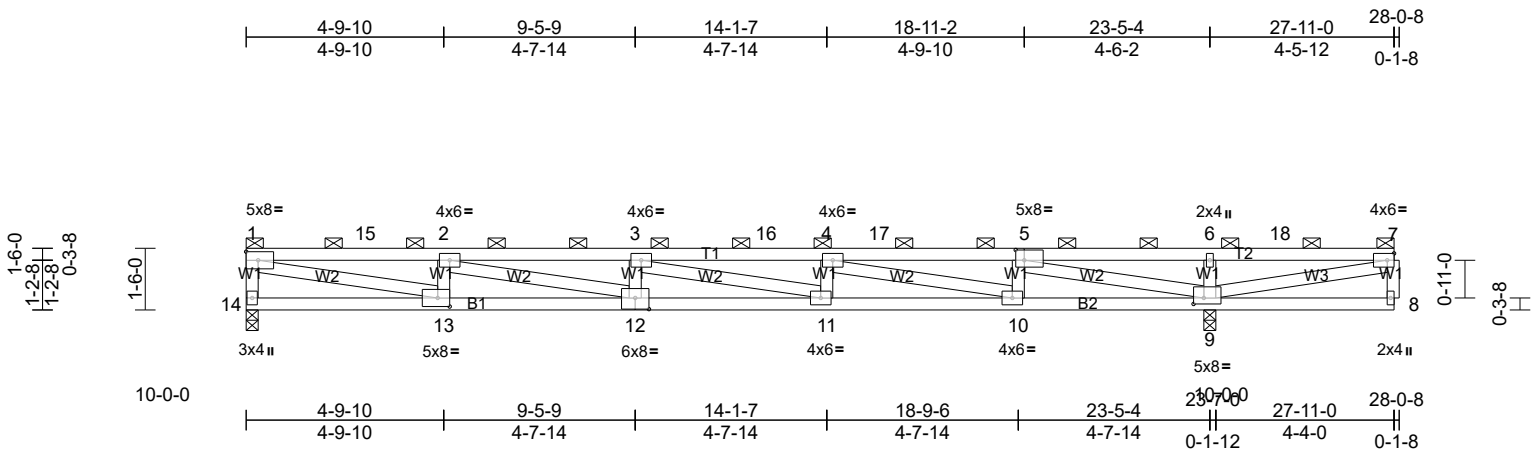
REACTIONS (lb/size) 9=1080/0-3-8, (min. 0-1-8), 14=920/ Mechanical, (min. 0-1-8)
Max Horiz 14=-30 (LC 8)
Max Uplift 9=-52 (LC 9), 14=-26 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-14=-851/247, 1-2=-2823/709, 2-3=-4188/1034, 3-15=-4213/1032, 4-15=-4213/1032, 4-5=-2812/686
BOT CHORD 12-13=-731/2823, 11-12=-1073/4222, 10-11=-1054/4201, 9-10=-690/2812
WEBS 6-9=-309/146, 5-9=-2786/697, 2-13=-633/240, 1-13=-686/2751, 2-12=-347/1415, 3-12=-280/146, 4-10=-1439/377, 5-10=-32/448

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=25ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 14 and 52 lb uplift at joint 9.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	L05	Flat	2	1	Job Reference (optional)



Scale = 1:56

Plate Offsets (X, Y): [5:0-2-8,0-3-0], [9:0-3-0,0-1-12], [12:0-4-0,0-3-4], [13:0-3-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.44	Vert(LL)	-0.31	11-12	>893	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.55	Vert(CT)	-0.95	11-12	>295	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.12	9	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 120 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1) *Except* W2:2X4 DF No.2 G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (3-1-1 max.): 1-7, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

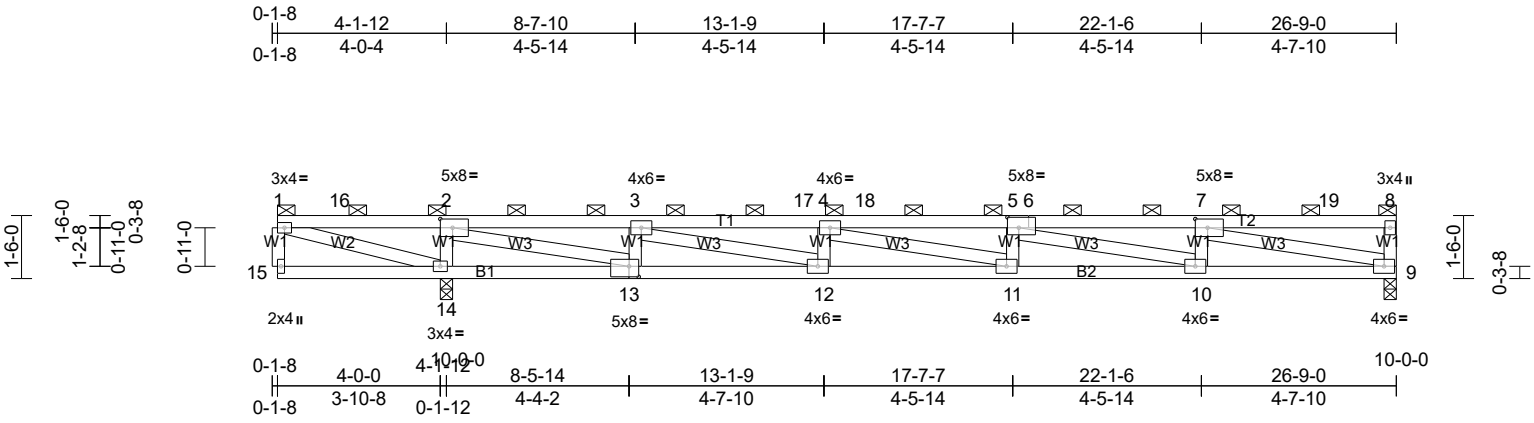
REACTIONS (lb/size) 9=1323/0-3-8, (min. 0-1-8), 14=898/0-3-8, (min. 0-1-8)
Max Horiz 14=-30 (LC 8)
Max Uplift 9=-79 (LC 9), 14=-16 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-14=-829/211, 1-15=-2771/593, 2-15=-2771/593, 2-3=-4067/839, 3-16=-3946/779, 4-16=-3946/779, 4-17=-2360/384, 5-17=-2360/384, 5-6=-264/433, 6-18=-264/433, 7-18=-264/433
BOT CHORD 12-13=-615/2771, 11-12=-861/4067, 10-11=-795/3946, 9-10=-384/2302
WEBS 6-9=-328/154, 7-9=-470/285, 5-9=-2831/648, 2-13=-607/209, 1-13=-570/2697, 2-12=-266/1338, 4-10=-1638/420, 5-10=-37/484

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 14 and 79 lb uplift at joint 9.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	M01	Flat	11	1	Job Reference (optional)



Scale = 1:54.8

Plate Offsets (X, Y): [2:0-3-8,0-2-8], [6:0-3-4,0-3-0], [7:0-3-8,0-2-8], [13:0-2-12,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.40	Vert(LL)	-0.27	11-12	>987	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.51	Vert(CT)	-0.83	11-12	>325	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.10	9	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 115 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1) *Except* W3:2X4 DF No.2 G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (3-2-10 max.): 1-8, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 9=870/0-3-8, (min. 0-1-8), 14=1247/0-3-8, (min. 0-1-8)
Max Horiz 14=30 (LC 9)
Max Uplift 9=-22 (LC 9), 14=-81 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-16=-211/327, 2-16=-211/327, 2-3=-2193/401, 3-17=-3714/791, 4-17=-3714/791, 4-18=-3814/844, 5-18=-3814/844, 5-6=-2593/592, 6-7=-2593/592
BOT CHORD 13-14=-327/246, 12-13=-451/2270, 11-12=-813/3714, 10-11=-860/3814, 9-10=-597/2593
WEBS 1-14=-353/227, 2-14=-1013/317, 7-9=-2532/571, 3-13=-640/234, 2-13=-618/2616, 3-12=-387/1496, 4-12=-296/154, 5-10=-1264/272, 7-10=-6/418

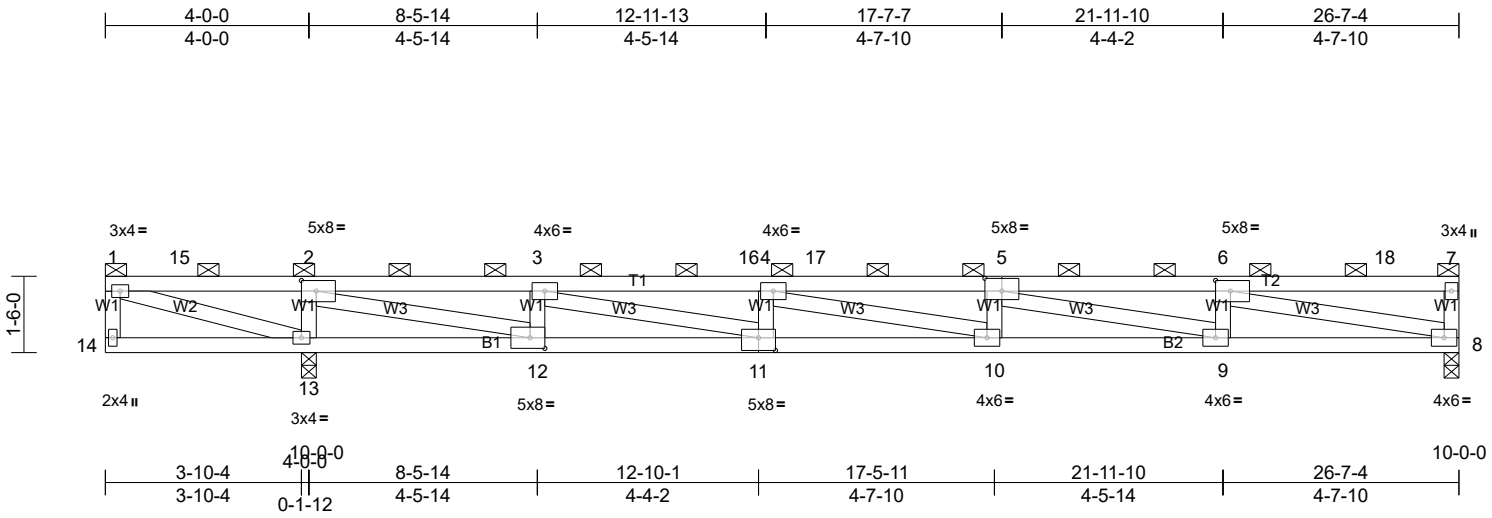
NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=27ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 9 and 81 lb uplift at joint 14.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	M01A	Flat	1	1	Job Reference (optional)

Better Built Truss, Ripon, CA, user — Run: 8.81 S Jun 18 2024 Print: 8.810 S Jun 18 2024 MiTek Industries, Inc. Thu Nov 14 15:26:16 — Page: 1

ID:zy6RHvyKK3VCLUxjSrIGSByJGvG-f11D1eQy34rUGh7bB8?Jp7gSc2LJKSWgjvTuUEyJC5b



Scale = 1:45.3

Plate Offsets (X, Y): [2:0-3-8,0-2-8], [5:0-4-0,0-3-0], [6:0-3-8,0-2-8], [11:0-4-0,0-3-0], [12:0-3-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.44	Vert(LL)	-0.25	10-11	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.52	Vert(CT)	-0.76	10-11	>354	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.77	Horz(CT)	0.09	8	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 115 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1) *Except* W3:2X4 DF No.2 G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (3-4-5 max.): 1-7, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

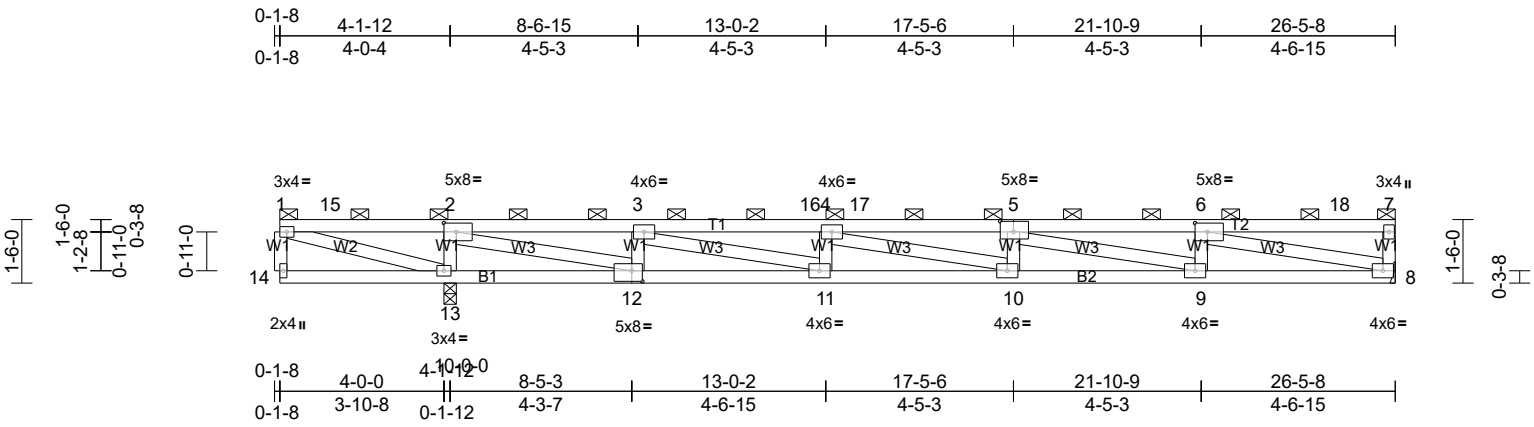
REACTIONS (lb/size) 8=832/0-3-8, (min. 0-1-8), 13=1503/0-3-8, (min. 0-1-10)
Max Horiz 13=-30 (LC 10)
Max Uplift 8=-20 (LC 9), 13=-90 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-15=-358/978, 2-15=-358/978, 2-3=-1712/305, 3-16=-3266/693, 4-16=-3266/693, 4-17=-3528/780, 5-17=-3528/780, 5-6=-2451/563
BOT CHORD 12-13=-978/393, 11-12=-327/1712, 10-11=-734/3307, 9-10=-804/3524, 8-9=-568/2451
WEBS 1-13=-1000/372, 2-13=-1052/329, 6-8=-2387/541, 3-12=-668/241, 2-12=-670/2786, 3-11=-414/1613, 4-11=-342/164, 5-9=-1114/245, 6-9=-2/392

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=27ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 8 and 90 lb uplift at joint 13.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 243 lb down and 54 lb up at 0-1-12 on top chord. The design/ selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-7=-60, 8-14=-20
Concentrated Loads (lb)
Vert: 1=-230

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	M02	Flat	5	1	Job Reference (optional)



Scale = 1:54.4

Plate Offsets (X, Y): [2:0-3-8,0-2-8], [5:0-3-12,0-3-0], [6:0-3-8,0-2-8], [12:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.39	Vert(LL)	-0.26	10-11	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.50	Vert(CT)	-0.79	10-11	>339	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.10	8	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 114 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1) *Except* W3:2X4 DF No.2 G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (3-3-5 max.): 1-7, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 8=858/ Mechanical, (min. 0-1-8), 13=1236/0-3-8, (min. 0-1-8)
Max Horiz 13=-30 (LC 8)
Max Uplift 8=-24 (LC 9), 13=-83 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-15=-213/331, 2-15=-213/331, 2-3=-2124/391, 3-16=-3610/776, 4-16=-3610/776, 4-17=-3710/830, 5-17=-3710/830, 5-6=-2524/583
BOT CHORD 12-13=-331/248, 11-12=-440/2200, 10-11=-799/3610, 9-10=-846/3710, 8-9=-587/2524
WEBS 1-13=-358/229, 2-13=-1001/317, 6-8=-2466/562, 3-12=-632/233, 2-12=-610/2550, 3-11=-383/1462, 4-11=-293/154, 5-9=-1229/268, 6-9=-7/412

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=26ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 8 and 83 lb uplift at joint 13.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	M03	Flat	4	1	Job Reference (optional)

Better Built Truss, Ripon, CA, user — Run: 8.81 S Jun 18 2024 Print: 8.810 S Jun 18 2024 MiTek Industries, Inc. Thu Nov 14 15:26:17 — Page: 1

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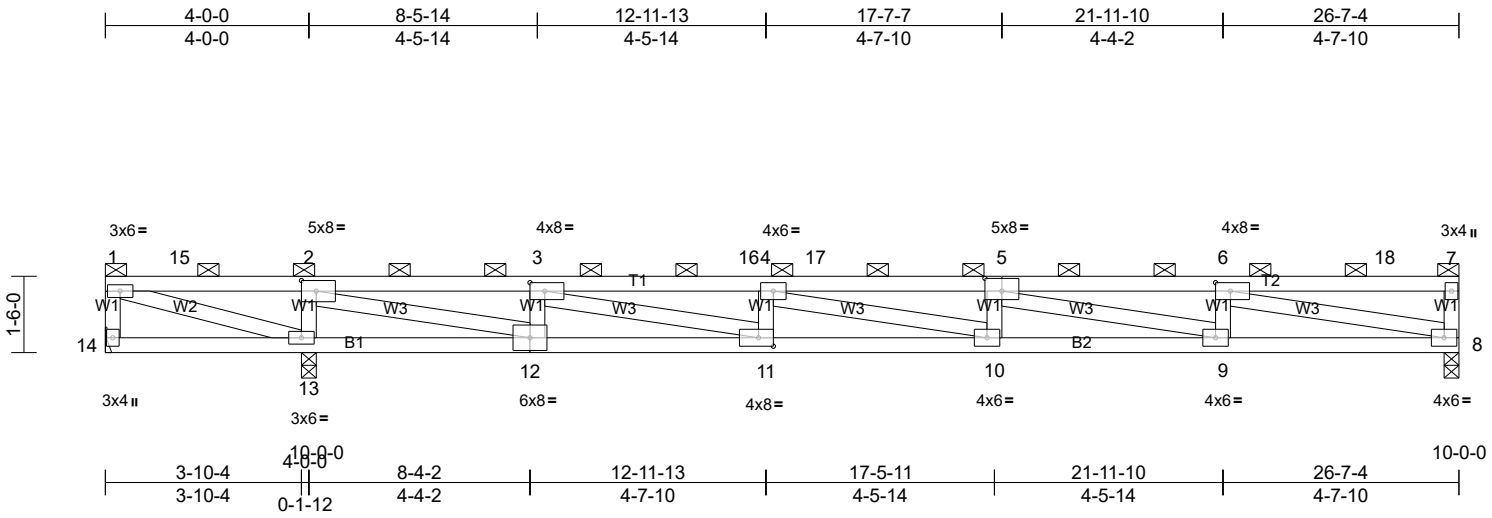


Scale = 1:45.3

Plate Offsets (X, Y): [2:0-3-8,0-2-8], [3:0-3-8,0-2-0], [5:0-4-0,0-3-0], [6:0-3-8,0-2-0], [11:0-3-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.55	Vert(LL)	-0.21	10-11	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.45	Vert(CT)	-0.63	10-11	>428	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.68	Horz(CT)	0.05	8	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 115 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1) *Except* W3:2X4 DF No.2 G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (3-8-1 max.): 1-7, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 8=762/0-3-8, (min. 0-1-8), 13=1982/0-3-8, (min. 0-2-2), 14=-409/ Mechanical, (min. 0-1-8)
Max Horiz 14=-30 (LC 8)
Max Uplift 8=-22 (LC 9), 14=-409 (LC 1)
Max Grav 8=762 (LC 1), 13=1982 (LC 1), 14=-5 (LC 9)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-14=-72/392, 1-15=-528/2219, 2-15=-528/2219, 2-3=-594/148, 3-16=-2543/614, 4-16=-2543/614, 4-17=-3013/722, 5-17=-3013/722, 5-6=-2197/534
BOT CHORD 12-13=-2219/547, 11-12=-180/683, 10-11=-615/2543, 9-10=-730/3018, 8-9=-530/2197
WEBS 1-13=-2248/552, 2-13=-1134/341, 6-8=-2132/503, 3-12=-738/249, 2-12=-686/2920, 3-11=-452/1927, 4-11=-405/172, 4-10=-112/487, 5-9=-852/208, 6-9=0/342

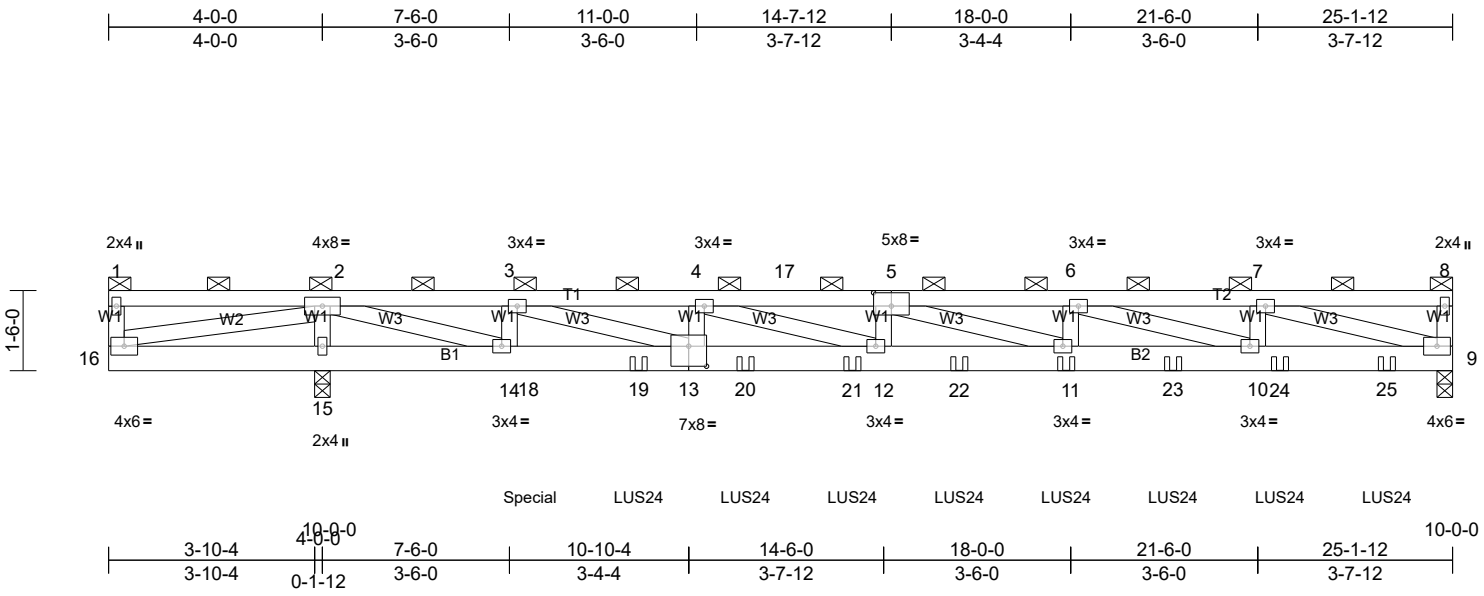
NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=27ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 409 lb uplift at joint 14 and 22 lb uplift at joint 8.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 243 lb down and 54 lb up at 0-1-12 on top chord. The design/ selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-7=-60, 8-14=-20
Concentrated Loads (lb)
Vert: 1=-230

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	N01	Flat Girder	1	2	Job Reference (optional)

Better Built Truss, Ripon, CA, user — Run: 8.81 S Jun 18 2024 Print: 8.810 S Jun 18 2024 MiTek Industries, Inc. Thu Nov 14 15:26:18 — Page: 1

ID:2pD7vSozKBu_2QjHxwcSNfyJFEJ-bQ9_RJRCbh6CV_H_JZ1nuYlsyr6HoUfzADy_Y6yJC5Z



Scale = 1:43.1

Plate Offsets (X, Y): [5:0-4-0,0-3-0], [13:0-4-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.13	Vert(LL)	-0.09	12	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.23	Vert(CT)	-0.18	11-12	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.28	Horz(CT)	0.02	9	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MS							Weight: 255 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X6 DF No.2 G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-8, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

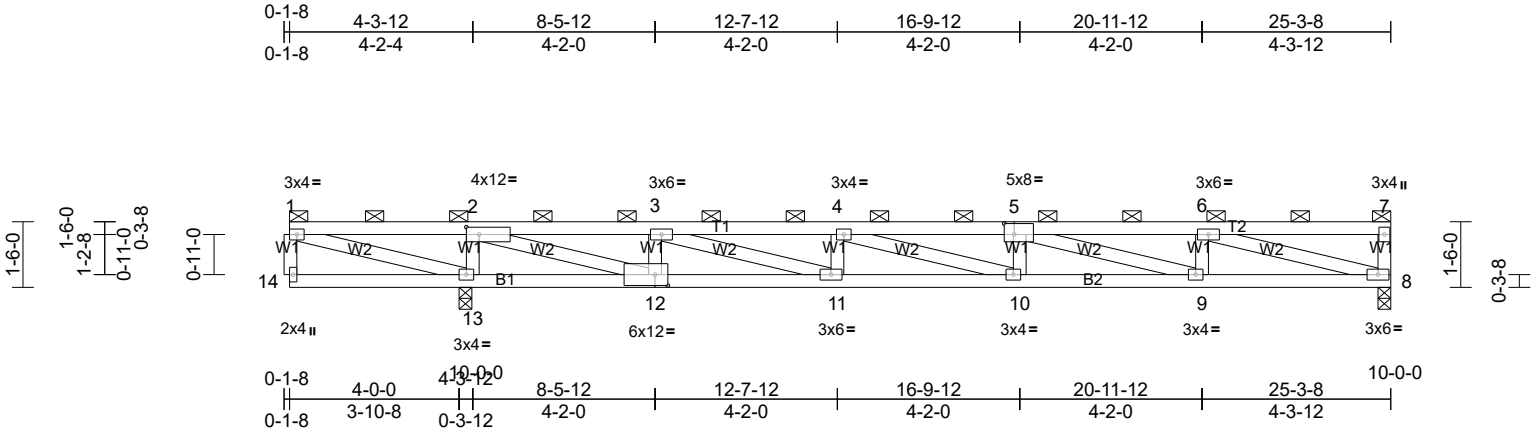
REACTIONS (lb/size) 9=699/0-3-8, (min. 0-1-8), 15=1207/0-3-8, (min. 0-1-8)
Max Horiz 15=-28 (LC 6)
Max Uplift 9=-172 (LC 5), 15=-563 (LC 4)
Max Grav 9=776 (LC 14), 15=1324 (LC 16)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-16=-328/45, 2-3=-902/1314, 3-4=-2311/1529, 4-17=-3080/1201, 5-17=-3080/1201, 5-6=-2941/878, 6-7=-1917/470
BOT CHORD 15-16=-1165/181, 14-15=-973/227, 14-18=-1326/889, 18-19=-1326/889, 13-19=-1326/889, 13-20=-1532/2353, 20-21=-1532/2353, 12-21=-1532/2353, 12-22=-1207/3086, 11-22=-1207/3086, 11-23=-890/2933, 10-23=-890/2933, 10-24=-483/1911, 24-25=-483/1911, 9-25=-483/1911
WEBS 2-15=-1134/551, 2-16=-201/1177, 7-9=-1890/475, 3-14=-604/90, 2-14=-1234/1680, 3-13=-227/1502, 4-13=-595/26, 4-12=-6/1193, 5-12=-283/105, 5-11=-163/363, 6-10=-1076/428, 7-10=-85/407

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=25ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) A plate rating reduction of 20% has been applied for the green lumber members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 172 lb uplift at joint 9 and 563 lb uplift at joint 15.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 9-11-0 from the left end to 23-11-0 to connect truss(es) JA4 (1 ply 2x4 DF), J01 (1 ply 2x4 DF) to front face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 243 lb down and 13 lb up at 0-1-12 on top chord, and 106 lb down and 488 lb up at 7-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-8=-60, 9-16=-20
Concentrated Loads (lb)
Vert: 1=-230, 18=177, 19=135

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	N02	Flat	17	1	Job Reference (optional)



Scale = 1:52.7

Plate Offsets (X, Y): [2:0-3-8,0-2-0], [5:0-2-12,0-3-0], [12:0-3-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.35	Vert(LL)	-0.21	10-11	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.43	Vert(CT)	-0.63	10-11	>398	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 109 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (3-6-14 max.): 1-7, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

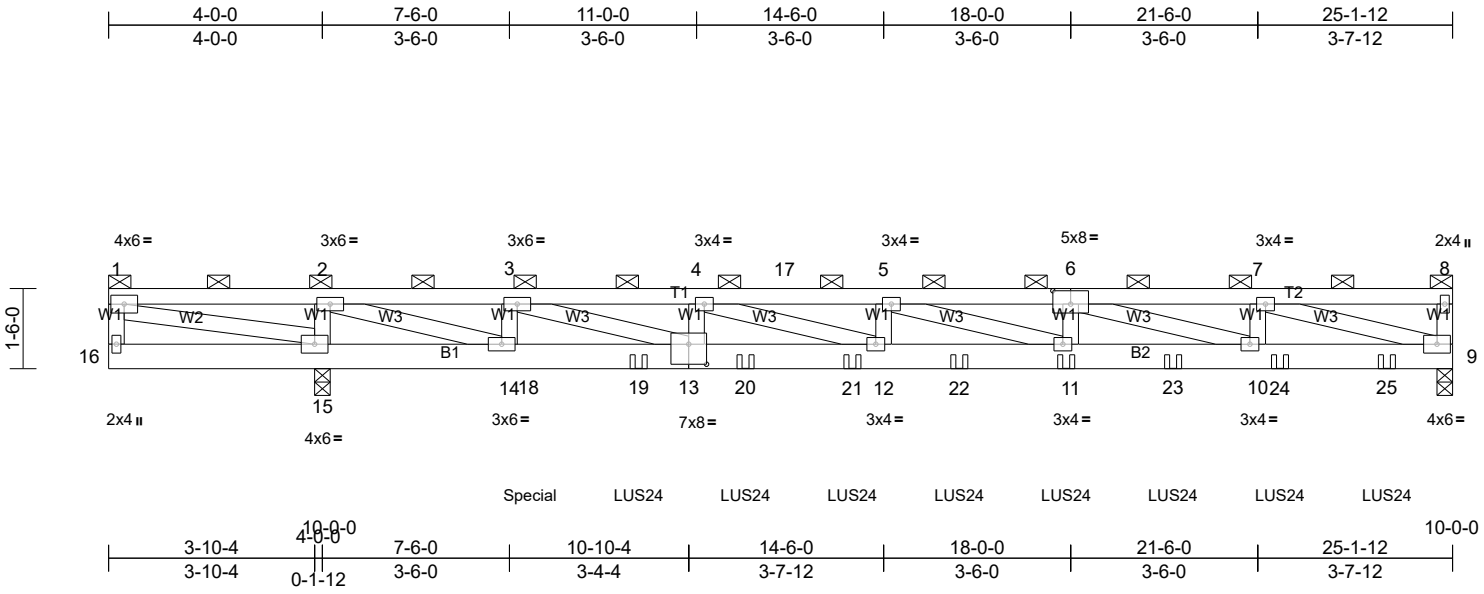
REACTIONS (lb/size) 8=800/0-3-8, (min. 0-1-8), 13=1200/0-3-8, (min. 0-1-8)
Max Horiz 13=30 (LC 9)
Max Uplift 8=-31 (LC 9), 13=-95 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-238/372, 2-3=-1853/343, 3-4=-3122/689, 4-5=-3244/755, 5-6=-2210/532
BOT CHORD 12-13=-372/273, 11-12=-365/1853, 10-11=-711/3122, 9-10=-764/3248, 8-9=-537/2210
WEBS 2-13=-955/319, 1-13=-405/257, 2-12=-588/2317, 3-12=-589/228, 3-11=-373/1321, 4-11=-283/152, 5-9=-1079/236, 6-9=-4/380, 6-8=-2164/514

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=25ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 8 and 95 lb uplift at joint 13.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	N03	Flat Girder	1	2	Job Reference (optional)



Scale = 1:43.1

Plate Offsets (X, Y): [6:0-4-0,0-3-0], [13:0-4-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.24	Vert(LL)	-0.16	12	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.45	Vert(CT)	-0.38	11-12	>670	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.51	Horz(CT)	0.04	9	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MS							Weight: 255 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X6 DF No.2 G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-8, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 15-16,14-15.

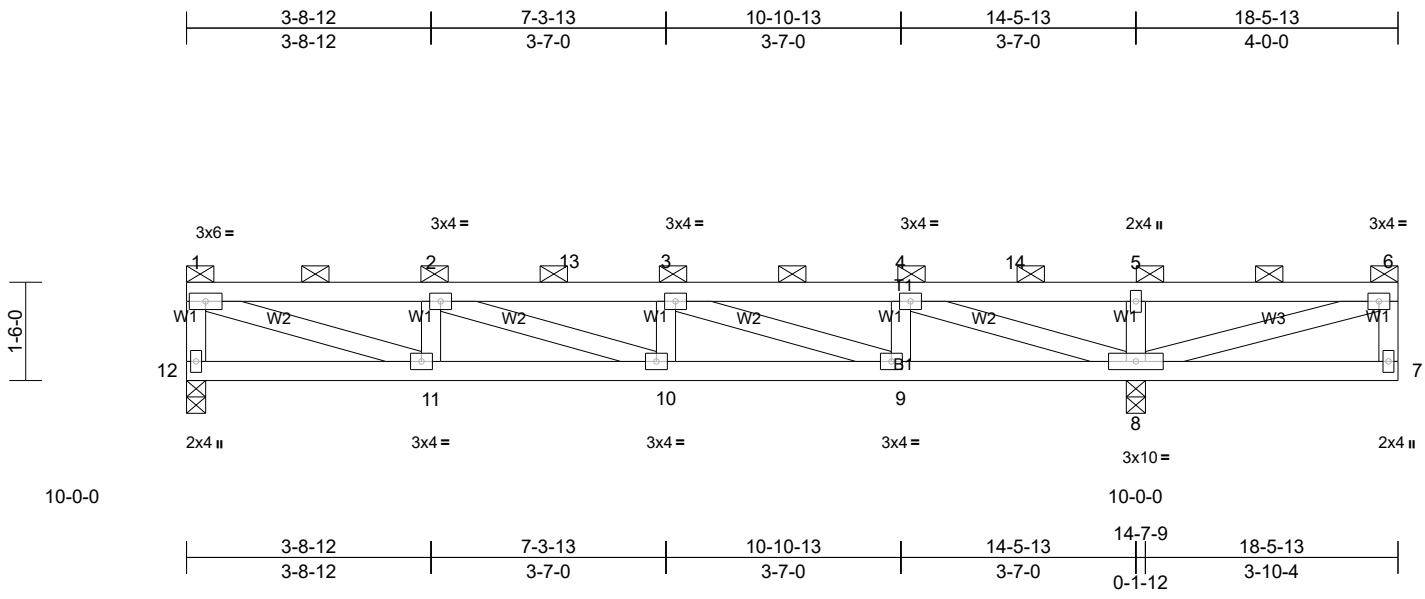
REACTIONS (lb/size) 9=1206/0-3-8, (min. 0-1-8), 15=1597/0-3-8, (min. 0-1-8)
Max Horiz 15=28 (LC 7)
Max Uplift 9=-201 (LC 5), 15=-488 (LC 4)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-185/1001, 2-3=-1566/1059, 3-4=-3751/1209, 4-17=-4889/1107, 5-17=-4889/1107, 5-6=-4612/898, 6-7=-2986/523
BOT CHORD 14-15=-1001/201, 14-18=-1072/1553, 18-19=-1072/1553, 13-19=-1072/1553, 13-20=-1221/3823, 20-21=-1221/3823, 12-21=-1221/3823, 12-22=-1119/4889, 11-22=-1119/4889, 11-23=-911/4612, 10-23=-911/4612, 10-24=-536/2986, 24-25=-536/2986, 9-25=-536/2986
WEBS 2-15=-1067/424, 1-15=-1011/194, 7-9=-2959/525, 3-14=-941/74, 2-14=-1089/2515, 3-13=-158/2415, 4-13=-561/10, 4-12=0/1119, 5-11=-322/252, 6-11=-73/314, 6-10=-1708/394, 7-10=-103/711

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=25ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) A plate rating reduction of 20% has been applied for the green lumber members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 201 lb uplift at joint 9 and 488 lb uplift at joint 15.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 9-11-0 from the left end to 23-11-0 to connect truss(es) JA3 (1 ply 2x4 DF) to back face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 243 lb down and 13 lb up at 0-1-12 on top chord, and 106 lb down and 488 lb up at 7-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-8=-60, 9-16=-20
Concentrated Loads (lb)
Vert: 1=-230, 11=-95, 18=177, 19=-95, 20=-95, 21=-95, 22=-95, 23=-95, 24=-95, 25=-95

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	P01	Flat	1	1	Job Reference (optional)



Scale = 1:35.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.31	Vert(LL)	-0.04	10-11	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.18	Vert(CT)	-0.13	10-11	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.40	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 81 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-6, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

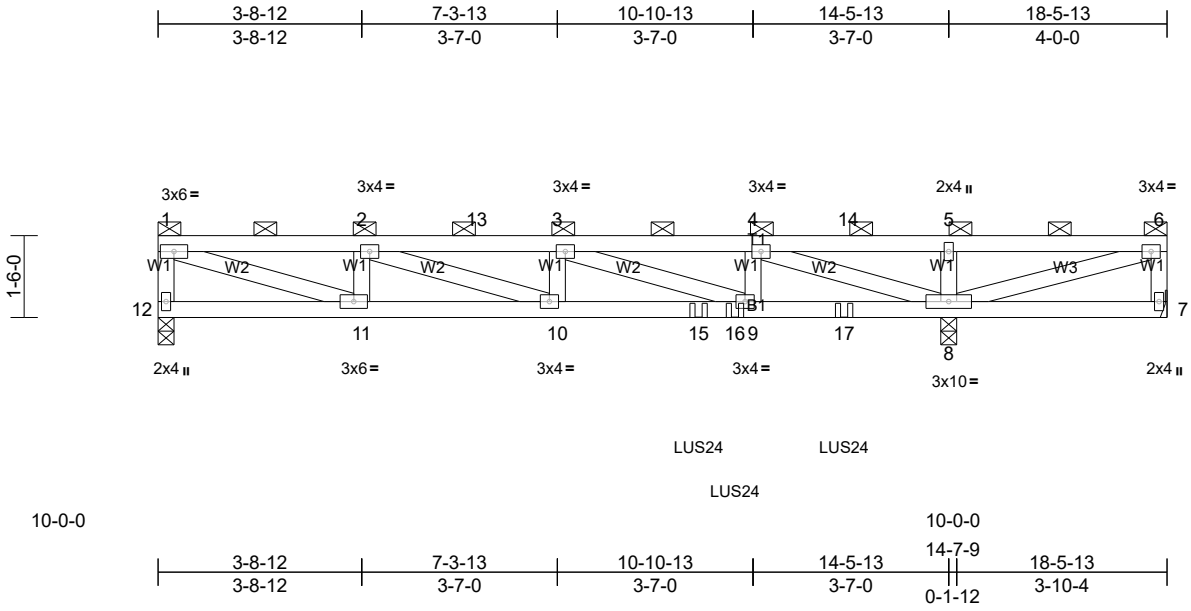
REACTIONS (lb/size) 8=1215/0-3-8, (min. 0-1-8), 12=470/0-3-8, (min. 0-1-8)
Max Horiz 12=-30 (LC 10)
Max Uplift 8=-125 (LC 9), 12=-33 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-12=-422/159, 1-2=-1000/306, 2-13=-1130/309, 3-13=-1130/309, 3-4=-380/66, 4-14=-465/1031, 5-14=-465/1031, 5-6=-465/1031
BOT CHORD 10-11=-328/1000, 9-10=-331/1130, 8-9=-50/394
WEBS 5-8=-290/173, 6-8=-1069/486, 4-8=-1488/508, 2-11=-254/147, 1-11=-293/972, 3-9=-792/309, 4-9=-38/307

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 12 and 125 lb uplift at joint 8.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 243 lb down and 76 lb up at 18-4-1 on top chord. The design/ selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-6=-60, 7-12=-20
Concentrated Loads (lb)
Vert: 6=-230

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	P02	Flat Girder	1	1	Job Reference (optional)



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.29	Vert(LL)	-0.05	9-10	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.27	Vert(CT)	-0.15	9-10	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.47	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MS							Weight: 81 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (5-6-10 max.): 1-6, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 7-8.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

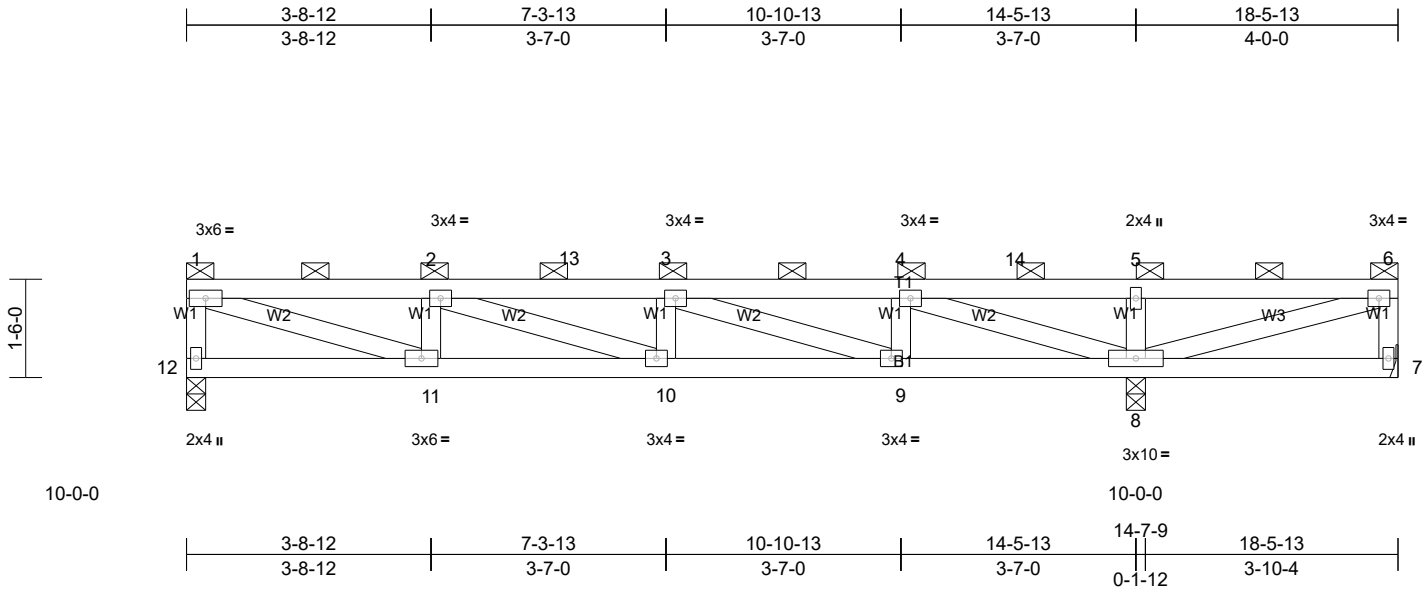
REACTIONS (lb/size) 7=304/ Mechanical, (min. 0-1-8), 8=1214/0-3-8, (min. 0-1-8), 12=520/0-3-8, (min. 0-1-8)
Max Horiz 12=-30 (LC 4)
Max Uplift 7=-49 (LC 20), 8=-102 (LC 5), 12=-39 (LC 4)
Max Grav 7=347 (LC 13), 8=1214 (LC 1), 12=520 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-12=-474/56, 1-2=-1148/86, 2-13=-1424/131, 3-13=-1424/131, 3-4=-788/105, 4-14=-78/795, 5-14=-78/795, 5-6=-78/795, 6-7=-333/66
BOT CHORD 10-11=-69/1148, 10-15=-115/1424, 15-16=-115/1424, 9-16=-115/1424, 9-17=-103/788, 8-17=-103/788
WEBS 5-8=-290/72, 6-8=-831/82, 4-8=-1670/193, 2-11=-309/79, 1-11=-93/1147, 2-10=-73/292, 3-9=-672/51, 4-9=-10/355

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 12, 49 lb uplift at joint 7 and 102 lb uplift at joint 8.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Use Simpson Strong-Tie LUS24 (4-10dx1 1/2 Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 9-10-13 from the left end to 12-6-13 to connect truss(es) JF1 (1 ply 2x4 DF), JF3 (1 ply 2x4 DF) to front face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 485 lb down and 27 lb up at 18-4-1 on top chord. The design/ selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-6=-60, 7-12=-20
Concentrated Loads (lb)
Vert: 6=-460, 15=-41, 16=-41, 17=-41

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	P03	Flat	2	1	Job Reference (optional)



Scale = 1:35.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.23	Vert(LL)	-0.05	10	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.19	Vert(CT)	-0.14	10-11	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 81 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (5-9-8 max.): 1-6, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

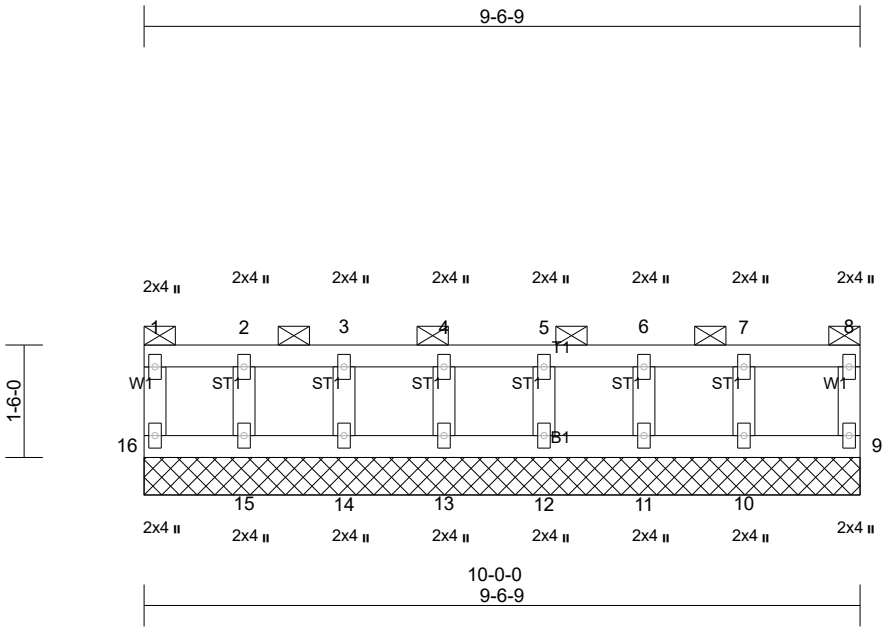
REACTIONS (lb/size) 7=-116/ Mechanical, (min. 0-1-8), 8=1071/0-3-8, (min. 0-1-8), 12=501/0-3-8, (min. 0-1-8)
Max Horiz 12=-30 (LC 8)
Max Uplift 7=-116 (LC 1), 8=-38 (LC 9), 12=-30 (LC 8)
Max Grav 7=26 (LC 8), 8=1071 (LC 1), 12=501 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-12=-452/180, 1-2=-1088/368, 2-13=-1307/432, 3-13=-1307/432, 3-4=-650/222, 4-14=-241/690, 5-14=-241/690, 5-6=-241/690
BOT CHORD 10-11=-390/1088, 9-10=-454/1307, 8-9=-230/650
WEBS 5-8=-280/167, 6-8=-727/245, 4-8=-1414/473, 2-11=-284/167, 1-11=-356/1063, 3-9=-693/237, 4-9=-26/286

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 12, 116 lb uplift at joint 7 and 38 lb uplift at joint 8.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	PGE	Flat Supported Gable	1	1	Job Reference (optional)



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 36 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X4 DF No.1&Btr G(1)
WEBS 2X4 DF Std G(1)
OTHERS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-8, except end verticals.
BOT CHORD Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

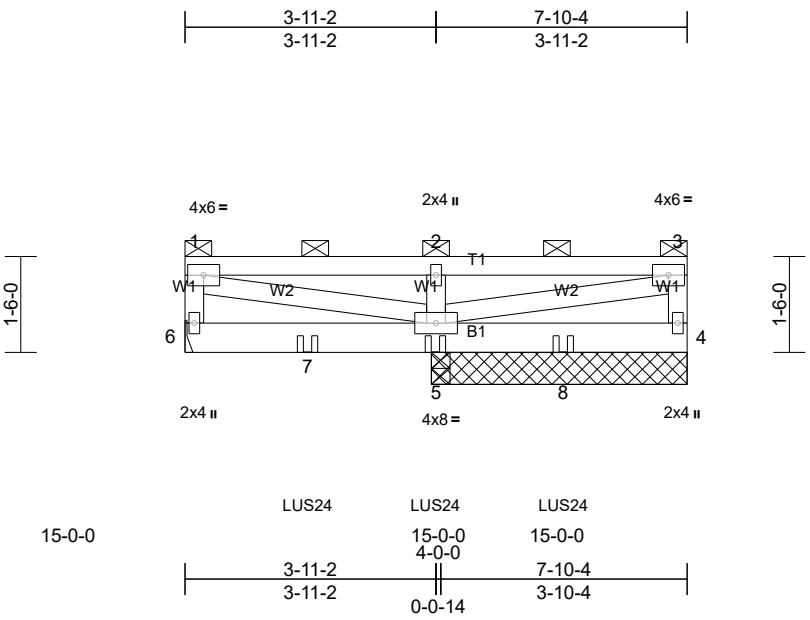
REACTIONS All bearings 9-6-9.
(lb) - Max Horiz 16=-30 (LC 8)
Max Uplift All uplift 100 (lb) or less at joint(s) 9, 10, 11, 12, 13, 14, 15, 16
Max Grav All reactions 250 (lb) or less at joint (s) 9, 10, 11, 12, 13, 14, 15, 16

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES
1) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Provide adequate drainage to prevent water ponding.
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) A plate rating reduction of 20% has been applied for the green lumber members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 16, 9, 15, 14, 13, 12, 11, 10.
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
2080 Scenic Vista Drive	Q01	Flat Girder	1	2	Job Reference (optional)



Scale = 1:36

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.07	Vert(LL)	0.00	5-6	>999	240	MT20	220/195
TCDL	10.0	Lumber DOL	1.25	BC	0.19	Vert(CT)	-0.01	5-6	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.02	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-MP							Weight: 80 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G(1)
BOT CHORD 2X6 DF No.2 G(1)
WEBS 2X4 DF Std G(1)

BRACING
TOP CHORD 2-0-0 oc purlins: 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 4=320/4-0-0, (min. 0-1-8), 5=1794/4-0-0, (min. 0-1-8), 6=554/Mechanical, (min. 0-1-8)
Max Horiz 6=-28 (LC 4)
Max Uplift 4=-25 (LC 5), 5=-136 (LC 4), 6=-39 (LC 4)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-6=-312/38
WEBS 2-5=-283/79

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=95mph (3-second gust) Vasd=75mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
5) Provide adequate drainage to prevent water ponding.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) A plate rating reduction of 20% has been applied for the green lumber members.
10) Refer to girder(s) for truss to truss connections.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 6, 25 lb uplift at joint 4 and 136 lb uplift at joint 5.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-11-0 from the left end to 5-11-0 to connect truss(es) C01 (1 ply 2x4 DF) to back face of bottom chord.
14) Fill all nail holes where hanger is in contact with lumber.
15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 243 lb down and 13 lb up at 0-1-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-3=-60, 4-6=-20
Concentrated Loads (lb)
Vert: 1=-230, 5=-611, 7=-611, 8=-611