



BY _____

DATE _____

RE: 210410
Lot 157 HT

MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Site Information:

Customer: Project Name: 210410
Lot/Block:

Address:

City:

Model:

Subdivision:

State:

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: N/A

Wind Code: N/A

Roof Load: N/A psf

Design Program: N/A

Wind Speed: N/A mph

Floor Load: N/A psf

This package includes 60 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I45819247	A1	4/26/2021	21	I45819267	E2	4/26/2021
2	I45819248	A2	4/26/2021	22	I45819268	E3	4/26/2021
3	I45819249	A3	4/26/2021	23	I45819269	E4	4/26/2021
4	I45819250	A4	4/26/2021	24	I45819270	G1	4/26/2021
5	I45819251	B1	4/26/2021	25	I45819271	G2	4/26/2021
6	I45819252	B2	4/26/2021	26	I45819272	G3	4/26/2021
7	I45819253	B3	4/26/2021	27	I45819273	G4	4/26/2021
8	I45819254	B4	4/26/2021	28	I45819274	G5	4/26/2021
9	I45819255	C1	4/26/2021	29	I45819275	G6	4/26/2021
10	I45819256	C2	4/26/2021	30	I45819276	G7	4/26/2021
11	I45819257	C3	4/26/2021	31	I45819277	H1	4/26/2021
12	I45819258	C4	4/26/2021	32	I45819278	H2	4/26/2021
13	I45819259	C5	4/26/2021	33	I45819279	H3	4/26/2021
14	I45819260	D1	4/26/2021	34	I45819280	J1	4/26/2021
15	I45819261	D2	4/26/2021	35	I45819281	J2	4/26/2021
16	I45819262	D3	4/26/2021	36	I45819282	J3	4/26/2021
17	I45819263	D4	4/26/2021	37	I45819283	LAY1	4/26/2021
18	I45819264	D5	4/26/2021	38	I45819284	LAY2	4/26/2021
19	I45819265	D6	4/26/2021	39	I45819285	P1	4/26/2021
20	I45819266	E1	4/26/2021	40	I45819286	P2	4/26/2021

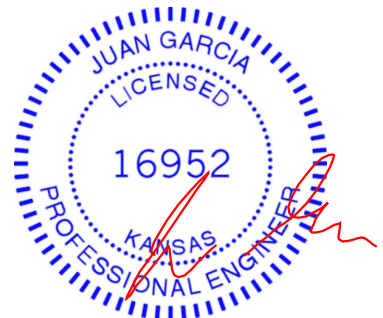
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

My license renewal date for the state of Kansas is April 30, 2022.

Kansas COA: E-943

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek. Any project specific information included is for MiTek customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.



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City, County:

State:

No.	Seal#	Truss Name	Date
41	I45819287	V1	4/26/2021
42	I45819288	V2	4/26/2021
43	I45819289	V3	4/26/2021
44	I45819290	V4	4/26/2021
45	I45819291	V5	4/26/2021
46	I45819292	V6	4/26/2021
47	I45819293	V7	4/26/2021
48	I45819294	V8	4/26/2021
49	I45819295	V9	4/26/2021
50	I45819296	V10	4/26/2021
51	I45819297	V11	4/26/2021
52	I45819298	V12	4/26/2021
53	I45819299	V13	4/26/2021
54	I45819300	V14	4/26/2021
55	I45819301	V15	4/26/2021
56	I45819302	V16	4/26/2021
57	I45819303	V17	4/26/2021
58	I45819304	V18	4/26/2021
59	I45819305	V19	4/26/2021
60	I45819306	V20	4/26/2021



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General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: N/A

Wind Code: N/A

Roof Load: N/A psf

Design Program: N/A

Wind Speed: N/A mph

Floor Load: N/A psf

This package includes 60 individual, dated Truss Design Drawings and 0 Additional Drawings.

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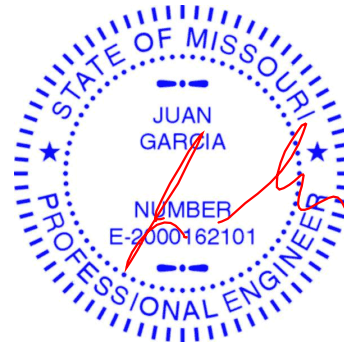
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

My license renewal date for the state of Missouri is December 31, 2022.

Missouri COA: 001193

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek. Any project specific information included is for MiTek customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.



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Chesterfield, MO 63017
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56	I45819302	V16	4/26/2021
57	I45819303	V17	4/26/2021
58	I45819304	V18	4/26/2021
59	I45819305	V19	4/26/2021
60	I45819306	V20	4/26/2021

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	A1	Hip Girder	1	2	

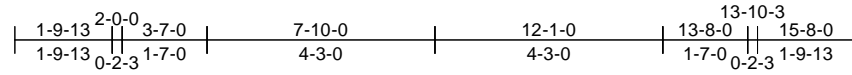
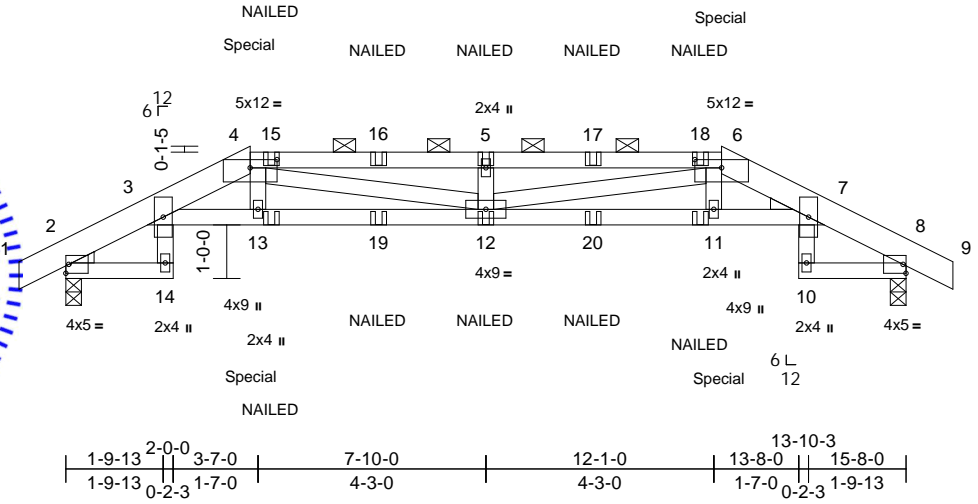
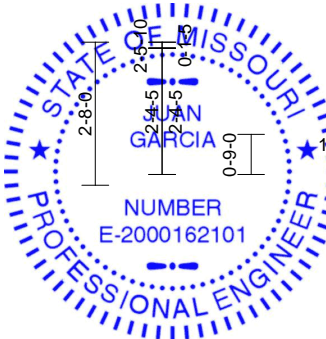
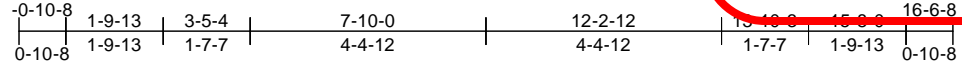
Wheeler Lumber, Waverly, KS - 66871,

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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

DATE



Scale = 1:43

Plate Offsets (X, Y): [4:0-6-0,0-1-13], [6:0-6-0,0-1-13]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.11	12	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.21	12	>898	240	
BCLL	0.0*	Rep Stress Incr	NO	WB	0.12	Horz(CT)	0.16	8	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.11	12	>999	240	Weight: 122 lb FT = 10%

LUMBER
TOP CHORD 2x6 SPF No.2 *Except* 4-6:2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE Left: 2x3 SPF No.2
Right: 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 2=1016/0-3-8, 8=1016/0-3-8
Max Horiz 2=-38 (LC 9)
Max Uplift 2=-234 (LC 8), 8=-234 (LC 9)
Max Grav 2=1017 (LC 21), 8=1017 (LC 22)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-599/169, 3-4=-2622/679, 4-15=-3488/931, 15-16=-3488/931, 5-16=-3488/931, 5-17=-3488/931, 17-18=-3488/931, 6-18=-3488/931, 6-7=-2622/669, 7-8=-599/159
BOT CHORD 3-13=-639/2521, 13-19=-637/2552, 12-19=-637/2552, 12-20=-615/2552, 11-20=-615/2552, 7-11=-618/2521
WEBS 4-13=0/262, 4-12=-298/968, 5-12=-345/173, 6-12=-297/968, 6-11=0/262

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.

- 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.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 234 lb uplift at joint 2 and 234 lb uplift at joint 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 164 lb down and 109 lb up at 3-5-4, and 164 lb down and 109 lb up at 12-2-12 on top chord, and 73 lb down and 1 lb up at 3-5-4, and 73 lb down and 1 lb up at 12-2-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-6=-70, 6-9=-70, 2-14=-20, 3-7=-20, 8-10=-20
Concentrated Loads (lb)
Vert: 4=-48 (F), 6=-48 (F), 13=-101 (F), 12=-30 (F), 5=-20 (F), 11=-101 (F), 15=-20 (F), 16=-20 (F), 17=-20 (F), 18=-20 (F), 19=-30 (F), 20=-30 (F)



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of the design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

145839248

BY _____
Date (optional) _____

ustries, Inc. Mon Apr 26 13:33:47 Page: 1

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DATE _____
15-7-0 _____

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:47 Page: 1
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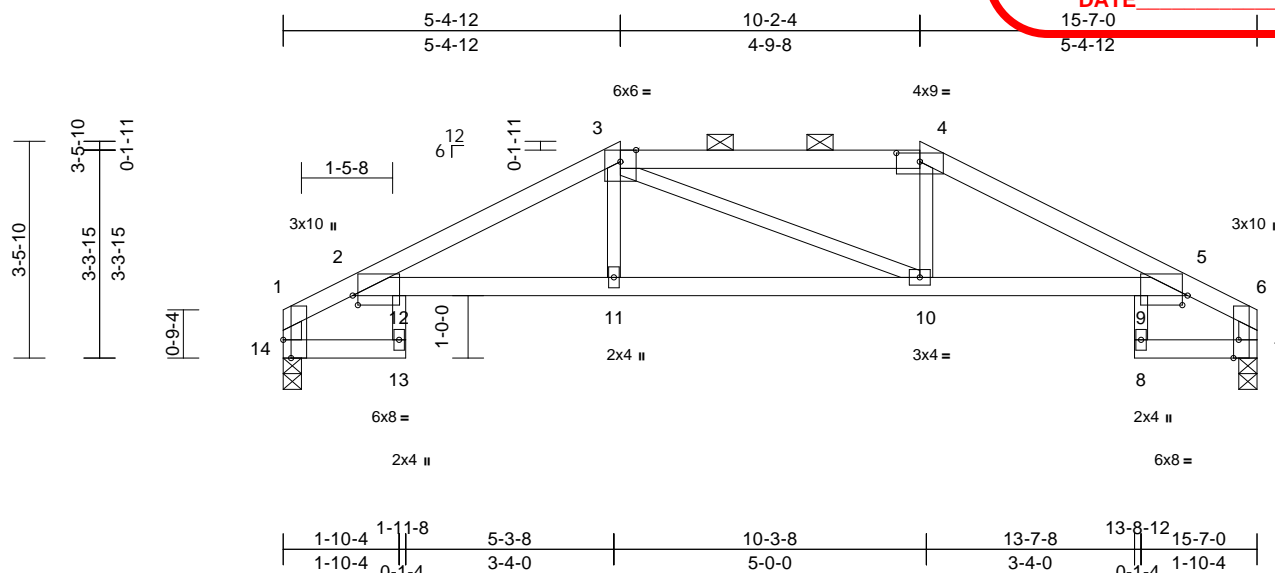


Plate Offsets (X, Y): [1:0-3-8.Edge], [4:0-4-8.0-1-11], [5:0-1-0.0-1-13], [6:0-3-8.Edge], [12:0-1-0.0-1-13]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.12	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.22	9-10	>819	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.30	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.09	11-12	>999	240	Weight: 48 lb	FT = 10%

TOP CHORD	2x4 SPF 2400F 2.0E *Except* 3-4:2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 2-5:2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except* 14-1,7-6:2x4 SPF No.2

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-0-8 max.): 3-4.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 10-0-0 oc bracing: 9-10

REACTIONS (lb/size) 7=688/0-3-8, 14=688/0-3-8
 Max Horiz 14=-53 (LC 6)
 Max Uplift 7=-65 (LC 9), 14=-65 (LC 8)

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

TOP CHORD 1-2=-312/48, 2-3=-1386/114, 3-4=-1222/107,
4-5=-1385/84, 5-6=-312/34, 1-14=-719/89,
6-7=-719/83

BOT CHORD 2-12=-101/1233, 11-12=-101/1233,
10-11=-103/1223, 9-10=-52/1232,
5-9=-52/1232

WEBS 3-11=0/258, 4-10=0/257

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 14 and 65 lb uplift at joint 7.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



April 26, 2021



WARNING – Velly design parameters are listed below and included with the key reference to AISC M14-15 16f, 17f, 18f, 19f, 20f, 21f, 22f, 23f, 24f, 25f, 26f, 27f, 28f, 29f, 30f, 31f, 32f, 33f, 34f, 35f, 36f, 37f, 38f, 39f, 40f, 41f, 42f, 43f, 44f, 45f, 46f, 47f, 48f, 49f, 50f, 51f, 52f, 53f, 54f, 55f, 56f, 57f, 58f, 59f, 60f, 61f, 62f, 63f, 64f, 65f, 66f, 67f, 68f, 69f, 70f, 71f, 72f, 73f, 74f, 75f, 76f, 77f, 78f, 79f, 80f, 81f, 82f, 83f, 84f, 85f, 86f, 87f, 88f, 89f, 90f, 91f, 92f, 93f, 94f, 95f, 96f, 97f, 98f, 99f, 100f, 101f, 102f, 103f, 104f, 105f, 106f, 107f, 108f, 109f, 110f, 111f, 112f, 113f, 114f, 115f, 116f, 117f, 118f, 119f, 120f, 121f, 122f, 123f, 124f, 125f, 126f, 127f, 128f, 129f, 130f, 131f, 132f, 133f, 134f, 135f, 136f, 137f, 138f, 139f, 140f, 141f, 142f, 143f, 144f, 145f, 146f, 147f, 148f, 149f, 150f, 151f, 152f, 153f, 154f, 155f, 156f, 157f, 158f, 159f, 160f, 161f, 162f, 163f, 164f, 165f, 166f, 167f, 168f, 169f, 170f, 171f, 172f, 173f, 174f, 175f, 176f, 177f, 178f, 179f, 180f, 181f, 182f, 183f, 184f, 185f, 186f, 187f, 188f, 189f, 190f, 191f, 192f, 193f, 194f, 195f, 196f, 197f, 198f, 199f, 200f, 201f, 202f, 203f, 204f, 205f, 206f, 207f, 208f, 209f, 210f, 211f, 212f, 213f, 214f, 215f, 216f, 217f, 218f, 219f, 220f, 221f, 222f, 223f, 224f, 225f, 226f, 227f, 228f, 229f, 230f, 231f, 232f, 233f, 234f, 235f, 236f, 237f, 238f, 239f, 240f, 241f, 242f, 243f, 244f, 245f, 246f, 247f, 248f, 249f, 250f, 251f, 252f, 253f, 254f, 255f, 256f, 257f, 258f, 259f, 260f, 261f, 262f, 263f, 264f, 265f, 266f, 267f, 268f, 269f, 270f, 271f, 272f, 273f, 274f, 275f, 276f, 277f, 278f, 279f, 280f, 281f, 282f, 283f, 284f, 285f, 286f, 287f, 288f, 289f, 290f, 291f, 292f, 293f, 294f, 295f, 296f, 297f, 298f, 299f, 300f, 301f, 302f, 303f, 304f, 305f, 306f, 307f, 308f, 309f, 310f, 311f, 312f, 313f, 314f, 315f, 316f, 317f, 318f, 319f, 320f, 321f, 322f, 323f, 324f, 325f, 326f, 327f, 328f, 329f, 330f, 331f, 332f, 333f, 334f, 335f, 336f, 337f, 338f, 339f, 340f, 341f, 342f, 343f, 344f, 345f, 346f, 347f, 348f, 349f, 350f, 351f, 352f, 353f, 354f, 355f, 356f, 357f, 358f, 359f, 360f, 361f, 362f, 363f, 364f, 365f, 366f, 367f, 368f, 369f, 370f, 371f, 372f, 373f, 374f, 375f, 376f, 377f, 378f, 379f, 380f, 381f, 382f, 383f, 384f, 385f, 386f, 387f, 388f, 389f, 390f, 391f, 392f, 393f, 394f, 395f, 396f, 397f, 398f, 399f, 400f, 401f, 402f, 403f, 404f, 405f, 406f, 407f, 408f, 409f, 410f, 411f, 412f, 413f, 414f, 415f, 416f, 417f, 418f, 419f, 420f, 421f, 422f, 423f, 424f, 425f, 426f, 427f, 428f, 429f, 430f, 431f, 432f, 433f, 434f, 435f, 436f, 437f, 438f, 439f, 440f, 441f, 442f, 443f, 444f, 445f, 446f, 447f, 448f, 449f, 450f, 451f, 452f, 453f, 454f, 455f, 456f, 457f, 458f, 459f, 460f, 461f, 462f, 463f, 464f, 465f, 466f, 467f, 468f, 469f, 470f, 471f, 472f, 473f, 474f, 475f, 476f, 477f, 478f, 479f, 480f, 481f, 482f, 483f, 484f, 485f, 486f, 487f, 488f, 489f, 490f, 491f, 492f, 493f, 494f, 495f, 496f, 497f, 498f, 499f, 500f, 501f, 502f, 503f, 504f, 505f, 506f, 507f, 508f, 509f, 510f, 511f, 512f, 513f, 514f, 515f, 516f, 517f, 518f, 519f, 520f, 521f, 522f, 523f, 524f, 525f, 526f, 527f, 528f, 529f, 530f, 531f, 532f, 533f, 534f, 535f, 536f, 537f, 538f, 539f, 540f, 541f, 542f, 543f, 544f, 545f, 546f, 547f, 548f, 549f, 550f, 551f, 552f, 553f, 554f, 555f, 556f, 557f, 558f, 559f, 560f, 561f, 562f, 563f, 564f, 565f, 566f, 567f, 568f, 569f, 570f, 571f, 572f, 573f, 574f, 575f, 576f, 577f, 578f, 579f, 580f, 581f, 582f, 583f, 584f, 585f, 586f, 587f, 588f, 589f, 590f, 591f, 592f, 593f, 594f, 595f, 596f, 597f, 598f, 599f, 600f, 601f, 602f, 603f, 604f, 605f, 606f, 607f, 608f, 609f, 610f, 611f, 612f, 613f, 614f, 615f, 616f, 617f, 618f, 619f, 620f, 621f, 622f, 623f, 624f, 625f, 626f, 627f, 628f, 629f, 630f, 631f, 632f, 633f, 634f, 635f, 636f, 637f, 638f, 639f, 640f, 641f, 642f, 643f, 644f, 645f, 646f, 647f, 648f, 649f, 650f, 651f, 652f, 653f, 654f, 655f, 656f, 657f, 658f, 659f, 660f, 661f, 662f, 663f, 664f, 665f, 666f, 667f, 668f, 669f, 670f, 671f, 672f, 673f, 674f, 675f, 676f, 677f, 678f, 679f, 680f, 681f, 682f, 683f, 684f, 685f, 686f, 687f, 688f, 689f, 690f, 691f, 692f, 693f, 694f, 695f, 696f, 697f, 698f, 699f, 700f, 701f, 702f, 703f, 704f, 705f, 706f, 707f,



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	A3	Hip	1	1	Job Reference (optional)

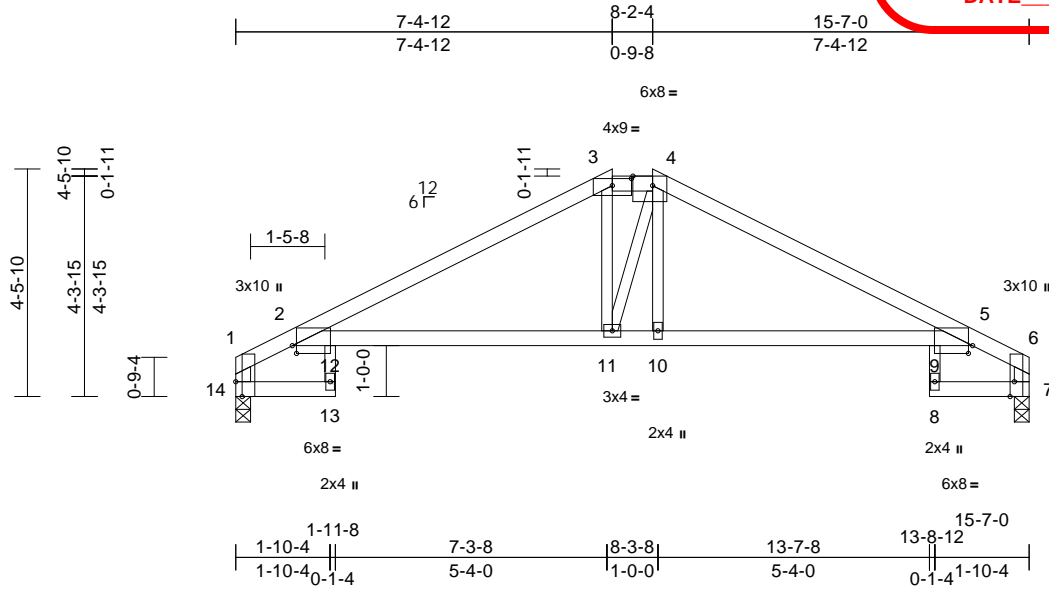
Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:48

Page: 1

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DATE _____



Scale = 1:45.2

Plate Offsets (X, Y): [1:0-3-8,Edge], [3:0-4-8,0-1-11], [4:0-4-10,Edge], [5:0-1-0,0-1-13], [6:0-3-8,Edge], [12:0-1-0,0-1-13]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.20	9-10	>911	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.37	9-10	>491	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.41	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.17	11-12	>999	240	Weight: 49 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF 2400F 2.0E *Except* 3-4:2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 2-5:2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except* 14-1,7-6:2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-2-3 max.): 3-4.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 10-0-0 oc bracing: 9-10

REACTIONS	(lb/size) 7=688/0-3-8, 14=688/0-3-8
	Max Horiz 14=66 (LC 4)
	Max Uplift 7=82 (LC 9), 14=82 (LC 8)

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-314/72, 2-3=-1161/120, 3-4=-990/162, 4-5=-1157/111, 5-6=-314/43, 1-14=-723/112, 6-7=-723/104
BOT CHORD	2-12=-64/996, 11-12=-64/996, 10-11=-29/987, 9-10=-26/993, 5-9=-26/993
WEBS	3-11=-61/345, 4-11=-294/312

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 82 lb uplift at joint 14 and 82 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	A4	Roof Special	1	1	Job Reference (optional)

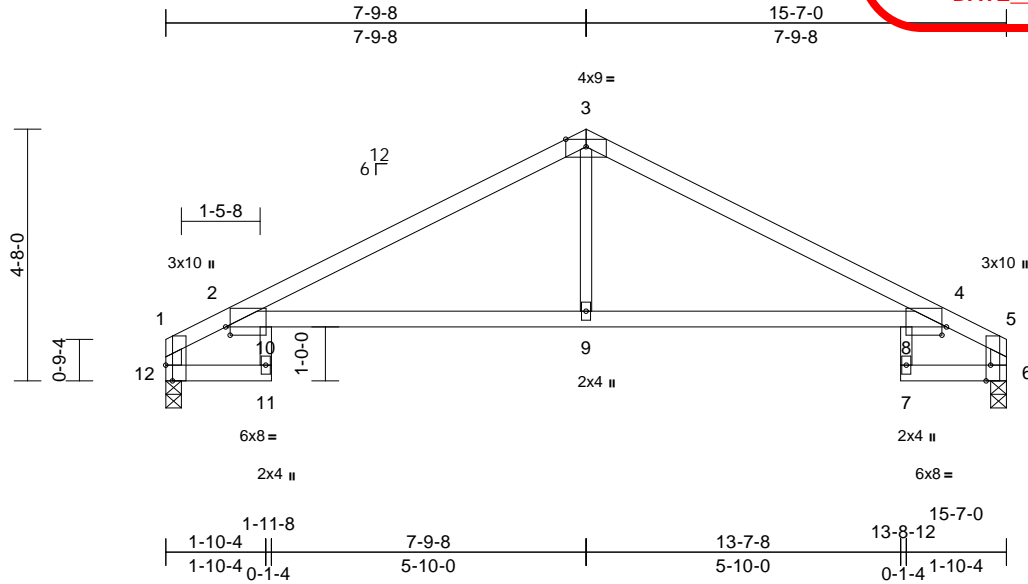
Wheeler Lumber, Waverly, KS - 66871,

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Page: 1

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DATE _____



Scale = 1:42.7

Plate Offsets (X, Y): [1:0-3-8,Edge], [4:0-1-0,0-1-13], [5:0-3-8,Edge], [10:0-1-0,0-1-13]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.21	8-9	>866	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.39	8-9	>468	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.43	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.20	9-10	>940	240	Weight: 44 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except* 2-4:2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except* 12-1,6-5:2x4 SPF No.2

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 84 lb uplift at joint 12 and 84 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 10-0-0 oc bracing: 8-9

REACTIONS (lb/size) 6=688/0-3-8, 12=688/0-3-8
Max Horiz 12=70 (LC 4)
Max Uplift 6=84 (LC 9), 12=84 (LC 8)

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-314/78, 2-3=-1127/120, 3-4=-1127/140, 4-5=-314/45, 1-12=-724/116, 5-6=-724/107
BOT CHORD	2-10=-51/958, 9-10=-51/958, 8-9=-51/958, 4-8=-51/958
WEBS	3-9=0/418

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	B1	Piggyback Base Supported Gable	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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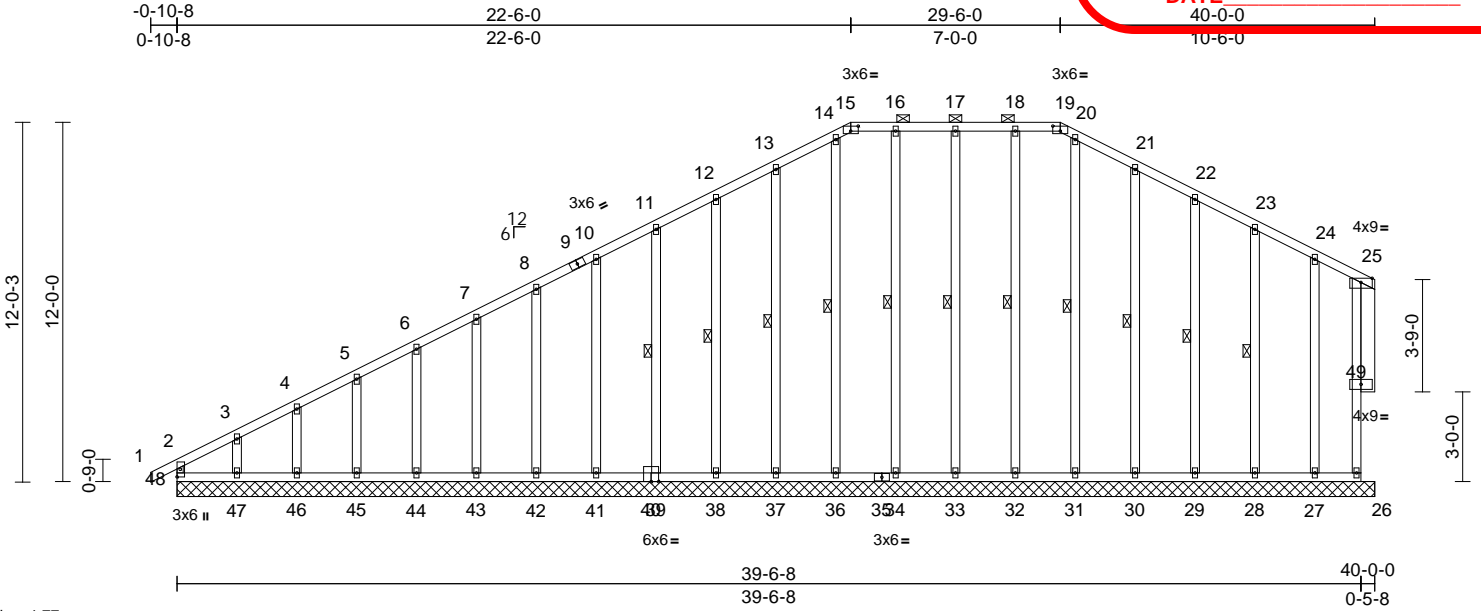
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DATE

40-0-0

10-6-0



Scale = 1:77

Plate Offsets (X, Y): [15:0-3-0,0-2-0], [19:0-3-0,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horz(CT)	-0.01	26	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							
Weight: 280 lb FT = 10%											

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 25-26:2x4 SPF No.2
OTHERS	2x4 SPF No.2 *Except* 0-0,49-25:2x6 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 15-19.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 11-39, 12-38, 13-37, 14-36, 16-34, 17-33, 18-32, 20-31, 21-30, 22-29, 23-28

REACTIONS

All bearings	40-0-0.
(lb) - Max Horiz	48=350 (LC 7)
Max Uplift	All uplift 100 (lb) or less at joint(s) 26, 27, 28, 29, 30, 32, 33, 34, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 48 except 47=164 (LC 8)
Max Grav	All reactions 250 (lb) or less at joint (s) 26, 27, 28, 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47 except 48=254 (LC 16)

FORCES

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

TOP CHORD 2-3=319/122, 3-4=264/113

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

- 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 48, 26, 46, 45, 44, 43, 42, 41, 39, 38, 37, 36, 34, 33, 32, 30, 29, 28, 27 except (jt=lb) 47=163.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



April 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	B2	Piggyback Base	3	1	Job Reference (optional)

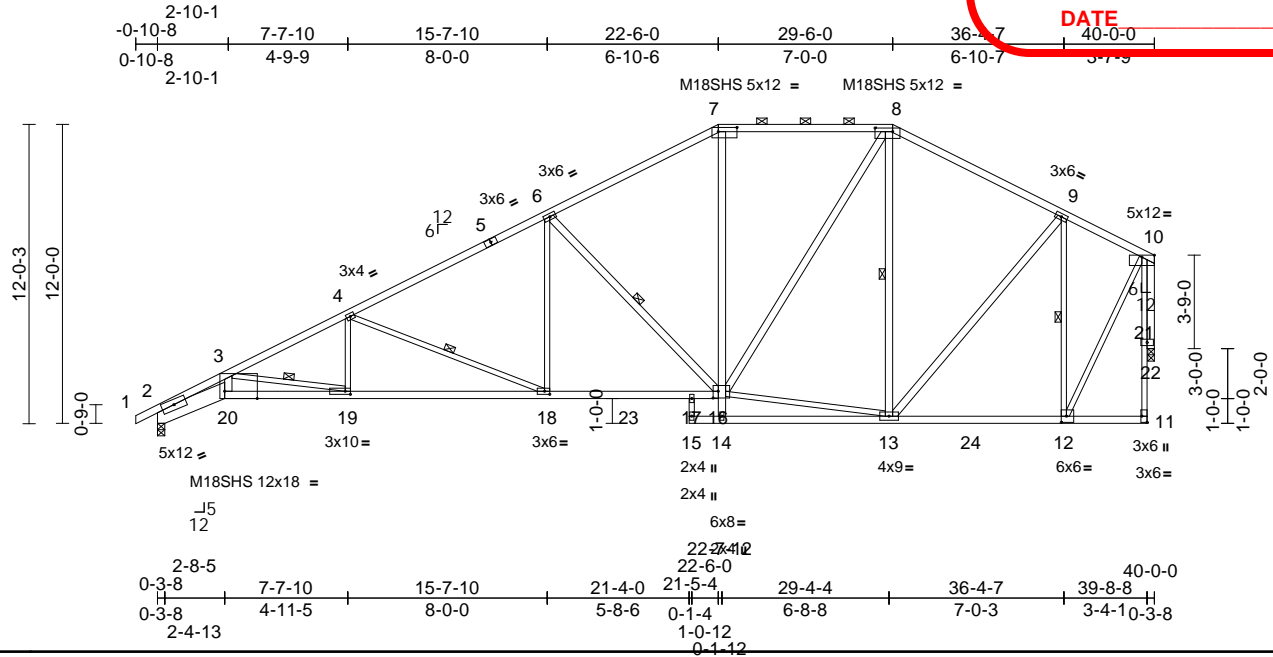
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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI



Scale = 1:92.5

Plate Offsets (X, Y): [7:0-9-0,0-2-0], [8:0-8-8,0-1-12], [11:Edge,0-2-8], [12:0-2-8,0-3-0], [16:0-2-8,0-3-4], [18:0-2-8,0-1-8], [19:0-2-8,0-1-8], [20:1-3-11,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.32	18-19	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.59	18-19	>815	240	M18SHS 197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.49	22	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.24	19-20	>999	240	Weight: 214 lb FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2 *Except* 7-8,1-5:2x4 SPF 2100F 1.8E
BOT CHORD	2x8 SP DSS *Except* 20-16:2x4 SPF 2100F 1.8E, 15-11:2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 20-3,16-6,14-7,16-8,13-8,13-9:2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-2-6 oc purlins, except end verticals, and 2-0-0 oc purlins (5-0-6 max.): 7-8.
BOT CHORD	Rigid ceiling directly applied or 7-2-15 oc bracing.
WEBS	1 Row at midpt 6-16, 8-13, 9-12, 3-19, 4-18

REACTIONS

(lb/size)	2=1860/0-3-8, 22=1763/0-3-2
Max Horiz	2=302 (LC 8)
Max Uplift	2=250 (LC 8), 22=135 (LC 8)
Max Grav	2=1939 (LC 2), 22=1890 (LC 2)

FORCES

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

TOP CHORD	2-3=-7127/1208, 3-4=-4088/558, 4-5=-2947/361, 5-6=-2762/383, 6-7=-2072/312, 7-8=-1762/323, 8-9=-1524/223, 9-10=-876/98
BOT CHORD	2-20=-1349/6299, 19-20=-1177/5456, 18-19=-683/3655, 18-23=-372/2544, 17-23=-372/2544, 16-17=-372/2544, 13-24=-85/783, 12-24=-85/783
WEBS	3-20=-449/2361, 6-16=-1135/325, 14-16=0/289, 7-16=-8/509, 8-16=-189/940, 8-13=-578/151, 9-13=-69/769, 9-12=-1256/180, 10-12=-115/1614, 4-19=0/531, 3-19=-1829/501, 4-18=-1200/336, 6-18=-31/763, 13-16=-96/1222, 10-22=-1894/135

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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, with BCDL = 10.0psf.
- Bearing at joint(s) 2, 22 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 250 lb uplift at joint 2 and 135 lb uplift at joint 22.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

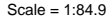


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job Reference (optional)

Page: 1

DATE _____



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.12	20-21	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.25	20-21	>999	240	M18SHS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.86	Horz(CT)	-0.09	24	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.10	21-22	>999	240	Weight: 227 lb	FT = 10%

WEBS 3-22=-212/816, 7-17=-1598/420,
8-17=-1328/185, 10-15=-454/160,
10-13=-136/411, 11-13=-312/211,
8-15=-151/755, 4-21=0/388, 3-21=-871/355,
4-20=-965/299, 6-20=-555/319,
7-20=-397/1345, 11-24=-351/314

BRACING	
TOP CHORD	Structural wood sheathing directly applied or 3-9-9 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 7-8.
BOT CHORD	Rigid ceiling directly applied or 5-11-5 oc bracing. Except:
1 Row at midpt	9-15
WEBS	1 Row at midpt 7-17, 8-17, 10-15, 10-13, 4-20, 7-20

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-2218/460, 3-4=-946/76, 5-6=-93/256, 7-8=-130/1087, 8-9=-50/473, 9-10=-101/441
BOT CHORD	2-22=-686/1973, 21-22=-599/1686, 20-21=-249/828, 20-25=-819/242, 19-25=-819/242, 18-19=-816/243, 17-18=-819/242, 16-17=-494/220, 16-26=-494/220, 26-27=-494/220, 15-27=-494/220

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-2218/460, 3-4=-946/76, 5-6=-93/256, 7-8=-130/1087, 8-9=-50/473, 9-10=-101/441
BOT CHORD	2-22=-686/1973, 21-22=-599/1686, 20-21=-249/828, 20-25=-819/242, 19-25=-819/242, 18-19=-816/243, 17-18=-819/242, 16-17=-494/220, 16-26=-494/220, 26-27=-494/220, 15-27=-494/220

- 1) 2x6 SPF No.2 bearing block 12" long at jt. 17 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners. Bearing is assumed to be SPF No.2.
- 2) Unbalanced roof live loads have been considered for this design.
- 3) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; 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) All plates are MT20 plates unless otherwise indicated.
- 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, with BCDL = 10.0psf.
- 8) Bearing at joint(s) 2, 24 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint 2, 474 lb uplift at joint 17 and 313 lb uplift at joint 24.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



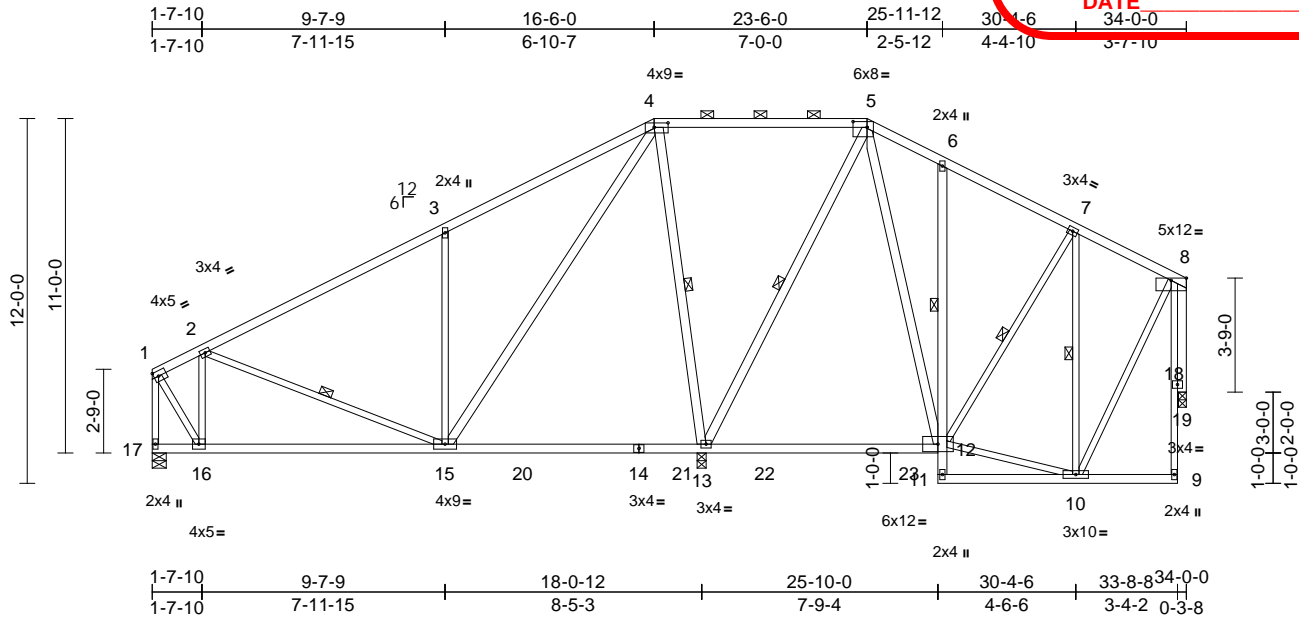
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT	AS NOTED ON PLANS REVIEW CODES ADMINISTRATION LEE'S SUMMIT, MISSOURI
210410	B4	Piggyback Base	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871.

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:50
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Page: 1

DATE:



Scale = 1:75.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plaste Grip DOL	1.15	TC	0.74	Vert(LL)	-0.14	13-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.22	12-13	>867	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.86	Horz(CT)	-0.09	19	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	15-16	>999	240	Weight: 195 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except*
	13-4,13-5,15-4,12-5:2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 4-5.	
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing. Except:	
1 Row at midpt	6-12	
WEBS	1 Row at midpt	2-15, 4-13, 5-13, 7-12, 7-10

REACTIONS

(lb/size) 13=1841/0-3-8, 17=658/0-5-8,
19=515/0-3-2

Max Horiz 17=245 (LC 5)

Max Uplift 13=-152 (LC 8), 17=-99 (LC 8),
19=-64 (LC 9)

Max Grav 13=2032 (LC 2), 17=708 (LC 23),
19=578 (LC 24)

FORCES

(lb) or less except when shown.

TOP CHORD 1-2=-406/35, 2-3=-588/117, 3-4=-586/296,
4-5=0/284, 5-6=-253/177, 6-7=-308/114,
1-17=-768/69

BOT CHORD 15-16=-220/482

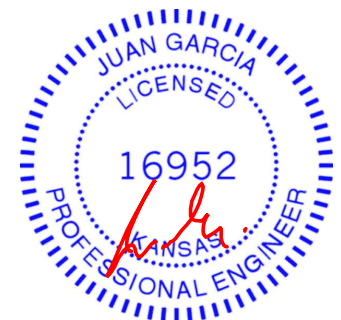
WEBS 2-16=-539/223, 3-15=-555/318,
4-13=-1020/255, 5-13=-742/148,
10-12=-29/277, 7-10=-335/96, 8-10=-33/408,
1-16=-151/807, 4-15=-300/949,
5-12=-142/477, 8-19=-579/64

NOTES

- 1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 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, with BCDL = 10.0psf.
- 6) Bearing at joint(s) 19 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 99 lb uplift at joint 17, 152 lb uplift at joint 13 and 64 lb uplift at joint 19.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



April 26, 2021



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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	C1	Piggyback Base	2	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

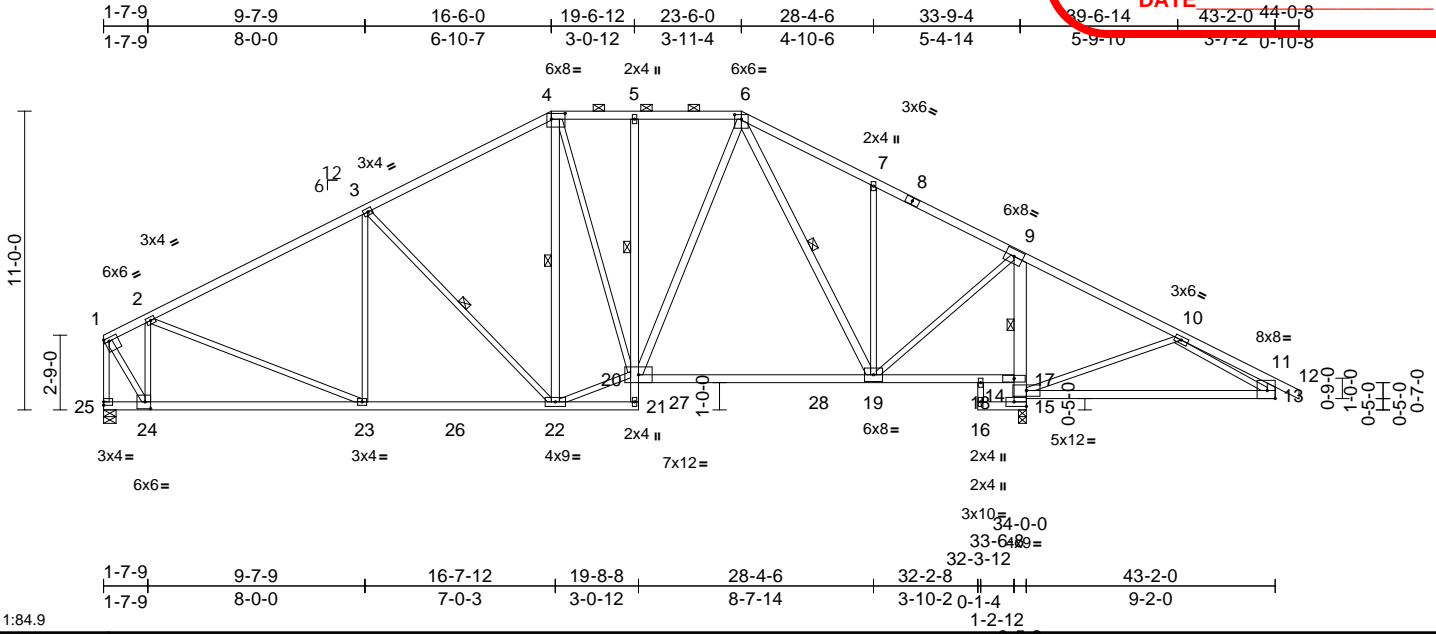
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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

DATE



Scale = 1:84.9

Plate Offsets (X, Y): [1:0-2-0,0-1-8], [4:0-6-0,0-2-8], [6:0-3-0,0-2-0], [11:Edge,0-3-8], [15:Edge,0-2-0], [24:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.25	19-20	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.42	19-20	>967	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.02	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	22-23	>999	240	Weight: 220 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 20-17:2x4 SPF 2100F 1.8E, 15-9:2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except* 22-4,13-11,20-6,19-6:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-6-14 oc purlins, except end verticals, and 2-0-0 oc purlins (5-3-11 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 4-5-11 oc bracing. Except:
1 Row at midpt 5-20, 9-14
WEBS 1 Row at midpt 3-22, 4-22, 6-19

REACTIONS

(lb/size) 15=2554/0-3-8, (req. 0-4-4), 25=1380/0-5-8
Max Horiz 25=212 (LC 6)
Max Uplift 15=317 (LC 9), 25=179 (LC 8)
Max Grav 15=2698 (LC 2), 25=1479 (LC 2)

FORCES

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=815/76, 2-3=1702/236, 3-4=1326/248, 4-5=1136/235, 5-6=1141/234, 6-7=700/202, 7-8=659/135, 8-9=702/109, 9-10=162/1018, 10-11=278/63, 1-25=1542/146
BOT CHORD 23-24=185/866, 23-26=171/1442, 22-26=171/1442, 5-20=254/114, 20-27=0/933, 27-28=0/933, 19-28=0/933, 18-19=920/288, 17-18=920/288, 14-15=2592/318, 14-17=2270/297, 9-17=2271/309, 13-14=359/70
WEBS 1-24=220/1489, 3-22=518/216, 20-22=0/1334, 9-19=86/1928, 10-14=525/230, 10-13=126/655, 2-23=1/706, 2-24=1052/286, 7-19=376/212, 6-20=81/724, 6-19=733/135

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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, with BCDL = 10.0psf.
- WARNING: Required bearing size at joint(s) 15 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 179 lb uplift at joint 25 and 317 lb uplift at joint 15.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	C2	Piggyback Base	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

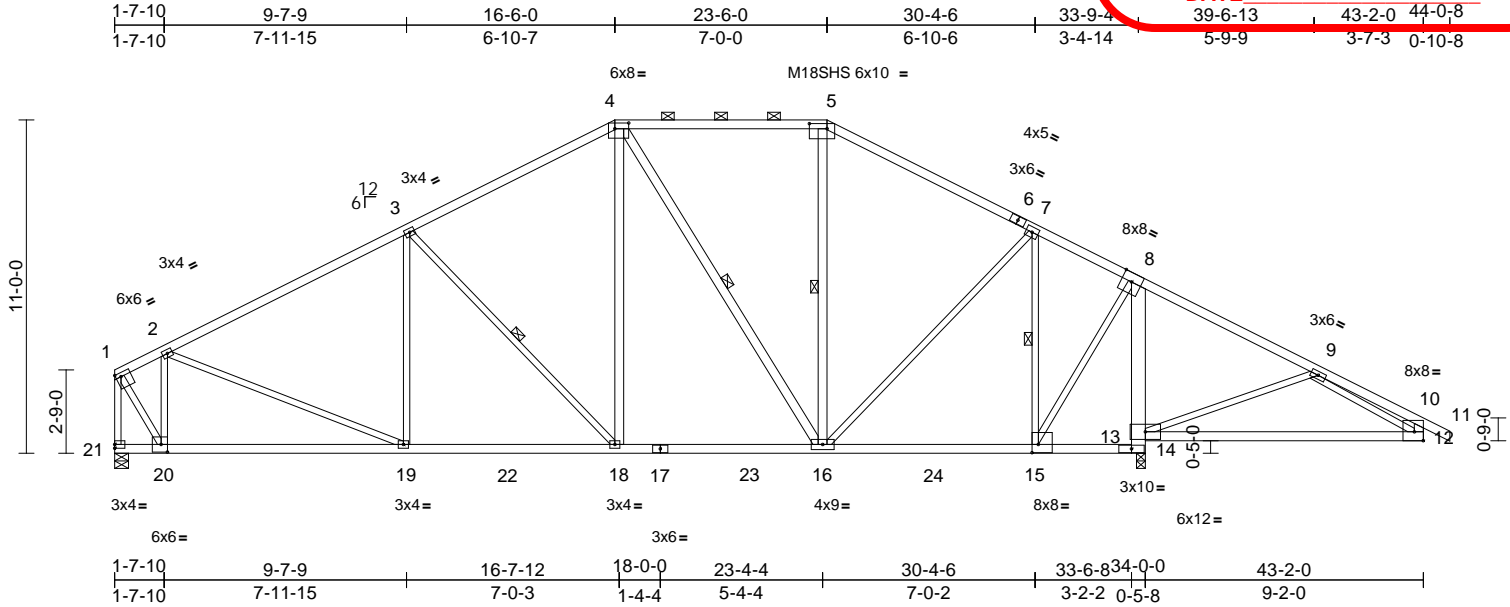
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Page: 1

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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

DATE



Scale = 1:76

Plate Offsets (X, Y): [1:0-2-0,0-1-8], [4:0-5-8,0-2-4], [5:0-7-0,0-2-0], [10:Edge,0-3-8], [15:0-2-8,0-3-4], [20:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.11	18-19	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.21	19-20	>999	240	M18SHS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.04	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	18-19	>999	240	Weight: 206 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except* 14-8:2x6 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 18-4,16-4,16-5,12-10:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-6-3 oc purlins, except end verticals, and 2-0-0 oc purlins (3-10-5 max.): 4-5.
 BOT CHORD Rigid ceiling directly applied or 4-2-0 oc bracing.

WEBS 1 Row at midpt 3-18, 4-16, 5-16, 7-15

REACTIONS (lb/size) 14=2554/0-3-8, (req. 0-4-4), 21=1380/0-5-8

Max Horiz 21=-212 (LC 6)
 Max Uplift 14=-317 (LC 9), 21=-179 (LC 8)
 Max Grav 14=2701 (LC 2), 21=1492 (LC 2)

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

TOP CHORD 1-2=-825/76, 2-3=-1718/237, 3-4=-1354/247, 4-5=-850/204, 5-6=-1025/204, 6-7=-1040/167, 7-8=-337/121, 8-9=-162/1016, 9-10=-259/58, 1-21=-1557/146

BOT CHORD 19-20=-185/875, 19-22=-171/1456, 18-22=-171/1456, 17-18=-21/1174, 17-23=-21/1174, 16-23=-21/1174, 16-24=0/287, 15-24=0/287, 14-15=-802/255, 13-14=-2686/336, 8-13=-2351/309, 12-13=-346/68

WEBS 2-20=-1054/285, 2-19=0/710, 3-18=-502/218, 4-18=-78/651, 4-16=-528/115, 7-16=-83/959, 7-15=-1364/173, 8-15=-131/1879, 9-13=-545/240, 9-12=-120/602, 1-20=-219/1506

NOTES

- 1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 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, with BCDL = 10.0psf.
- 7) WARNING: Required bearing size at joint(s) 14 greater than input bearing size.
- 8) Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 179 lb uplift at joint 21 and 317 lb uplift at joint 14.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) 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



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	C3	Piggyback Base	2	1	Job Reference (optional)

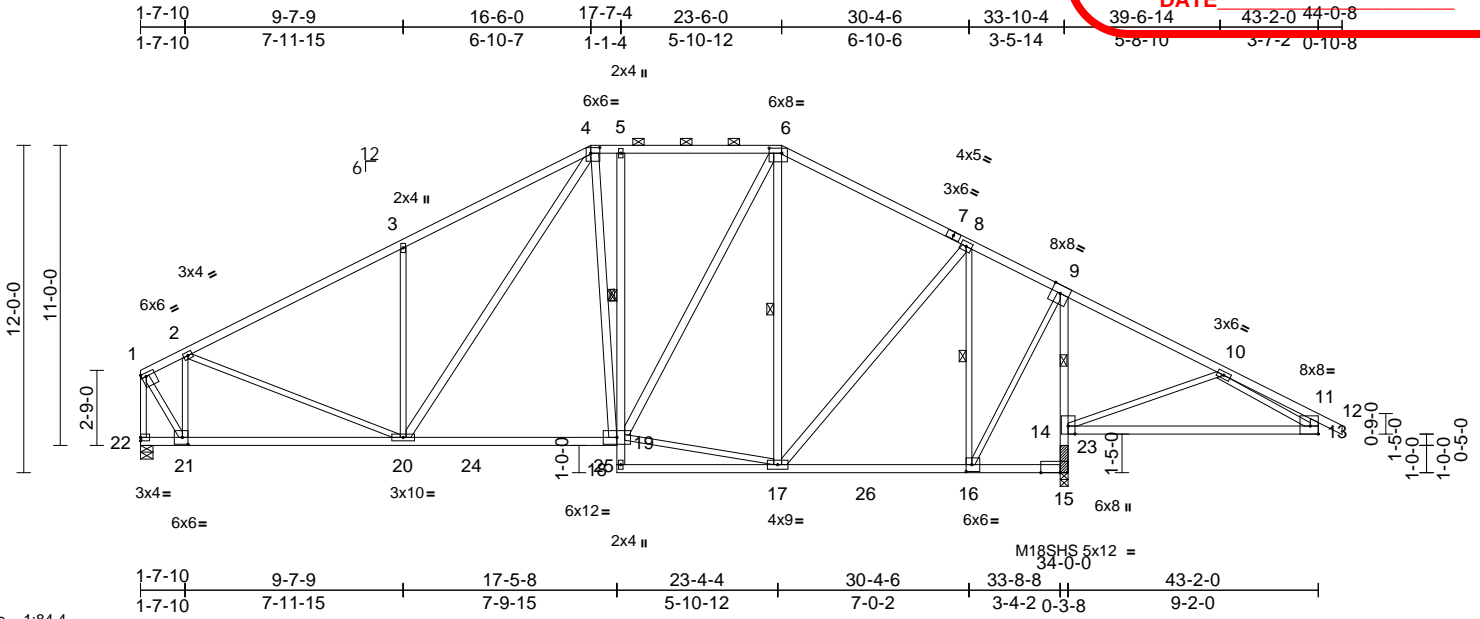
Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:51

Page: 1

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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI



Scale = 1:84.4

Plate Offsets (X, Y): [1:0-2-0,0-1-8], [4:0-4-0,0-2-8], [6:0-5-8,0-2-4], [11:Edge,0-3-8], [15:0-8-8,Edge], [16:0-2-8,0-3-0], [21:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.22	19-20	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.51	13-14	>216	120	M18SHS 197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.04	15	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	19-20	>999	240	Weight: 234 lb FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 15-9,15-23:2x4 SPF 2400F 2.0E
WEBS	2x3 SPF No.2 *Except* 20-4,19-4,19-6,17-6,17-8,13-11:2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-6-8 oc purlins, except end verticals, and 2-0-0 oc purlins (5-0-13 max.): 4-6.
BOT CHORD	Rigid ceiling directly applied or 3-7-5 oc bracing. Except:
1 Row at midpt	5-19, 9-14
WEBS	1 Row at midpt 4-19, 6-17, 8-16

REACTIONS	(lb/size) 15=2548/(0-3-8 + bearing block), (req. 0-4-3), 22=1386/0-5-8
	Max Horiz 22=212 (LC 6)
	Max Uplift 15=316 (LC 9), 22=180 (LC 8)
	Max Grav 15=2678 (LC 2), 22=1480 (LC 2)

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

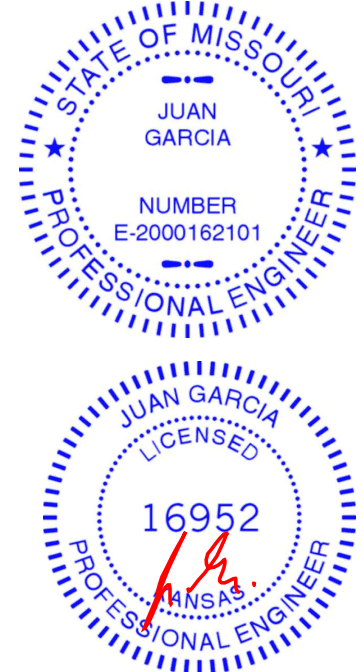
TOP CHORD	1-2=-809/78, 2-3=-1710/234, 3-4=-1714/413, 4-5=-1098/256, 5-6=-1096/257, 6-7=-937/208, 7-8=-951/171, 8-9=-322/131, 9-10=-154/989, 1-22=-1526/151
BOT CHORD	20-21=-188/861, 20-24=-28/1138, 24-25=-28/1138, 19-25=-28/1138, 5-19=-354/160, 17-26=0/269, 16-26=0/269, 15-16=-685/216, 15-23=-2739/360, 14-23=-2739/360, 9-14=-2397/328, 13-14=-338/67

WEBS	2-21=-1063/283, 2-20=0/718, 3-20=-569/317, 4-20=-261/673, 17-19=0/866, 6-19=-103/704, 6-17=-656/132, 8-17=-71/907, 8-16=-1302/138, 9-16=-116/1837, 10-14=-531/236, 1-21=-225/1477, 10-13=-112/548
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NOTES

- 1) 2x4 SPF 2400F 2.0E bearing block 12" long at jt. 15 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF No.2.
- 2) Unbalanced roof live loads have been considered for this design.
- 3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; 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) All plates are MT20 plates unless otherwise indicated.
- 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, with BCDL = 10.0psf.
- 8) Bearing at joint(s) 15 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 180 lb uplift at joint 22 and 316 lb uplift at joint 15.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) 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



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	C4	Piggyback Base	1	1	Job Reference (optional)

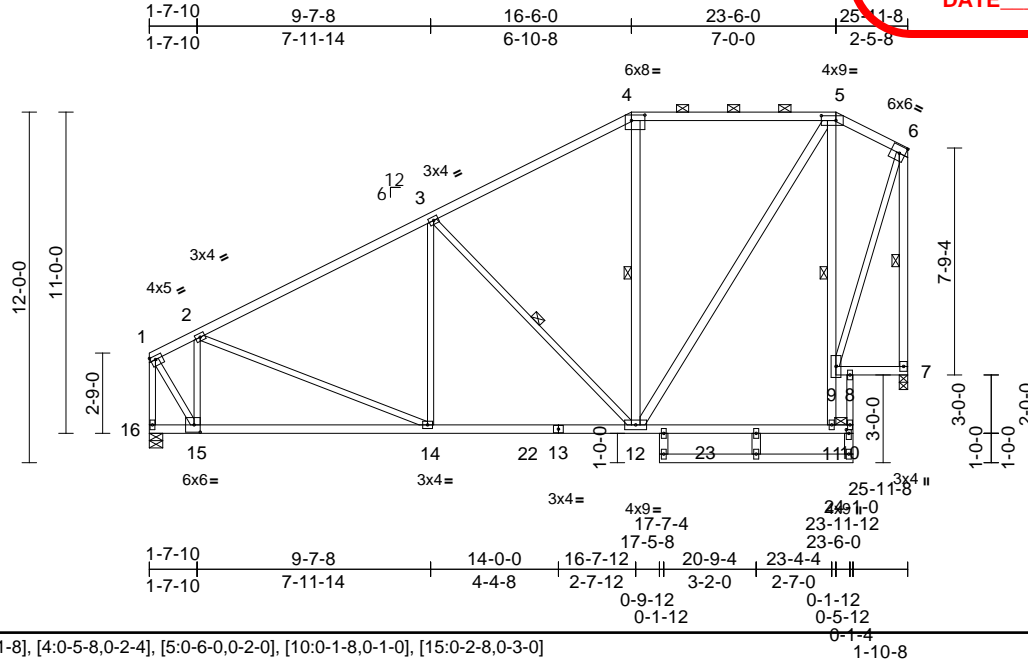
Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:51
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RELEASE FOR CONSTRUCTION
 AS NOTED ON PLANS REVIEW
 CODES ADMINISTRATION
 LEE'S SUMMIT, MISSOURI
 145819258

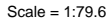
DATE _____



Job Reference (optional)

Page: 1

DATE _____



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.20	10-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.35	8-9	>879	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	-0.08	8-9	>999	240	Weight: 165 lb	FT = 10%

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.

- 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, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 147 lb uplift at joint 13 and 149 lb uplift at joint 8.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



April 26, 2021



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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	D1	Piggyback Base	1	1	Job Reference (optional)

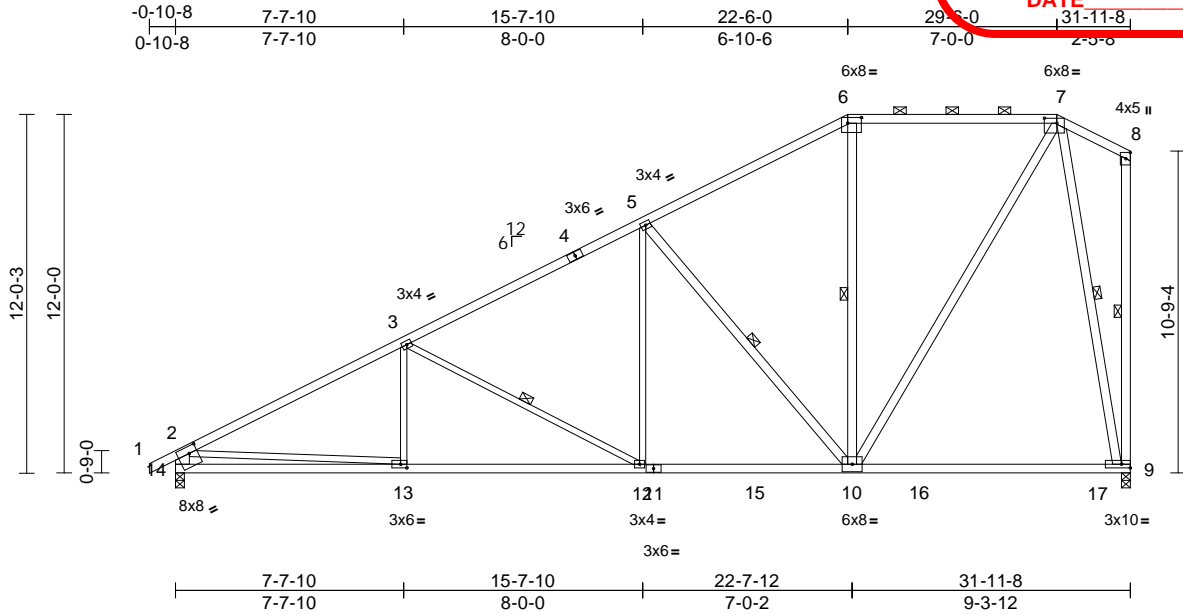
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Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:52

Page: 1

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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI



Scale = 1:77.1

Plate Offsets (X, Y): [6:0-5-8,0-2-4], [7:0-5-0,0-2-0], [13:0-2-8,0-1-8], [14:0-3-4,0-2-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.30	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.47	9-10	>811	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.05	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	12-13	>999	240	Weight: 166 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF 2400F 2.0E *Except* 11-14:2x4 SPF No.2
WEBS	2x4 SPF No.2 *Except* 13-3,12-3,12-5,13-2:2x3 SPF No.2, 14-2:2x6 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-1-4 oc purlins, except end verticals, and 2-0-0 oc purlins (3-10-5 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied or 8-6-11 oc bracing.
WEBS	1 Row at midpt 3-12, 5-10, 6-10, 8-9, 7-9
REACTIONS	(lb/size) 9=1420/0-3-8, 14=1500/0-3-8 Max Horiz 14=462 (LC 7) Max Uplift 9=169 (LC 8), 14=223 (LC 8) Max Grav 9=1569 (LC 2), 14=1562 (LC 2)

FORCES

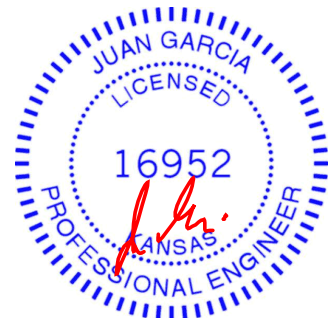
TOP CHORD	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. 2-3=-2450/322, 3-4=-1796/257, 4-5=-1611/279, 5-6=-1099/234, 6-7=-895/254, 2-14=-1440/263
BOT CHORD	13-14=-468/759, 12-13=-415/2107, 11-12=-261/1516, 11-15=-261/1516, 10-15=-261/1516, 10-16=-144/294, 16-17=-144/294, 9-17=-144/294
WEBS	3-13=0/259, 3-12=-669/226, 5-12=-20/591, 5-10=-968/307, 7-9=-1380/312, 2-13=-8/1424, 7-10=-196/1226

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 169 lb uplift at joint 9 and 223 lb uplift at joint 14.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Page: 1

DATE 21.11.9



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.30	11-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.48	11-12	>799	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.32	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.23	16	>999	240	Weight: 191 lb	FT = 10%

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. I; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 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, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 213 lb uplift at joint 2 and 169 lb uplift at joint 11.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

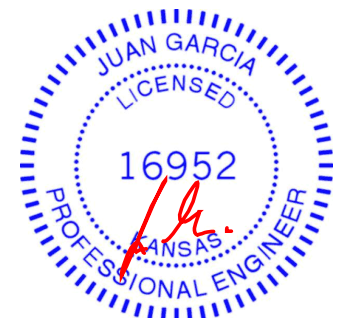
FORCES (lb) - Max. Comp./Max. Ten. - All forces 250
(lb) or less except when shown.

TOP CHORD 2-3=-1108/23, 3-4=-3172/475,
4-5=-2112/302, 5-6=-1963/336,
6-7=-2019/434, 7-8=-1031/248, 8-9=-878/251

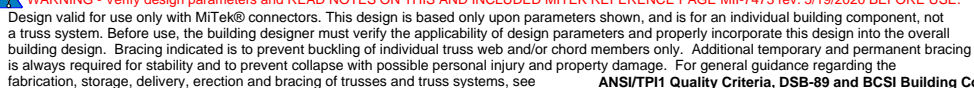
BOT CHORD 3-15=-584/290, 14-15=-584/2907,
6-14=-263/172, 12-17=-144/290,
17-18=-144/290, 11-18=-144/290

WEBS 4-15=0/315, 4-14=-1261/347,
12-14=-238/1179, 7-14=-287/1185,
7-12=-964/331, 9-12=-190/1197,
9-11=-1358/310

- 1) Unbalanced roof live loads have been considered for this design.



April 26, 2021



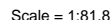
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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Chesterfield, MO 63017

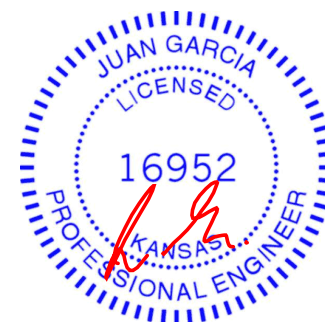
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.34	13-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.58	13-15	>659	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.32	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.26	17	>999	240	Weight: 200 lb	FT = 10%

LOAD CASE(S) Standard



 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MH-7473 (REV. 3/19/2020) BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



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Chesterfield, MO 63017

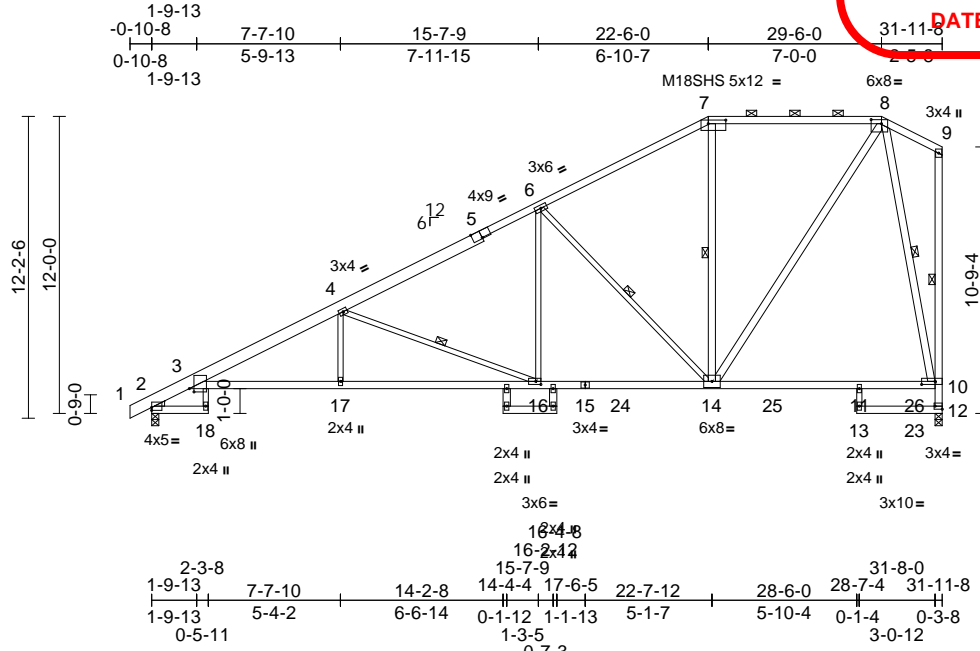
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	D4	Piggyback Base	3	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI



Scale = 1:93.1

Plate Offsets (X, Y): [2:Edge,0-1-7], [3:0-1-10,0-2-4], [5:0-4-8,Edge], [7:0-8-8,0-1-12], [8:0-5-0,0-2-0-0], [10:0-6-8,0-1-8], [12:Edge,0-1-8], [16:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.47	11-14	>815	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.68	11-14	>557	240	M18SHS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.46	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.23	18	>999	240	Weight: 179 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2 *Except* 1-5:2x6 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except* 15-3:2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except* 19-20,21-22,14-7,14-8,12-9,10-8:2x4 SPF No.2
WEDGE	Left: 2x3 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-1-13 oc purlins, except end verticals, and 2-0-0 oc purlins (3-8-6 max.): 7-8.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS	1 Row at midpt 4-16, 6-14, 7-14, 9-12, 8-10

REACTIONS	(lb/size) 2=1512/0-3-8, 12=1425/0-3-8
	Max Horiz 2=455 (LC 7)
	Max Uplift 2=-213 (LC 8), 12=-169 (LC 8)
	Max Grav 2=1588 (LC 2), 12=1645 (LC 2)

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
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TOP CHORD	2-3=-1120/24, 3-4=-3239/474, 4-5=-2061/272, 5-6=-1873/312, 6-7=-1197/235, 7-8=-990/258, 10-12=-1562/205
BOT CHORD	3-17=-584/2966, 16-17=-583/2966, 15-16=-292/1725, 15-24=-292/1725, 14-24=-292/1725, 14-25=-157/333, 11-25=-157/333, 11-26=-157/333, 10-26=-157/333
WEBS	4-17=0/328, 4-16=-1334/369, 6-14=-1067/315, 8-14=-208/1258, 8-10=-1360/298, 6-16=-43/756

NOTES

- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 213 lb uplift at joint 2 and 169 lb uplift at joint 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	D5	Piggyback Base	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:53

Page: 1

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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

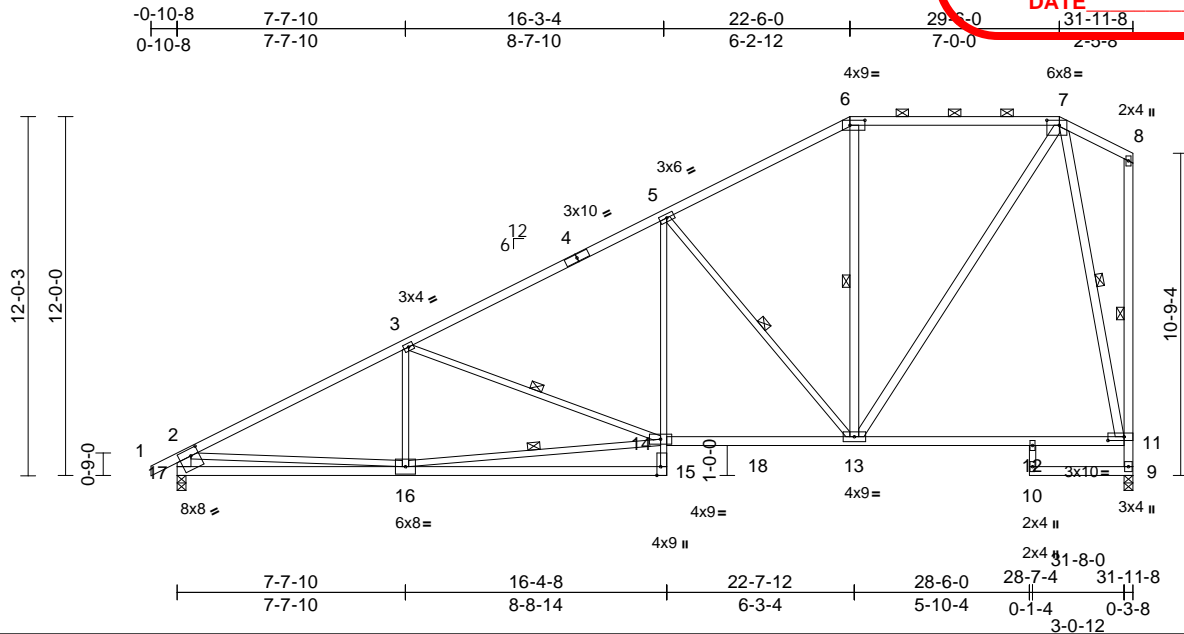


Plate Offsets (X, Y): [6:0-6-0,0-2-0], [7:0-5-0,0-2-0], [11:0-6-8,0-1-8], [15:0-3-8,Edge], [17:0-3-4,0-2-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.23	12-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.43	15-16	>878	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.16	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.09	13-14	>999	240	Weight: 170 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except* 15-5:2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 13-6,13-7,9-8,11-7:2x4 SPF No.2, 17-2:2x6
 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied,
 except end verticals, and 2-0-0 oc purlins
 (3-4-0 max.): 6-7.
 BOT CHORD Rigid ceiling directly applied or 7-7-8 oc
 bracing.
 WEBS 1 Row at midpt 14-16, 5-13, 6-13, 8-9,
 7-11, 3-14

REACTIONS (lb/size) 9=1420/0-3-8, 17=1500/0-3-8
 Max Horiz 17=439 (LC 8)
 Max Uplift 9=204 (LC 8), 17=188 (LC 8)
 Max Grav 9=1532 (LC 2), 17=1549 (LC 2)

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

TOP CHORD 2-3=-2440/254, 3-4=-1897/230,
 4-5=-1750/253, 5-6=-1154/181,
 6-7=-950/199, 9-11=-1465/226,
 2-17=-1432/225

BOT CHORD 16-17=-581/648, 5-14=-56/640,
 14-18=-392/1600, 13-18=-392/1601,
 12-13=-49/300, 11-12=-49/300

WEBS 14-16=-571/1939, 5-13=-1014/341,
 7-13=-228/1210, 7-11=-1340/254,
 2-16=0/1462, 3-14=-544/186

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust)
 Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat.
 II; Exp C; Enclosed; MWFRS (envelope) exterior zone;
 cantilever left and right exposed ; end vertical left
 exposed; Lumber DOL=1.60 plate grip DOL=1.60

- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 188 lb uplift at joint 17 and 204 lb uplift at joint 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:54

Page: 1

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DATE _____



Plate Offsets (X, Y): [15:0-2-0,0-2-8], [19:0-2-0,0-2-8], [22:Edge,0-1-8]

Weight: 219 lb FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 15-19.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 21-22, 11-30, 12-29, 13-28, 14-27, 16-26, 17-25, 18-24, 20-23

REACTIONS

(lb) - Max Horiz 38=462 (

(lb) - Max Horiz 38=462 (LC 5)
 Max Uplift All uplift 100 (lb) or less at joint(s)
 22, 23, 24, 25, 26, 27, 28, 29, 30,
 31, 32, 33, 34, 35, 36, 38 except
 37=190 (LC 8)
 Max Grav All reactions 250 (lb) or less at joint
 (s) 22, 23, 24, 25, 26, 27, 28, 29,
 30, 31, 32, 33, 34, 35, 36, 37
 except 38=297 (LC 16)

FORCES

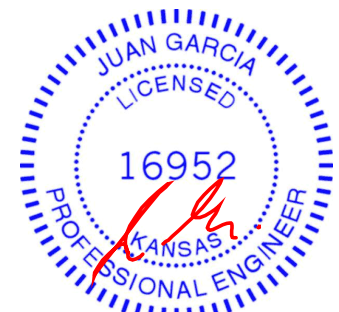
TOP CHORD 2-3=-418/85, 3-4=-352/78, 4-5=-332/80,
5-6=-303/80, 6-7=-276/81, 7-8=-260/86

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed: Lumber DOL=1.60 plate grip DOL=1.60

- 3) 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.
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 8) Gable studs spaced at 2'-0" oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-0" tall by 2'-0" wide will fit between the bottom chord and any other members.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 38, 22, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26, 25, 24, 23 except (jt=lb) 37=190.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) 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



April 26, 2021



Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building system. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building C**

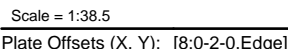
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

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LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2

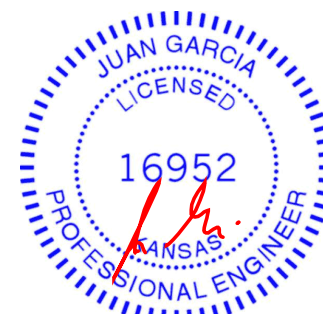
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS All bearings 14-0-0.
(lb) - Max Horiz 27=164 (LC 6)
Max Uplift All uplift 100 (lb) or less at joint(s)
16, 18, 19, 20, 23, 24, 25, 27
except 17=105 (LC 9), 26=114 (LC 8)
Max Grav All reactions 250 (lb) or less at joint (s) 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27

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

- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * 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.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 27, 16, 25, 24, 23, 20, 19, 18 except (jt=lb) 26=114, 17=104.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 1'-4" o.c.

WARNING - verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MMF-7473 (rev. 3/19/2020) BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	E2	Common	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

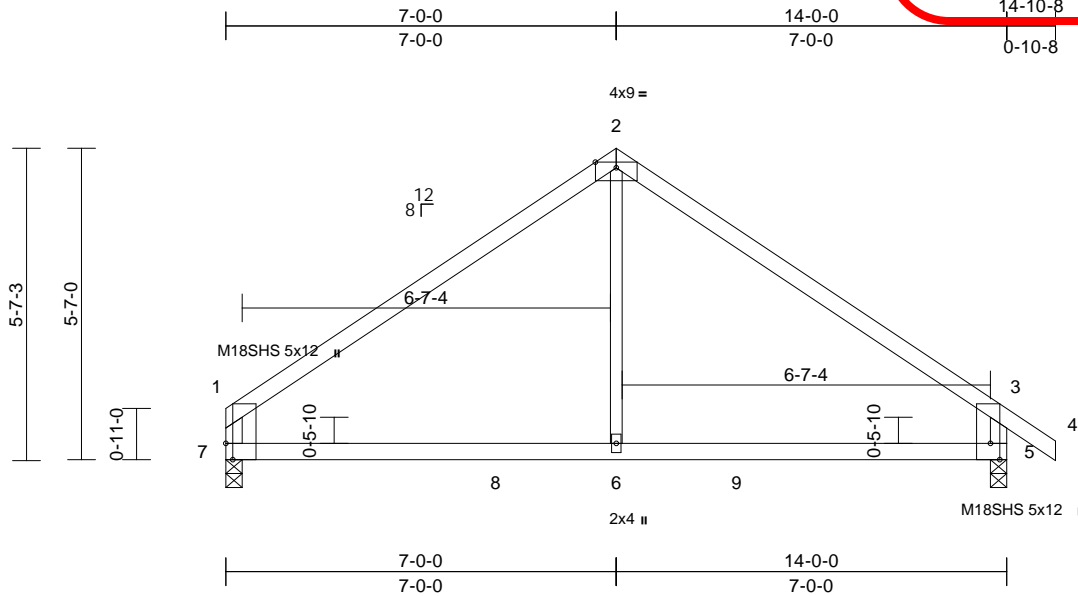
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Page: 1

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

DATE

14-10-8



Scale = 1:41.3

Plate Offsets (X, Y): [1:0-3-8,Edge], [5:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.07	5-6	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.13	5-6	>999	240	M18SHS 197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.01	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	-0.04	6-7	>999	240	Weight: 42 lb FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 6-2:2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-11-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size) 5=691/0-3-8, 7=614/0-3-8
Max Horiz 7=-158 (LC 4)
Max Uplift 5=-92 (LC 9), 7=-68 (LC 8)
Max Grav 5=756 (LC 16), 7=687 (LC 15)

FORCES

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

TOP CHORD 1-2=-748/114, 2-3=-754/115, 1-7=-569/119, 3-5=-646/145

BOT CHORD 7-8=-1/561, 6-8=-1/561, 6-9=-1/561, 5-9=-1/561

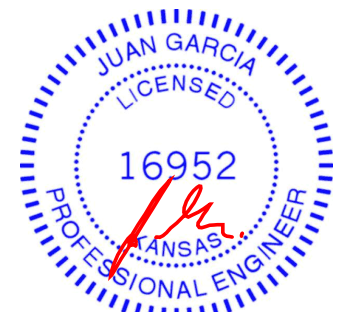
WEBS 2-6=0/363

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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, with BCDL = 10.0psf.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 68 lb uplift at joint 7 and 92 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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Chesterfield, MO 63017

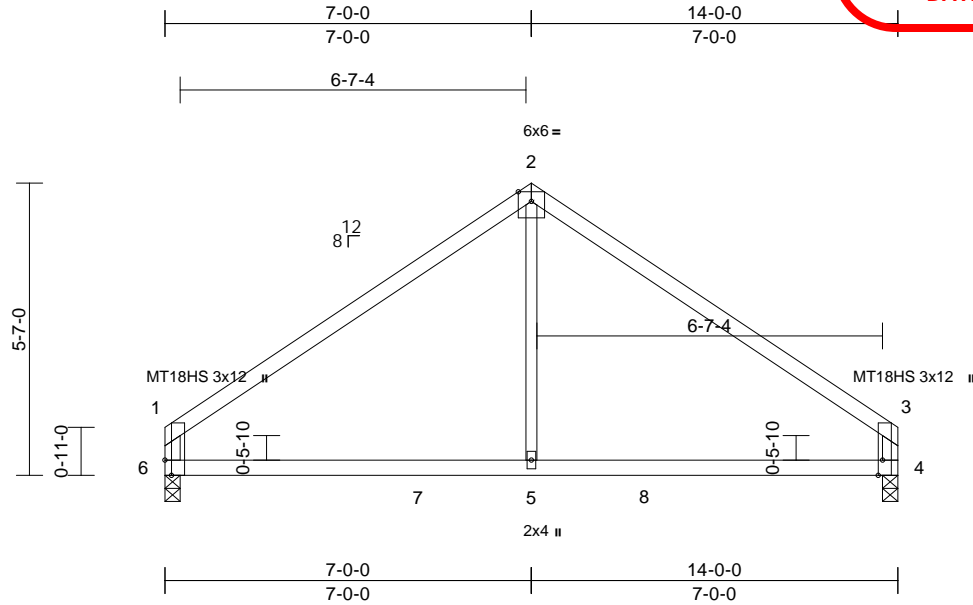
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	E3	Common	4	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1

DATE _____



Scale = 1:44

Plate Offsets (X, Y): [1:0-3-8,Edge], [3:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.07	5-6	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.12	5-6	>999	240	MT18HS 197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.01	4	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.04	5-6	>999	240	Weight: 41 lb FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 5-2:2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size) 4=617/0-3-8, 6=617/0-3-8
Max Horiz 6=146 (LC 7)
Max Uplift 4=68 (LC 9), 6=68 (LC 8)
Max Grav 4=688 (LC 16), 6=688 (LC 15)

FORCES

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

TOP CHORD 1-2=-749/113, 2-3=-749/113, 1-6=-568/118, 3-4=-568/118
BOT CHORD 6-7=-12/553, 5-7=-12/553, 5-8=-12/553, 4-8=-12/553
WEBS 2-5=0/357

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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, with BCDL = 10.0psf.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 68 lb uplift at joint 6 and 68 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

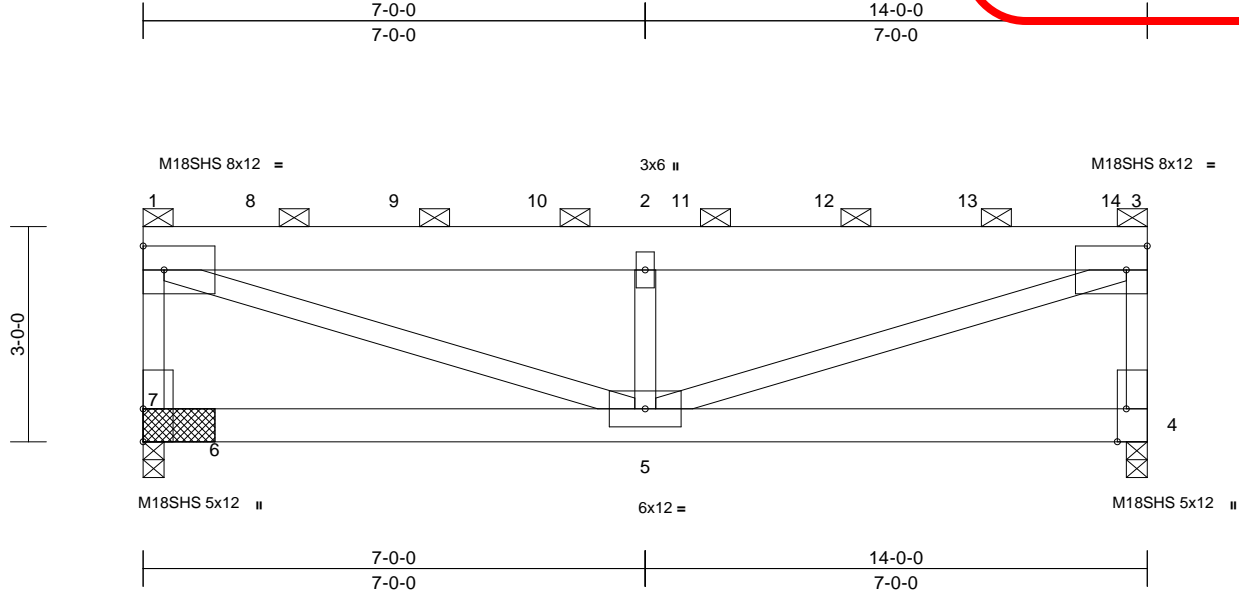
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT	Job Reference (optional)
210410	E4	Flat Girder	1	2		

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1

DATE _____



Scale = 1:32.1

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.09	5	>999	360	M18SHS 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.14	5	>999	240	MT20 197/144
BCLL	0.0*	Rep Stress Incr	NO	WB	0.75	Horz(CT)	0.00	4	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	5	>999	240	Weight: 188 lb FT = 10%

LUMBER

TOP CHORD 2x8 SP 2400F 2.0E
 BOT CHORD 2x6 SPF No.2
 WEBS 2x4 SPF No.2

BRACING

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

REACTIONS (lb/size) 4=2941/0-3-8, 7=4830/(0-3-8 + bearing block), (req. 0-4-4)
 Max Horiz 7=-94 (LC 4)
 Max Uplift 4=-448 (LC 5), 7=-510 (LC 4)
 Max Grav 4=3145 (LC 15), 7=5436 (LC 16)

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

TOP CHORD 1-7=-5287/532, 1-8=-6349/729, 8-9=-6349/729, 9-10=-6349/729, 2-10=-6349/729, 2-11=-6349/729, 11-12=-6349/729, 12-13=-6349/729, 13-14=-6349/729, 3-14=-6349/729, 3-4=-3009/471

BOT CHORD 6-7=-91/399, 5-6=-91/399
 WEBS 1-5=-770/6382, 2-5=-4408/625, 3-5=-774/6634

NOTES

- 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, 2x8 - 2 rows staggered 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.
- 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.

- 2x6 SPF No.2 bearing block 12" long at jt. 7 attached to each face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners per block. Bearing is assumed to be SPF No.2.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 510 lb uplift at joint 7 and 448 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 272 lb down and 84 lb up at 0-1-12, 1966 lb down and 106 lb up at 1-6-0, 1966 lb down and 106 lb up at 3-6-0, 1966 lb down and 106 lb up at 5-6-0, 350 lb down and 383 lb up at 7-6-0, 350 lb down and 383 lb up at 9-6-0, and 350 lb down and 383 lb up at 11-6-0, and 614 lb down and 44 lb up at 13-6-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

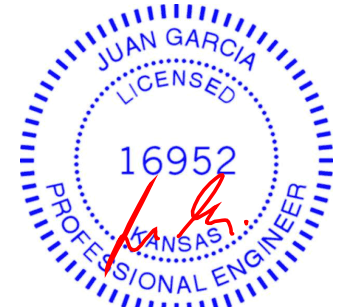
- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (lb/ft)

Vert: 1-3=-70, 4-7=-20

Concentrated Loads (lb)

Vert: 1=-97, 8=-1693, 9=-1693, 10=-1693, 11=-280, 12=-280, 13=-280, 14=-523



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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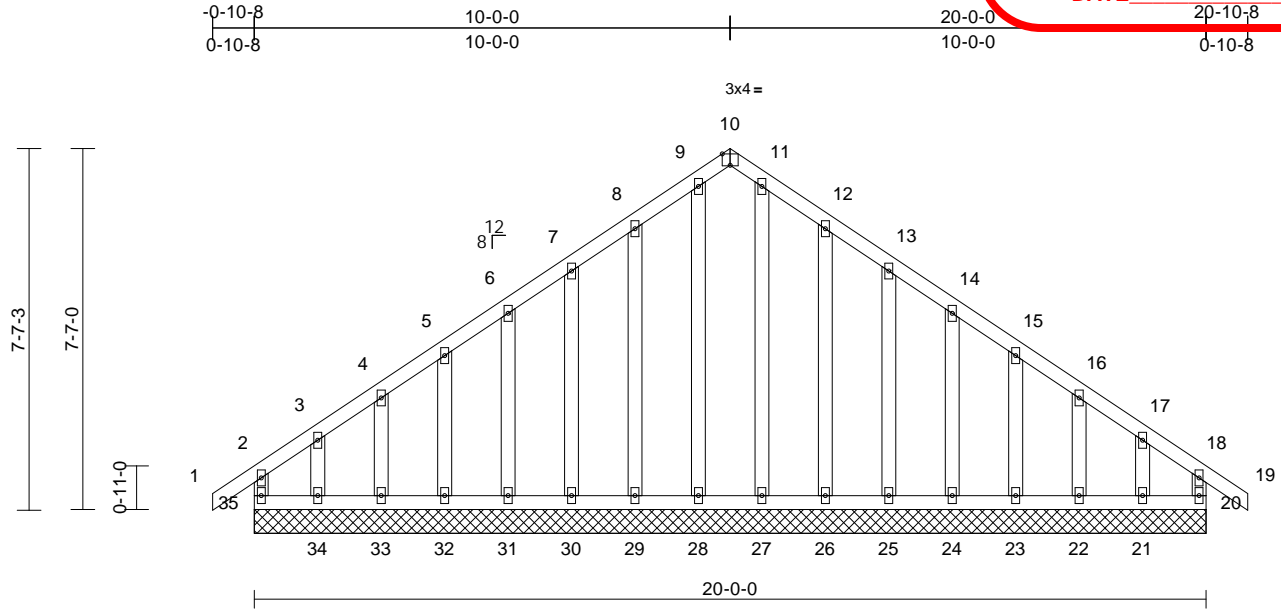
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	G1	Common Supported Gable	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:55
ID:bWuMdbN0tjF5cDvSpwhpH1zCzbQ-ZXStlekquluyhURzrhHtYaE2BLZpTCn1ofDGqzMqbg

Page: 1

DATE 20-10-8



Scale = 1:48.4

Plate Offsets (X, Y): [10:0-2-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	20	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							
Weight: 117 lb FT = 10%											

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

All bearings	20-0-0.
(lb) - Max Horiz	35=216 (LC 6)
Max Uplift	All uplift 100 (lb) or less at joint(s) 20, 22, 23, 24, 25, 26, 29, 30, 31, 32, 33 except 21=127 (LC 9), 34=140 (LC 8), 35=106 (LC 4)
Max Grav	All reactions 250 (lb) or less at joint (s) 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35

FORCES

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

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 33, 32, 31, 30, 29, 26, 25, 24, 23, 22 except (jt=lb) 35=106, 34=140, 21=126.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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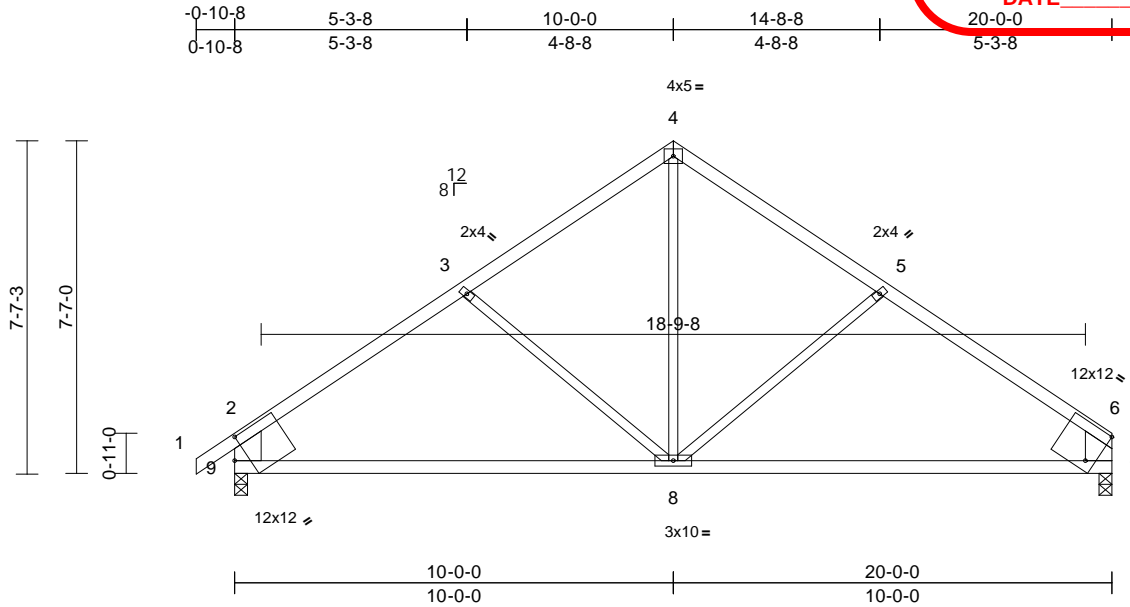
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	G2	Common	2	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:55
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Page: 1

DATE _____



Scale = 1:52.5

Plate Offsets (X, Y): [6:Edge,0-9-7], [9:0-3-10,0-5-6]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.17	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.36	8-9	>640	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	8-9	>999	240	Weight: 71 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 9-2,7-6:2x8 SP DSS

6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-11-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 7=870/0-3-8, 9=958/0-3-8
Max Horiz 9=213 (LC 5)
Max Uplift 7=97 (LC 9), 9=124 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1060/157, 3-4=-796/156, 4-5=-796/155, 5-6=-1066/158, 2-9=-851/174, 6-7=-758/145
BOT CHORD 8-9=-149/789, 7-8=-65/776
WEBS 4-8=-52/469, 5-8=-261/213

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 124 lb uplift at joint 9 and 97 lb uplift at joint 7.



April 26, 2021

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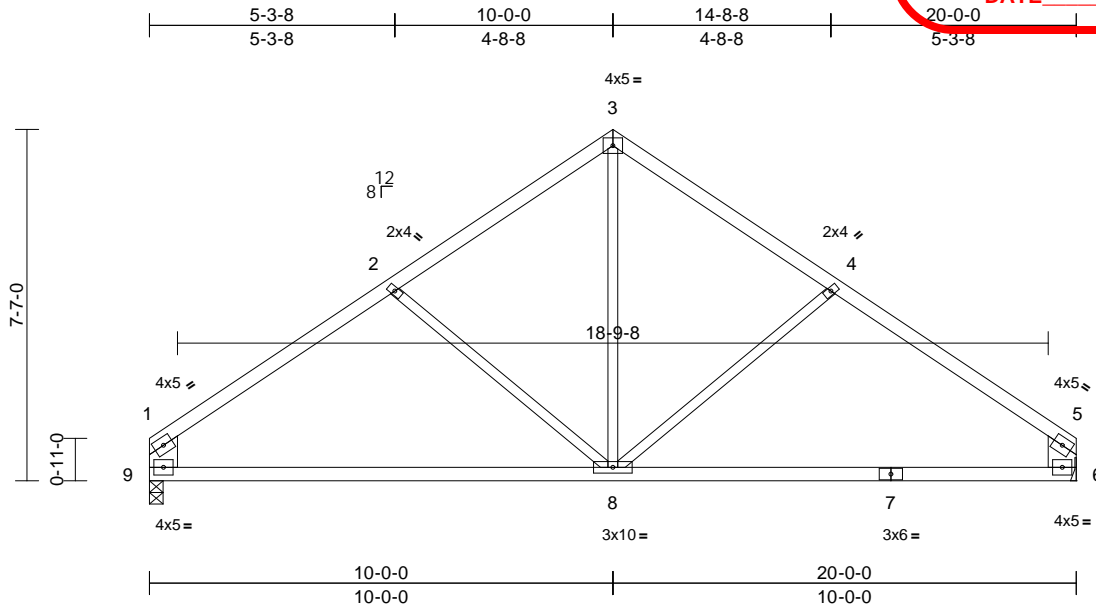
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	G3	Common	5	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:56
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Page: 1

DATE



Scale = 1:49.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.17	6-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.35	6-8	>667	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	8	>999	240	Weight: 70 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 9-1,6-5:2x8 SP DSS

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-6-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 6=873/ Mechanical, 9=873/0-3-8
Max Horiz 9=-159 (LC 4)
Max Uplift 6=-4 (LC 9), 9=-4 (LC 8)

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

TOP CHORD 1-2=-1067/50, 2-3=-797/59, 3-4=-797/59,
4-5=-1067/50, 1-9=-758/54, 5-6=-758/54
BOT CHORD 8-9=-41/780, 7-8=0/777, 6-7=0/777
WEBS 3-8=0/469, 4-8=-253/137, 2-8=-253/137

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 9 and 4 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI
145819273

BY _____

DATE _____

Page: 1

Plate Offsets (X, Y): [4:Edge.0-2-8]

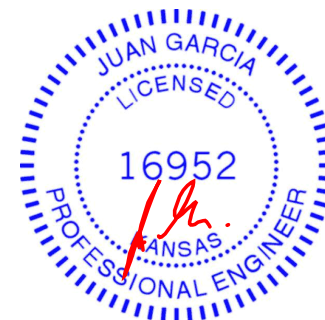
LUMBER

LOAD CASE(S) Standard

BRACING

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat.
II; Exp C; Enclosed; MWFRS (envelope) exterior zone,
cantilever left and right exposed ; end vertical 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, with BCDL = 10.0psf.
- 5) Refer to girder(s) for truss to truss connections.



April 26, 2021



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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	G5	Flat	1	1	Job Reference (optional)

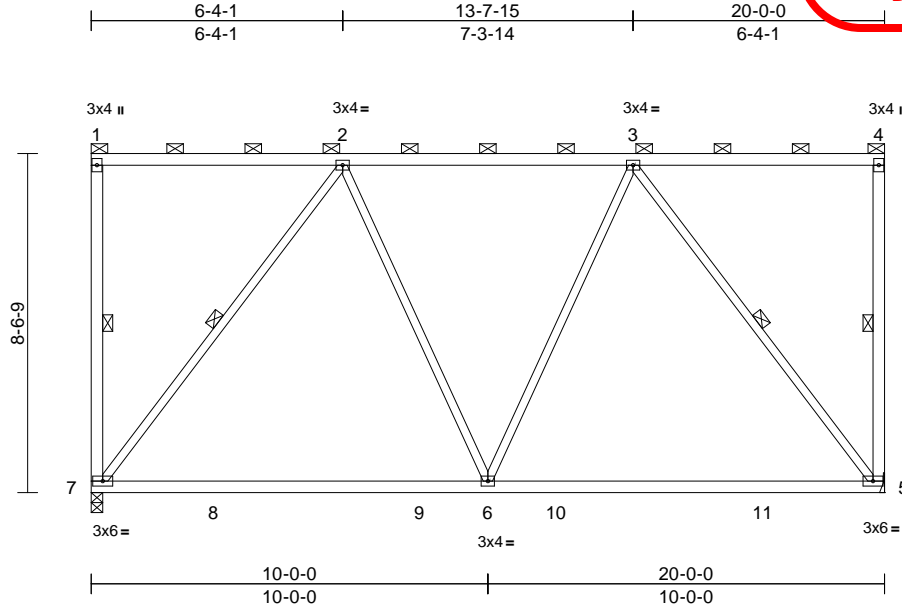
Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:56

Page: 1

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DATE _____



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.29	5-6	>828	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.45	5-6	>521	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	-0.05	5-6	>999	240	Weight: 94 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF 2100F 1.8E
 WEBS 2x3 SPF No.2 *Except* 7-1,4-5:2x4 SPF No.2

BRACING

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

WEBS 1 Row at midpt 1-7, 4-5, 2-7, 3-5

REACTIONS (lb/size) 5=887/ Mechanical, 7=887/0-3-8
 Max Horiz 7=234 (LC 7)
 Max Uplift 5=-194 (LC 5), 7=-203 (LC 4)
 Max Grav 5=989 (LC 2), 7=989 (LC 2)

FORCES

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-641/120
 BOT CHORD 7-8=-221/527, 8-9=-221/527, 6-9=-221/527, 6-10=-198/527, 10-11=-198/527, 5-11=-198/527
 WEBS 2-7=-848/227, 2-6=0/335, 3-6=0/335, 3-5=-848/218

NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 203 lb uplift at joint 7 and 194 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



April 26, 2021

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Job	Truss	Truss Type	Qty	Ply	Lot 157 HT	Job Reference (optional)
210410	G6	Flat	1	1		

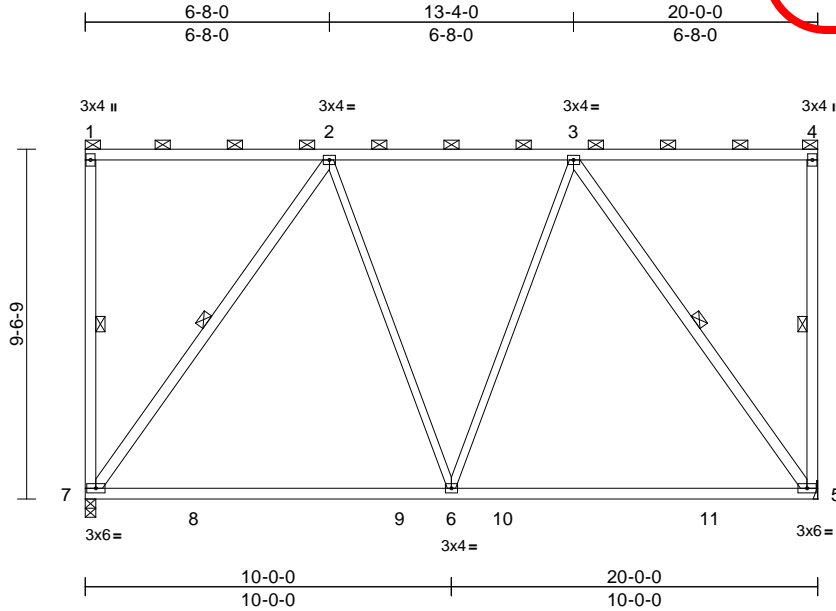
Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:56

Page: 1

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Scale = 1:62.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.29	5-6	>811	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.46	5-6	>515	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	-0.07	5-6	>999	240	Weight: 107 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF 2100F 1.8E
 WEBS 2x4 SPF No.2 *Except* 6-2,6-3:2x3 SPF No.2

BRACING

TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-4, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 1-7, 4-5, 2-7, 3-5

REACTIONS

(lb/size) 5=887/ Mechanical, 7=887/0-3-8
 Max Horiz 7=263 (LC 7)
 Max Uplift 5=202 (LC 5), 7=212 (LC 4)
 Max Grav 5=996 (LC 2), 7=996 (LC 2)

FORCES

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-583/120
 BOT CHORD 7-8=-222/488, 8-9=-222/488, 6-9=-222/488, 6-10=-200/488, 10-11=-200/488, 5-11=-200/488
 WEBS 2-7=-820/225, 2-6=0/334, 3-6=0/334, 3-5=-820/213

NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 212 lb uplift at joint 7 and 202 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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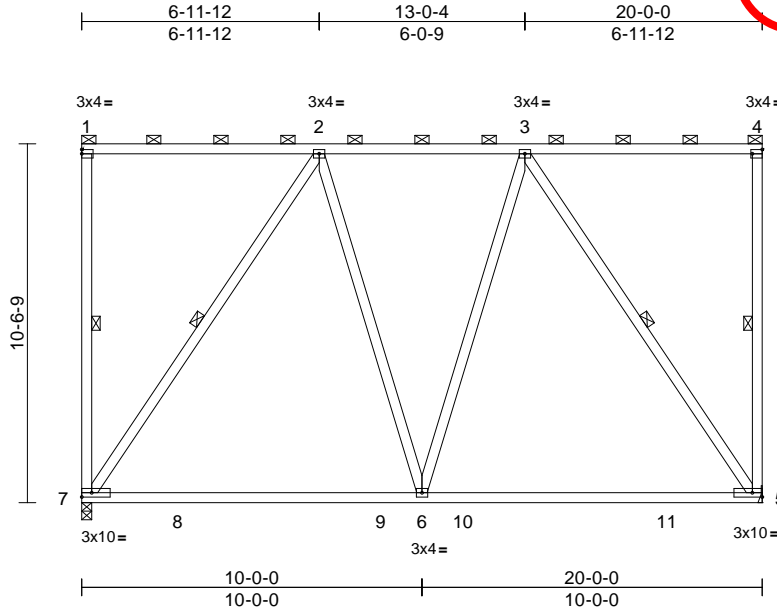
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	G7	Flat	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:56
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Page: 1

DATE _____



Scale = 1:67.7

Plate Offsets (X, Y): [4:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.30	6-7	>796	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.47	6-7	>508	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	-0.09	5-6	>999	240	Weight: 119 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x4 SPF No.2

BRACING

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

WEBS 1 Row at midpt 1-7, 4-5, 2-7, 3-5

REACTIONS (lb/size) 5=887/ Mechanical, 7=887/0-3-8
Max Horiz 7=291 (LC 7)
Max Uplift 5=-210 (LC 5), 7=-223 (LC 4)
Max Grav 5=1001 (LC 2), 7=1001 (LC 2)

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

TOP CHORD 2-3=-535/121
BOT CHORD 7-8=-225/456, 8-9=-225/456, 6-9=-225/456, 6-10=-203/456, 10-11=-203/456, 5-11=-203/456

WEBS 2-7=-796/227, 2-6=0/337, 3-6=0/334, 3-5=-796/212

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical 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, with BCDL = 10.0psf.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 223 lb uplift at joint 7 and 210 lb uplift at joint 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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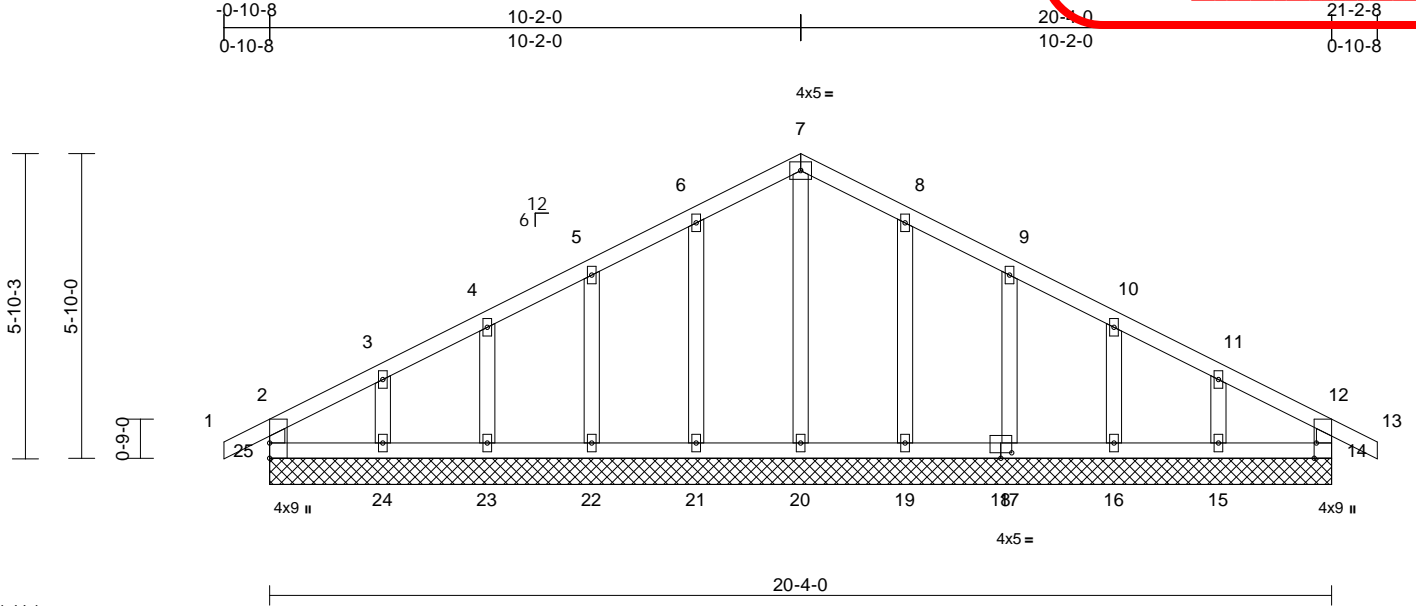
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	H1	Common Supported Gable	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:57
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Page: 1

DATE _____



Scale = 1:44.1									
Plate Offsets (X, Y): [14:0-3-8,Edge], [18:0-2-8,0-1-4]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	14	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R					
							PLATES	GRIP	
							MT20	197/144	
							Weight: 84 lb	FT = 10%	

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS All bearings 20-4-0.
(lb) - Max Horiz 25=91 (LC 6)
Max Uplift All uplift 100 (lb) or less at joint(s)
14, 15, 16, 17, 19, 21, 22, 23, 24, 25
Max Grav All reactions 250 (lb) or less at joint
(s) 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25

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

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 25, 14, 21, 22, 23, 24, 19, 17, 16, 15.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

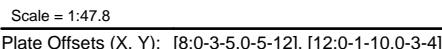
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LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 12-2 8-6:2x6 SP DSS

TOP CHORD	Structural wood sheathing directly applied or 3-5-15 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing

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

TOP CHORD 2-3=1330/186, 3-4=1130/186,
4-5=1130/186, 5-6=1330/186,
2-12=880/173, 6-8=880/173

BOT CHORD 11-12=172/1086, 10-11=29/807,
9-10=93/1086, 8-9=93/1086

WEBS 4-10=78/359, 5-10=253/184, 4-11=78/359,
3-11=253/184

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDF=6.0psf; BCDF=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 136 lb uplift at joint 12 and 136 lb uplift at joint 8.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26.2021



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	H3	Common Girder	1	3	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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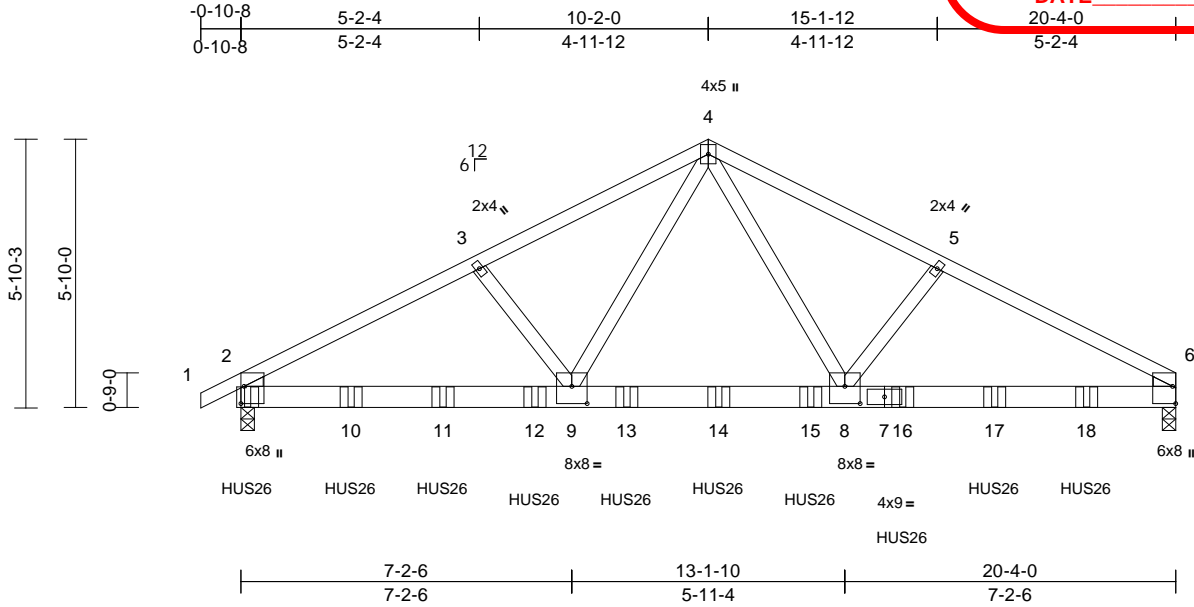
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20-4-0

5-2-4



Scale = 1:50.1

Plate Offsets (X, Y): [2:Edge,0-0-13], [6:Edge,0-0-13], [8:0-4-0,0-4-8], [9:0-4-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.11	2-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.19	2-9	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.29	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	2-9	>999	240	Weight: 289 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.2
WEDGE Left: 2x3 SPF No.2
Right: 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=5635/0-3-8, 6=4833/0-3-8
Max Horiz 2=63 (LC 24)
Max Uplift 2=-769 (LC 8), 6=-288 (LC 9)
Max Grav 2=5760 (LC 13), 6=4833 (LC 1)

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

TOP CHORD 2-3=-7327/686, 3-4=-7183/702, 4-5=-7201/428, 5-6=-7343/414
BOT CHORD 2-10=-604/6289, 10-11=-604/6289, 11-12=-604/6289, 9-12=-604/6289, 9-13=-292/4708, 13-14=-292/4708, 14-15=-292/4708, 8-15=-292/4708, 7-8=-307/6298, 7-16=-307/6298, 16-17=-307/6298, 17-18=-307/6298, 6-18=-307/6298

WEBS 4-8=-26/3478, 5-8=-57/338, 4-9=-538/3623, 3-9=-61/316

NOTES

- 3-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 0-7-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.

- 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.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 769 lb uplift at joint 2 and 288 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-3-0 oc max. starting at 0-1-12 from the left end to 18-4-12 to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-6=-70, 2-6=-20
Concentrated Loads (lb)
Vert: 2=-874 (F), 10=-867 (F), 11=-867 (F), 12=-871 (F), 13=-853 (F), 14=-853 (F), 15=-853 (F), 16=-853 (F), 17=-853 (F), 18=-850 (F)



April 26, 2021

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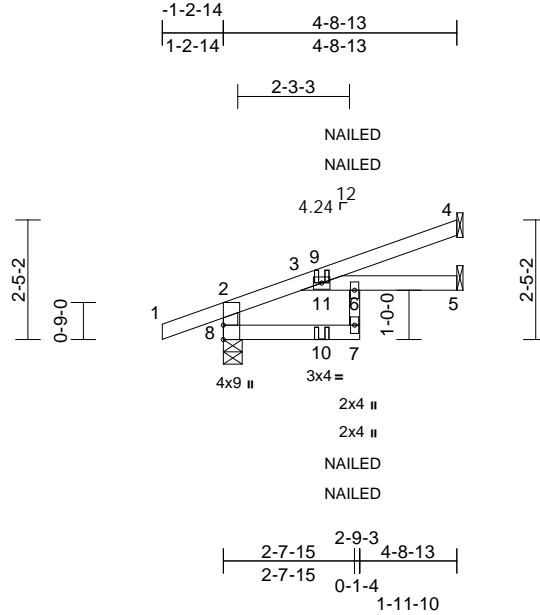
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	J1	Diagonal Hip Girder	2	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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DATE _____



Scale = 1:46.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.03	3-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.05	3-6	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	3-6	>999	240	Weight: 15 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 7-6:2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-8-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size) 4=127/ Mechanical, 5=69/
Mechanical, 8=323/0-4-9
Max Horiz 8=84 (LC 4)
Max Uplift 4=52 (LC 8), 8=78 (LC 4)
Max Grav 4=127 (LC 1), 5=91 (LC 3), 8=323 (LC 1)

FORCES

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

TOP CHORD 2-8=-308/102

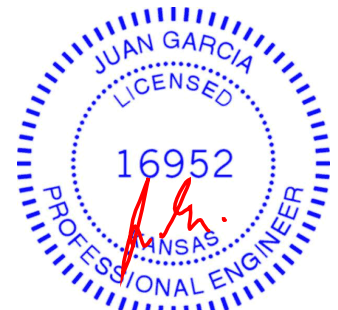
NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 78 lb uplift at joint 8 and 52 lb uplift at joint 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.

- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-4=-70, 7-8=-20, 3-5=-20
Concentrated Loads (lb)
Vert: 10=7 (F=4, B=4)



April 26, 2021

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ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	J2	Jack-Open	7	1	Job Reference (optional)

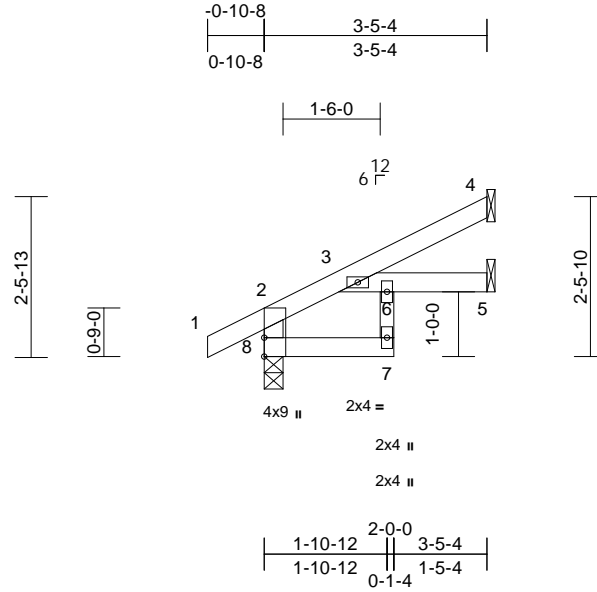
Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:58

Page: 1

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DATE _____



Scale = 1:35.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	-0.01	3-6	>999	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	3-6	>999	240	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.01	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.01	3-6	>999	240	Weight: 11 lb FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2 *Except* 7-6:2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-5-4 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 4=90/ Mechanical, 5=50/ Mechanical, 8=237/0-3-8
 Max Horiz 8=76 (LC 8)
 Max Uplift 4=46 (LC 8), 5=-2 (LC 8), 8=-21 (LC 8)
 Max Grav 4=90 (LC 1), 5=65 (LC 3), 8=237 (LC 1)

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

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 8, 46 lb uplift at joint 4 and 2 lb uplift at joint 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	J3	Jack-Open	4	1	Job Reference (optional)

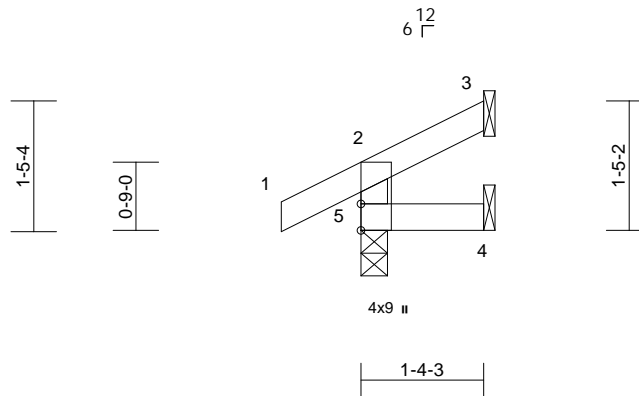
Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:58
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Page: 1

DATE _____

-0-10-8	1-4-3
0-10-8	1-4-3



Scale = 1:25.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	4-5	>999	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-5	>999	240	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240	Weight: 5 lb FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or
1-4-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing.

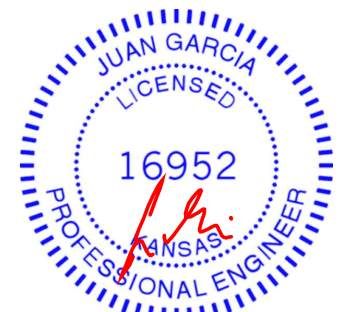
REACTIONS (lb/size) 3=19/ Mechanical, 4=4/
Mechanical, 5=156/0-3-8
Max Horiz 5=36 (LC 5)
Max Uplift 3=20 (LC 8), 5=25 (LC 8)
Max Grav 3=19 (LC 1), 4=20 (LC 3), 5=156
(LC 1)

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

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat.
II; Exp C; Enclosed; MWFRS (envelope) exterior zone;
cantilever left and right exposed; end vertical left and
right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 3) * 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.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 25 lb uplift at joint
5 and 20 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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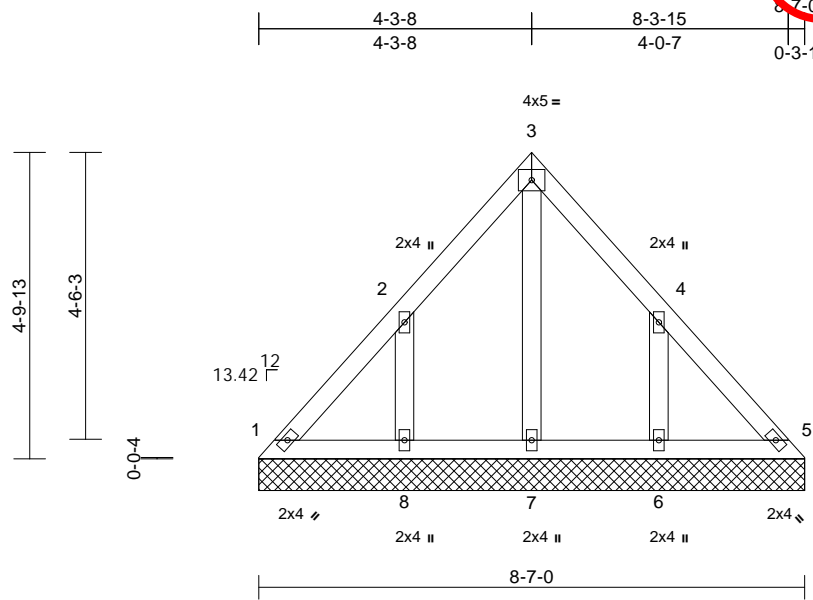
Job 210410	Truss LAY1	Truss Type Lay-In Gable	Qty 1	Ply 1	Lot 157 HT	Job Reference (optional)
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Wheeler Lumber, Waverly, KS - 66871,

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Page: 1

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 33 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

All bearings 8-7-0.
(lb) - Max Horiz 1=120 (LC 4)
Max Uplift All uplift 100 (lb) or less at joint(s)
1, 5 except 6=169 (LC 9), 8=169 (LC 8)
Max Grav All reactions 250 (lb) or less at joint (s) 1, 5, 7 except 6=253 (LC 16), 8=254 (LC 15)

FORCES

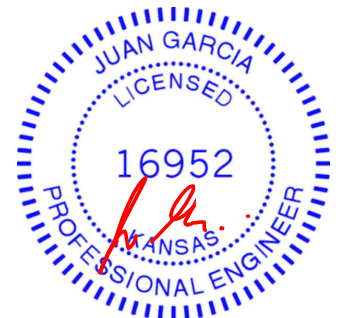
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=169, 6=169.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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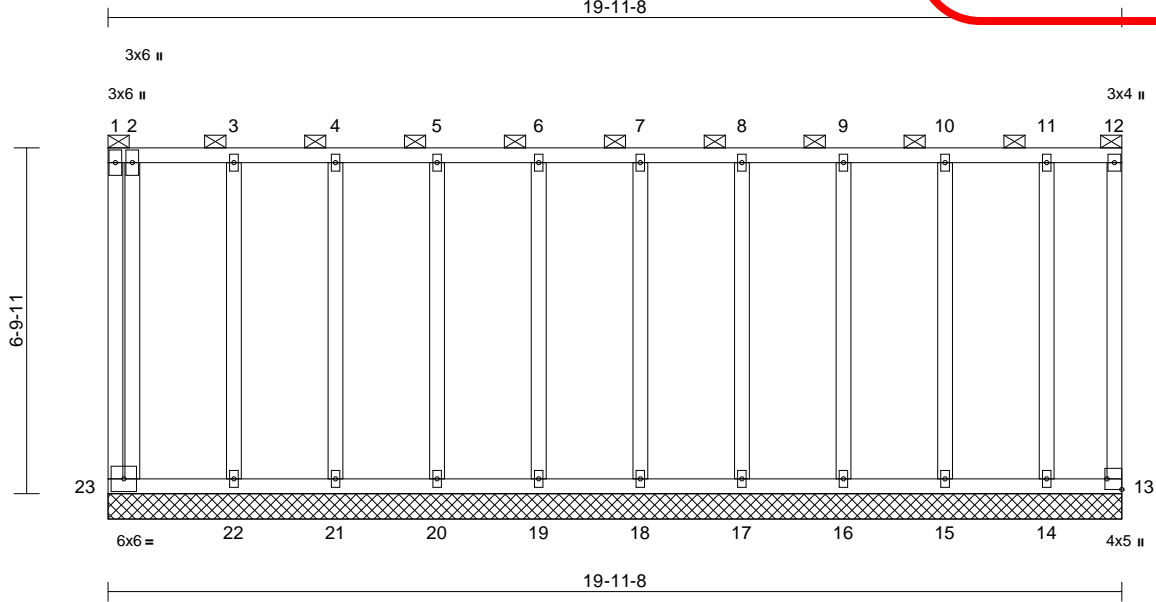
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT	Job Reference (optional)
210410	LAY2	Lay-In Gable	1	1		

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:59
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Page: 1

DATE _____



Scale = 1:45.4												
Plate Offsets (X, Y): [13:Edge,0-3-8]												
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.83	Horiz(TL)	0.00	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 131 lb	FT = 10%

LUMBER	
TOP CHORD	2x4 SPF 2400F 2.0E
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2
BRACING	
TOP CHORD	2-0-0 oc purlins (6-0-0 max.): 1-12, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
REACTIONS	All bearings 19-11-8.
(lb) - Max Horiz	23=249 (LC 4)
Max Uplift	All uplift 100 (lb) or less at joint(s) 15, 16, 17, 18, 19, 20 except 13=246 (LC 5), 14=293 (LC 4), 21=126 (LC 4), 22=427 (LC 5), 23=336 (LC 4)
Max Grav	All reactions 250 (lb) or less at joint (s) 13, 15, 16, 17, 18, 19, 20, 21 except 14=299 (LC 16), 22=422 (LC 15), 23=320 (LC 7)
FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-23=-934/928
WEBS	2-23=-1118/1162, 3-22=-279/338

- NOTES**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; 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) All plates are 2x4 MT20 unless otherwise indicated.
 - 5) Gable requires continuous bottom chord bearing.

- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * 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.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 19, 18, 17, 16, 15 except (jt=lb) 23=336, 13=246, 22=426, 21=125, 14=292.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



April 26, 2021

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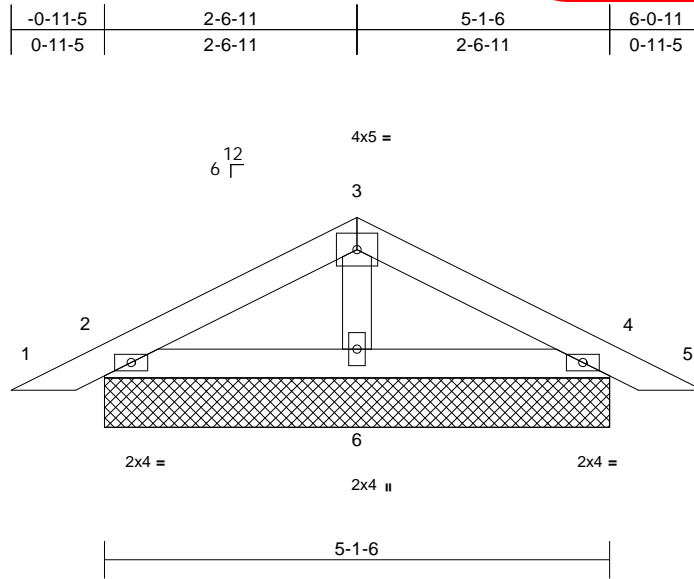
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	P1	Piggyback	2	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1

DATE _____



Scale = 1:23.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	4	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 16 lb FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=165/5-1-6, 4=165/5-1-6, 6=216/5-1-6
Max Horiz 2=28 (LC 12)
Max Uplift 2=44 (LC 8), 4=-49 (LC 9)

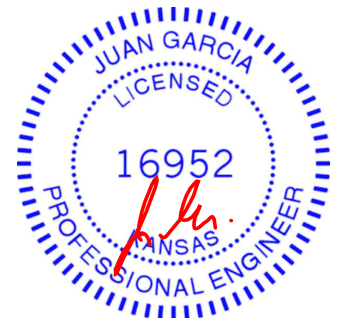
FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 2 and 49 lb uplift at joint 4.

- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



April 26, 2021

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Job	Truss	Truss Type	Qty	Ply	Lot 157 HT	Job Reference (optional)
210410	P2	Piggyback	22	1		

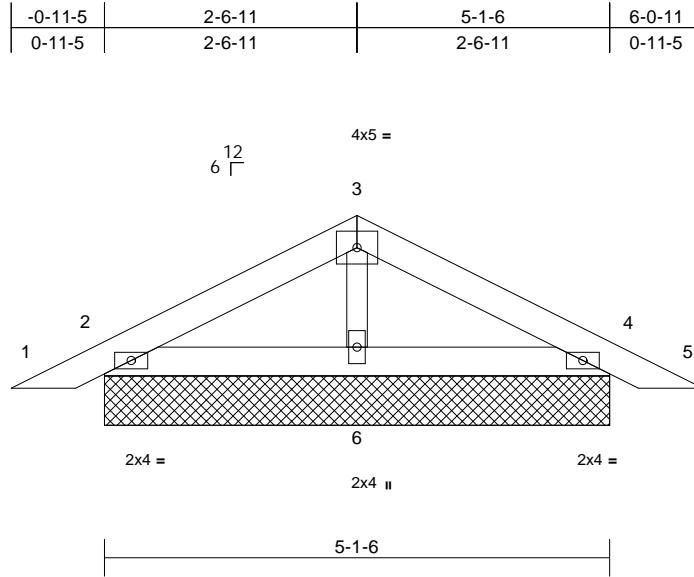
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Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:59

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Scale = 1:23.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	4	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 16 lb FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=168/5-1-6, 4=168/5-1-6, 6=211/5-1-6
Max Horiz 2=-28 (LC 9)
Max Uplift 2=-44 (LC 8), 4=-50 (LC 9)

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

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 2 and 50 lb uplift at joint 4.

- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

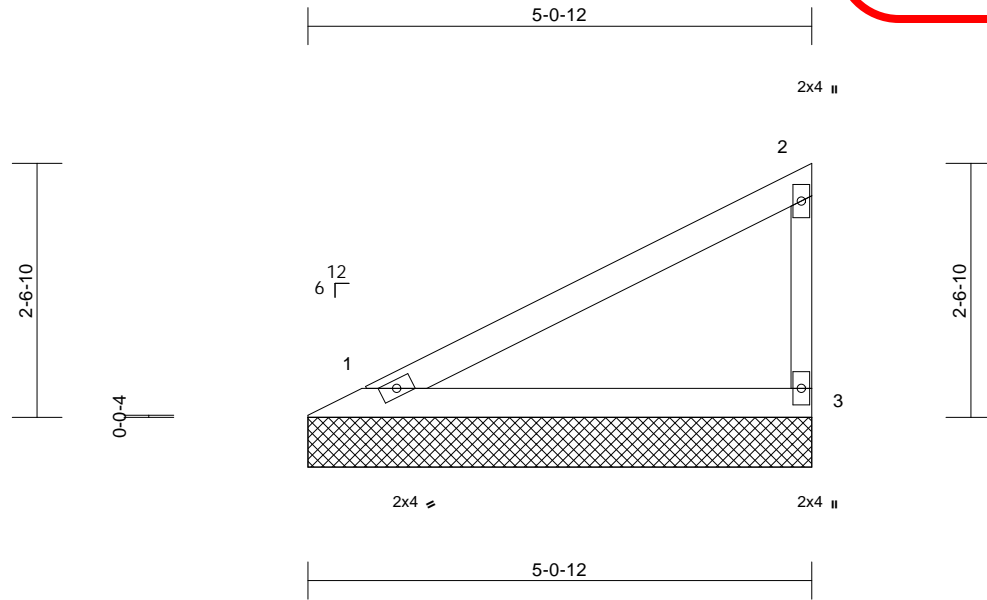
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	V1	Valley	2	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:59
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Page: 1

DATE _____



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 13 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-1-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=197/5-0-12, 3=197/5-0-12
Max Horiz 1=91 (LC 7)
Max Uplift 1=-25 (LC 8), 3=-48 (LC 8)

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

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1 and 48 lb uplift at joint 3.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

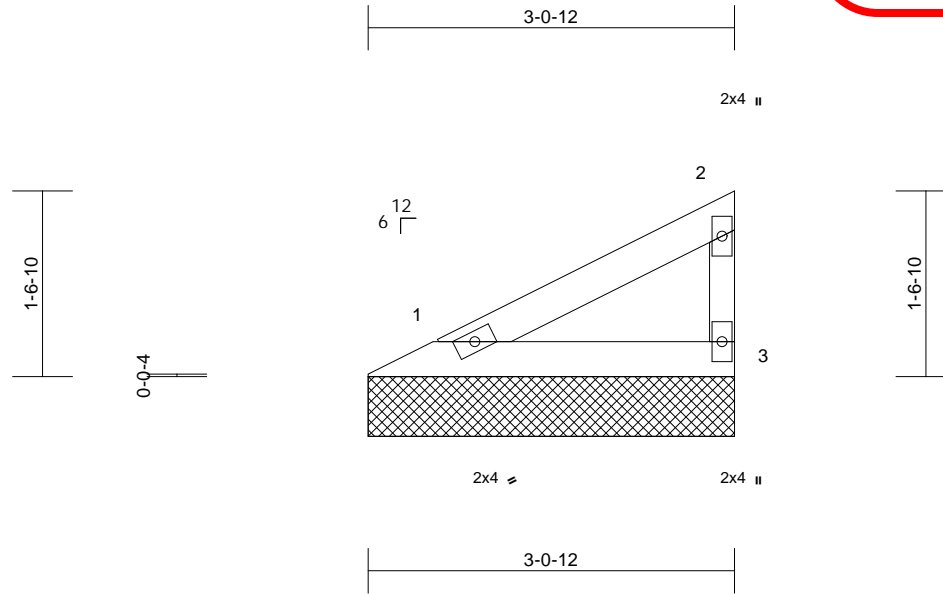
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	V2	Valley	2	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:33:59
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Page: 1

DATE _____



Scale = 1:19.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 7 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-1-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=107/3-0-12, 3=107/3-0-12
Max Horiz 1=50 (LC 5)
Max Uplift 1=-14 (LC 8), 3=-26 (LC 8)

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

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 1 and 26 lb uplift at joint 3.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

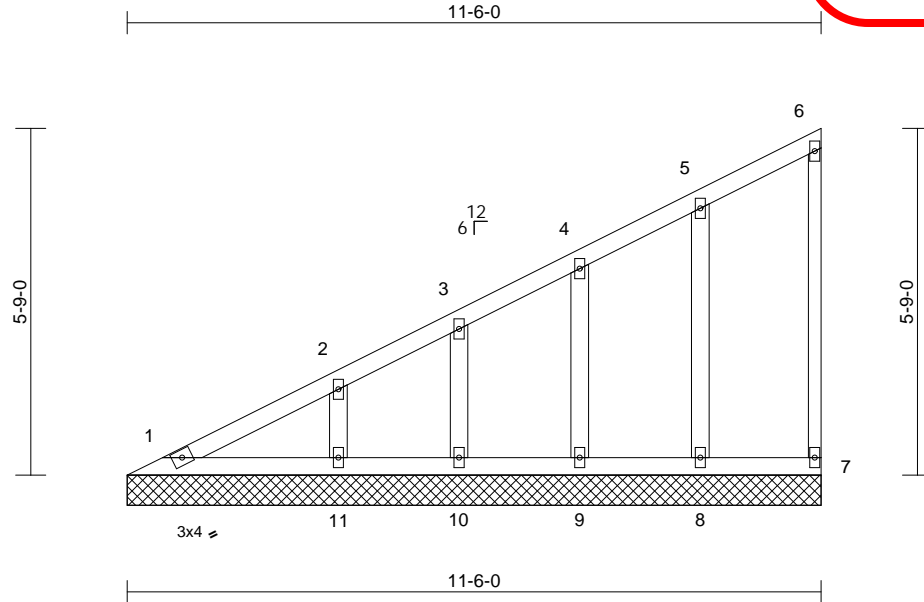
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	V3	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:34:00 Page: 1
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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
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Scale = 1:38.2

Loading	(psf)	Spacing	1-5-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 44 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6'-0" oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.

REACTIONS

All bearings 11'-6".
(lb) - Max Horiz 1=161 (LC 5)
Max Uplift All uplift 100 (lb) or less at joint(s) 7, 8, 9, 10, 11
Max Grav All reactions 250 (lb) or less at joint (s) 1, 7, 8, 9, 10, 11

FORCES

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

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2'-0" oc.
- 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'-0" tall by 2'-0" wide will fit between the bottom chord and any other members.

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 11, 10, 9, 8.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	V4	Valley	1	1	Job Reference (optional)

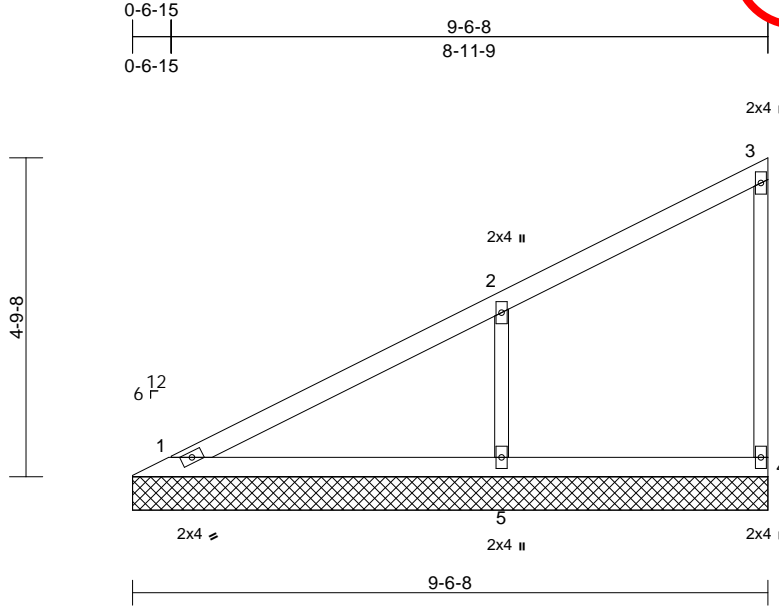
Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:34:00 Page: 1

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RELEASE FOR CONSTRUCTION
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DATE _____



Scale = 1:34.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	4	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 28 lb FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2

8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

BRACING

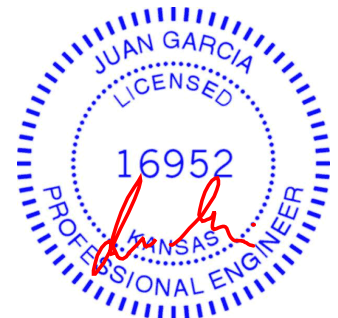
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)	1=179/9-6-8, 4=119/9-6-8, 5=499/9-6-8
Max Horiz	1=184 (LC 5)
Max Uplift	4=-28 (LC 5), 5=-150 (LC 8)

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS	2-5=-378/200

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 4 and 150 lb uplift at joint 5.



April 26, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	V5	Valley	1	1	Job Reference (optional)

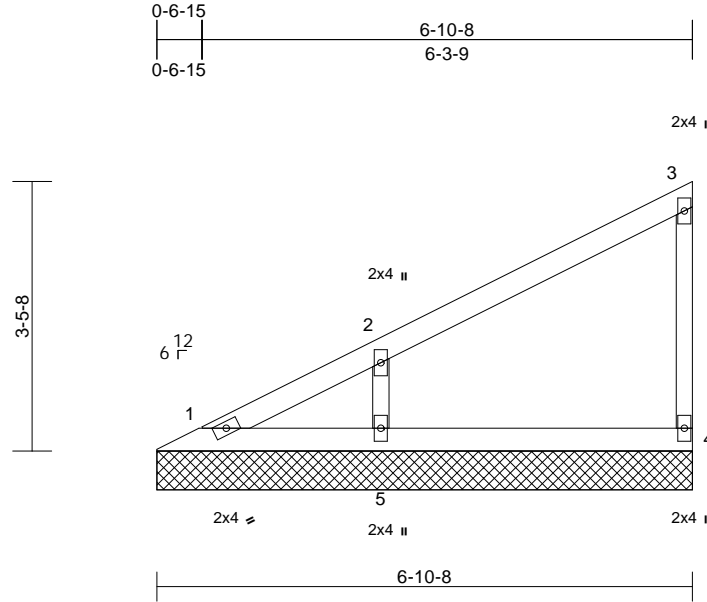
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Scale = 1:29.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	4	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 19 lb FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(lb/size)	1=47/6-10-8, 4=142/6-10-8, 5=368/6-10-8
	Max Horiz	1=129 (LC 5)
	Max Uplift	4=27 (LC 8), 5=110 (LC 8)
	Max Grav	1=66 (LC 16), 4=142 (LC 1), 5=368 (LC 1)

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS	2-5=-286/159

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 4 and 110 lb uplift at joint 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	V6	Valley	1	1	Job Reference (optional)

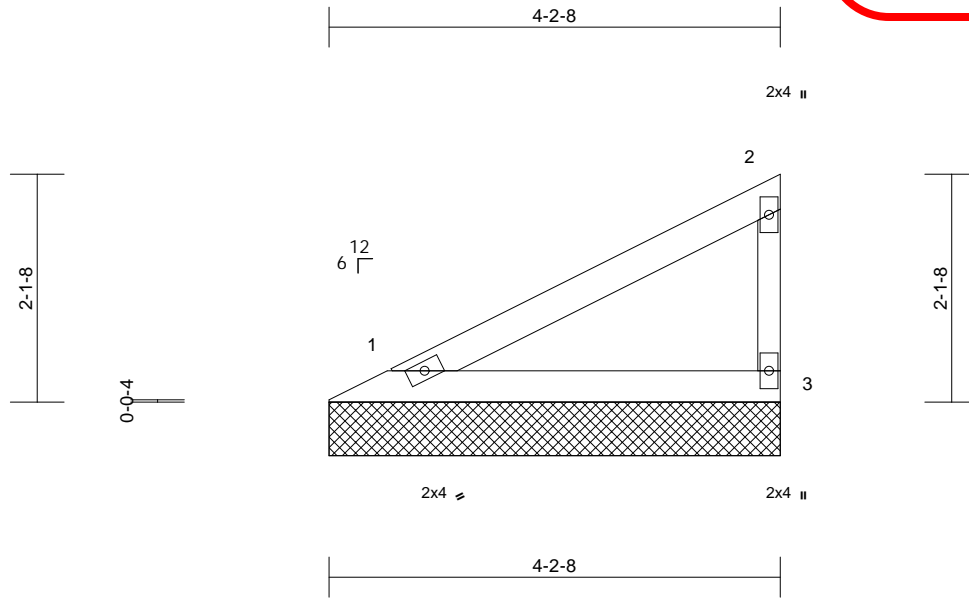
Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:34:00 Page: 1

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DATE _____



Scale = 1:21.5

Loading	(psf)	Spacing	2'-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 11 lb FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-3-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=158/4-2-8, 3=158/4-2-8
 Max Horiz 1=73 (LC 5)
 Max Uplift 1=-20 (LC 8), 3=-39 (LC 8)

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

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
 Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 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'-0-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1 and 39 lb uplift at joint 3.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

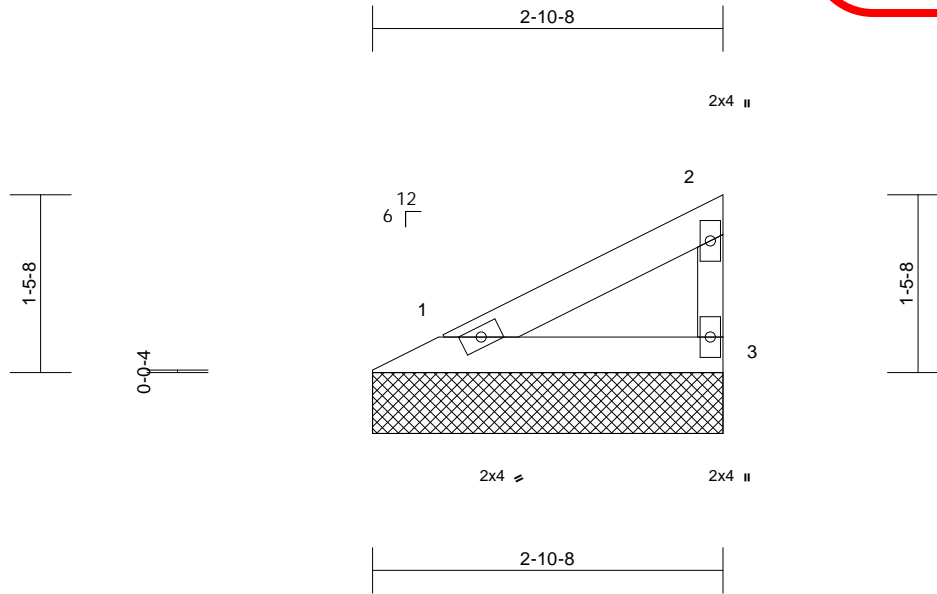
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	V7	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:34:00
 ID:prxamdumpHCBouaOSIG2UKzN9P?-wVFmMMozilWFOFKpEH8FeyvxMH18UZ6A4N_x1zMqbb

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Scale = 1:18.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 7 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-11-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=98/2-10-8, 3=98/2-10-8
 Max Horiz 1=46 (LC 5)
 Max Uplift 1=-13 (LC 8), 3=-24 (LC 8)

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

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
 Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 1 and 24 lb uplift at joint 3.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	V8	Valley	1	1	Job Reference (optional)

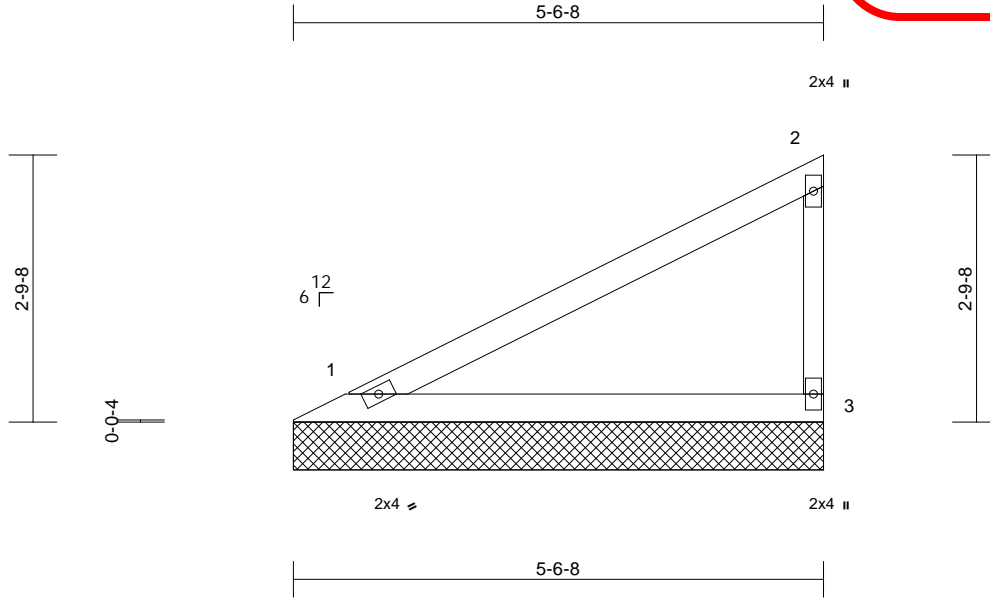
Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:34:01 Page: 1

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 14 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-7-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=218/5-6-8, 3=218/5-6-8
 Max Horiz 1=101 (LC 5)
 Max Uplift 1=-28 (LC 8), 3=-53 (LC 8)

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

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
 Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 1 and 53 lb uplift at joint 3.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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16023 Swingley Ridge Rd
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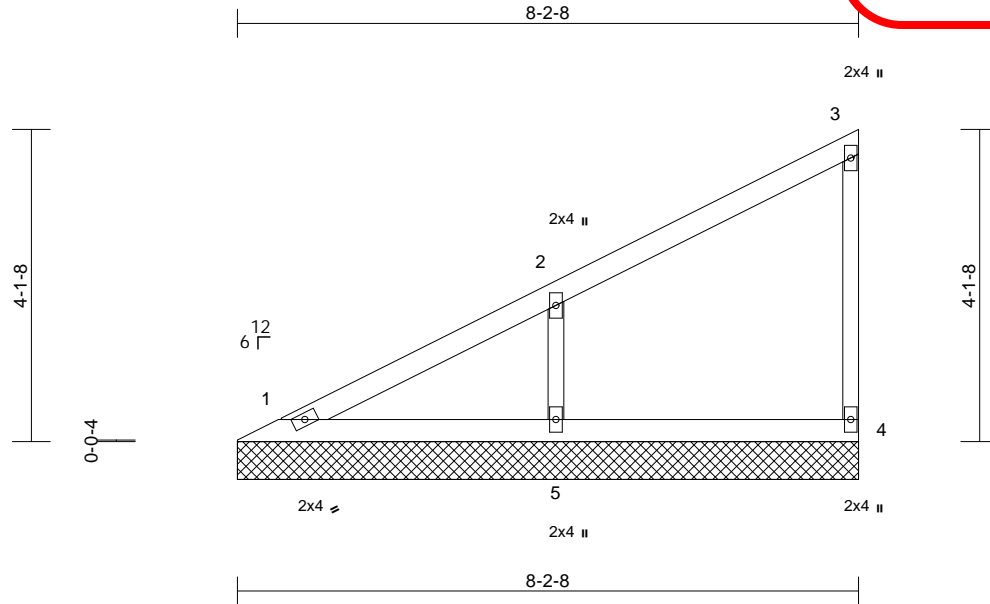
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	V9	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:34:01
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Page: 1

DATE _____



Scale = 1:30.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.23	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	4	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 23 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)	1=119/8-2-8, 4=135/8-2-8, 5=423/8-2-8
Max Horiz	1=157 (LC 7)
Max Uplift	4=26 (LC 5), 5=127 (LC 8)
Max Grav	1=125 (LC 16), 4=135 (LC 1), 5=423 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
WEBS	2-5=-329/183

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 4 and 127 lb uplift at joint 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	V10	Valley	1	1	Job Reference (optional)

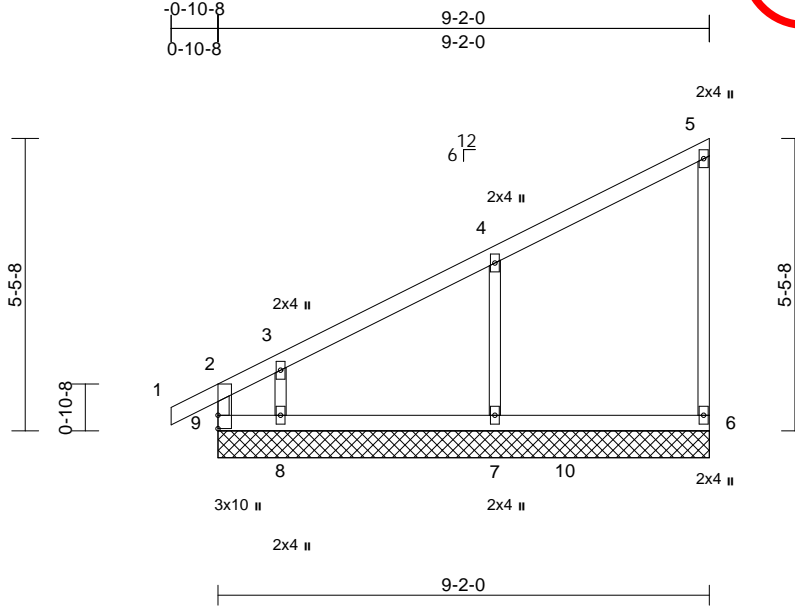
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Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:34:01
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Page: 1

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Scale = 1:43

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.23	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	6	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R						Weight: 31 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb) - Max Horiz	9=219 (LC 5)
Max Uplift	All uplift 100 (lb) or less at joint(s) 6, 9 except 7=118 (LC 8), 8=168 (LC 8)
Max Grav	All reactions 250 (lb) or less at joint (s) 6, 9 except 7=436 (LC 2), 8=279 (LC 15)

FORCES

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

4-7=	-317/164
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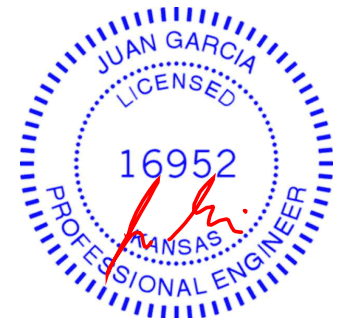
NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
- 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 5) Gable studs spaced at 4-0-0 oc.
- 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, with BCDL = 10.0psf.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 6 except (jt=lb) 7=118, 8=167.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S)

Standard



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
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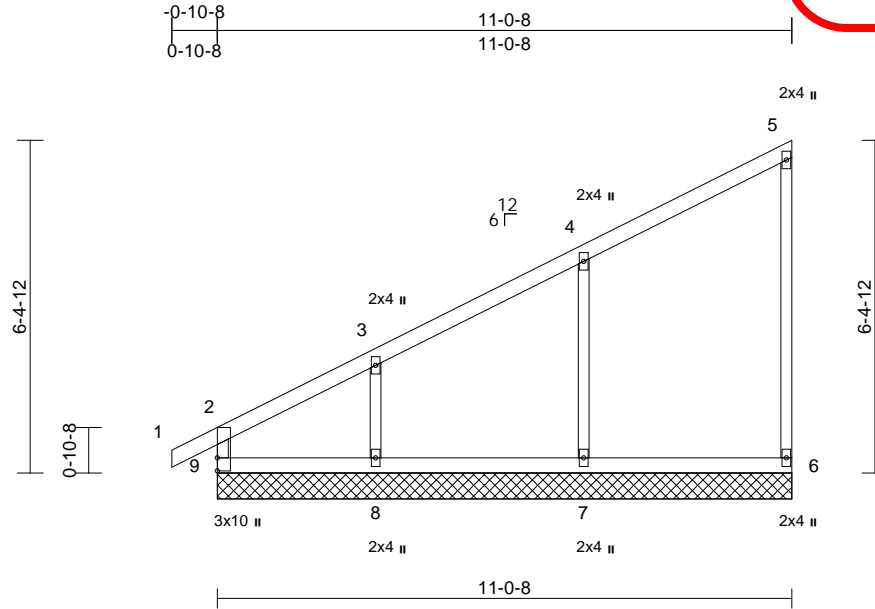
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	V11	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:34:01
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Page: 1

DATE _____



Scale = 1:44.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	6	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R						Weight: 38 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

All bearings	11-0-8.
(lb) - Max Horiz	9=258 (LC 5)
Max Uplift	All uplift 100 (lb) or less at joint(s) 6, 9 except 7=111 (LC 8), 8=147 (LC 8)
Max Grav	All reactions 250 (lb) or less at joint (s) 6, 9 except 7=450 (LC 2), 8=334 (LC 15)

FORCES

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

WEBS

4-7=	313/155
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NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
 Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
- 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 5) Gable studs spaced at 4-0-0 oc.
- 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, with BCDL = 10.0psf.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 6 except (jt=lb) 7=111, 8=146.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S)

Standard



April 26, 2021

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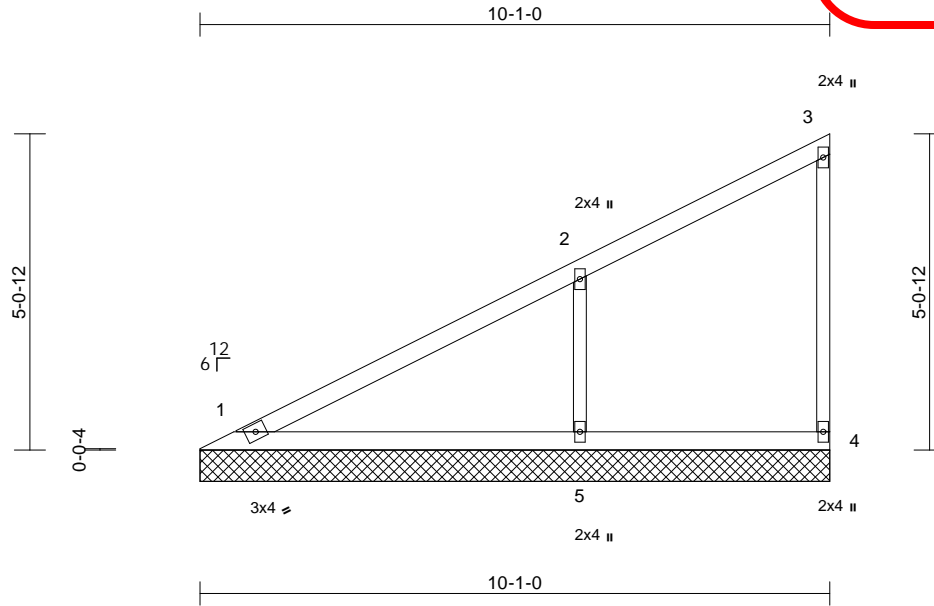
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	V12	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:34:01
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Page: 1

DATE _____



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 29 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 6'-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10'-0-0 oc bracing.

REACTIONS (lb/size) 1=199/10-1-0, 4=108/10-1-0, 5=538/10-1-0
Max Horiz 1=196 (LC 7)
Max Uplift 4=-28 (LC 5), 5=-161 (LC 8)

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

WEBS 2-5=-406/214

NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4'-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-0-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 4 and 161 lb uplift at joint 5.



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

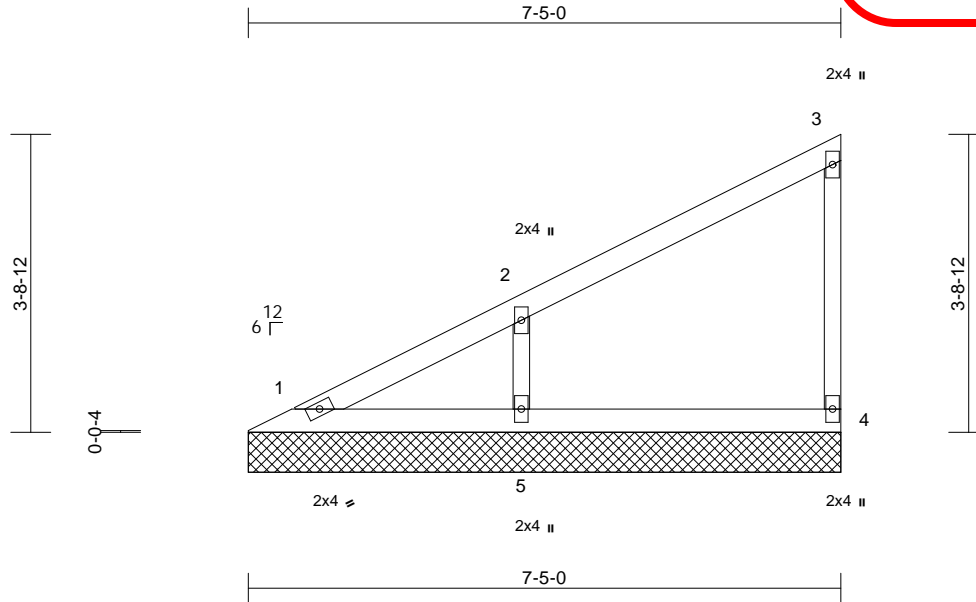
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	V13	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:34:01
ID:bWuMdB0tjF5cDvSpwhpH1zCzbQ-Ohp8ZipbTbe6PFv7CboNorU2smbdtxzFPk6YTUzMQba

Page: 1

DATE _____



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 21 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=79/7-5-0, 4=140/7-5-0, 5=386/7-5-0
Max Horiz 1=140 (LC 7)
Max Uplift 4=25 (LC 8), 5=116 (LC 8)
Max Grav 1=92 (LC 16), 4=140 (LC 1), 5=386 (LC 1)

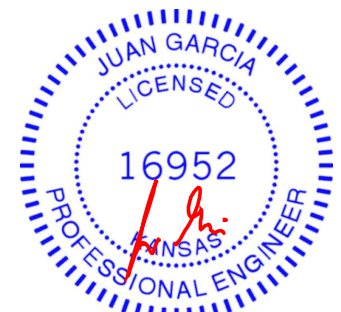
FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=300/167

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 4 and 116 lb uplift at joint 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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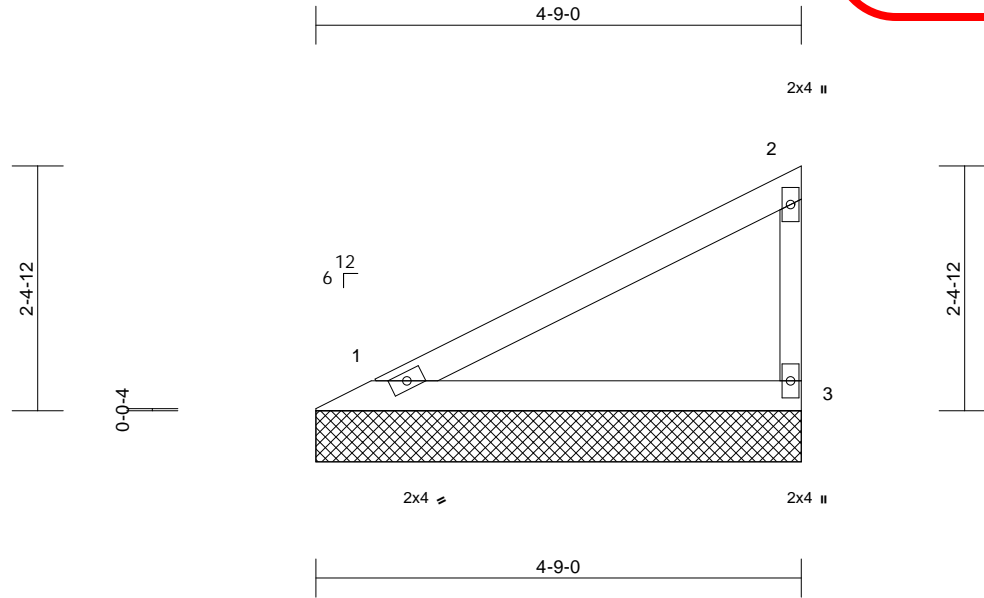
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	V14	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:34:02
ID:bWuMdB0tjF5cDvSpwhpH1zCzbQ-stNWn2qDEvmz1YUJhfJcL31CuAwrcO2PeOs50wzMQbZ

Page: 1

DATE _____



Scale = 1:22.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.31	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 12 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

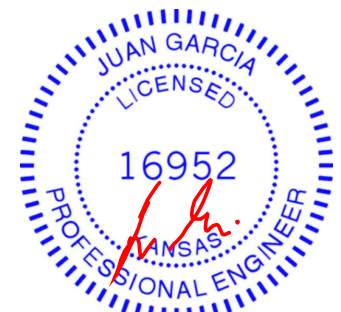
REACTIONS (lb/size) 1=183/4-9-0, 3=183/4-9-0
Max Horiz 1=85 (LC 5)
Max Uplift 1=-23 (LC 8), 3=-45 (LC 8)

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

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1 and 45 lb uplift at joint 3.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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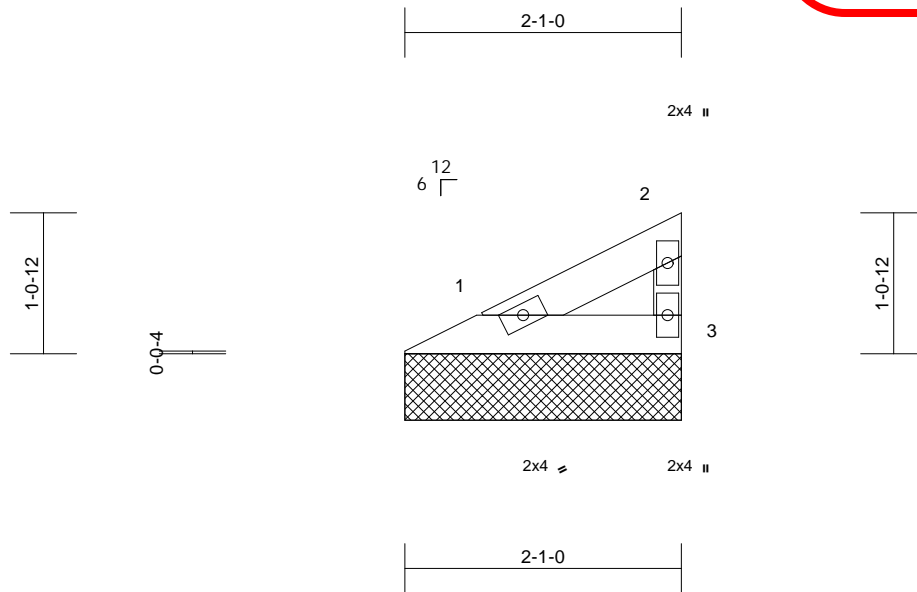
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	V15	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:34:02 Page: 1
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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI
145819301

DATE _____



Scale = 1:17.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.03	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 5 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or
2-1-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing.

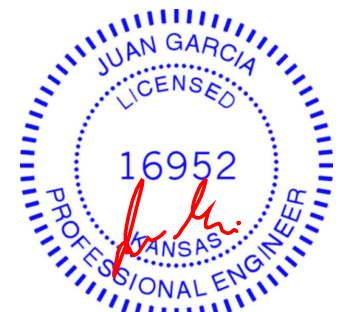
REACTIONS (lb/size) 1=63/2-1-0, 3=63/2-1-0
Max Horiz 1=29 (LC 5)
Max Uplift 1=-8 (LC 8), 3=-15 (LC 8)

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

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat.
II; Exp C; Enclosed; MWFRS (envelope) exterior zone;
cantilever left and right exposed; end vertical left and
right exposed; 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 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) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 8 lb uplift at joint 1
and 15 lb uplift at joint 3.
- 8) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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Chesterfield, MO 63017

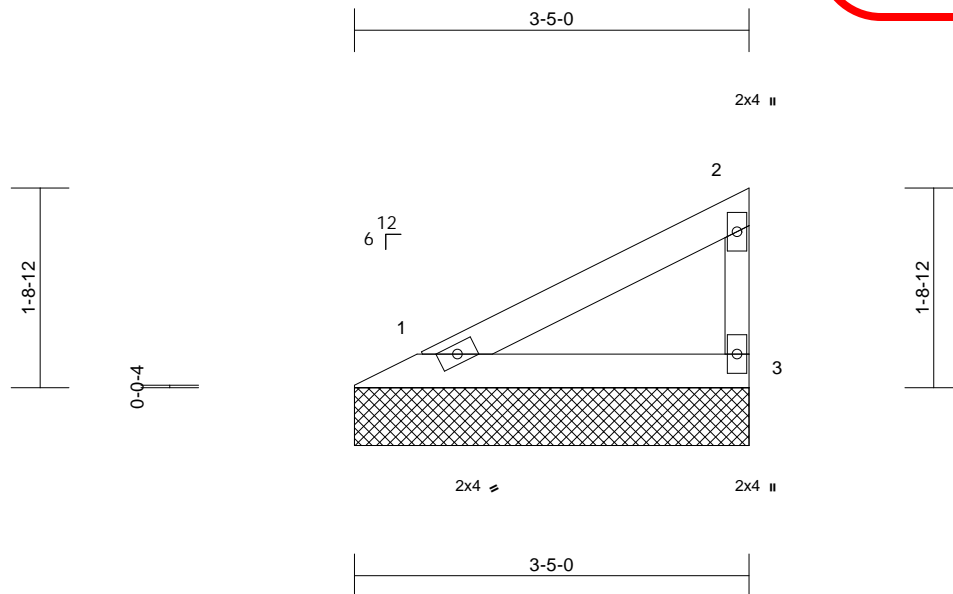
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	V16	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:34:02
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Page: 1

DATE _____



Scale = 1:20

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 8 lb FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or
3-5-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing.

REACTIONS (lb/size) 1=123/3-5-0, 3=123/3-5-0
Max Horiz 1=57 (LC 5)
Max Uplift 1=-16 (LC 8), 3=-30 (LC 8)

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

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat.
II; Exp C; Enclosed; MWFRS (envelope) exterior zone;
cantilever left and right exposed; end vertical left and
right exposed; 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 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) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 16 lb uplift at joint
1 and 30 lb uplift at joint 3.
- 8) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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Chesterfield, MO 63017

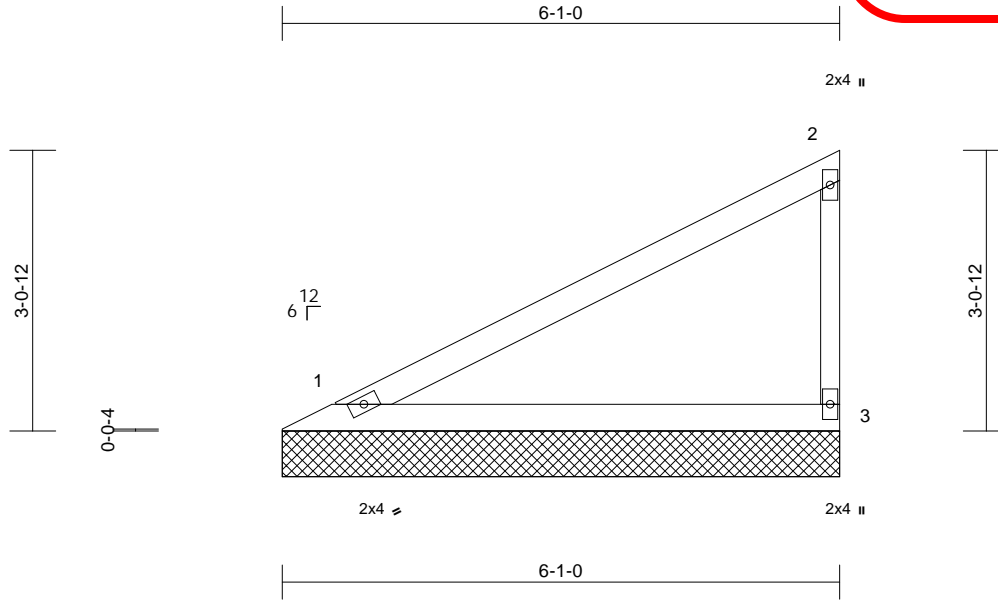
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	V17	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:34:02
ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-stNWn2qDEvmz1YUJhfJcL318oAuecO2PeOs50wzMqbZ

Page: 1

DATE _____



Scale = 1:25.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 16 lb FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-1-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=243/6-1-0, 3=243/6-1-0
Max Horiz 1=112 (LC 5)
Max Uplift 1=-31 (LC 8), 3=-59 (LC 8)

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

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 1 and 59 lb uplift at joint 3.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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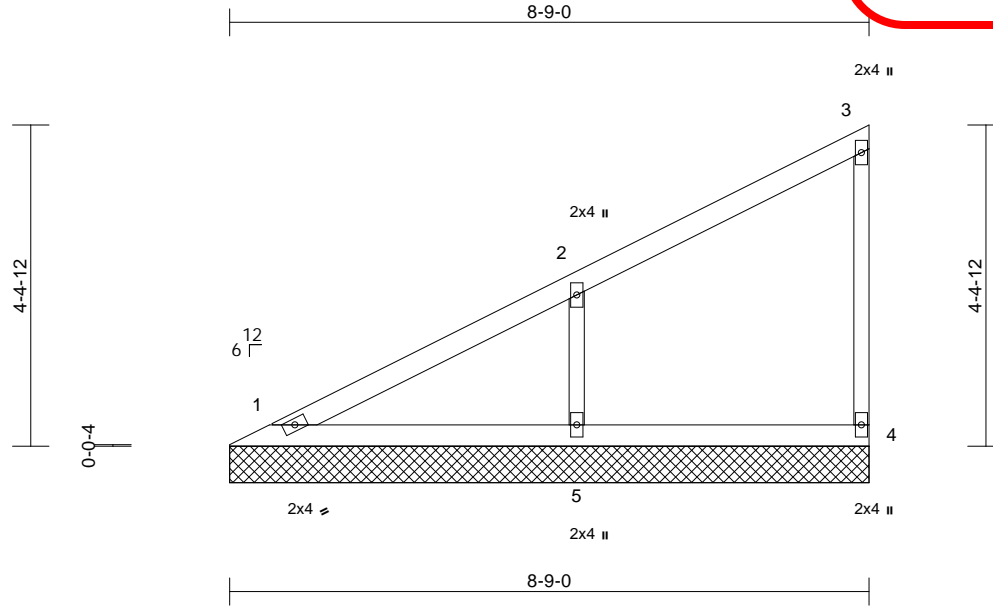
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	V18	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1

DATE _____



Loading	(psf)	Spacing	2'-0"-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 25 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6'-0"-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10'-0"-0 oc bracing.

REACTIONS	(lb/size)	1=143/8-9-0, 4=129/8-9-0, 5=453/8-9-0
	Max Horiz	1=168 (LC 5)
	Max Uplift	4=27 (LC 5), 5=136 (LC 8)
	Max Grav	1=145 (LC 16), 4=129 (LC 1), 5=453 (LC 1)

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
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WEBS	2-5=-352/196
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NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4'-0"-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'-0"-0 tall by 2'-0"-0 wide will fit between the bottom chord and any other members.

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 4 and 136 lb uplift at joint 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

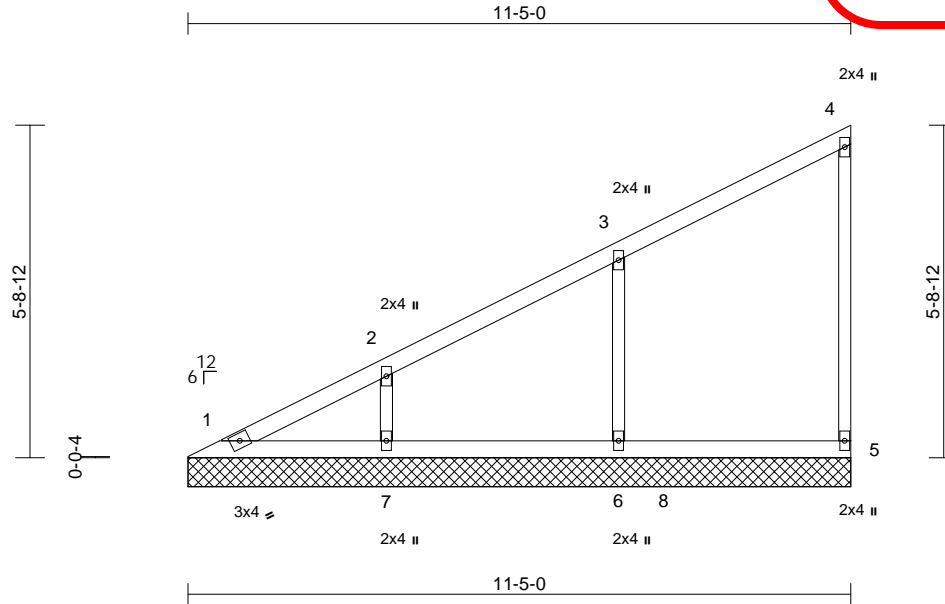
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	V19	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:34:03
ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-K4xv_Nqr?Duqfi2WJNrtGaOWaGULqmYs2beYMzMq6Y

Page: 1

DATE _____



Scale = 1:39.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	5	n/a	n/a	Weight: 35 lb
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb) - Max Horiz	1=223 (LC 5)
Max Uplift	All uplift 100 (lb) or less at joint(s) 5 except 6=120 (LC 8), 7=101 (LC 8)
Max Grav	All reactions 250 (lb) or less at joint (s) 1, 5 except 6=436 (LC 2), 7=336 (LC 2)

FORCES

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

WEBS

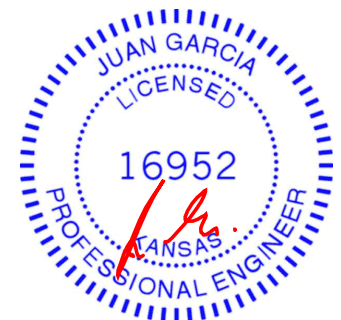
3-6=	312/163, 2-7=254/143
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NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 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, with BCDL = 10.0psf.

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 6=120, 7=100.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 26, 2021

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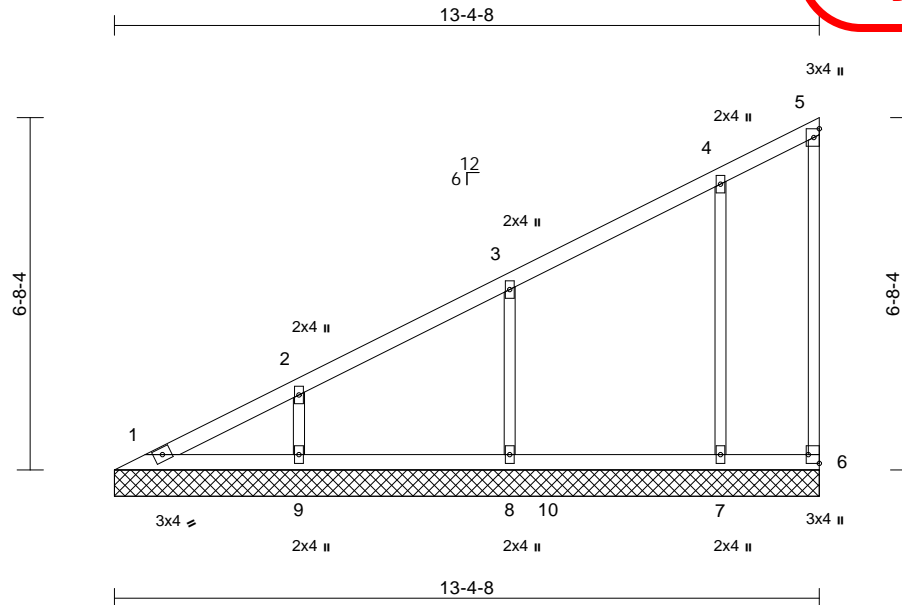
Job	Truss	Truss Type	Qty	Ply	Lot 157 HT
210410	V20	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Mar 22 2021 Print: 8.430 E Mar 22 2021 MiTek Industries, Inc. Mon Apr 26 13:34:03
ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-K4xv_Nqr?Duqfi2WJNrtGaMDaHpLpgYs2beYMzMqbY

Page: 1

DATE _____



Scale = 1:43.7

Plate Offsets (X, Y): [6:Edge,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.17	Horiz(TL)	0.00	6	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
										Weight: 44 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(lb) - Max Horiz	1=263 (LC 5)
Max Uplift	All uplift 100 (lb) or less at joint(s) 6, 7 except 8=114 (LC 8), 9=103 (LC 8)
Max Grav	All reactions 250 (lb) or less at joint (s) 1, 6 except 7=347 (LC 2), 8=410 (LC 2), 9=346 (LC 2)

FORCES

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

2-9=260/143, 3-8=295/167

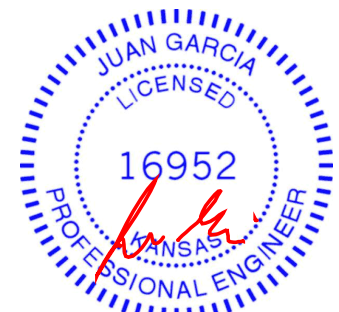
NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 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, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 7 except (jt=lb) 9=102, 8=113.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S)

Standard



April 26, 2021

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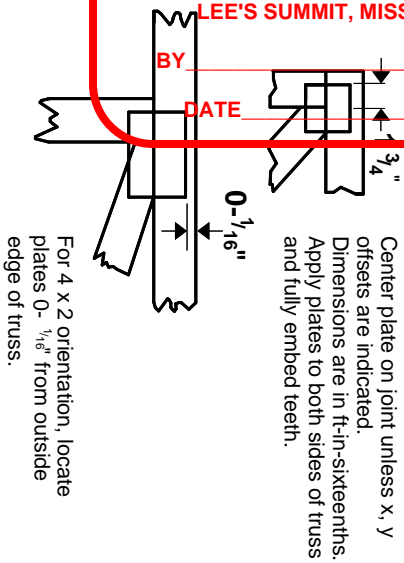


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Symbols

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

PLATE LOCATION AND ORIENTATION



—
—
This symbol indicates the required direction of slots in connector plates.

* Plate location details available in **MiTek 20/20** software or upon request.

PLATE SIZE

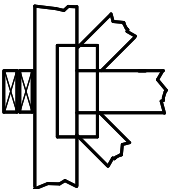
4 X 4
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING

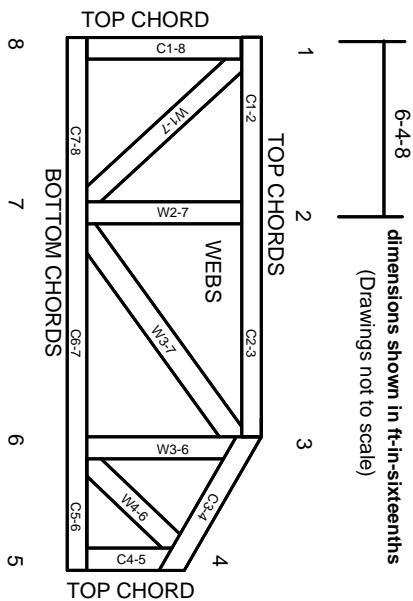


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TP1 1 section 6.3 These truss designs rely on lumber values established by others.

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MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor1 bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.