



RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
Development Services
LEE'S SUMMIT, MISSOURI

RE: 210521
Lot 142 W0

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

Site Information:

Customer: Project Name: 210521
Lot/Block:
Address:
City:

Model:
Subdivision:
State:

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

Design Code: IRC2018/TPI2014
Wind Code: ASCE 7 - 16[Low Rise]
Roof Load: 45.0 psf

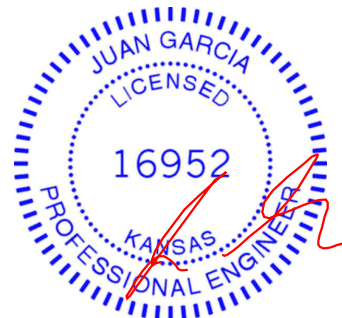
Design Program: MiTek 20/20 8.4
Wind Speed: 115 mph
Floor Load: N/A psf

This package includes 117 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I46178858	A1	5/18/2021	21	I46178878	C10	5/18/2021
2	I46178859	A2	5/18/2021	22	I46178879	D1	5/18/2021
3	I46178860	A3	5/18/2021	23	I46178880	D2	5/18/2021
4	I46178861	A4	5/18/2021	24	I46178881	D3	5/18/2021
5	I46178862	A5	5/18/2021	25	I46178882	D4	5/18/2021
6	I46178863	A6	5/18/2021	26	I46178883	E1	5/18/2021
7	I46178864	B1	5/18/2021	27	I46178884	E2	5/18/2021
8	I46178865	B2	5/18/2021	28	I46178885	E3	5/18/2021
9	I46178866	B3	5/18/2021	29	I46178886	E4	5/18/2021
10	I46178867	B4	5/18/2021	30	I46178887	E5	5/18/2021
11	I46178868	B5	5/18/2021	31	I46178888	G1	5/18/2021
12	I46178869	C1	5/18/2021	32	I46178889	G2	5/18/2021
13	I46178870	C2	5/18/2021	33	I46178890	G3	5/18/2021
14	I46178871	C3	5/18/2021	34	I46178891	G4	5/18/2021
15	I46178872	C4	5/18/2021	35	I46178892	G5	5/18/2021
16	I46178873	C5	5/18/2021	36	I46178893	G6	5/18/2021
17	I46178874	C6	5/18/2021	37	I46178894	G7	5/18/2021
18	I46178875	C7	5/18/2021	38	I46178895	G8	5/18/2021
19	I46178876	C8	5/18/2021	39	I46178896	G9	5/18/2021
20	I46178877	C9	5/18/2021	40	I46178897	G10	5/18/2021

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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No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
41	I46178898	H1	5/18/2021	85	I46178942	J42	5/18/2021
42	I46178899	H2	5/18/2021	86	I46178943	J43	5/18/2021
43	I46178900	H3	5/18/2021	87	I46178944	J44	5/18/2021
44	I46178901	H4	5/18/2021	88	I46178945	J45	5/18/2021
45	I46178902	J1	5/18/2021	89	I46178946	J46	5/18/2021
46	I46178903	J2	5/18/2021	90	I46178947	J47	5/18/2021
47	I46178904	J3	5/18/2021	91	I46178948	J48	5/18/2021
48	I46178905	J4	5/18/2021	92	I46178949	J49	5/18/2021
49	I46178906	J5	5/18/2021	93	I46178950	J50	5/18/2021
50	I46178907	J6	5/18/2021	94	I46178951	J51	5/18/2021
51	I46178908	J7	5/18/2021	95	I46178952	K1	5/18/2021
52	I46178909	J8	5/18/2021	96	I46178953	K2	5/18/2021
53	I46178910	J10	5/18/2021	97	I46178954	K3	5/18/2021
54	I46178911	J11	5/18/2021	98	I46178955	K4	5/18/2021
55	I46178912	J12	5/18/2021	99	I46178956	LAY1	5/18/2021
56	I46178913	J13	5/18/2021	100	I46178957	LAY2	5/18/2021
57	I46178914	J14	5/18/2021	101	I46178958	LAY3	5/18/2021
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66	I46178923	J23	5/18/2021	110	I46178967	V8	5/18/2021
67	I46178924	J24	5/18/2021	111	I46178968	V9	5/18/2021
68	I46178925	J25	5/18/2021	112	I46178969	V10	5/18/2021
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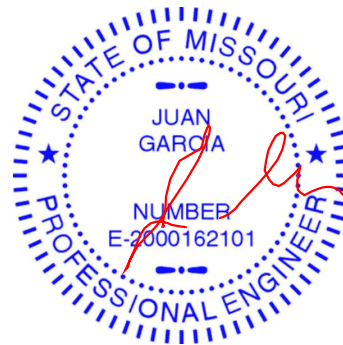
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

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

Missouri COA: 001193

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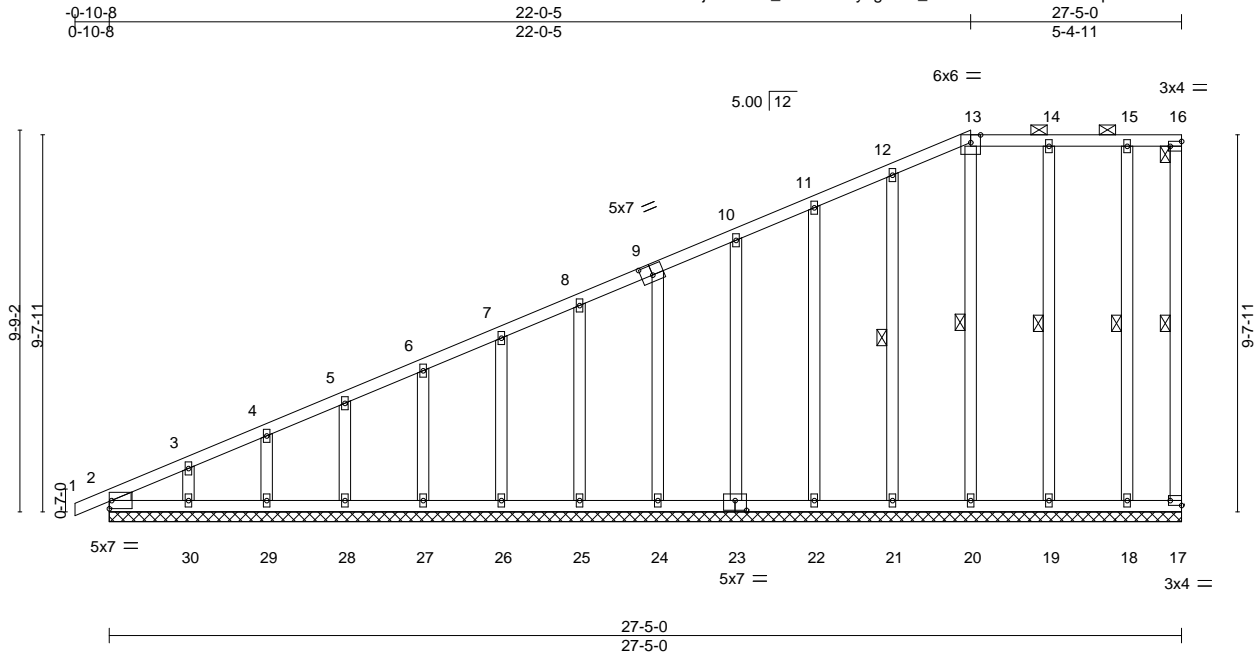
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65	I46178922	J22	5/18/2021	109	I46178966	R1	5/18/2021
66	I46178923	J23	5/18/2021	110	I46178967	V8	5/18/2021
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81	I46178938	J38	5/18/2021				
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84	I46178941	J41	5/18/2021				

Job 210521	Truss A1	Truss Type Half Hip Supported	Qty 1	Ply 1	Lot 142 W0	I46178858
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:35:44 2021 Page 1
ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-cnCoo2Gt3nBErrx7pz3ThYAAwswA10GlrSvCJDzFEXj



Scale = 1:58.9

Plate Offsets (X,Y)--	[9:0-3-8,0-3-0], [16:Edge,0-1-8], [17:Edge,0-1-8], [23:0-3-8,0-3-0]					
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.00 1	n/r 120
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.00 1	n/r 120
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	-0.01 17	n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S			
						PLATES MT20 GRIP 197/144
						Weight: 160 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
WEDGE
Left: 2x3 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.): 13-16.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 23-24.
WEBS 1 Row at midpt 16-17, 13-20, 12-21, 14-19, 15-18

REACTIONS.

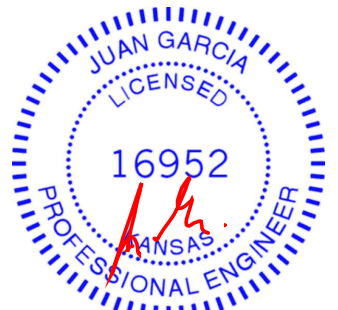
All bearings 27-5-0.
(lb) - Max Horz 2=410(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 19, 18
Max Grav All reactions 250 lb or less at joint(s) 17, 2, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 19, 18

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

TOP CHORD 2-3=-364/37, 3-4=-315/30, 4-5=-291/28, 5-6=-266/25

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) gable end 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.
- 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 3-6-0 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 100 lb uplift at joint(s) 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 19, 18.
- 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.



May 18, 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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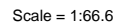
Waverly, KS - 66871.

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:35:47 2021 Page 1

146178860

Job Reference (optional)

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:35:47 2021 Page 1
ID:Ei7EWovY 94Pzt7UVy1qWAz t70-0LuxR3lIMiaoiJfiU5dAJaOYS4piVBNCXQ7swYzFEXa



- 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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=237, 2=207.
- 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.



May 18, 2021



WARNING – Velly design parameters are listed ONLY on this and INCLUDED WITHIN KEY REFERENCE 1: 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,



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178861
210521	A4	Half Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:35:48 2021 Page 1

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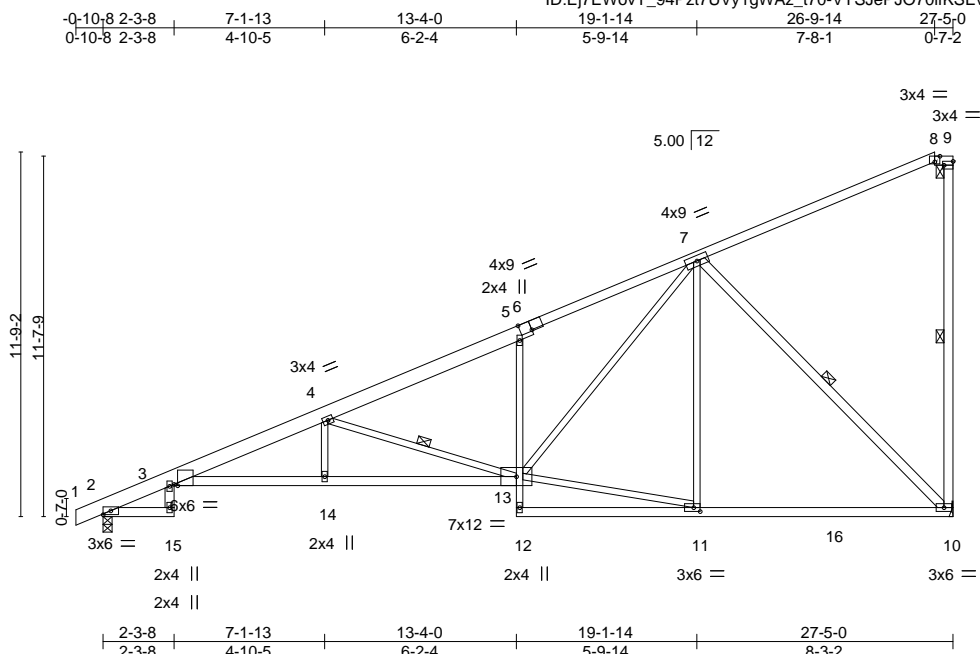


Plate Offsets (X,Y)-- [3:0-1-6,Edge], [6:0-4-6,Edge], [8:0-2-0,Edge], [9:Edge,0-1-8], [11:0-2-8,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.35 3-14 >920 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.62 3-14 >525 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.36 10 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.33 3-14 >986 240	Weight: 141 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-6: 2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
3-13: 2x4 SPF 2100F 1.8E, 5-12: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
9-10,3-15,7-10: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 10=Mechanical, 2=0-3-8
Max Horz 2=470(LC 8)
Max Uplift 10=317(LC 8), 2=155(LC 8)
Max Grav 10=1304(LC 2), 2=1329(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-708/0, 3-4=-3462/508, 4-5=-2057/232, 5-7=-1982/322
BOT CHORD 3-14=-893/3325, 13-14=-893/3325, 5-13=-277/161, 10-11=-243/964
WEBS 4-14=0/268, 4-13=-1608/446, 11-13=-220/950, 7-13=-366/1340, 7-11=0/302,
7-10=-1354/341

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 10=317, 2=155.
- 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.



May 18, 2021

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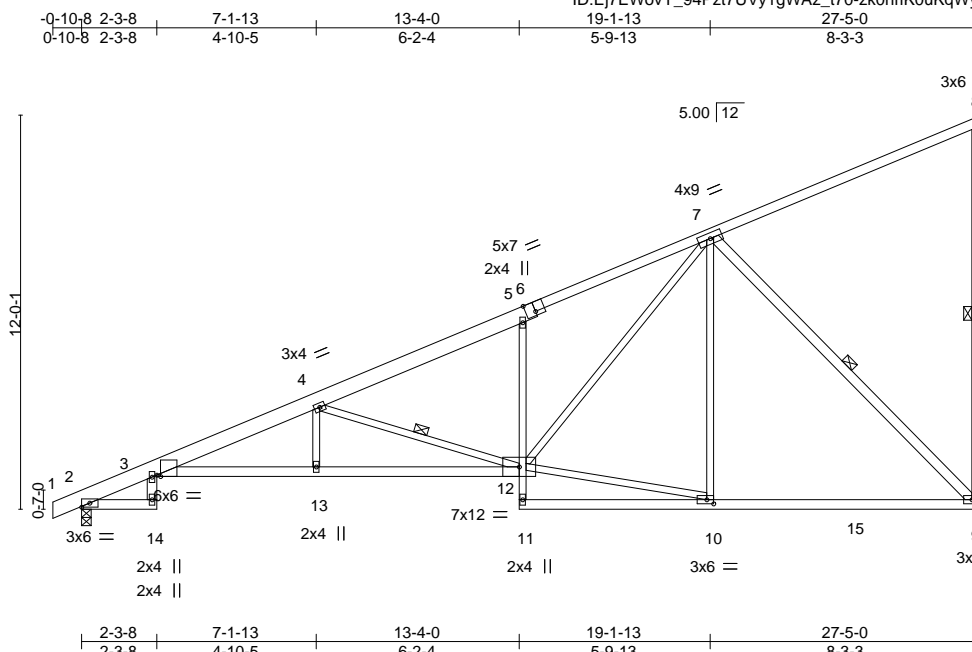
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210521	Truss A5	Truss Type Monopitch	Qty 4	Ply 1	Lot 142 W0	I46178862
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:35:49 2021 Page 1

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Scale = 1:70.2

Plate Offsets (X,Y)--		[3:0-1-6,Edge], [6:0-3-8,Edge], [10:0-2-8,0-1-8]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP			
TCLL	25.0	Plate Grip DOL 1.15		TC	0.96	Vert(LL)	-0.35 3-13 >920 360	MT20			197/144		
TCDL	10.0	Lumber DOL 1.15		BC	0.73	Vert(CT)	-0.62 3-13 >525 240						
BCLL	0.0 *	Rep Stress Incr YES		WB	0.84	Horz(CT)	0.36 9 n/a n/a						
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.33 3-13 >985 240	Weight: 142 lb			FT = 10%		

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-6: 2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
3-12: 2x4 SPF 2100F 1.8E, 5-11: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
8-9,3-14,7-9: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 8-9, 4-12, 7-9

REACTIONS.

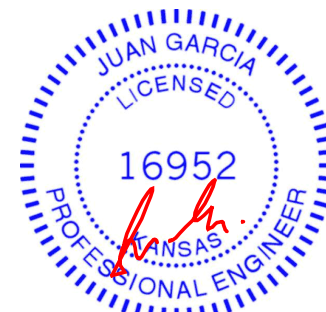
(size) 9=Mechanical, 2=0-3-8
Max Horz 2=481(LC 8)
Max Uplift 9=329(LC 8), 2=150(LC 8)
Max Grav 9=1304(LC 2), 2=1329(LC 2)

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

TOP CHORD 2-3=-714/0, 3-4=-3462/497, 4-5=-2057/220, 5-7=-1980/309
BOT CHORD 3-13=-895/3326, 12-13=-895/3325, 5-12=-273/159, 9-10=-245/966
WEBS 4-13=0/268, 4-12=-1610/448, 10-12=-221/952, 7-12=-364/1336, 7-10=0/302,
7-9=-1359/344

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) gable end zone; cantilever left and right exposed ; end vertical left 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=329, 2=150.
- 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.



May 18, 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



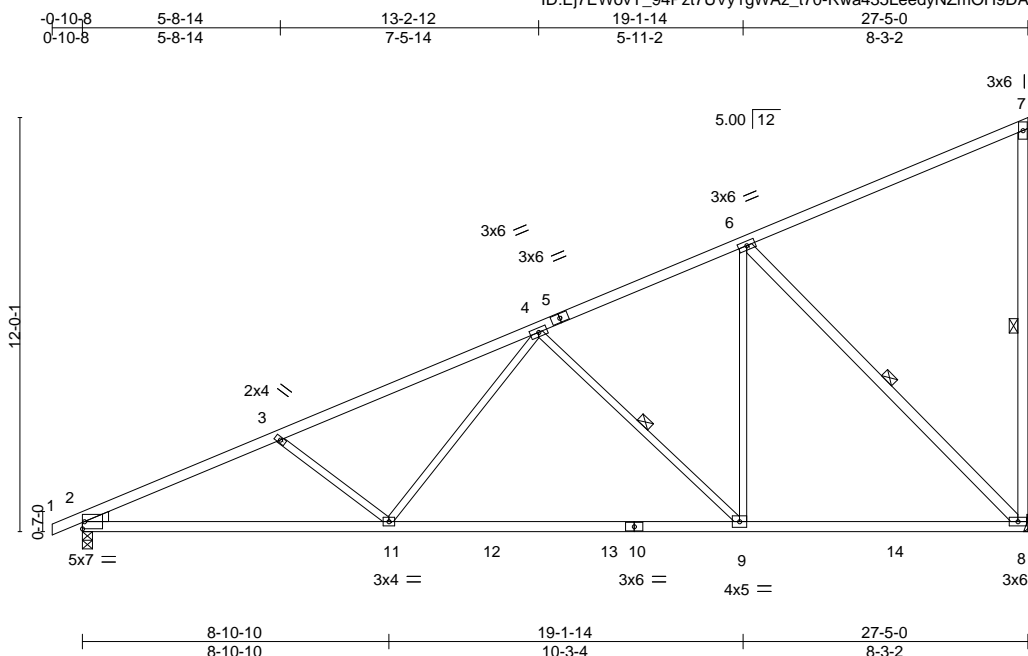
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210521	Truss A6	Truss Type Monopitch	Qty 1	Ply 1	Lot 142 W0	I46178863
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Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:66.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.82	Vert(LL)	-0.26 9-11	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.59	Vert(CT)	-0.45 9-11	>720	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.87	Horz(CT)	0.06 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08 9-11	>999	240		
								Weight: 115 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
7-8,6-8: 2x4 SPF No.2

WEDGE
Left: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-8-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-7-10 oc bracing.
WEBS 1 Row at midpt 7-8, 4-9, 6-8

REACTIONS.

(size) 8=Mechanical, 2=0-3-8
Max Horz 2=478(LC 8)
Max Uplift 8=329(LC 8), 2=150(LC 8)
Max Grav 8=1329(LC 2), 2=1354(LC 2)

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

TOP CHORD 2-3=-2502/266, 3-4=-2238/181, 4-6=-1142/65
BOT CHORD 2-11=-656/2227, 9-11=-423/1549, 8-9=-239/1001
WEBS 3-11=-407/260, 4-11=-51/728, 4-9=-766/256, 6-9=-56/968, 6-8=-1411/336

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) gable end zone; cantilever left and right exposed; end vertical left 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=329, 2=150.
- 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.



May 18, 2021

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

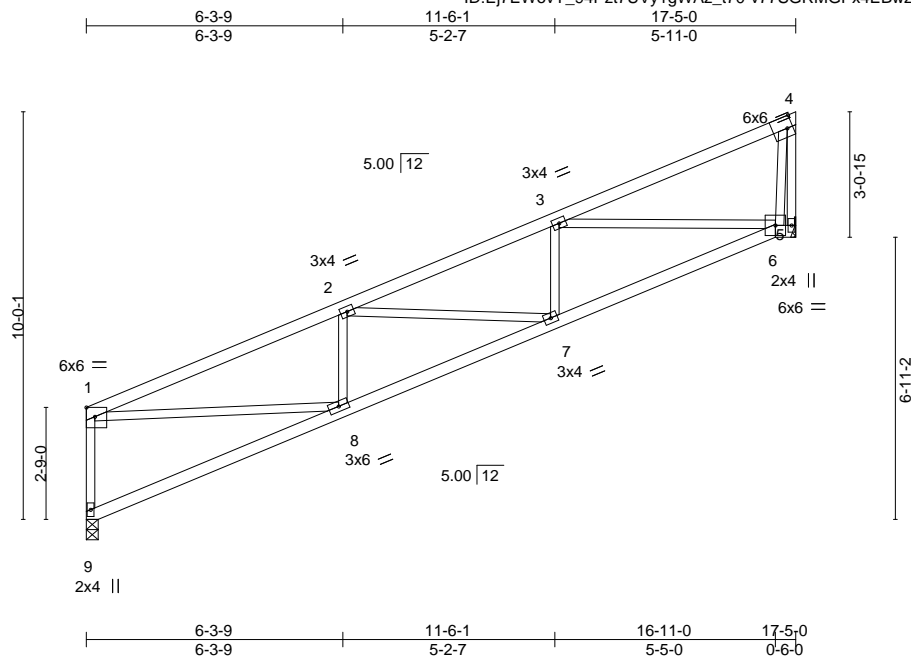
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:35:51 2021 Page 1
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Scale = 1:56.6

Plate Offsets (X,Y)-- [1:Edge,0-2-12], [4:0-1-11,Edge]														
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	-0.07	7-8	>999	360	MT20	197/144		
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.13	8-9	>999	240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.03	5	n/a	n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.05	7-8	>999	240	Weight: 66 lb	FT = 10%		

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 3-7-5 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2		
WEBS	2x3 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 9=0-3-8, 5=Mechanical
Max Horz 9=231(LC 5)
Max Uplift 5=-89(LC 8)
Max Grav 9=774(LC 1), 5=774(LC 1)

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

TOP CHORD	1-9=-732/83, 1-2=-1484/118, 2-3=-1430/133, 4-5=-702/54
BOT CHORD	7-8=-256/1428, 6-7=-196/1372
WEBS	1-8=-68/1258, 2-8=-402/105, 3-6=-1138/181, 4-6=-10/575

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); 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.



May 18, 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 142 W0	I46178865
210521	B2	Half Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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ID:Ej7EWovY_94Pzt7UVy1gWaz_t70-NJhqUnMuAFC5p4YgHeDL0EVVh5bSAajxhirdblzFEXb

6-3-9	11-6-0	16-2-5	17-5-0
6-3-9	5-2-7	4-8-4	1-2-11

6x6 = 3x6 =

Scale = 1:55.8

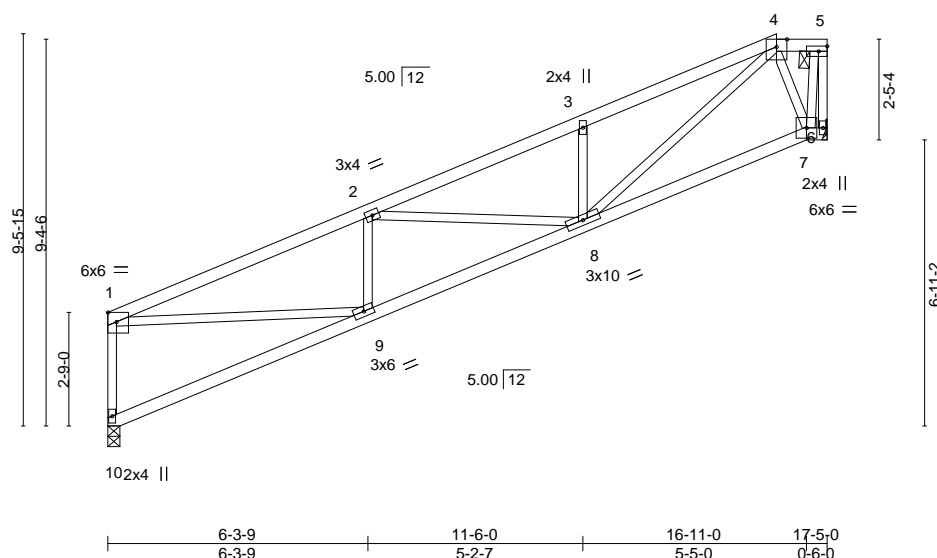


Plate Offsets (X,Y)--		[1:Edge,0-2-12]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)		l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.07 8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.13 9-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.02 6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.05 8-9	>999	240	Weight: 67 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 3-9-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

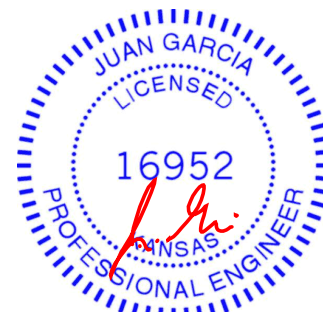
(size) 10=0-3-8, 6=Mechanical
Max Horz 10=211(LC 5)
Max Uplift 6=74(LC 8)
Max Grav 10=774(LC 1), 6=774(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-10=731/84, 1-2=1490/121, 2-3=1405/129, 3-4=1386/188, 5-6=750/43
BOT CHORD 8-9=251/1435, 7-8=54/393
WEBS 1-9=71/1266, 2-9=404/106, 3-8=320/101, 4-8=176/1213, 4-7=606/110, 5-7=52/766

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); 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6.
- 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.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 18, 2021

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

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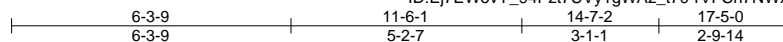
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178866
210521	B3	Half Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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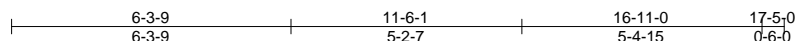
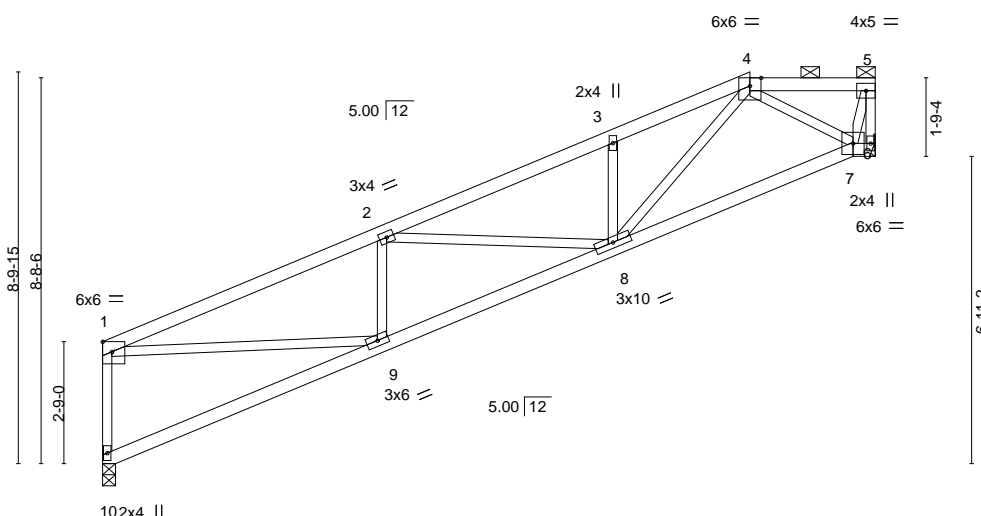


Plate Offsets (X,Y)--	[1:Edge,0-2-12]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.52	Vert(LL)	-0.06	8-9	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.39	Vert(CT)	-0.13	9-10	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.44	Horz(CT)	0.03	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.06	8-9	>999	240	Weight: 65 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 3-10-9 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 8-3-6 oc bracing: 8-9.

REACTIONS.

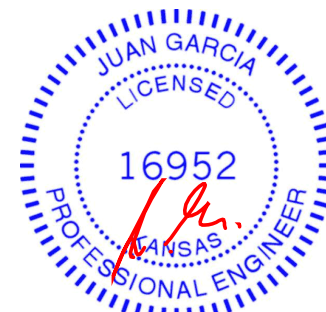
(size) 10=0-3-8, 6=Mechanical
Max Horz 10=239(LC 5)
Max Uplift 10=79(LC 8), 6=162(LC 8)
Max Grav 10=774(LC 1), 6=774(LC 1)

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

TOP CHORD 1-10=-731/194, 1-2=-1492/325, 2-3=-1396/319, 3-4=-1352/384, 5-6=-747/117
BOT CHORD 8-9=-503/1439, 7-8=-209/781
WEBS 1-9=-248/1269, 2-9=-407/181, 3-8=-254/138, 4-8=-254/806, 4-7=-597/195, 5-7=-107/674

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10 except (jt=lb) 6=162.
- 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.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178867
210521	B4	Half Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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ID:Ej7EWovY_94PztUVy1gWAZ_t70-JipavTO9isSp2Ni2O3Fp5farxuG6eS?E80KgezFEXZ

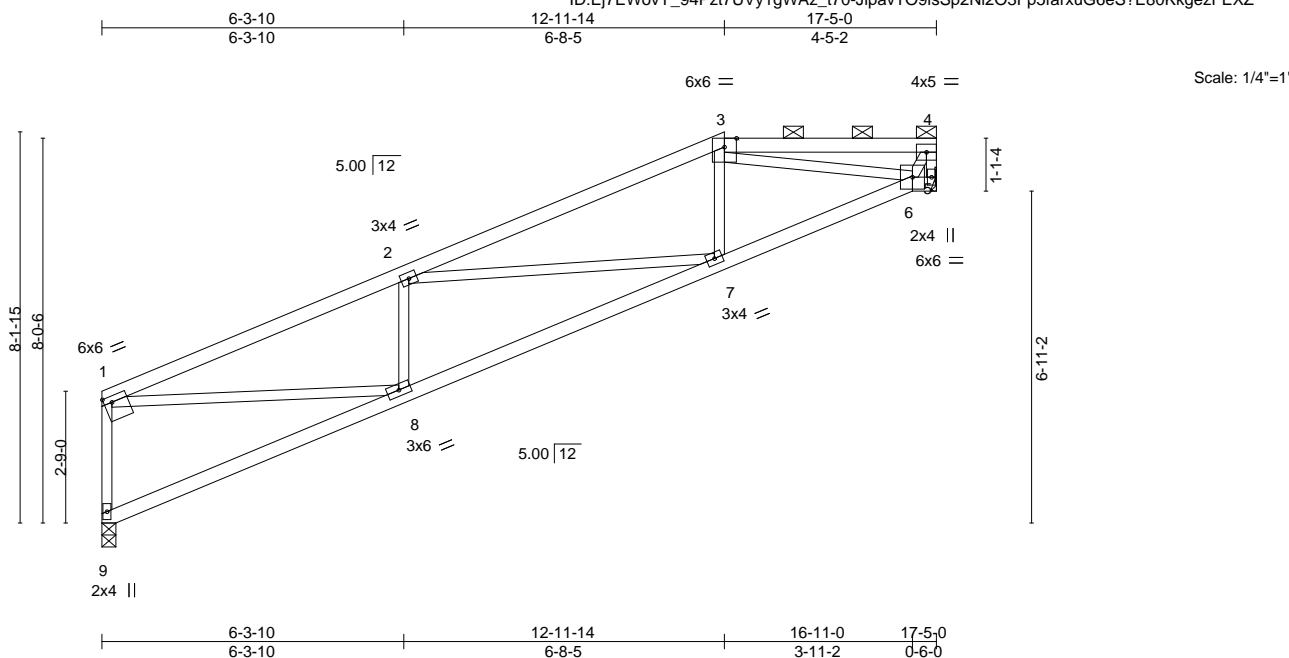


Plate Offsets (X,Y)-- [1:0-2-0,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.07	7-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.14	7-8	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.06	7-8	>999	240	Weight: 63 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 4-0-15 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 8-4-12 oc bracing: 7-8.

REACTIONS.

(size) 9=0-3-8, 5=Mechanical
Max Horz 9=211(LC 5)
Max Uplift 9=80(LC 8), 5=133(LC 8)
Max Grav 9=774(LC 1), 5=774(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-732/187, 1-2=-1524/320, 2-3=-1282/242, 3-4=-377/67, 4-5=-703/116
BOT CHORD 7-8=-489/1480, 6-7=-275/1190
WEBS 1-8=-247/1308, 2-8=-405/192, 3-7=-8/290, 3-6=-730/196, 4-6=-114/630

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 9 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 100 lb uplift at joint(s) 9 except (jt=lb) 5=133.
- 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.



May 18, 2021

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

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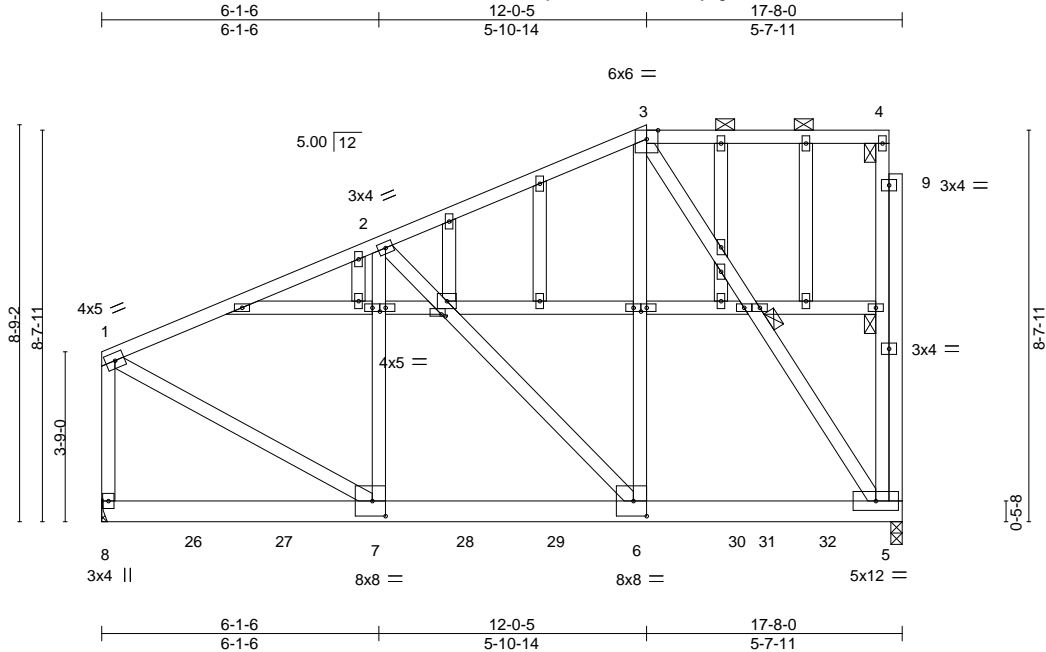
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178868
210521	B5	GABLE	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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ID:EJ7EWovY_94Pzt7UVy1gWAZ_170-G4xLJ8PPETiXHsRWUHH4f_i_K6MoWcKprkWzFEXX



Job	Truss	Truss Type	Qty	Ply	Lot 142 W0
210521	B5	GABLE	1	2	I46178868
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

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ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-G4xLJ8PPETiXHsRWUHH4fF_i_K6MoWcKprkWzFEXX

- NOTES-**
- 15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 619 lb down and 59 lb up at 2-0-0, 619 lb down and 63 lb up at 4-0-0, 619 lb down and 63 lb up at 6-0-0, 619 lb down and 63 lb up at 8-0-0, 619 lb down and 63 lb up at 10-0-0, 619 lb down and 63 lb up at 12-0-0, and 619 lb down and 63 lb up at 14-0-0, and 619 lb down and 63 lb up at 16-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 16) Studding applied to ply: 1(Front)

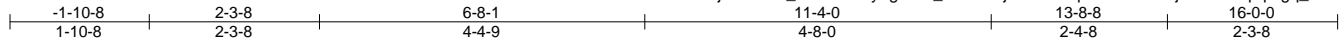
- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-3=-70, 3-4=-70, 5-8=-20
- Concentrated Loads (lb)
- Vert: 7=-619(B) 6=-619(B) 26=-619(B) 27=-619(B) 28=-619(B) 29=-619(B) 30=-619(B) 32=-619(B)

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178869
210521	C1	HALF HIP GIRDER	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:35:57 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-kHVjXUQ1?nqOvrQd4BoWjHCJb6CqrqMgq_YOGzzFEXW



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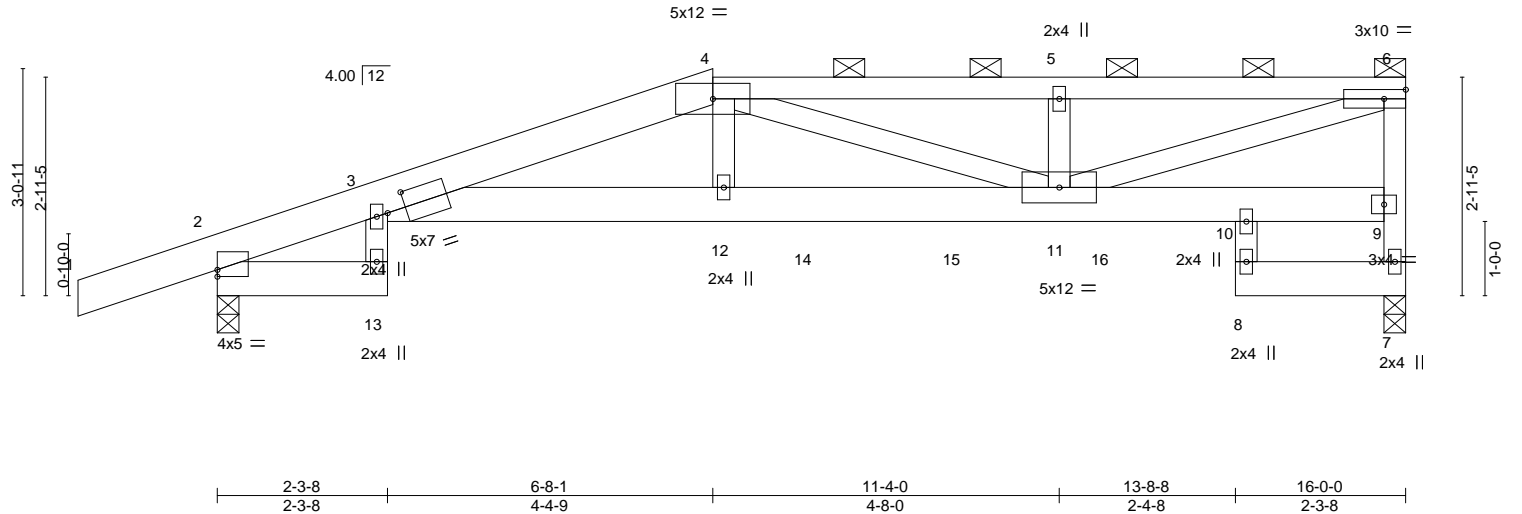


Plate Offsets (X,Y)-- [2:0-0-0,0-1-2], [3:0-3-1,0-2-9]											
LOADING (psf)		SPACING-2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.16	3-12	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.28	3-12	>677	240	
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.41	Horz(CT)	0.19	7	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.14	3-12	>999	240	Weight: 152 lb FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF 1650F 1.4E *Except*	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.): 4-6.
4-6: 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
BOT CHORD 2x6 SPF No.2 *Except*	
8-10: 2x4 SPF No.2	
WEBS 2x4 SPF No.2	

REACTIONS. (size) 7=0-3-8, 2=0-3-8
Max Horz 2=120(LC 5)
Max Uplift 7=383(LC 4), 2=384(LC 4)
Max Grav 7=1518(LC 1), 2=1404(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-680/133, 3-4=-4260/1051, 4-5=-3373/876, 5-6=-3373/876, 7-9=-1474/388, 6-9=-1264/343
BOT CHORD 3-12=-1017/4090, 11-12=-1035/4183
WEBS 4-12=-196/985, 4-11=-855/221, 5-11=-317/164, 6-11=-853/3349

NOTES-

- 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: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs 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) gable end 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 3-6-0 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 100 lb uplift at joint(s) except (jt=lb) 7=383, 2=384.
- 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) 449 lb down and 141 lb up at 6-8-1, 230 lb down and 81 lb up at 7-11-4, 230 lb down and 81 lb up at 9-11-4, and 230 lb down and 81 lb up at 11-11-4, and 230 lb down and 79 lb up at 13-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

Continued on page 2

LOAD CASE(S) Standard

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May 18, 2021



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0
210521	C1	HALF HIP GIRDER	1	2	I46178869
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:35:57 2021 Page 2
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LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-4=-70, 4-6=-70, 2-13=-20, 3-10=-20, 7-8=-20
- Concentrated Loads (lb)
 - Vert: 10=-230(F) 12=-449(F) 14=-230(F) 15=-230(F) 16=-230(F)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178870
210521	C2	Half Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:35:59 2021 Page 1
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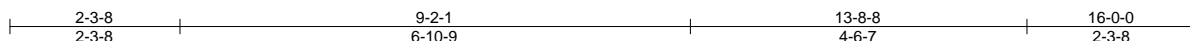
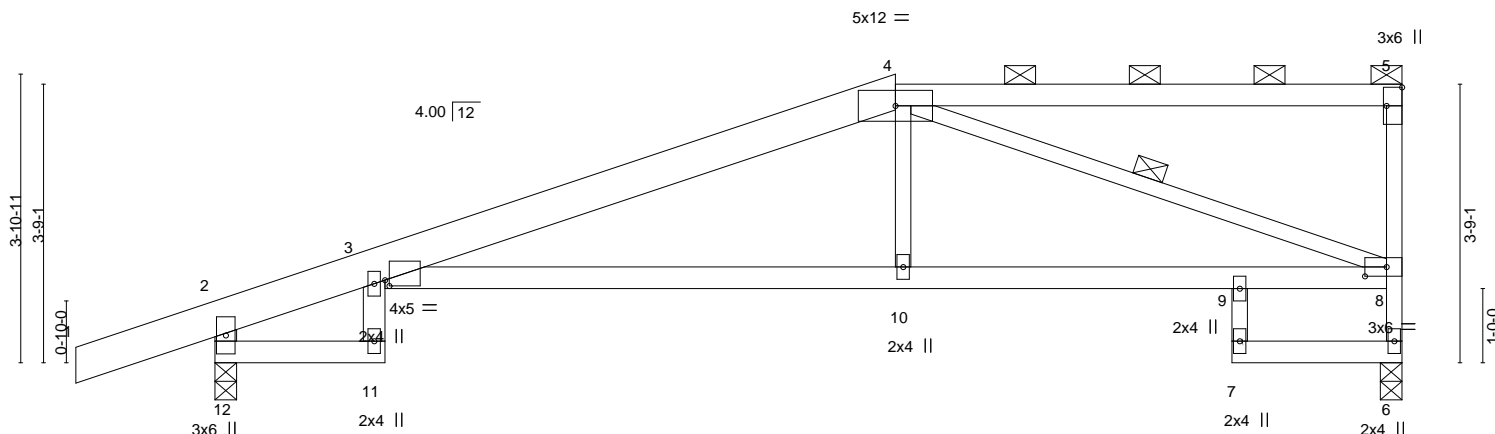


Plate Offsets (X,Y)-- [3:0-0-11,0-0-15], [5:Edge,0-2-8], [8:0-3-8,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.72	Vert(LL)	-0.28	3-10	>670	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.71	Vert(CT)	-0.55	3-10	>342	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.60	Horz(CT)	0.32	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.24	3-10	>789	240	Weight: 61 lb	FT = 10%

LUMBER-
TOP CHORD 2x6 SPF 1650F 1.4E *Except*
4-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
7-9: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-11,2-12: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-7-1 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 6-7.
WEBS 1 Row at midpt 4-8

REACTIONS. (size) 6=0-3-8, 12=0-3-8
Max Horz 12=166(LC 5)
Max Uplift 6=134(LC 4), 12=216(LC 4)
Max Grav 6=700(LC 1), 12=859(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-263/11, 3-4=-1296/218, 6-8=-673/147, 2-12=-857/235
BOT CHORD 3-10=-212/1223, 9-10=-207/1229, 8-9=-215/1232
WEBS 4-10=0/317, 4-8=-1250/226

- 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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 6=134, 12=216.
 - 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.



May 18, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178871
210521	C3	Half Hip Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:00 2021 Page 1

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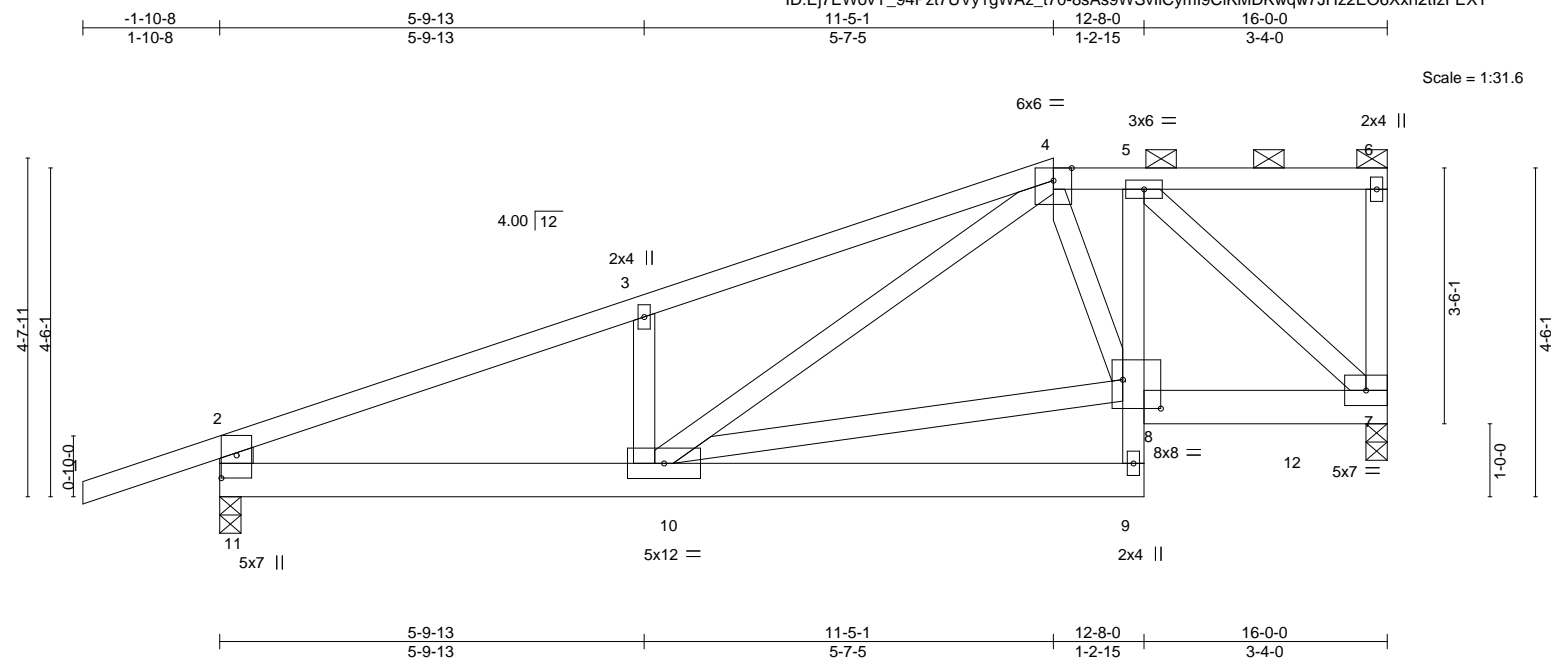


Plate Offsets (X,Y)-- [8:0-6-4,0-4-12], [11:0-3-12,0-2-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES	GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.04	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.08	9-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.20	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.03	9-10	>999	240	Weight: 183 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x6 SP 2400F 2.0E *Except*
 5-9: 2x4 SPF No.2
 WEBS 2x4 SPF No.2 *Except*
 2-11: 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.): 4-6.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 9-10.

REACTIONS.

(size) 7=0-3-8, 11=0-3-8
 Max Horz 11=178(LC 5)
 Max Uplift 7=444(LC 4), 11=238(LC 4)
 Max Grav 7=3641(LC 1), 11=1074(LC 1)

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

TOP CHORD 2-3=-1633/234, 3-4=-1560/283, 4-5=-1573/257, 2-11=-880/245
 BOT CHORD 10-11=-253/1477, 5-8=-174/1327, 7-8=-233/1733
 WEBS 3-10=-323/200, 4-10=-335/301, 8-10=-219/1518, 4-8=-124/472, 5-7=-2150/306

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, 2x6 - 2 rows staggered at 0-9-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-3-0 oc, 2x4 - 1 row at 0-9-0 oc.
 Webs 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) gable end 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 3-6-0 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 100 lb uplift at joint(s) except (jt=lb) 7=444, 11=238.
- 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) 3162 lb down and 338 lb up at 14-9-9 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

Continued on page 2



May 18, 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 142 W0	I46178871
210521	C3	Half Hip Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:00 2021 Page 2
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LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-4=-70, 4-6=-70, 9-11=-20, 7-8=-20
Concentrated Loads (lb)
Vert: 12=-3162(B)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178872
210521	C4	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:01 2021 Page 1
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-1-10-8	2-3-8	8-2-5	14-2-1	14-8-0
1-10-8	2-3-8	5-10-13	5-11-12	0-5-15

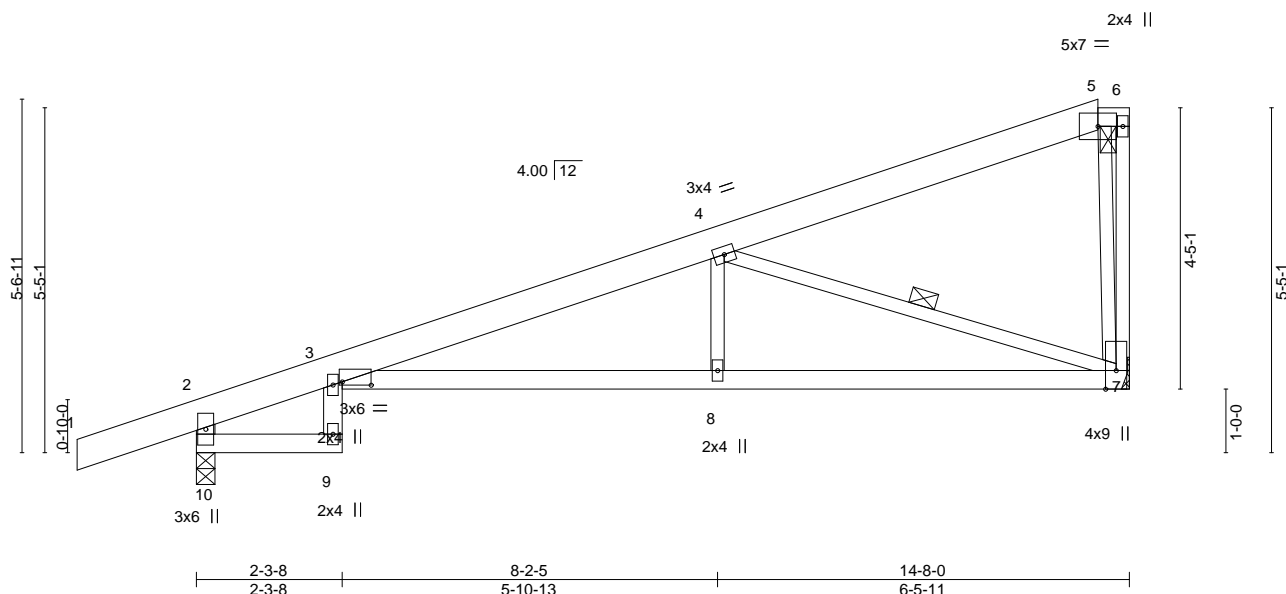


Plate Offsets (X,Y)--		[3:0-5-7,0-0-10]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.19	3-8	>888	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.38	3-8	>461	240	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.21	7	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.13	3-8	>999	240	Weight: 62 lb FT = 10%

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
5-6: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-9,2-10: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 7=Mechanical, 10=0-3-8
Max Horz 10=168(LC 5)
Max Uplift 7=-39(LC 8), 10=-86(LC 4)
Max Grav 7=639(LC 1), 10=800(LC 1)

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

TOP CHORD 2-3=-266/0, 3-4=-1338/61, 2-10=-795/103
BOT CHORD 3-8=-76/1271, 7-8=-75/1270
WEBS 4-8=0/287, 4-7=-1314/110

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
- 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 7, 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 18, 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 142 W0	I46178873
210521	C5	Monopitch	7	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:02 2021 Page 1
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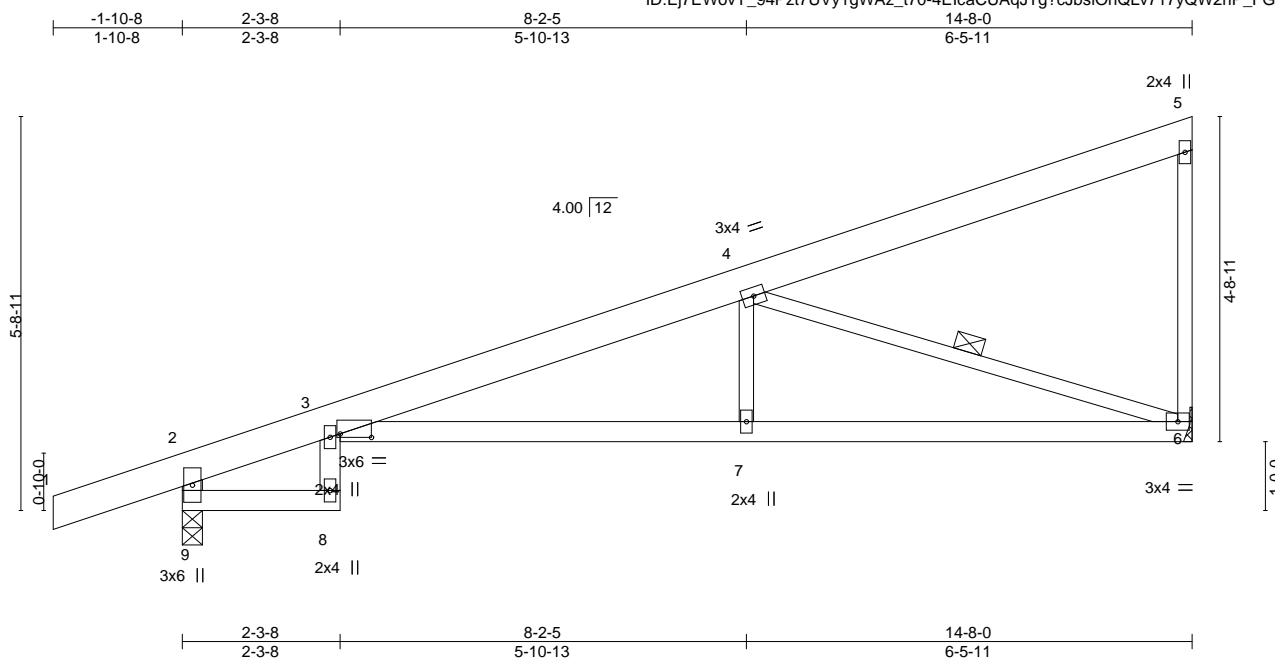


Plate Offsets (X,Y)-- [3:0-5-7,0-0-10]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.19	3-7	>894	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.37	3-7	>463	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.21	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.13	3-7	>999	240	Weight: 59 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-8,2-9: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-6

REACTIONS.

(size) 6=Mechanical, 9=0-3-8
Max Horz 9=174(LC 5)
Max Uplift 6=43(LC 8), 9=86(LC 4)
Max Grav 6=639(LC 1), 9=800(LC 1)

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

TOP CHORD 2-3=-271/0, 3-4=-1347/62, 2-9=-795/102
BOT CHORD 3-7=-79/1281, 6-7=-78/1280
WEBS 4-7=0/287, 4-6=-1345/118

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); 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 6, 9.
- 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.



May 18, 2021

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



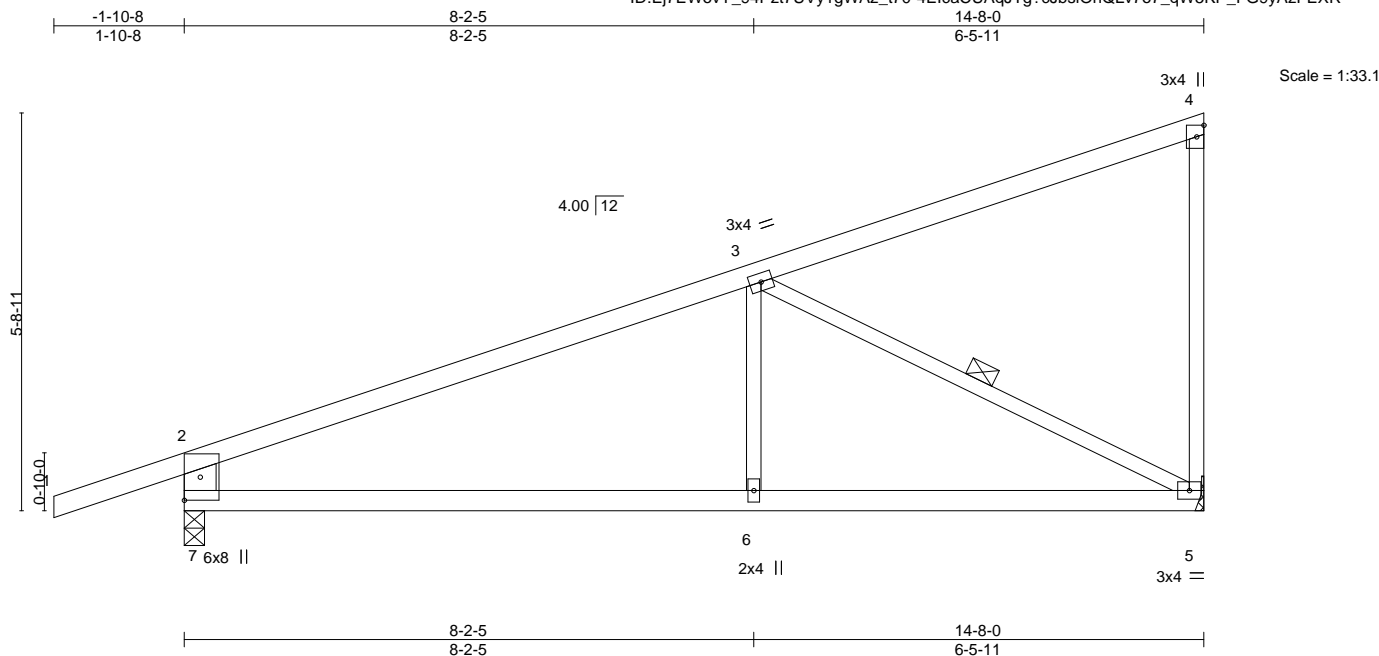
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178874
210521	C6	Monopitch	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.88	Vert(LL)	-0.09	6-7	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.46	Vert(CT)	-0.18	6-7	>934	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.43	Horz(CT)	0.02	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03	5-6	>999	240	Weight: 50 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-7: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 3-5

REACTIONS.

(size) 5=Mechanical, 7=0-3-8
 Max Horz 7=190(LC 5)
 Max Uplift 5=43(LC 8), 7=89(LC 4)
 Max Grav 5=634(LC 1), 7=803(LC 1)

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

TOP CHORD 2-3=-928/38, 2-7=-715/134
 BOT CHORD 6-7=-49/789, 5-6=-49/789
 WEBS 3-6=0/317, 3-5=-873/89

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); 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 7.
- 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.



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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 210521	Truss C7	Truss Type Monopitch	Qty 5	Ply 1	Lot 142 W0 Job Reference (optional)	I46178875
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:03 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-YQs_nYVobdbXdmunQSVwyYSQnXOJFeFYDv?jUdzFEXQ

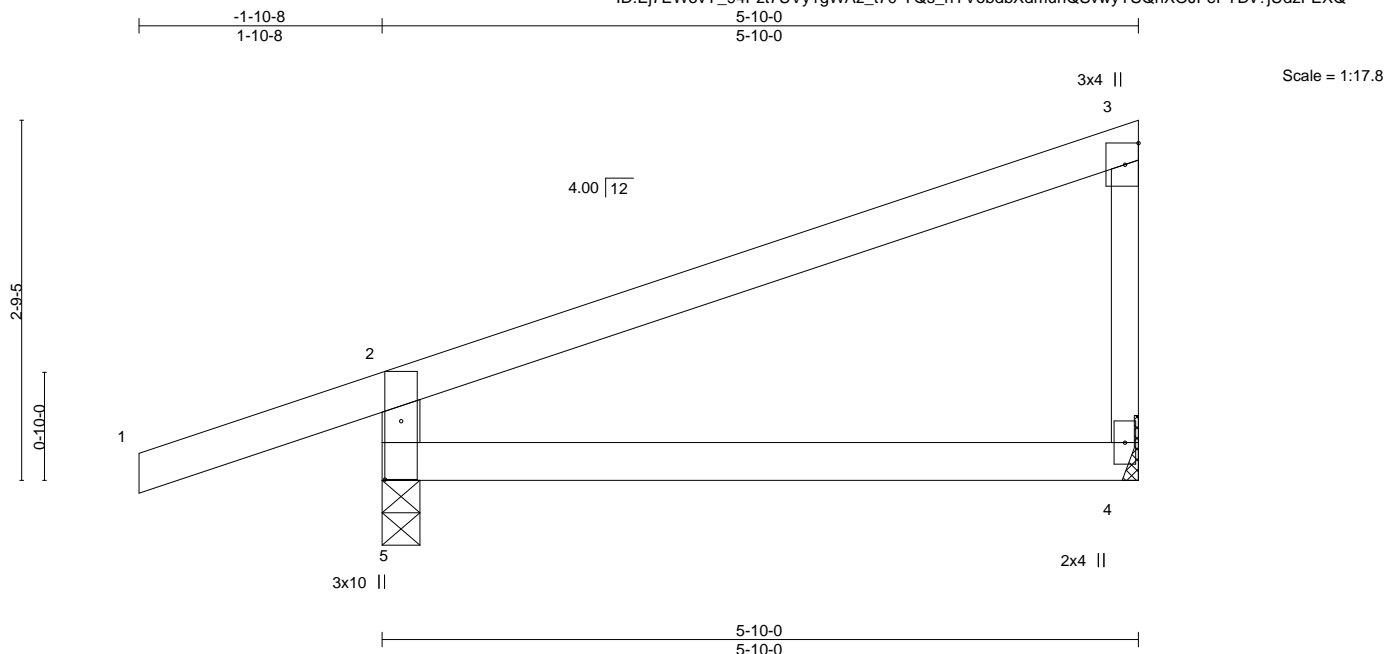


Plate Offsets (X,Y)--		[5:0-5-6,0-1-8]								
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL 1.15		TC 0.36		Vert(LL) -0.04 4-5	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL 1.15		BC 0.25		Vert(CT) -0.08 4-5	>846	240		
BCLL 0.0 *		Rep Stress Incr YES		WB 0.00		Horz(CT) -0.00 4	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-R		Wind(LL) 0.01 4-5	>999	240	Weight: 18 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
3-4: 2x3 SPF No.2

BRACING-

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

REACTIONS.

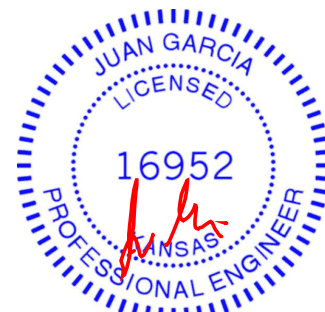
(size) 4=Mechanical, 5=0-3-8
Max Horz 5=120(LC 5)
Max Uplift 4=-49(LC 8), 5=-138(LC 4)
Max Grav 4=226(LC 1), 5=418(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-370/176

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4 except (jt=lb) 5=138.
- 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.



May 18, 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 210521	Truss C8	Truss Type Half Hip	Qty 1	Ply 1	Lot 142 W0	I46178876
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

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-1-10-8	8-2-5	12-11-1	14-8-0
1-10-8	8-2-5	4-8-12	1-8-15

6x6 = 2x4 || Scale: 3/8"=1'

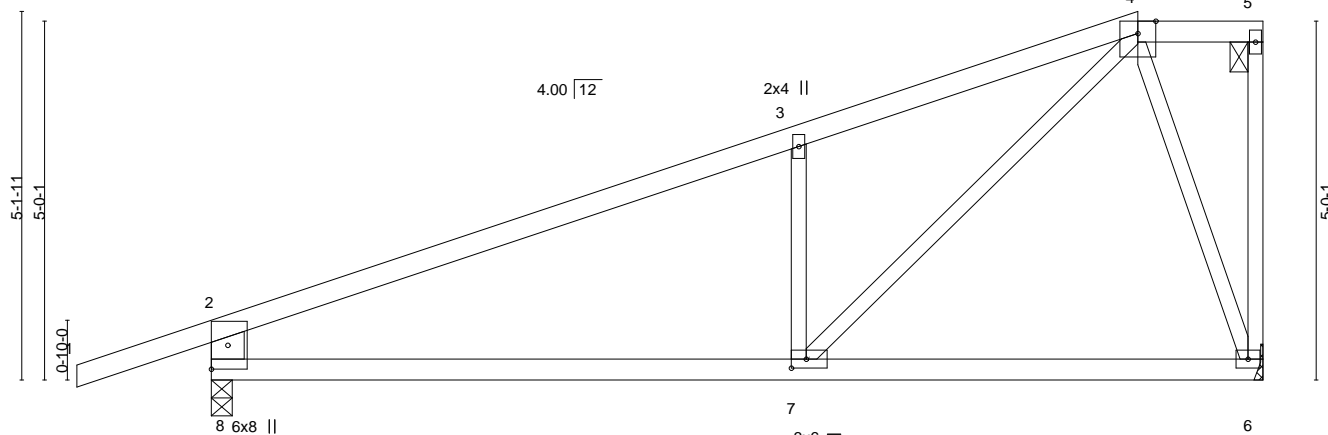


Plate Offsets (X,Y)--	[7:0-2-8,0-1-8]
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LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.90	Vert(LL)	-0.09	7-8	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.46	Vert(CT)	-0.18	7-8	>933	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.35	Horz(CT)	0.01	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03	6-7	>999	240	Weight: 52 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

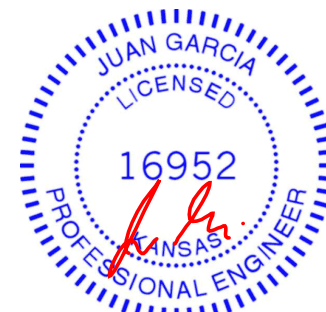
(size) 6=Mechanical, 8=0-3-8
Max Horz 8=220(LC 5)
Max Uplift 6=129(LC 4), 8=-201(LC 4)
Max Grav 6=634(LC 1), 8=803(LC 1)

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

TOP CHORD 2-3=-913/142, 3-4=-873/232, 2-8=-718/247
BOT CHORD 7-8=-141/772
WEBS 3-7=-439/240, 4-7=-210/826, 4-6=-573/133

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 6=129, 8=201.
- 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.



May 18, 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

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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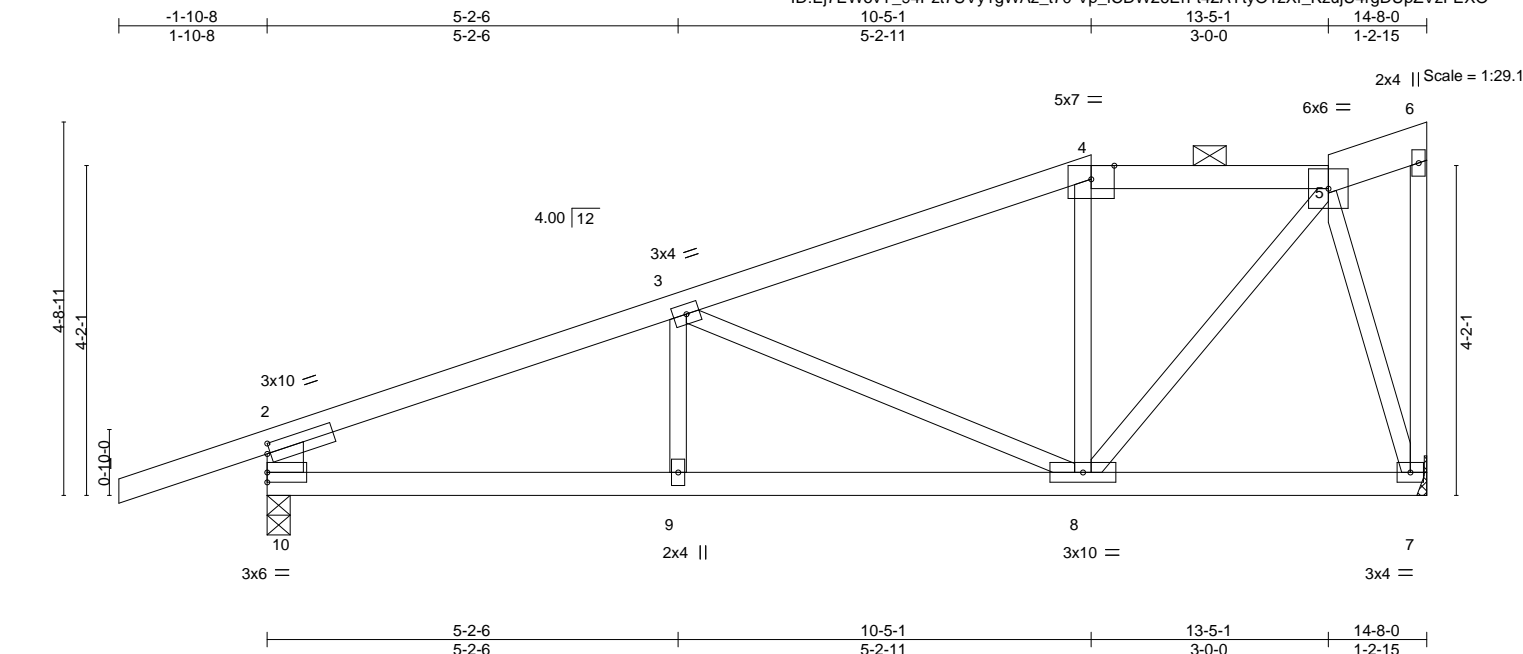


Plate Offsets (X,Y)--		[2:0-0-8,0-1-8]									
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.09 8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.16 8-9	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.30	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: 58 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except*
	5-6: 2x6 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except*
	2-10: 2x6 SP DSS

BRACING-

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

REACTIONS.

(size) 7=Mechanical, 10=0-3-8
Max Horz 10=203(LC 5)
Max Uplift 7=-130(LC 8), 10=-204(LC 4)
Max Grav 7=634(LC 1), 10=803(LC 1)

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

TOP CHORD 2-3=-998/169, 3-4=-584/119, 4-5=-522/138, 2-10=-697/219
BOT CHORD 9-10=-180/869, 8-9=-180/869
WEBS 3-8=-385/126, 5-8=-110/563, 5-7=-600/144

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=130, 10=204.
- 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.



May 18, 2021

 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.

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 Code**

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 142 W0	146178878
210521	C10	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:35:58 2021 Page 1
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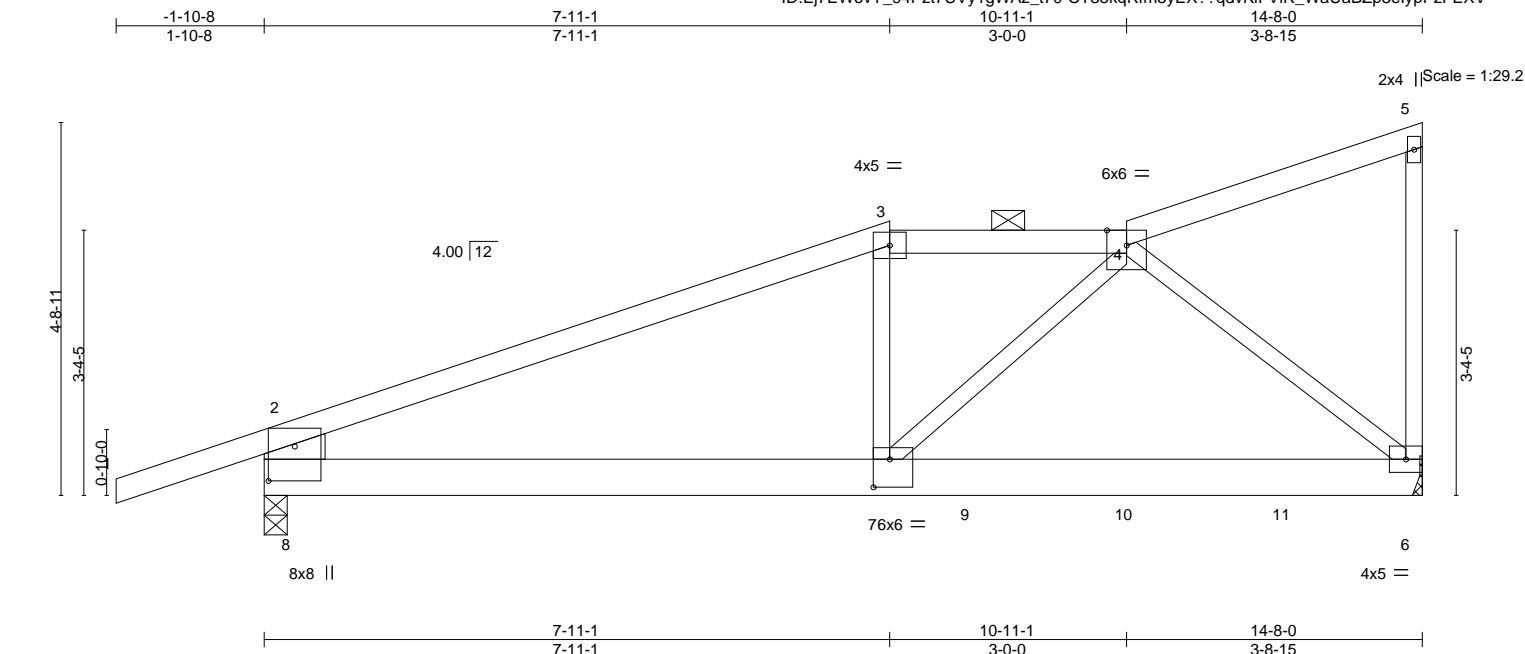


Plate Offsets (X,Y)--		[7:0-2-8,0-4-4], [8:0-5-4,0-4-0]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.94
TCDL 10.0	Lumber DOL	1.15	BC 0.68
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.80
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.15 6-7 >999 360
			Vert(CT) -0.27 6-7 >629 240
			Horz(CT) 0.02 6 n/a n/a
			Wind(LL) 0.14 6-7 >999 240
			PLATES MT20
			GRIP 197/144
			Weight: 60 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-3: 2x4 SPF 2100F 1.8E
BOT CHORD 2x6 SPF 1650F 1.4E
WEBS 2x3 SPF No.2 *Except*
2-8: 2x10 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-8-6 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-13 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 6=Mechanical, 8=0-3-8
Max Horz 8=204(LC 22)
Max Uplift 6=381(LC 8), 8=345(LC 4)
Max Grav 6=1404(LC 1), 8=1219(LC 1)

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

TOP CHORD 2-3=-1995/494, 3-4=-1781/498, 2-8=-1098/378
BOT CHORD 7-8=-464/1791, 6-7=-284/1107
WEBS 3-7=-113/352, 4-7=-252/942, 4-6=-1415/419

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=381, 8=345.
- 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.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 503 lb down and 181 lb up at 7-11-1, 211 lb down and 76 lb up at 8-11-13, and 238 lb down and 83 lb up at 10-11-4, and 238 lb down and 83 lb up at 12-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) 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 (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 6-8=-20



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Continued on page 2

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

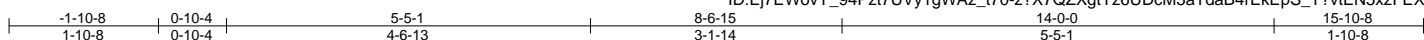
Job	Truss	Truss Type	Qty	Ply	Lot 142 W0
210521	C10	Roof Special Girder	1	1	I46178878
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:35:58 2021 Page 2
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LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 7=-503(B) 9=-211(B) 10=-238(B) 11=-238(B)

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Scale = 1:28.9

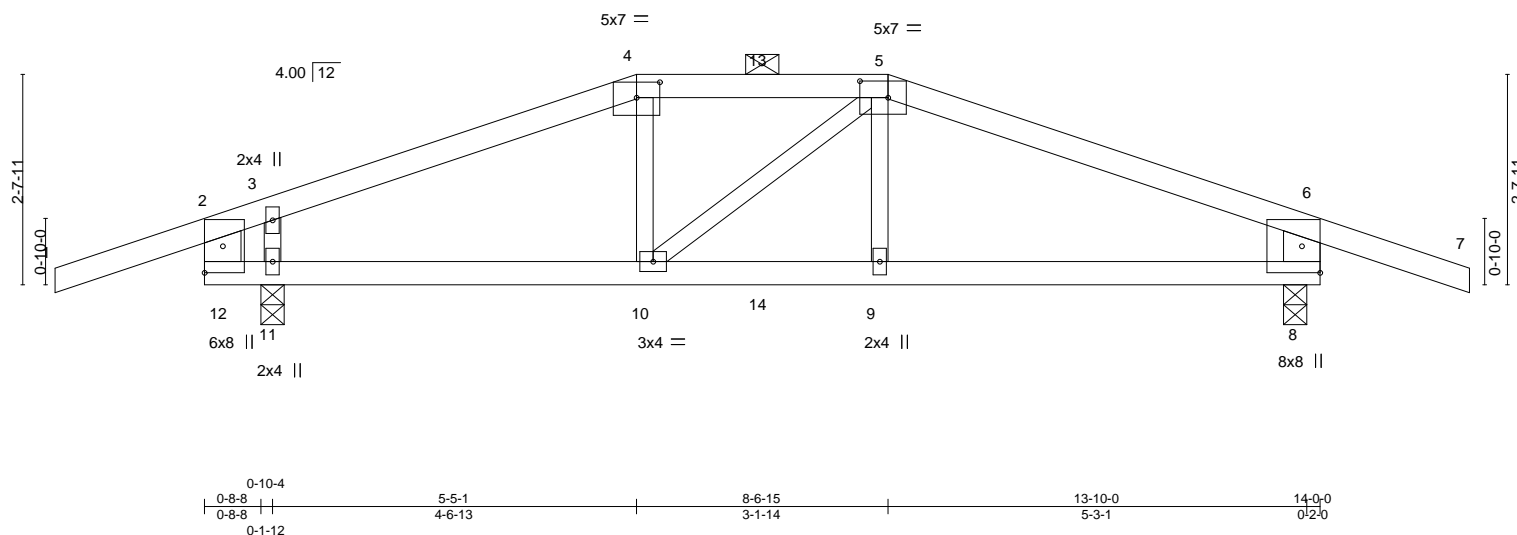


Plate Offsets (X,Y)-- [4:0-3-8,0,2-5], [5:0-4-4,0,2-8]									
LOADING (psf)		SPACING- 2-0-0		CSL		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL 25.0		Plate Grip DOL 1.15		TC 0.73		Vert(LL) -0.15 9-10 >999 360		MT20	197/144
TCDL 10.0		Lumber DOL 1.15		BC 0.90		Vert(CT) -0.27 9-10 >570 240			
BCLL 0.0 *		Rep Stress Incr NO		WB 0.10		Horz(CT) 0.02 8 n/a n/a			
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S		Wind(LL) 0.14 9-10 >999 240		Weight: 46 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF 2100F 1.8E *Except*
	4-5: 2x4 SPF No.2
BOT CHORD	2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except*
	2-12.6-8: 2x6 SP DSS

BRACING-

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

REACTIONS.

(size) 8=0-3-8, 11=0-3-8
 Max Horz 11=22(LC 8)
 Max Uplift 8=-269(LC 5), 11=-303(LC 4)
 Max Grav 8=927(LC 1), 11=1021(LC 1)

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

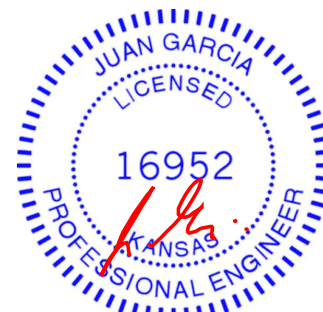
TOP CHORD 2-3=-982/207, 3-4=-1107/265, 4-5=-971/258, 5-6=-1259/292, 2-12=-370/71,
6-8=-813/284
BOT CHORD 11-12=-181/963, 10-11=-165/963, 9-10=-196/1118, 8-9=-196/1105
WEBS 5-9=-23/307, 3-11=-432/212

NOTES-

- 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; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb)
8=269, 11=303.
- 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.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 79 lb down and 64 lb up at 7-0-0 on top chord, and 197 lb down and 86 lb up at 5-5-1, and 27 lb down at 7-0-0, and 197 lb down and 86 lb up at 8-6-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) 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



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Continued on page 2



WARNING – Velly design parameters are listed below and included within key reference 1. See MH-1413 (Rev. 3/19/2020) for more details.
Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for the building design 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 142 W0
210521	D1	Hip Girder	1	1	I46178879
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

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LOAD CASE(S) Standard

- Uniform Loads (plf)
 - Vert: 1-2=-70, 2-4=-70, 4-5=-70, 5-6=-70, 6-7=-70, 8-12=-20
- Concentrated Loads (lb)
 - Vert: 10=-197(F) 9=-197(F) 13=-28(F) 14=-12(F)

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178880
210521	D2	Common	1	1		

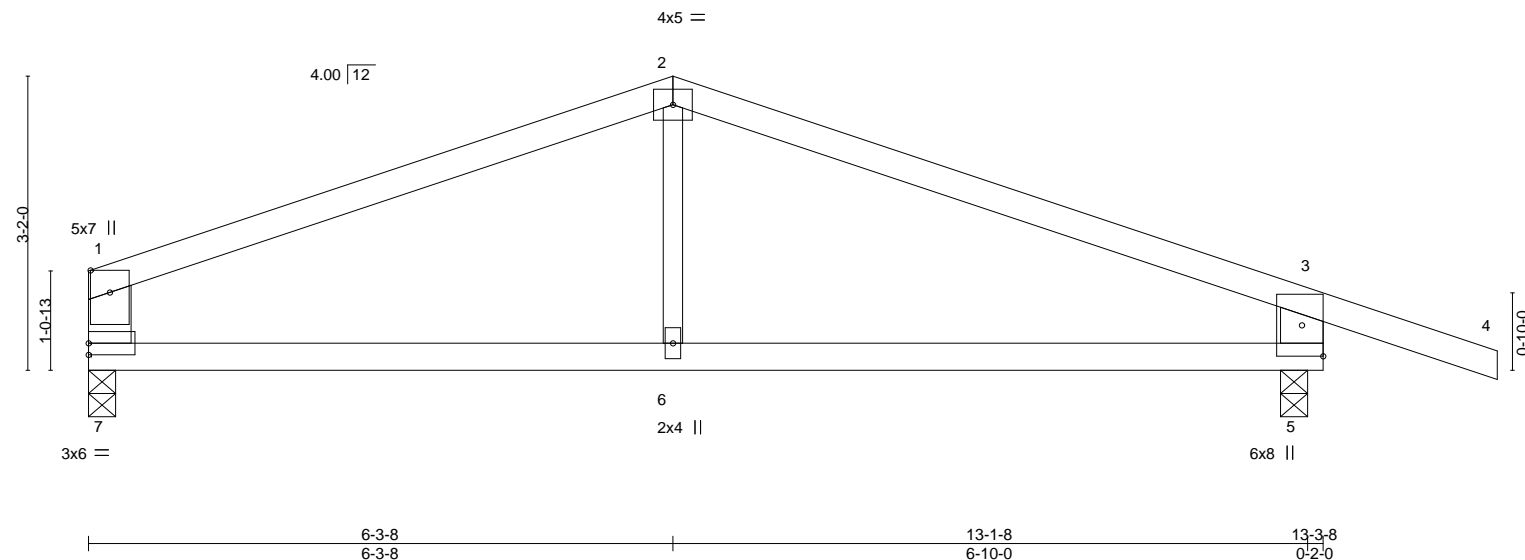
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:07 2021 Page 1

ID:Ej7EWovY_94Pzi7UVy1gWAZ_t70-RC5VdvYles5z6NBYfl_s7Od0k8gdBR788XzwdOzFEXM

13-3-8 15-2-0
7-0-0 1-10-8

Scale = 1:24.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCCL 25.0	Plate Grip DOL	1.15	TC 0.74	Vert(LL)	-0.10	5-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.55	Vert(CT)	-0.20	5-6	>760	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.01	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.06	5-6	>999	240	Weight: 38 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 7=0-3-8, 5=0-3-8
Max Horz 7=-46(LC 5)
Max Uplift 7=-81(LC 4), 5=-181(LC 5)
Max Grav 7=565(LC 1), 5=737(LC 1)

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

TOP CHORD 1-2=-744/98, 2-3=-756/104, 1-7=-462/113, 3-5=-646/220
BOT CHORD 6-7=-26/630, 5-6=-26/630

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) gable end 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 3-6-0 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 100 lb uplift at joint(s) 7 except (jt=lb) 5=181.
- 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.



May 18, 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

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

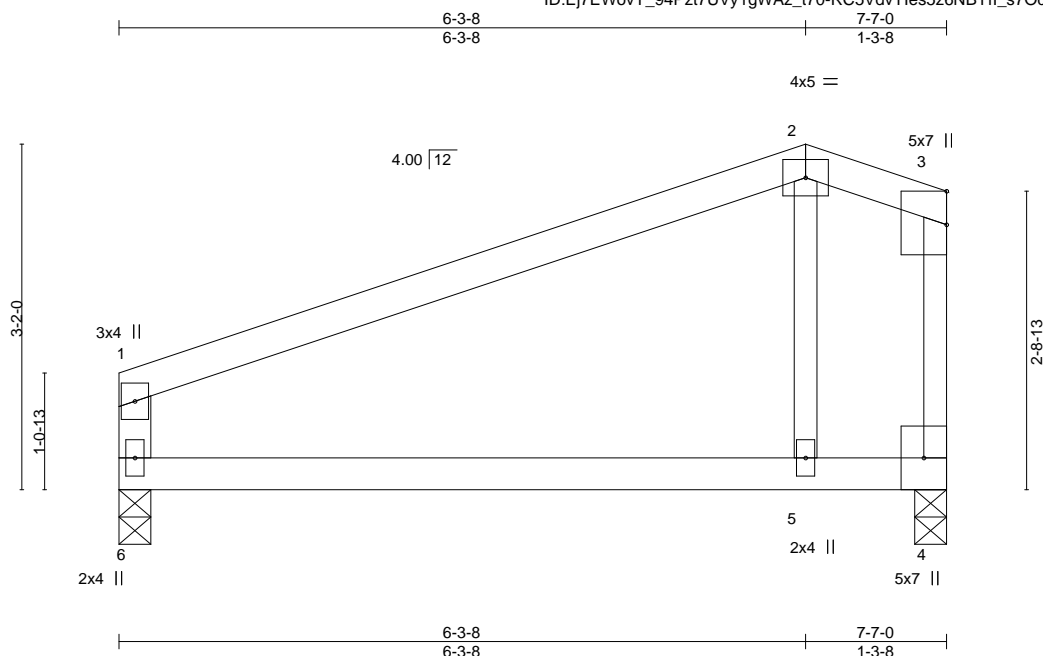


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210521	Truss D3	Truss Type Common	Qty 1	Ply 1	Lot 142 W0	I46178881
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:07 2021 Page 1
ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-RC5VdvYles5z6NBIfi_s7Od1l8jnBS088XzwdOzFEXM



Scale = 1:21.1

Plate Offsets (X,Y)--		[3:0-3-11,0-0-0]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d
TCLL 25.0		Plate Grip DOL	1.15	TC 0.64		Vert(LL)	-0.07 5-6	>999	360
TCDL 10.0		Lumber DOL	1.15	BC 0.34		Vert(CT)	-0.17 5-6	>529	240
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-R		Wind(LL)	0.06 5-6	>999	240
						PLATES	MT20	GRIP	197/144
								Weight: 23 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-6: 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.

(size) 6=0-3-8, 4=0-3-8
Max Horz 6=100(LC 5)
Max Uplift 6=53(LC 4), 4=55(LC 4)
Max Grav 6=330(LC 1), 4=330(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-6=-257/90

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 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.



May 18, 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 210521	Truss D4	Truss Type Common	Qty 1	Ply 1	Lot 142 W0	I46178882
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:08 2021 Page 1
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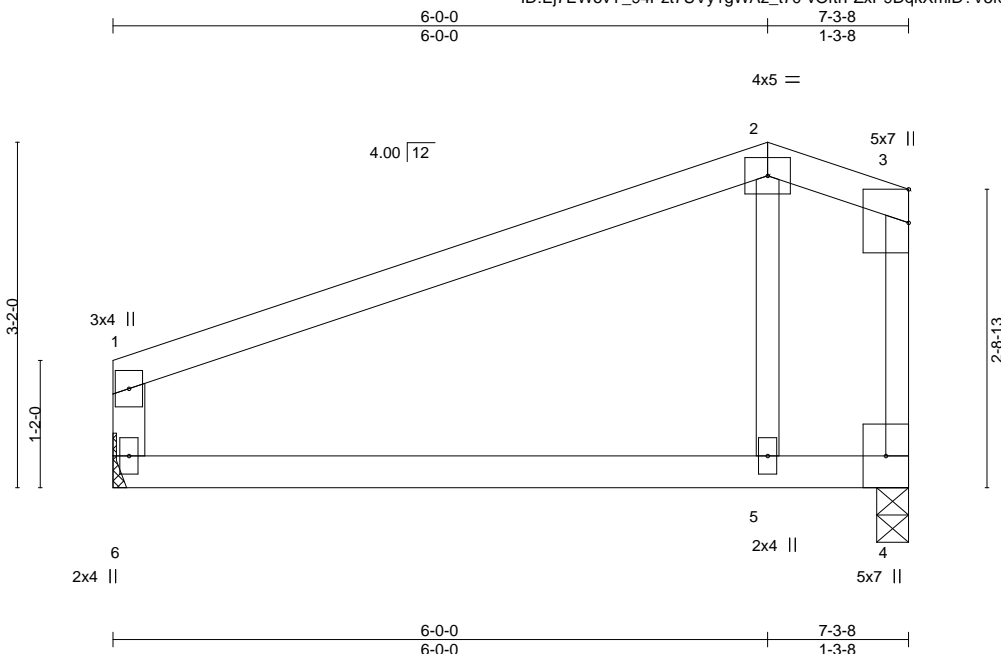


Plate Offsets (X,Y)--		[3:0-3-11,0-0-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL 1.15		TC	0.59	Vert(LL)	-0.06	5-6	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.31	Vert(CT)	-0.14	5-6	>594	240	
BCLL	0.0 *	Rep Stress Incr YES		WB	0.03	Horz(CT)	0.00	4	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.05	5-6	>999	240	Weight: 22 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-6: 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. (size) 6=Mechanical, 4=0-3-8
Max Horz 6=99(LC 5)
Max Uplift 6=51(LC 4), 4=52(LC 4)
Max Grav 6=317(LC 1), 4=317(LC 1)

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 4.
- 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.



May 18, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	146178883
210521	E1	Roof Special Girder	1	1		

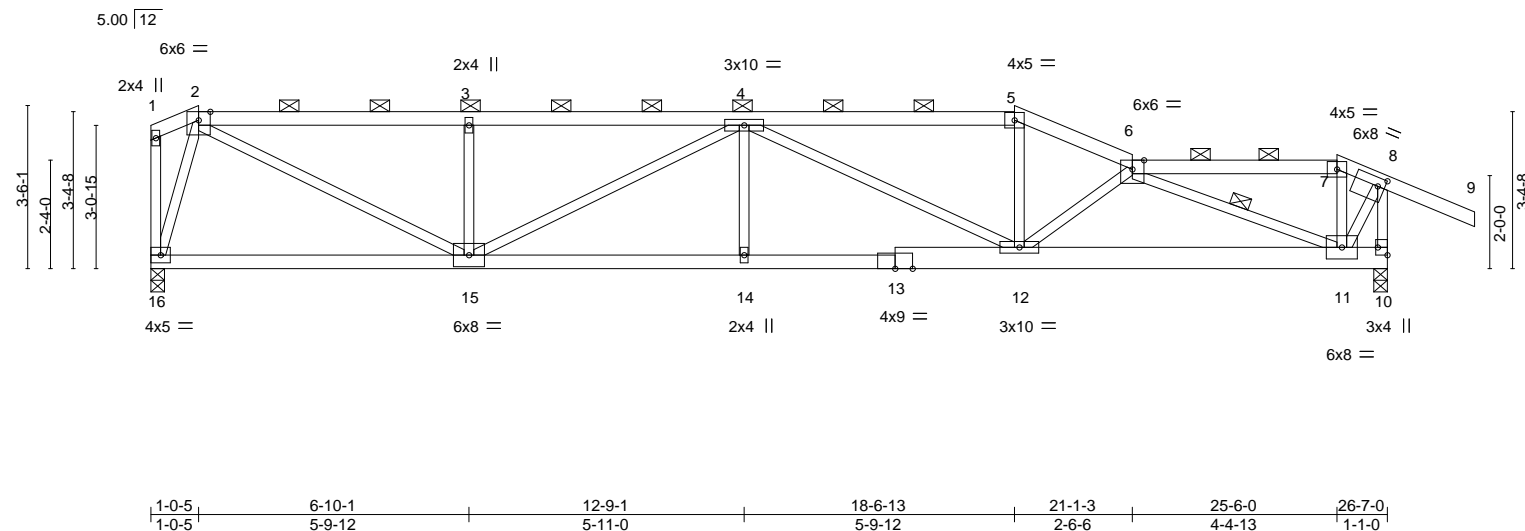
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:10 2021 Page 1

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1-0-5	6-10-1	12-9-1	18-6-13	21-1-3	25-6-0	26-7-0	28-5-8
1-0-5	5-9-12	5-11-0	5-9-12	2-6-6	4-4-13	1-1-0	1-10-8

Scale = 1:49.5



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.60	Vert(LL)	-0.16 14-15	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.77	Vert(CT)	-0.30 14-15	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.75	Horz(CT)	0.07 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.13 14	>999	240	Weight: 107 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 10-13: 2x6 SPF No.2
 WEBS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-8-14 oc purlins, except end verticals, and 2-0-0 oc purlins (3-5-10 max.): 2-5, 6-7.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
 WEBS 1 Row at midpt 6-11

REACTIONS.

(size) 16=0-3-8, 10=0-3-8
 Max Horz 16=-129(LC 6)
 Max Uplift 16=-204(LC 5), 10=-360(LC 5)
 Max Grav 16=1179(LC 1), 10=1255(LC 1)

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

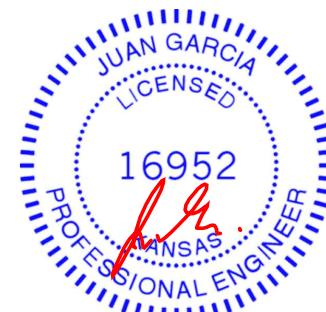
TOP CHORD 2-3=-2004/394, 3-4=-2002/392, 4-5=-2105/387, 5-6=-2323/409, 6-7=-483/114, 7-8=-546/130, 8-10=-1314/309
 BOT CHORD 15-16=-61/357, 14-15=-454/2572, 12-14=-454/2573, 11-12=-437/2400
 WEBS 2-15=-323/1872, 3-15=-450/181, 4-15=-645/123, 4-12=-698/157, 5-12=-57/607, 6-12=-360/147, 6-11=-2138/387, 2-16=-1215/298, 8-11=-182/1033

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) gable end 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 3-6-0 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 100 lb uplift at joint(s) except (jt=lb) 16=204, 10=360.
- 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) 29 lb down and 80 lb up at 25-6-0 on top chord, and 139 lb down and 746 lb up at 25-4-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 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

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



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Continued on page 2

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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



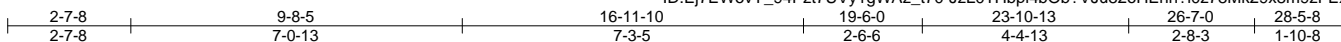
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0
210521	E1	Roof Special Girder	1	1	I46178883
Job Reference (optional)					

LOAD CASE(S) Standard
Uniform Loads (plf)
 Vert: 1-2=-70, 2-5=-70, 5-6=-70, 6-7=-70, 7-8=-70, 8-9=-70, 10-16=-20
Concentrated Loads (lb)
 Vert: 7=22(F) 11=57(F)

Wheeler Lumber, Waverly, KS - 66871

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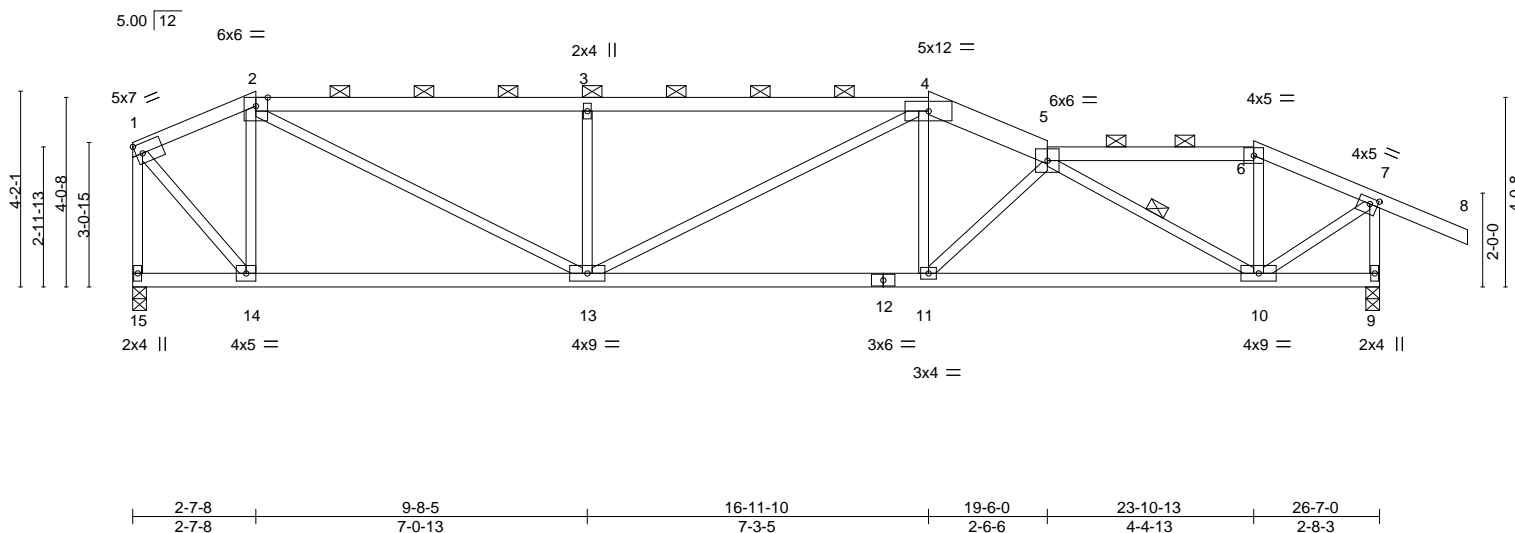


Plate Offsets (X,Y)-- [7:0-2-0,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSL		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL 25.0		Plate Grip DOL 1.15		TC 0.79		Vert(LL) -0.13 11-13 >999 360		MT20	197/144
TCDL 10.0		Lumber DOL 1.15		BC 0.65		Vert(CT) -0.25 11-13 >999 240			
BCLL 0.0 *		Rep Stress Incr YES		WB 0.50		Horz(CT) 0.06 9 n/a n/a			
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S		Wind(LL) 0.10 11-13 >999 240		Weight: 104 lb	FT = 10%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 4-5: 2x6 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 4-11-7 oc purlins, except end verticals, and 2-0-0 oc purlins (2-11-8 max.): 2-4, 5-6.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x3 SPF No.2	WEBS	1 Row at midpt 5-10

REACTIONS. (size) 15=0-3-8, 9=0-3-8
 Max Horz 15=130(LC 4)
 Max Uplift 15=176(LC 5), 9=235(LC 5)
 Max Grav 15=1182(LC 1), 9=1331(LC 1)

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

TOP CHORD 1-2=-805/156, 2-3=-2037/394, 3-4=-2035/392, 4-5=-2124/357, 5-6=-968/154,
6-7=-1088/161, 1-15=-1185/178, 7-9=-1327/132

BOT CHORD 13-14=-96/753, 11-13=-278/1956, 10-11=-349/2207

WEBS 2-14=-728/202, 2-13=-263/1469, 3-13=-590/240, 4-13=-73/266, 4-11=-12/434,
5-11=-377/140, 5-10=-1448/270, 1-14=-167/1122, 7-10=-137/1202

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 15=176, 9=235.
- 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.



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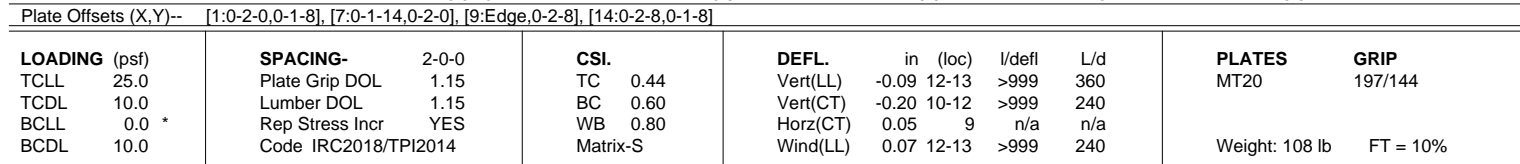


WARNING – Velly design parameters are listed below and included within key reference 1. See MH-1413 (Rev. 3/19/2020) for more details.
Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for the building design component, not a truss system. Before 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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Wheeler Lumber, Waverly, KS - 66871, 8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:12 2021 Page 1
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4-2-11 5-5-10 5-8-2 2-6-6 4-4-13 4-3-6 1-10-8
Scale = 1:49




REACTIONS. (size) 15=0-3-8, 9=0-3-8
 Max Horz 15=-128(LC 4)
 Max Uplift 15=-153(LC 5), 9=-218(LC 5)
 Max Grav 15=1182(LC 1), 9=1331(LC 1)

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

TOP CHORD 1-2=-1053/187, 2-3=-1688/324, 3-4=-1686/323, 4-5=-1901/319, 5-6=-1203/194,
6-7=-1364/195, 1-15=-1149/173, 7-9=-1302/231

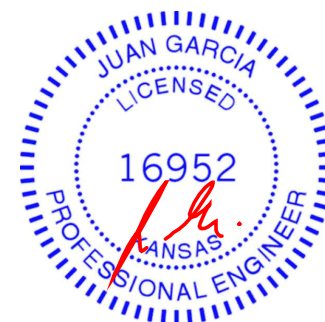
BOT CHORD 13-14=-105/944, 12-13=-222/1741, 10-12=-292/2005

WEBS 2-14=-539/151, 2-13=-171/991, 3-13=-465/186, 4-12=-42/485, 5-12=-446/154,
5-10=-1003/192, 6-10=0/264, 1-14=-147/1120, 7-10=-143/1304

The seal of the State of Missouri is located in the bottom right corner. It is a circular emblem with a blue border containing the words "STATE OF MISSOURI" in white capital letters. Inside the circle, there is a blue field with a white star on the left and a white star on the right. In the center of the seal, the name "JUAN GARCIA" is written in blue capital letters.

- NOTES-**

 - 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 15=153, 9=218.
 - 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.



May 18, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	146178886
210521	E4	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:15 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWaz_t70-CkaWJeeKmJ5q3co57z7kR4yOnMKF3q2JznvLvwzFEXE

5-9-14	13-9-3	19-6-0	23-10-13	26-7-0	28-5-8
5-9-14	7-11-5	5-8-13	4-4-13	2-8-3	1-10-8

Scale = 1:49.2

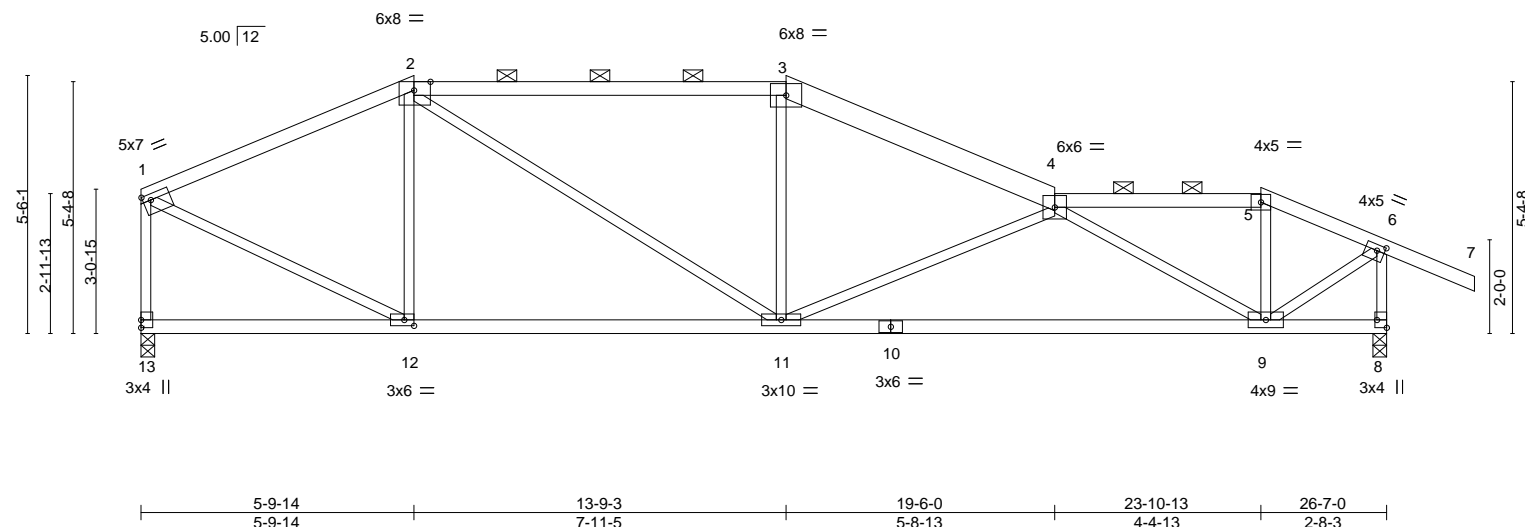


Plate Offsets (X,Y)-- [1:0-2-0,0-1-8], [2:0-4-3,Edge], [6:0-2-0,0-1-8], [8:Edge,0-2-8], [12:0-2-8,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.24	9-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.50	9-11	>630	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.05	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.06	9-11	>999	240	Weight: 106 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
2-3: 2x4 SPF 2100F 1.8E, 3-4: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-6-15 oc purlins, except end verticals, and 2-0-0 oc purlins (4-4-5 max.): 2-3, 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 8-9.

REACTIONS.

(size) 13=0-3-8, 8=0-3-8
Max Horz 13=-126(LC 4)
Max Uplift 13=-124(LC 5), 8=-206(LC 5)
Max Grav 13=1182(LC 1), 8=1331(LC 1)

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

TOP CHORD 1-2=-1221/188, 2-3=-1591/256, 3-4=-1784/248, 4-5=-998/117, 5-6=-1120/112,
1-13=-1134/152, 6-8=-1365/180
BOT CHORD 11-12=-93/1078, 9-11=-292/2188
WEBS 2-12=-390/142, 2-11=-94/681, 3-11=0/297, 4-11=-663/230, 4-9=-1391/256,
1-12=-129/1166, 6-9=-77/1246

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) gable end 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 3-6-0 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 100 lb uplift at joint(s) except (jt=lb) 13=124, 8=206.
- 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.



May 18, 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



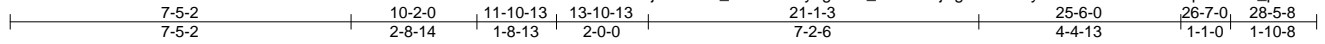
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	146178887
210521	E5	Roof Special Girder	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

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ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-87iHjKgalwLYJwyTFO9CWV1kwA2IXqJcR5OS_pzFEXC



Scale = 1:50.2

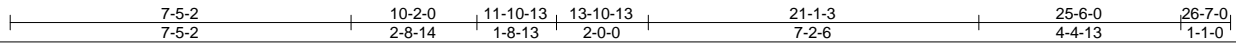
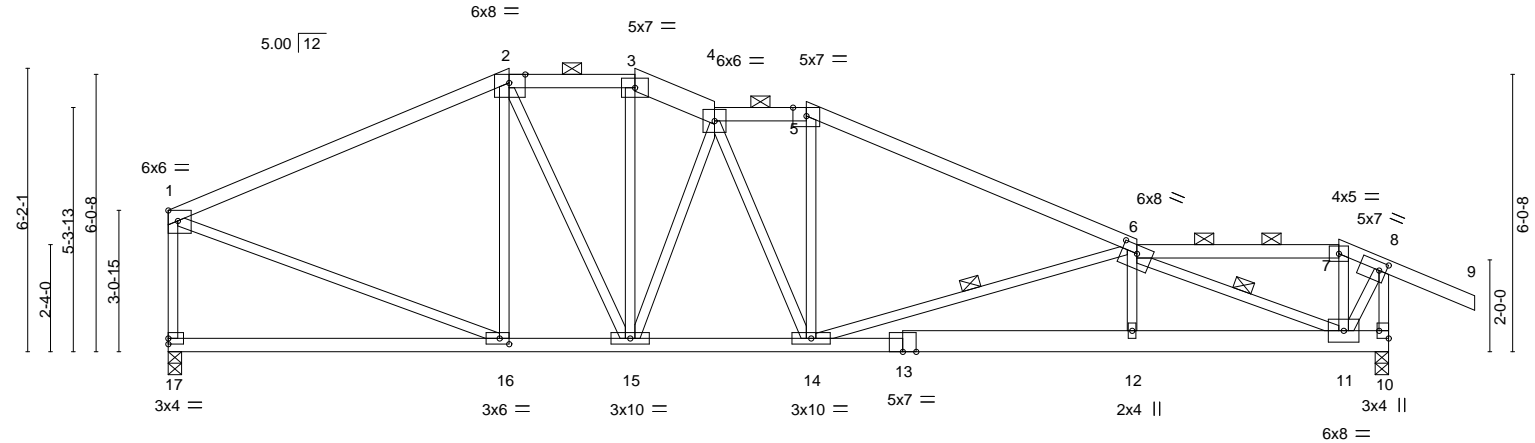


Plate Offsets (X,Y)-- [1:Edge,0-2-12], [2:0-4-3,Edge], [6:0-4-0,0-2-3], [8:0-1-13,0-2-3], [10:Edge,0-2-8], [16:0-2-8,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.12	12-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.22	12-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.60	Horz(CT)	0.05	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.09	12-14	>999	240	Weight: 122 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-2,5-6: 2x4 SPF 2100F 1.8E, 3-4: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
10-13: 2x6 SPF No.2
WEBS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-5-2 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-12 max.): 2-3, 4-5, 6-7.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-14, 6-11

REACTIONS.

(size) 17=0-3-8, 10=0-3-8
Max Horz 17=-124(LC 6)
Max Uplift 17=-101(LC 8), 10=-333(LC 9)
Max Grav 17=1179(LC 1), 10=1255(LC 1)

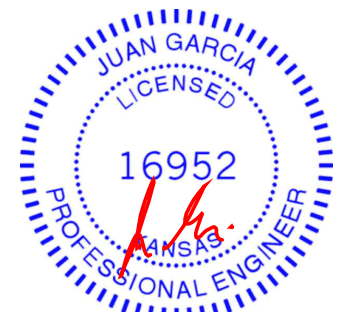
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-1290/171, 2-3=-1262/228, 3-4=-1364/229, 4-5=-1561/291, 5-6=-1790/265,
6-7=-481/128, 7-8=-555/143, 1-17=-1112/137, 8-10=-1339/326
BOT CHORD 15-16=-57/1112, 14-15=-120/1502, 12-14=-373/2452, 11-12=-377/2447
WEBS 2-16=-274/114, 2-15=-116/468, 3-15=-60/367, 4-15=-722/179, 5-14=0/320,
6-14=-923/234, 6-11=-2182/305, 1-16=-83/1130, 8-11=-210/1032

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) gable end 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 3-6-0 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 100 lb uplift at joint(s) except (jt=lb) 17=101, 10=333.
- 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) 29 lb down and 80 lb up at 25-6-0 on top chord, and 139 lb down and 746 lb up at 25-4-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 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



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Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0
210521	E5	Roof Special Girder	1	1	I46178887
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:17 2021 Page 2
ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-87iHjKgalwLYJwyTFO9CWV1kwA2IXqJcR5OS_pzFEXC

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 6-7=-70, 7-8=-70, 8-9=-70, 10-17=-20
- Concentrated Loads (lb)
 - Vert: 7=22(B) 11=57(B)



Scale = 1:46.0

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0
210521	G1	Half Hip Girder	1	1	I46178888
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:19 2021 Page 2
ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-4Vq180hqpYcGYD6sMpCgcw61kzfx?jPvuPtZ2hzFEXA

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-5=-70, 5-7=-70, 6-12=-20

Concentrated Loads (lb)

Vert: 11=-43(F) 2=-103(F) 8=-354(F) 13=-115(F) 14=-103(F) 15=-103(F) 16=-103(F) 17=-103(F) 18=-103(F) 19=-103(F) 20=-103(F) 21=-103(F) 22=-47(F)
23=-43(F) 24=-43(F) 25=-43(F) 26=-43(F) 27=-43(F) 28=-43(F) 29=-43(F) 30=-43(F)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	146178889
210521	G2	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

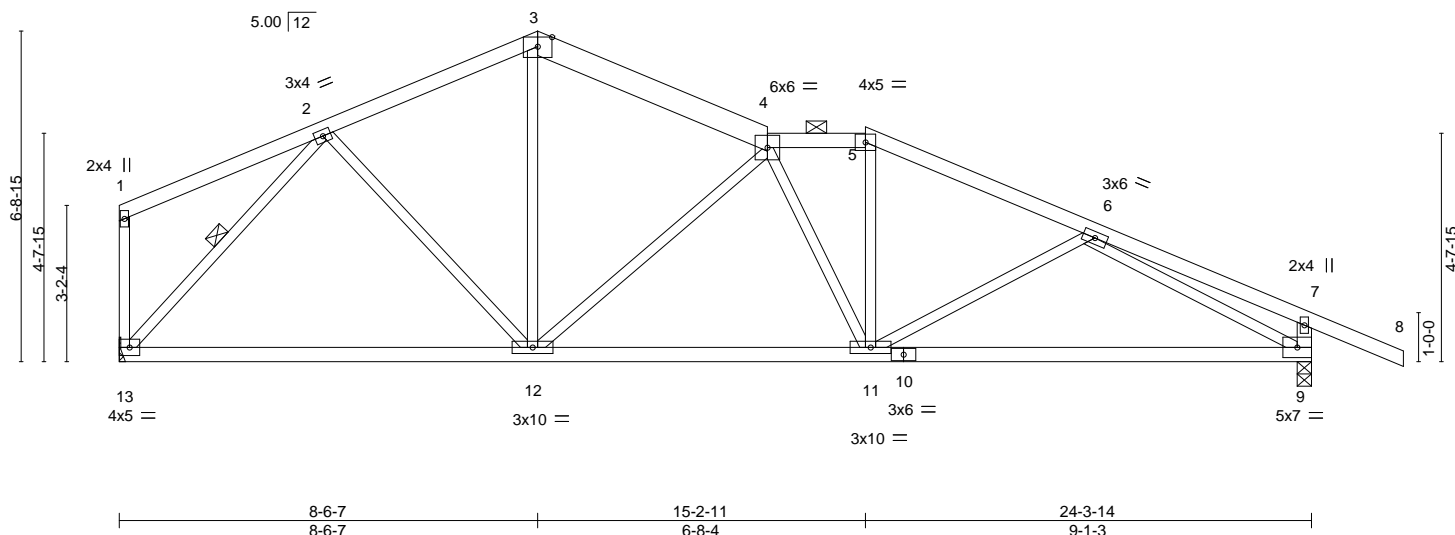
8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:22 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-V4VAn1kj6T_qPhrR1xINDZkgNBmRC01LaN6Df0zFEX7

4-3-1	8-6-7	13-2-11	15-2-11	19-9-6	24-3-14	26-2-6
4-3-1	4-3-6	4-8-4	2-0-0	4-6-11	4-6-8	1-10-8

5x7 =

Scale = 1:47.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.33	Vert(LL)	-0.17 9-11	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.65	Vert(CT)	-0.35 9-11	>827	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.96	Horz(CT)	0.05 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03 11-12	>999	240		
								Weight: 101 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
3-4: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
7-9: 2x4 SPF No.2

BRACING-

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

REACTIONS.

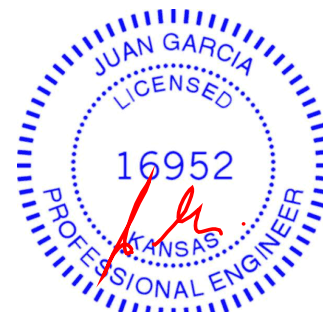
(size) 13=Mechanical, 9=0-3-8
Max Horz 13=-110(LC 6)
Max Uplift 9=-51(LC 9)
Max Grav 13=1077(LC 1), 9=1231(LC 1)

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

TOP CHORD 2-3=-1084/64, 3-4=-1069/51, 4-5=-1389/64, 5-6=-1569/52, 6-7=-282/0, 7-9=-375/47
BOT CHORD 12-13=0/789, 11-12=0/1460, 9-11=-36/1450
WEBS 2-12=0/308, 3-12=0/467, 4-12=-709/83, 5-11=0/338, 2-13=-1160/22, 6-9=-1501/104

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); 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9.
- 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.



May 18, 2021

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Chesterfield, MO 63017

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:23 2021 Page 1
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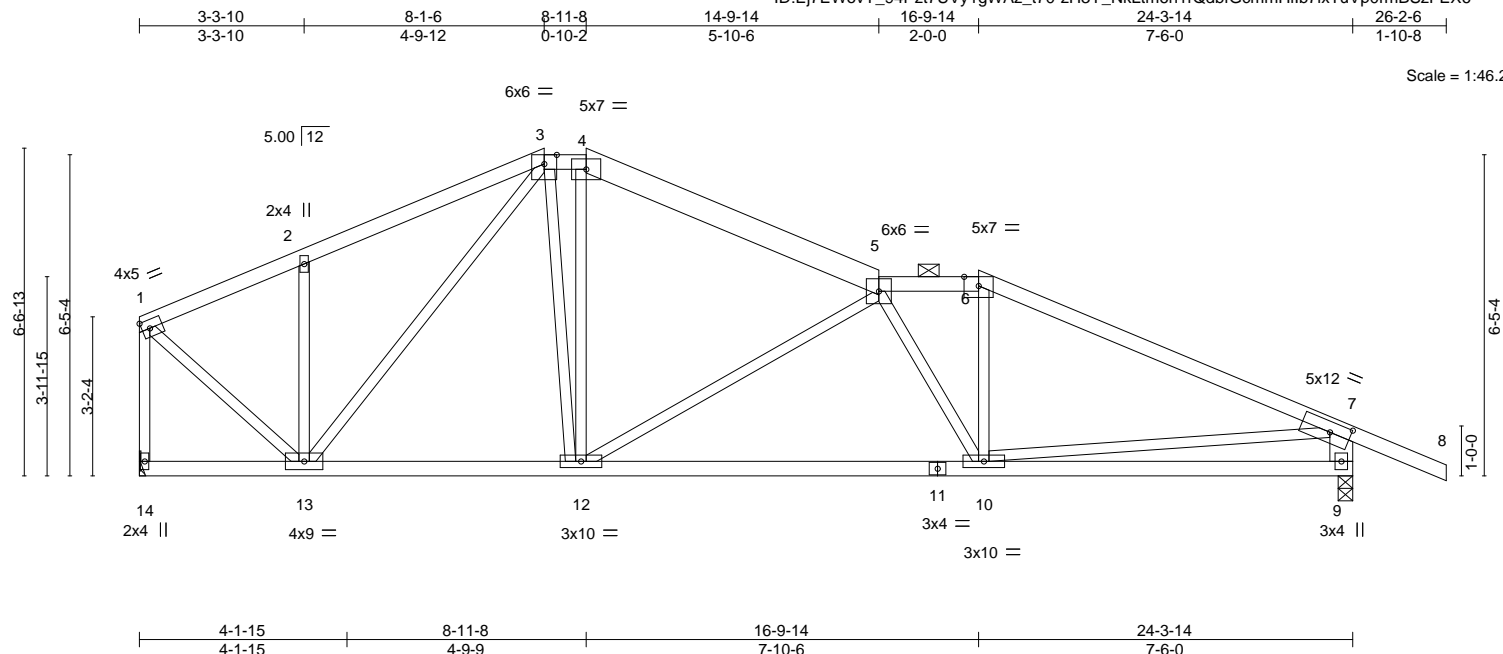


Plate Offsets (X,Y)-- [7:0-4-15,0-2-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.10 10-12 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.22 10-12 >999 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.03 9 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.03 10-12 >999 240	Weight: 107 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
 4-5: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
 7-9: 2x6 SPF No.2

BRACING- TOP CHORD	Structural wood sheathing directly applied or 3-3-14 oc purlins, except end verticals, and 2-0-0 oc purlins (4-7-12 max.): 3-4, 5-6.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 14=Mechanical, 9=0-3-8
 Max Horz 14=110(LC 6)
 Max Uplift 9=50(LC 9)
 Max Grav 14=1073(LC 1), 9=1233(LC 1)

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

TOP CHORD 1-2=-813/27, 2-3=-852/63, 3-4=-994/65, 4-5=-1133/47, 5-6=-1471/62, 6-7=-1709/40,
1-14=-1045/8, 7-9=-1165/88

BOT CHORD 12-13=0/947, 10-12=0/1626, 9-10=-69/416

WEBS 2-13=-318/101, 3-13=-398/0, 3-12=-20/506, 5-12=-747/89, 5-10=-317/30, 6-10=0/351,
1-13=0/984, 7-10=0/1068

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=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; Member 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9.
- 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.



May 18, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	146178891
210521	G4	Roof Special	1	1	Job Reference (optional)	

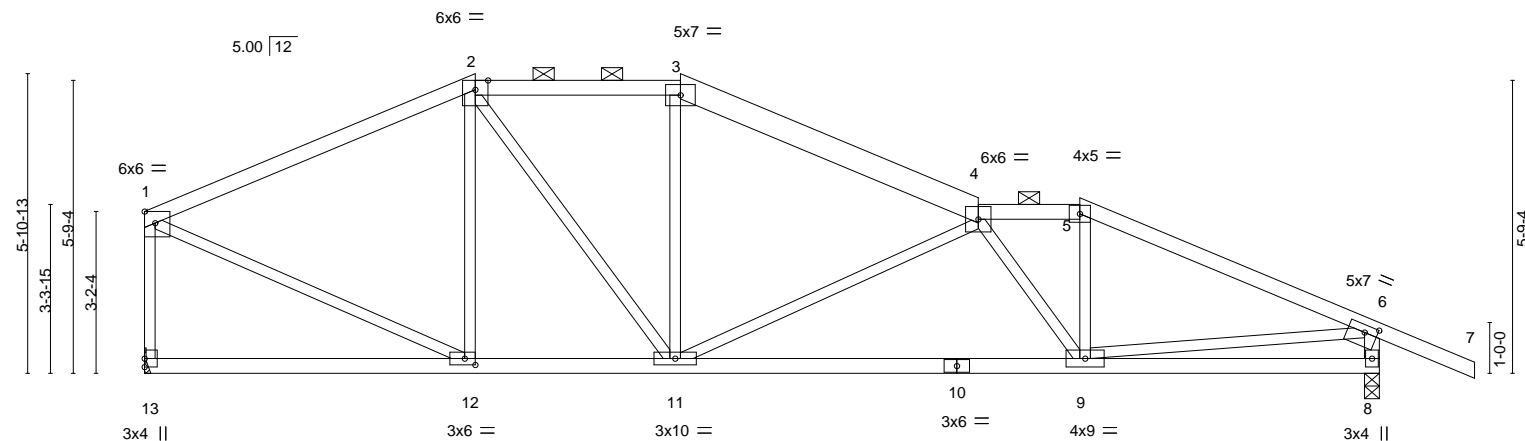
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:25 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_170-vfBIP3mbPOMPG8Z0j4J4rBM5dOoiPPoGKKtGLzFEX4

6-6-3	10-6-11	16-5-1	18-5-1	24-3-14	26-2-6
6-6-3	4-0-8	5-10-6	2-0-0	5-10-13	1-10-8

Scale = 1:45.4



	6-6-3	10-6-11	16-5-1	18-5-1	24-3-14
	6-6-3	4-0-8	5-10-6	2-0-0	5-10-13

Plate Offsets (X,Y)-- [1:Edge,0-2-12], [6:0-3-0,0-1-12], [12:0-2-8,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.71	Vert(LL)	-0.12	9-11	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.62	Vert(CT)	-0.27	9-11	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.82	Horz(CT)	0.03	8	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.04	9-11	>999	240	
									Weight: 101 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
3-4: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
6-8: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 13=Mechanical, 8=0-3-8
Max Horz 13=-110(LC 6)
Max Uplift 8=-45(LC 9)
Max Grav 13=1077(LC 1), 8=1231(LC 1)

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

TOP CHORD 1-2=-1095/37, 2-3=-1180/51, 3-4=-1334/30, 4-5=-1525/44, 5-6=-1749/25,
1-13=-1015/21, 6-8=-1178/69
BOT CHORD 11-12=0/944, 9-11=0/1830
WEBS 2-12=-321/59, 2-11=-24/483, 4-11=-735/92, 4-9=-540/43, 5-9=0/410, 1-12=0/988,
6-9=0/1313

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
- 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 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.



May 18, 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 142 W0	146178892
210521	G5	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:25 2021 Page 1
ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-vfBIP3mbPOMPG8Z0j4J4rBM87OnuPRioGKKtGLzFEX4

4-11-0	12-1-14	18-0-4	20-0-4	24-3-14	26-2-6
4-11-0	7-2-14	5-10-6	2-0-0	4-3-10	1-10-8

Scale = 1:45.4

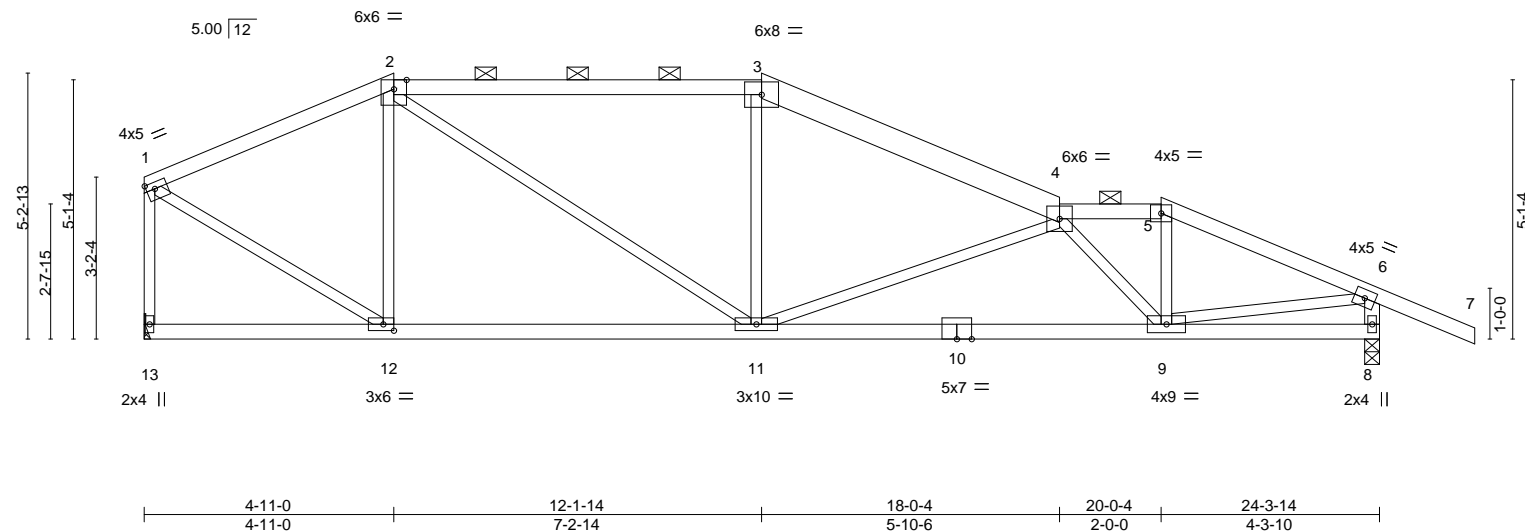


Plate Offsets (X,Y)-- [1:0-2-0,0-1-8], [12:0-2-8,0-1-8]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.55	Vert(LL)	-0.11 9-11	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.67	Vert(CT)	-0.25 9-11	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.70	Horz(CT)	0.04 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.04 9-11	>999	240	Weight: 98 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
2-3: 2x4 SPF 2100F 1.8E, 3-4: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
6-8: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-2-13 oc purlins, except end verticals, and 2-0-0 oc purlins (4-9-15 max.): 2-3, 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

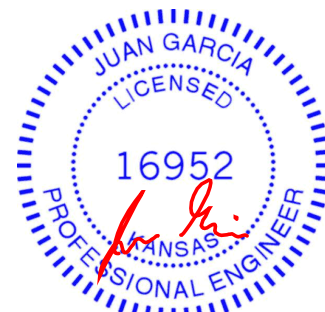
(size) 13=Mechanical, 8=0-3-8
Max Horz 13=-110(LC 6)
Max Uplift 13=-3(LC 4), 8=-39(LC 5)
Max Grav 13=1077(LC 1), 8=1231(LC 1)

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

TOP CHORD 1-2=-1007/45, 2-3=-1396/48, 3-4=-1560/37, 4-5=-1489/21, 5-6=-1692/7, 1-13=-1040/22,
6-8=-1194/51
BOT CHORD 11-12=0/893, 9-11=0/2020
WEBS 2-12=-417/82, 2-11=-19/660, 4-11=-675/94, 4-9=-806/51, 5-9=0/459, 1-12=-8/1021,
6-9=0/1437

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
- 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 13, 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.



May 18, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

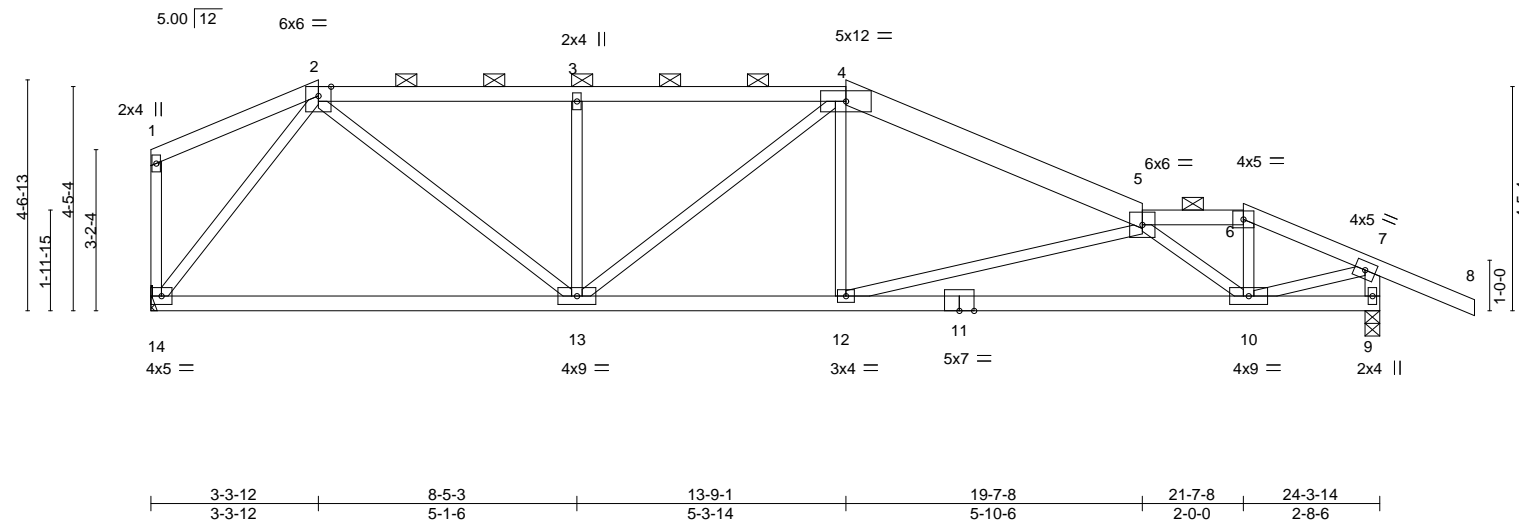
Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	146178893
210521	G6	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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ID:Ej7EWovY_94Pzt7UVy1gWaz_t70-NslhcPnDAhUGul8CGnqJOPvMno6A8scxV_4RonzFEX3

3-3-12	8-5-3	13-9-1	19-7-8	21-7-8	24-3-14	26-2-6
3-3-12	5-1-6	5-3-14	5-10-6	2-0-0	2-8-6	1-10-8

Scale = 1:45.6



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCCL 25.0	Plate Grip DOL	1.15	TC 0.37	Vert(LL)	-0.16 13-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.73	Vert(CT)	-0.34 13-14	>854	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.79	Horz(CT)	0.05 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.06 10-12	>999	240	Weight: 97 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-5: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
7-9: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-7-6 oc purlins, except end verticals, and 2-0-0 oc purlins (4-6-3 max.): 2-4, 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 9-10.

REACTIONS.

(size) 14=Mechanical, 9=0-3-8
Max Horz 14=-139(LC 4)
Max Uplift 14=-143(LC 4), 9=-189(LC 5)
Max Grav 14=1077(LC 1), 9=1231(LC 1)

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

TOP CHORD 2-3=-1480/263, 3-4=-1478/261, 4-5=-1743/247, 5-6=-1321/122, 6-7=-1495/125, 7-9=-1223/173
BOT CHORD 13-14=-47703, 12-13=-129/1564, 10-12=-244/2235
WEBS 2-13=-118/1025, 3-13=-429/173, 4-12=0/372, 5-12=-706/207, 5-10=-1182/227, 6-10=-17/450, 2-14=-1122/219, 7-10=-103/1417

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 14=143, 9=189.
- 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.



May 18, 2021

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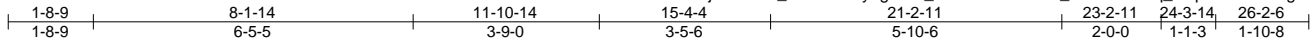
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178894
210521	G7	Roof Special Girder	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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ID:Ej7EWovY_94Pzt7UVy1gWaz_t70-KEtR15oTiJk_7clbOCsnTq_btcprck3EzIXtZgFEX1



Scale = 1:46.4

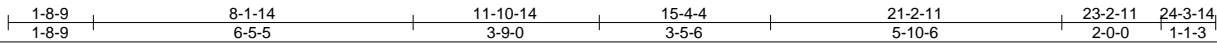
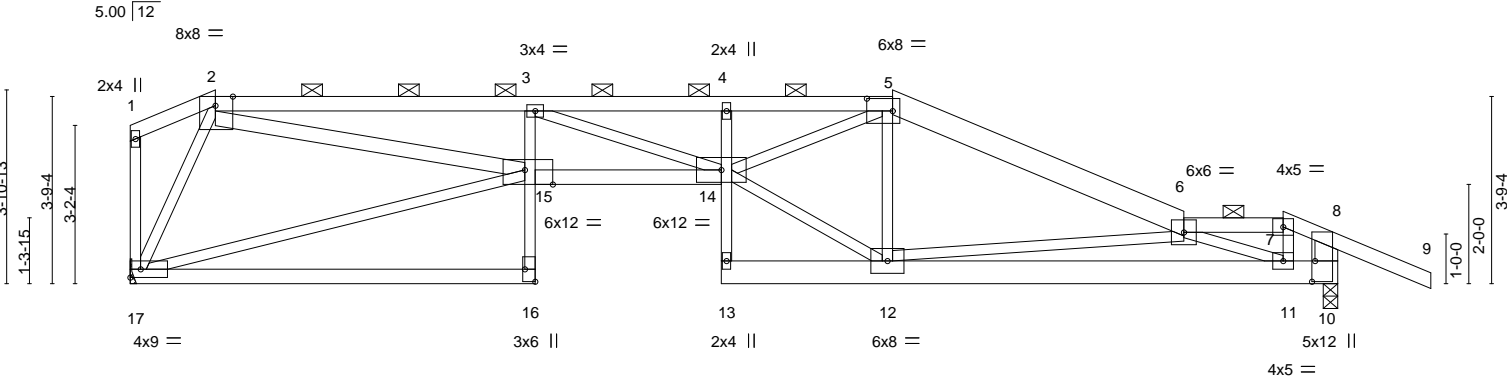


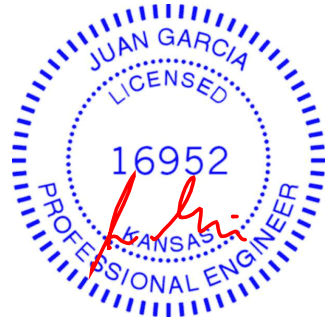
Plate Offsets (X,Y)--		[2:0-4-3,Edge], [5:0-6-4,0-3-0], [10:0-5-0,0-0-12], [15:0-6-12,Edge], [16:Edge,0-2-8]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.33 14-15	>865	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.60 14-15	>480	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.92	Horz(CT)	0.29 10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.24 14-15	>999	240	Weight: 114 lb	FT = 10%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 2-5: 2x4 SPF 2100F 1.8E, 5-6: 2x6 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 4-9-4 oc purlins, except end verticals, and 2-0-0 oc purlins (3-1-0 max.): 2-5, 6-7.
BOT CHORD	2x3 SPF No.2 *Except* 16-17: 2x4 SPF No.2, 14-15: 2x4 SPF 2100F 1.8E 10-13: 2x6 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 10-11.
WEBS	2x3 SPF No.2 *Except* 2-15: 2x4 SPF No.2, 8-10: 2x6 SPF No.2		

REACTIONS.	(size) 10=0-3-8, 17=Mechanical Max Horz 17=-140(LC 6) Max Uplift 10=-270(LC 5), 17=-170(LC 4) Max Grav 10=1170(LC 1), 17=1071(LC 1)		
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FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.		
TOP CHORD	2-3=-4023/663, 3-4=-4263/634, 4-5=-4207/632, 5-6=-1984/290, 6-7=-507/74, 7-8=-645/94, 8-10=-580/110		
BOT CHORD	3-15=-480/169, 14-15=-544/4071, 11-12=-331/2430, 10-11=-82/556		
WEBS	15-17=-50/469, 2-15=-533/3572, 12-14=-199/1972, 5-14=-378/2680, 5-12=-743/161, 6-12=-658/231, 6-11=-2133/387, 7-11=-88/322, 2-17=-1233/273		

- 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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 6) Refer to girder(s) for truss to truss connections.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=270, 17=170.
 - 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.
 - 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 55 lb down and 12 lb up at 23-2-11 on top chord, and 168 lb down and 874 lb up at 23-1-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



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LOAD CASE(S) Standard

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0
210521	G7	Roof Special Girder	1	1	I46178894
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

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ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-KEtR15oTiJk_7clbOCsnTq_btcprck3EzIZXtgzFEX1

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-5=-70, 5-6=-70, 6-7=-70, 7-8=-70, 8-9=-70, 16-17=-20, 14-15=-20, 10-13=-20
Concentrated Loads (lb)
Vert: 11=66(B)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	146178895
210521	G8	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:29 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWaz_t70-oRQpFRp6TcsrImtnywN001XsF?8eLDYNByl5P6zFEX0

5-7-14	11-6-2	16-11-8	22-3-14	24-2-6
5-7-14	5-10-4	5-5-6	5-4-6	1-10-8

Scale = 1:40.6

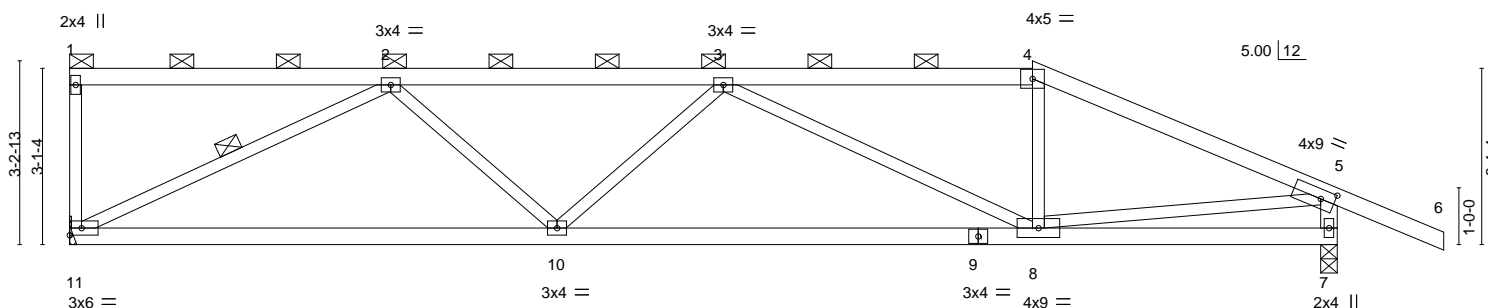


Plate Offsets (X,Y)--	5:0-2-15,0-2-0
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	-0.14 10-11	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.75	Vert(CT)	-0.31 10-11	>859	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.71	Horz(CT)	0.05 7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.05 8-10	>999	240	Weight: 79 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
5-7: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-3-11 oc purlins, except end verticals, and 2-0-0 oc purlins (4-0-11 max.): 1-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-11

REACTIONS.

(size) 11=Mechanical, 7=0-3-8
Max Horz 11=-104(LC 6)
Max Uplift 11=-50(LC 4), 7=-60(LC 5)
Max Grav 11=987(LC 1), 7=1141(LC 1)

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

TOP CHORD 2-3=-1834/57, 3-4=-1381/48, 4-5=-1577/39, 5-7=-1096/81
BOT CHORD 10-11=-52/1505, 8-10=-57/1969
WEBS 2-11=-1649/122, 2-10=0/501, 3-8=-729/85, 4-8=0/316, 5-8=-9/1244

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); 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 7.
- 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.



May 18, 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



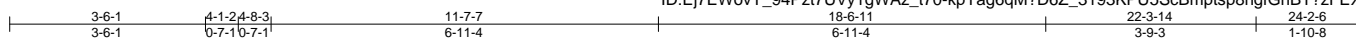
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210521	Truss G9	Truss Type Roof Special	Qty 1	Ply 1	Lot 142 W0	I46178896
Job Reference (optional)						

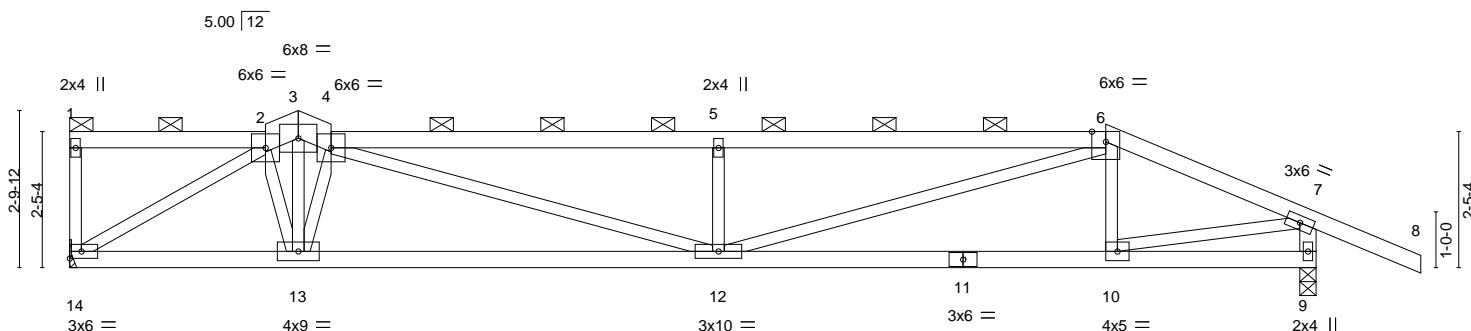
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:31 2021 Page 1

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Scale = 1:41.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.48	Vert(LL)	-0.15 12	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.30 12-13	>889	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.67	Horz(CT)	0.05 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08 12	>999	240	Weight: 83 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
2-3,3-4: 2x6 SPF No.2, 4-6: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
7-9: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-6-15 oc purlins, except end verticals, and 2-0-0 oc purlins (4-2-0 max.): 1-2, 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 14=Mechanical, 9=0-3-8
Max Horz 14=-83(LC 4)
Max Uplift 14=-11(LC 9), 9=-66(LC 5)
Max Grav 14=987(LC 1), 9=1141(LC 1)

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

TOP CHORD 2-3=-1438/40, 3-4=-1511/57, 4-5=-2692/132, 5-6=-2693/133, 6-7=-1523/65, 7-9=-1115/77
BOT CHORD 13-14=0/1339, 12-13=-18/1723, 10-12=-22/1376
WEBS 2-14=-1565/27, 4-12=-64/1071, 5-12=-574/131, 6-12=-74/1380, 7-10=-32/1389, 3-13=-19/550, 4-13=-960/113, 2-13=-14/586

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
- 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 14, 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.



May 18, 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 142 W0	146178897
210521	G10	Roof Special Girder	1	1		

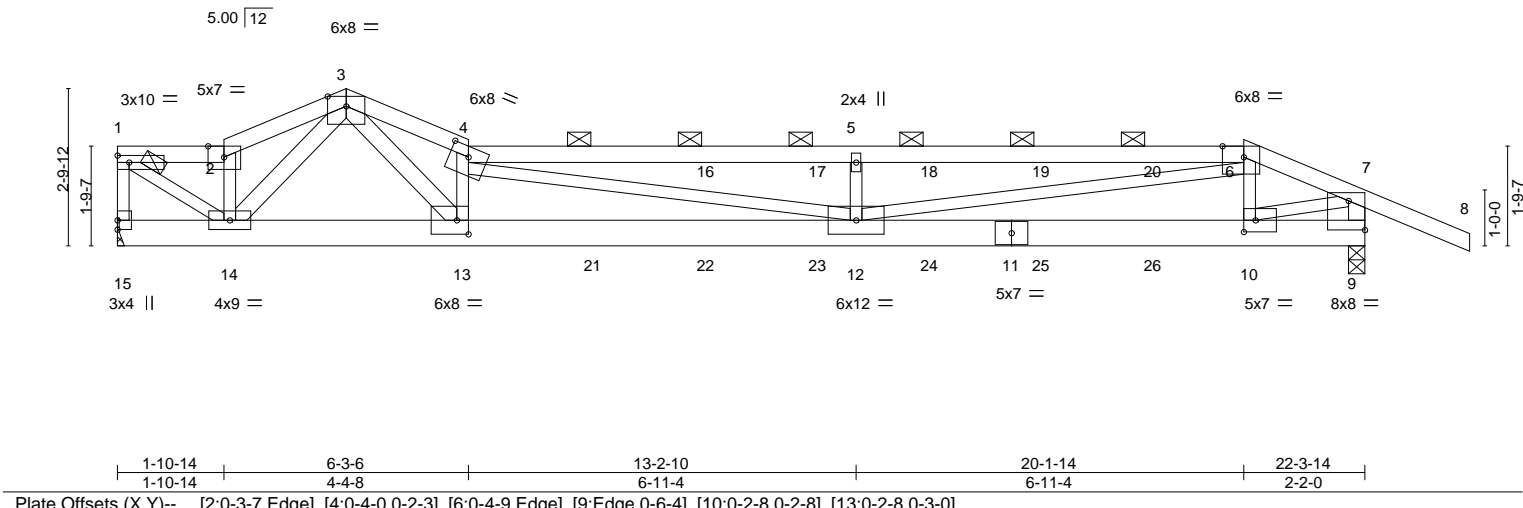
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:21 2021 Page 1

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Scale = 1:41.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.98	Vert(LL)	-0.35 12-13	>766	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.75	Vert(CT)	-0.63 12-13	>418	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.98	Horz(CT)	0.05 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.28 12-13	>941	240	Weight: 95 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied or 2-7-14 oc purlins, except end verticals, and 2-0-0 oc purlins (2-9-7 max.): 1-2, 4-6.
4-6: 2x4 SPF 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 9-10.
BOT CHORD 2x6 SPF 1650F 1.4E *Except*	
9-11: 2x6 SPF No.2	
WEBS 2x3 SPF No.2 *Except*	
3-14,3-13,7-9: 2x4 SPF No.2	

REACTIONS.	(size) 15=Mechanical, 9=0-3-8
Max Horz 15=-73(LC 4)	
Max Uplift 15=-155(LC 9), 9=-277(LC 9)	
Max Grav 15=1143(LC 1), 9=1230(LC 1)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-15=-1051/152, 1-2=-1295/199, 2-3=-1380/225, 3-4=-4208/736, 4-5=-4374/815, 5-6=-4374/815, 6-7=-1676/321, 7-9=-1311/278
BOT CHORD	13-14=-200/1594, 12-13=-621/3941, 10-12=-275/1585
WEBS	1-14=-222/1563, 2-14=-609/104, 3-14=-572/118, 3-13=-593/3358, 4-13=-2157/468, 4-12=-152/543, 5-12=-537/235, 6-12=-499/2846, 6-10=-434/121, 7-10=-312/1681

- 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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 15=155, 9=277.
 - 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) 65 lb down and 26 lb up at 10-6-7, 65 lb down and 26 lb up at 12-6-7, 65 lb down and 26 lb up at 14-6-7, and 65 lb down and 26 lb up at 16-6-7, and 65 lb down and 26 lb up at 18-6-7 on top chord, and 250 lb down and 57 lb up at 8-6-2, 19 lb down at 10-6-7, 19 lb down at 12-6-7, 19 lb down at 14-6-7, 19 lb down at 16-6-7, and 19 lb down at 18-6-7, and 97 lb down and 287 lb up at 20-1-14 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

Continued on page 2

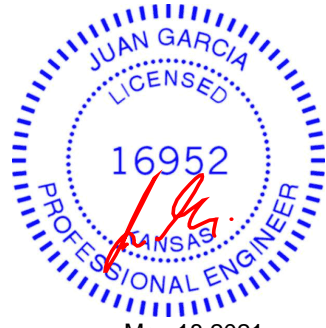
LOAD CASE(S) Standard

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MiTek

16023 Swingley Ridge Rd
Chesterfield, MO 63017



May 18, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0
210521	G10	Roof Special Girder	1	1	I46178897
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

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LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-6=-70, 6-7=-70, 7-8=-70, 9-15=-20
- Concentrated Loads (lb)
 - Vert: 10=14(B) 16=-2(B) 17=-2(B) 18=-2(B) 19=-2(B) 20=-2(B) 21=-250(B) 22=-0(B) 23=-0(B) 24=-0(B) 25=-0(B) 26=-0(B)

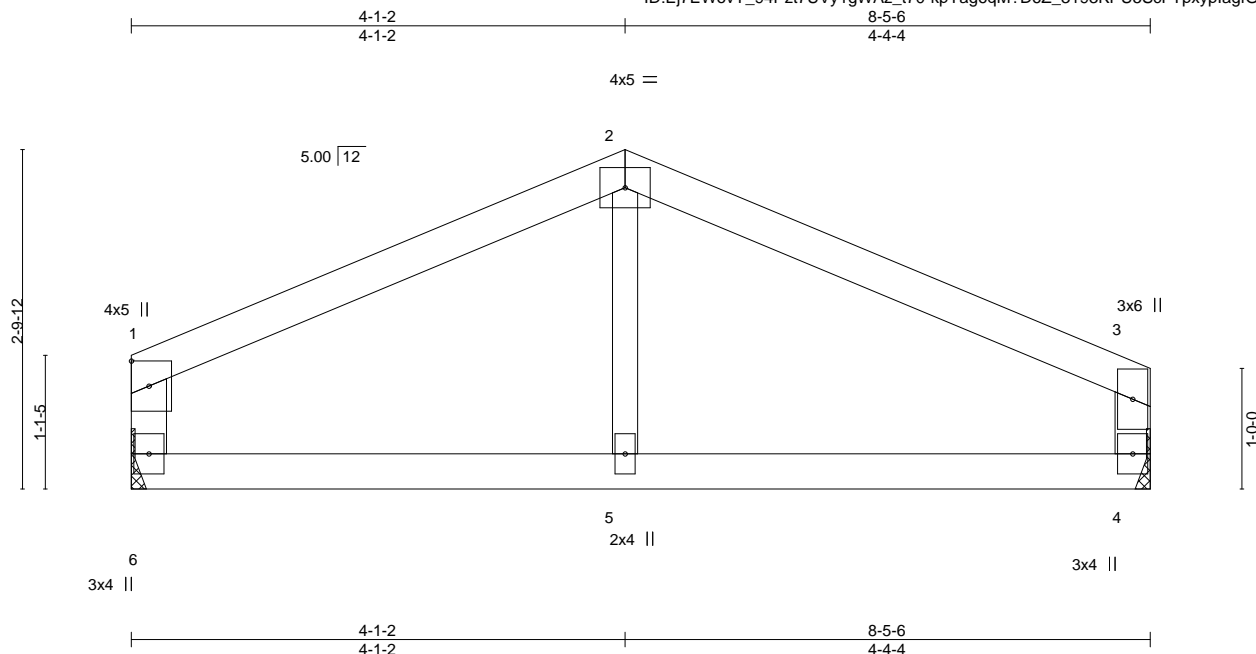


Job 210521	Truss H1	Truss Type Common	Qty 1	Ply 1	Lot 142 W0 I46178898
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:31 2021 Page 1

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Scale = 1:19.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	-0.03	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	-0.06	5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	5	>999	240		
									Weight: 23 lb	FT = 10%

LUMBER-

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

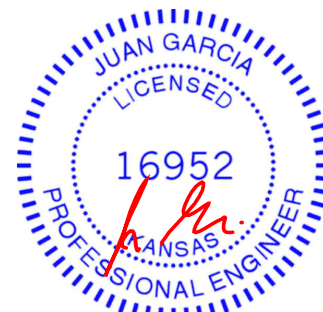
(size) 6=Mechanical, 4=Mechanical
Max Horz 6=-27(LC 6)
Max Uplift 6=-4(LC 8), 4=-5(LC 9)
Max Grav 6=367(LC 1), 4=367(LC 1)

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

TOP CHORD 1-2=-371/21, 2-3=-373/19, 1-6=-285/29, 3-4=-289/32
BOT CHORD 5-6=0/284, 4-5=0/284

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); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 4.
- 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.



May 18, 2021

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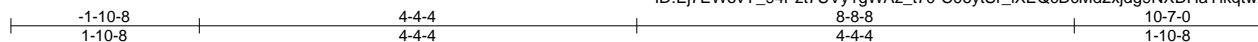


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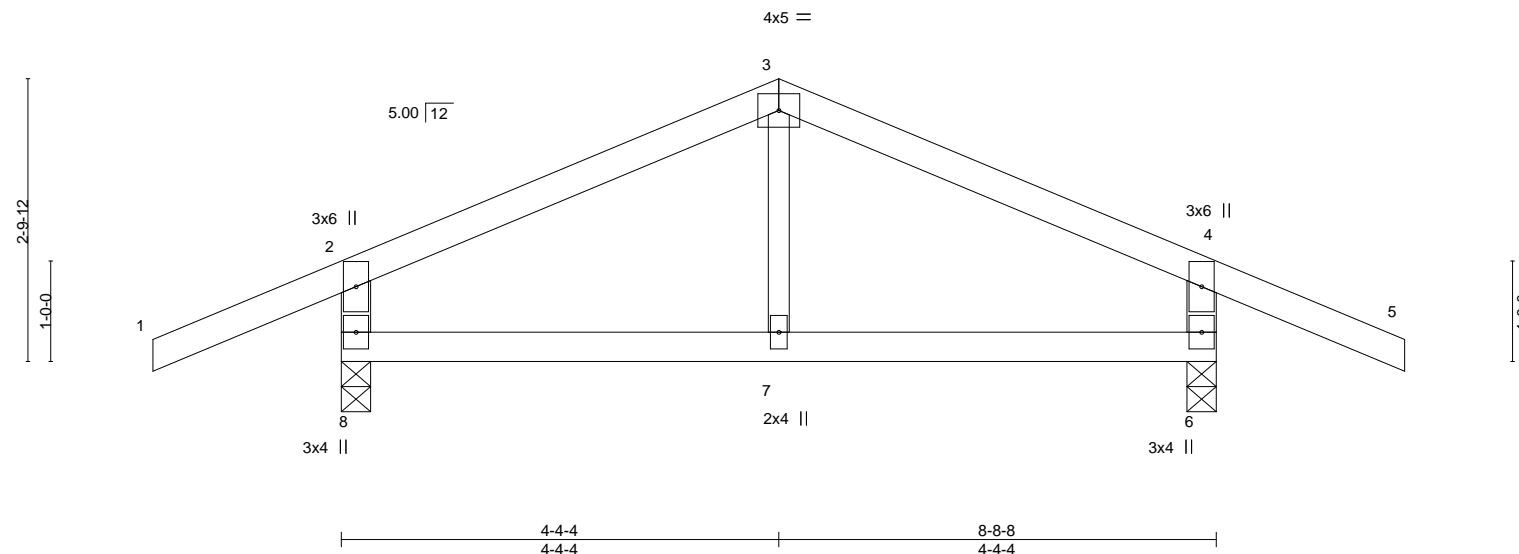
Job 210521	Truss H2	Truss Type Common	Qty 2	Ply 1	Lot 142 W0	I46178899
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:32 2021 Page 1
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Scale = 1:22.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	-0.03	7	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(CT)	-0.05	7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	7	>999	240		
									Weight: 29 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
3-7: 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.

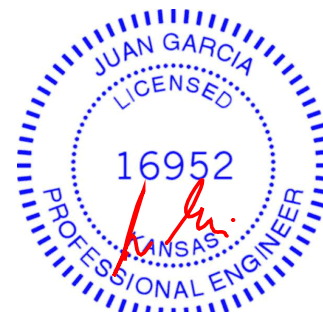
(size) 8=0-3-8, 6=0-3-8
Max Horz 8=-23(LC 6)
Max Uplift 8=-97(LC 8), 6=-97(LC 9)
Max Grav 8=520(LC 1), 6=520(LC 1)

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

TOP CHORD 2-3=-343/51, 3-4=-343/51, 2-8=-447/123, 4-6=-447/123

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) gable end 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 3-6-0 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 100 lb uplift at joint(s) 8, 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.



May 18, 2021

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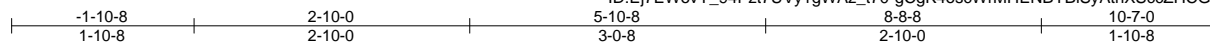
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210521	Truss H3	Truss Type Hip	Qty 1	Ply 1	Lot 142 W0	I46178900
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Wheeler Lumber, Waverly, KS - 66871,

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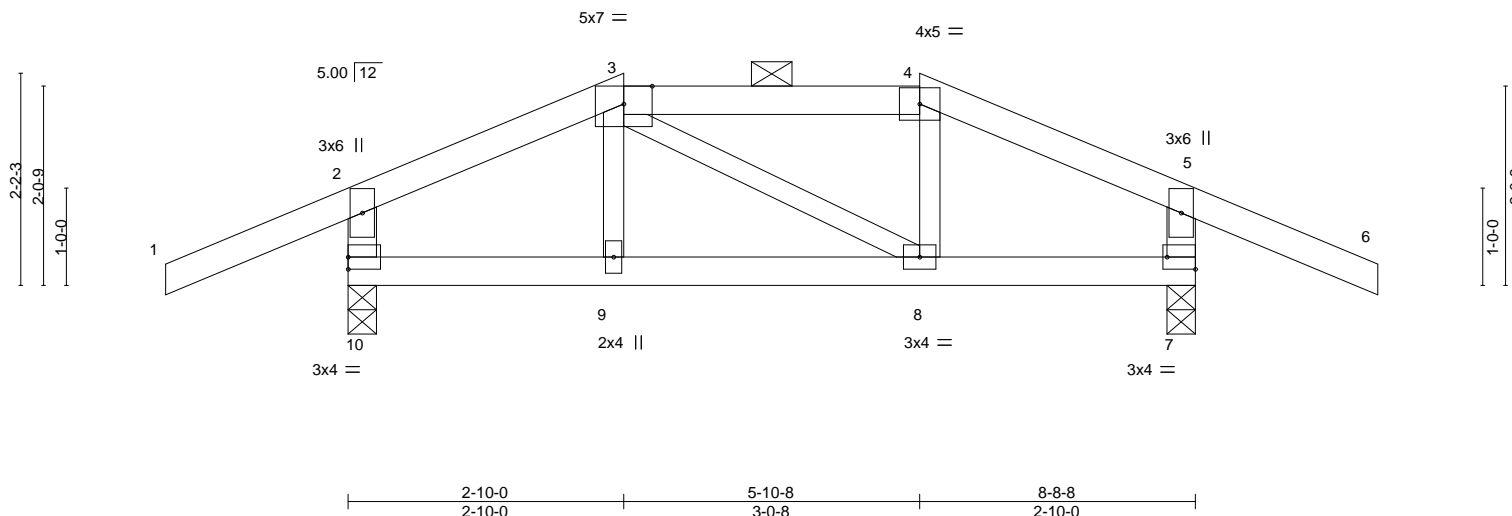


Plate Offsets (X,Y)--		[7:Edge,0-1-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.40
TCDL 10.0	Lumber DOL	1.15	BC 0.30
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.04 8-9 >999 360
			Vert(CT) -0.07 8-9 >999 240
			Horz(CT) 0.00 7 n/a n/a
			Wind(LL) 0.02 8-9 >999 240
			PLATES
			MT20
			GRIP
			197/144
			Weight: 32 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-10,5-7: 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.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 10=0-3-8, 7=0-3-8
Max Horz 10=-24(LC 6)
Max Uplift 10=-107(LC 4), 7=-107(LC 5)
Max Grav 10=520(LC 1), 7=520(LC 1)

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

TOP CHORD 2-3=-360/48, 3-4=-272/54, 4-5=-360/48, 2-10=-434/113, 5-7=-434/113
BOT CHORD 9-10=0/272, 8-9=0/272, 7-8=0/272

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) gable end 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 3-6-0 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 100 lb uplift at joint(s) except (jt=lb) 10=107, 7=107.
- 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.



May 18, 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



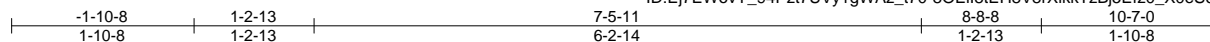
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178901
210521	H4	Hip Girder	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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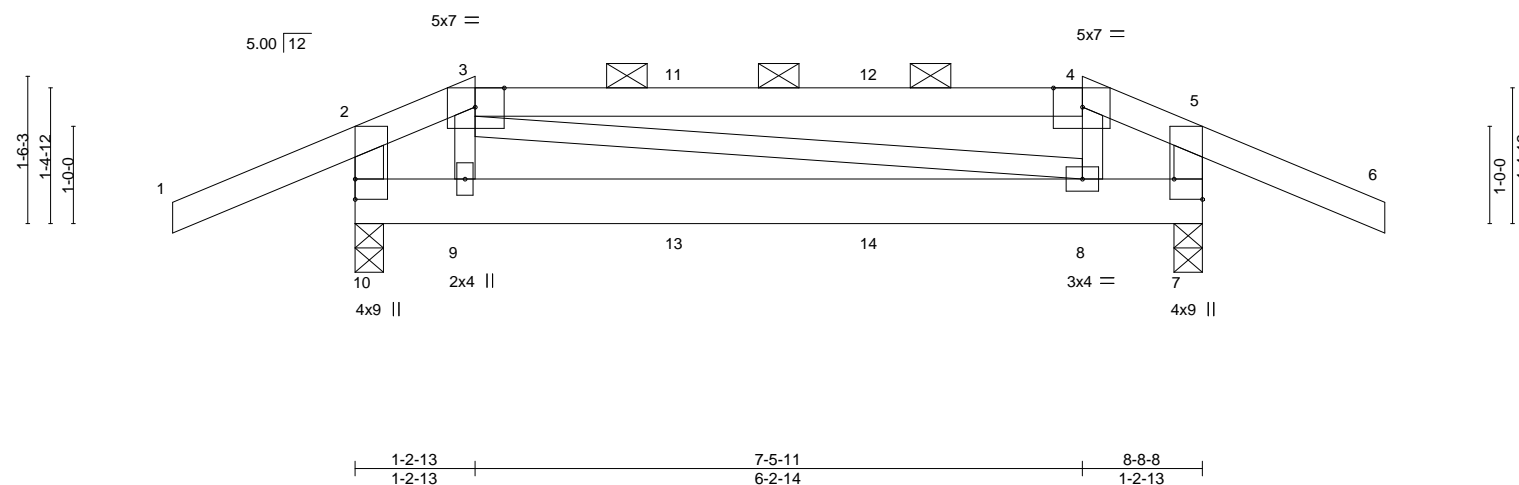


Plate Offsets (X,Y)--		[3:0-3-9,Edge], [4:0-3-9,Edge], [7:Edge,0-3-8]									
LOADING (psf)		SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC 0.61	Vert(LL)	-0.02	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	-0.04	8-9	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB 0.09	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	-0.02	8-9	>999	240	Weight: 38 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-10,5-7: 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.): 3-4.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 10=0-3-8, 7=0-3-8
Max Horz 10=24(LC 7)
Max Uplift 10=-420(LC 29), 7=-420(LC 28)
Max Grav 10=502(LC 45), 7=502(LC 44)

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

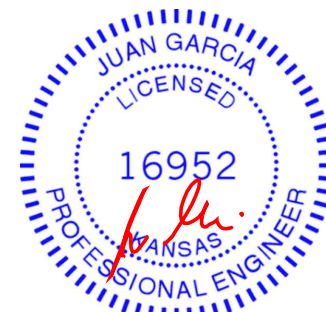
TOP CHORD 2-3=-404/437, 3-4=-352/307, 4-5=-398/435, 2-10=-302/237, 5-7=-308/244
BOT CHORD 9-10=-367/377, 8-9=-316/382, 7-8=-355/364
WEBS 3-9=-512/129, 4-8=-530/142

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) gable end 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 3-6-0 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 100 lb uplift at joint(s) except (jt=lb) 10=420, 7=420.
- 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) 45 lb down and 12 lb up at 1-2-13, 50 lb down and 12 lb up at 3-4-4, and 50 lb down and 12 lb up at 5-4-4, and 45 lb down and 12 lb up at 7-5-11 on top chord, and 145 lb down and 761 lb up at 1-2-13, 14 lb down and 16 lb up at 3-4-4, and 14 lb down and 16 lb up at 5-4-4, and 145 lb down and 761 lb up at 7-4-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 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

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 7-10=-20



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Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178901
210521	H4	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:34 2021 Page 2
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LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 9=56(B) 8=56(B)

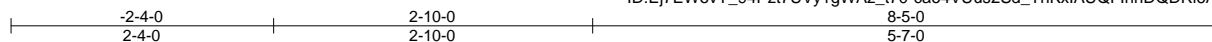


Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178902
210521	J1	Diagonal Hip Girder	1	1	Job Reference (optional)	

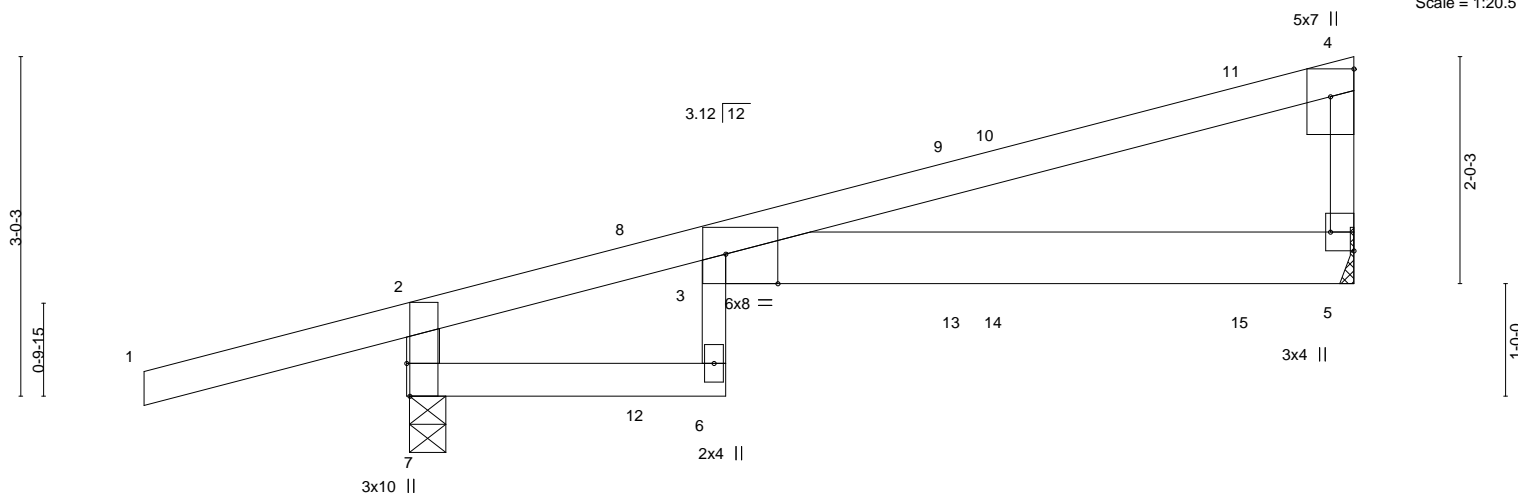
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:35 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-ca04VUus2Sd_ThKxIAUQFIInnQDRI6AGaulPbmzFEWw



Scale = 1:20.5



0-0-5 2-10-0 8-5-0
0-0-5 2-9-11 5-7-0

Plate Offsets (X,Y)--	[3:0-5-9,Edge], [4:Edge,0-2-8], [5:Edge,0-2-8], [7:0-3-8,Edge]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.77	Vert(LL)	-0.18	3	>544	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.59	Vert(CT)	-0.33	3	>300	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.17	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.16	6	>604	240	Weight: 28 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
3-6: 2x3 SPF No.2, 3-5: 2x6 SPF No.2
WEBS 2x4 SPF No.2 *Except*
4-5: 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.

(size) 7=0-3-14, 5=Mechanical
Max Horz 7=109(LC 5)
Max Uplift 7=-161(LC 4), 5=-109(LC 8)
Max Grav 7=577(LC 1), 5=481(LC 1)

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

TOP CHORD 2-7=-563/174, 4-5=-260/100

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 7=161, 5=109.
- 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 72 lb down and 134 lb up at 2-1-6, 63 lb down and 36 lb up at 2-4-9, 108 lb down and 63 lb up at 4-11-5, and 97 lb down and 51 lb up at 5-3-12, and 98 lb down and 67 lb up at 7-6-1 on top chord, and 18 lb down and 21 lb up at 2-1-6, 3 lb down at 2-4-9, 3 lb down at 4-11-5, and 24 lb down at 5-3-12, and 63 lb down and 27 lb up at 7-6-1 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 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 (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 6-7=-20, 3-5=-20
Concentrated Loads (lb)
Vert: 8=35(B) 9=-40(F) 10=-4(B) 11=-62(F) 14=-16(B) 15=-63(F)



May 18, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178903
210521	J2	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-GuWd0a1OD87HvXFE?hiEkqH_mGRMZyW1Klf213zFEWk

-0-10-8	2-3-8	3-7-7
0-10-8	2-3-8	1-3-15

Scale = 1:13.3

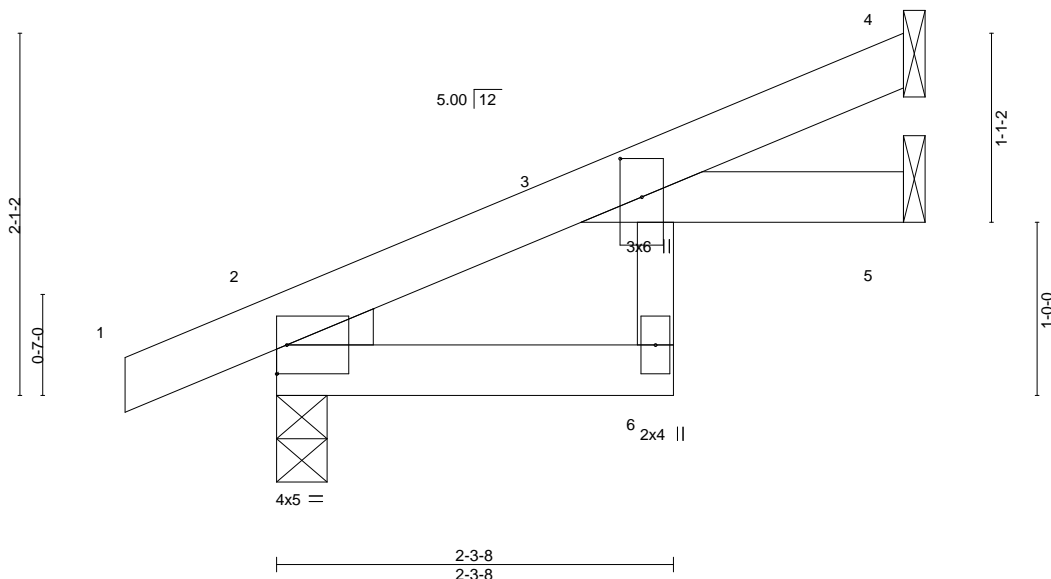


Plate Offsets (X,Y)-- [3:0-2-11,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.02	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.04	6	>925	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.03	6	>999	240	Weight: 11 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
WEDGE
Left: 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-7-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=75(LC 8)
Max Uplift 4=52(LC 8), 2=34(LC 8)
Max Grav 4=129(LC 1), 2=240(LC 1), 5=37(LC 3)

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to bearing plate connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 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.



May 18, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210521	Truss J3	Truss Type Jack-Open	Qty 1	Ply 1	Lot 142 W0	146178904
Wheeler Lumber, Waverly, KS - 66871,						Job Reference (optional)

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:55 2021 Page 1
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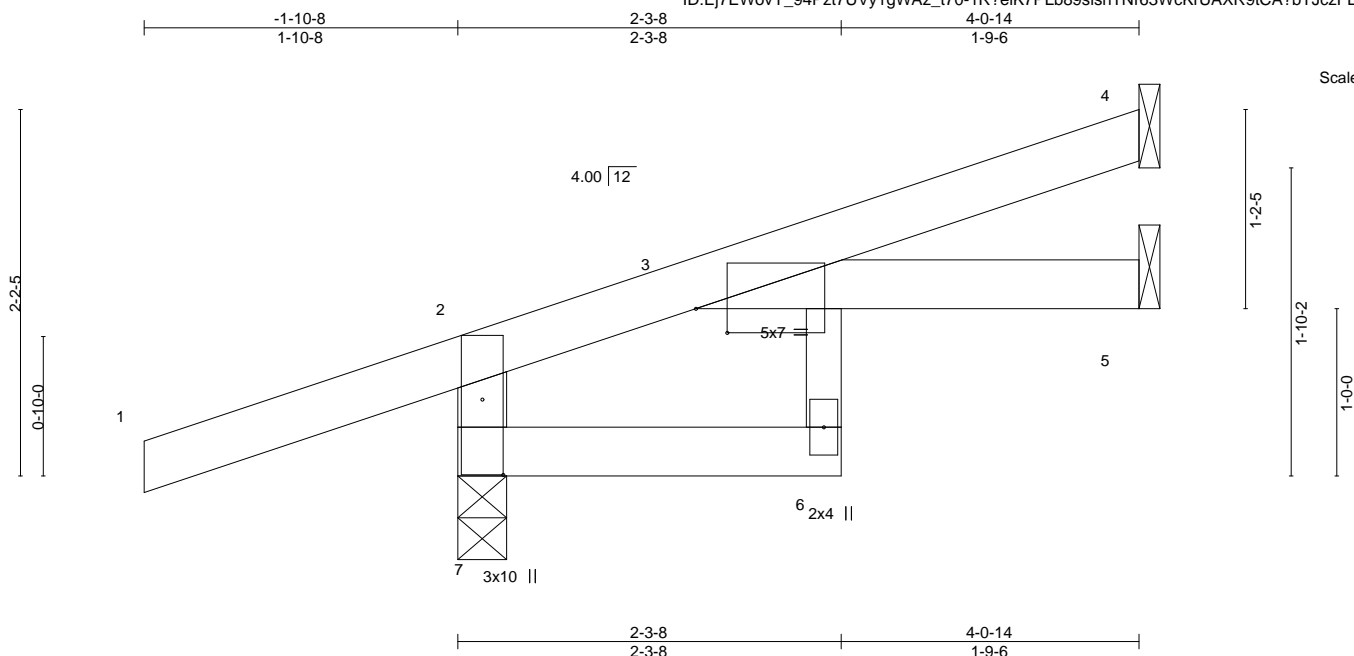


Plate Offsets (X,Y)--		[3:0-2-4,0-1-12], [7:0-5-6,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.02	6	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.04	6	>999	240	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.02	5	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.02	6	>999	240	Weight: 14 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
3-6: 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-0-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 7=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 7=79(LC 4)
Max Uplift 7=117(LC 4), 4=39(LC 8)
Max Grav 7=361(LC 1), 4=96(LC 1), 5=70(LC 3)

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

TOP CHORD 2-7=329/128

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4 except (jt=lb) 7=117.
- 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.



May 18, 2021

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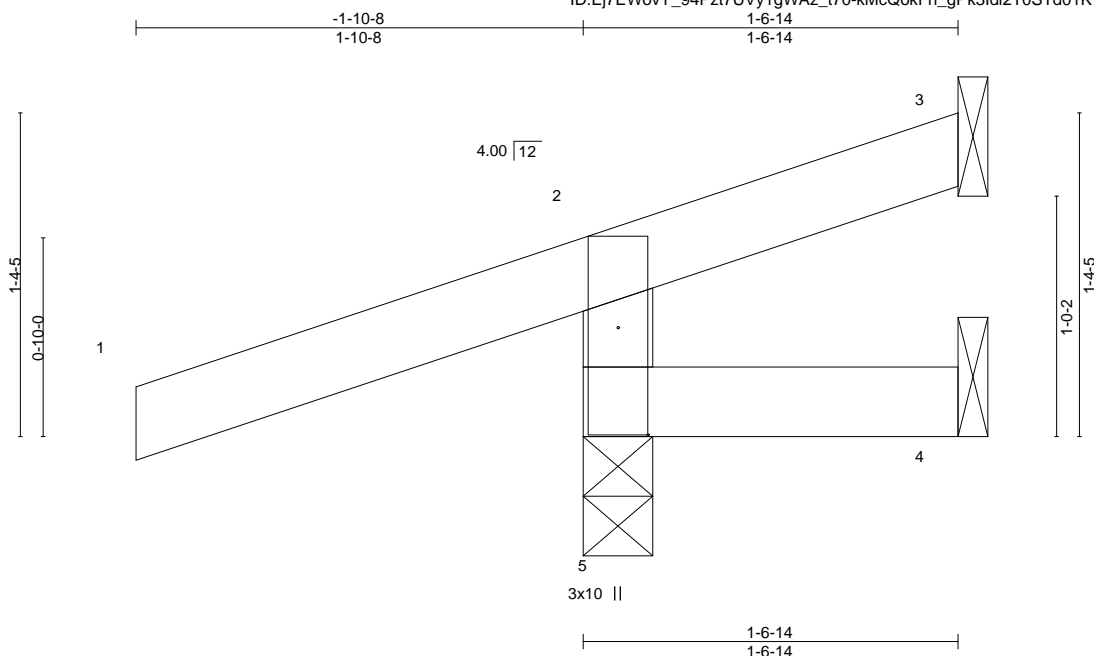
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178905
210521	J4	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:05 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-kMcQokFh_gPk3ldi2T0STd01KWaVnhbgTZ0?f1zFEWS



Scale = 1:9.7

Plate Offsets (X,Y)--		[5:0-5-6,0-1-8]								
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC 0.28		Vert(LL) 0.00 5 >999 360			MT20 197/144	
TCDL	10.0	Lumber DOL 1.15		BC 0.08		Vert(CT) 0.00 4-5 >999 240				
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 5 >999 240			Weight: 6 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 1-6-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

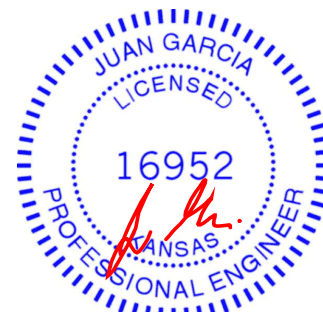
(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=46(LC 4)
Max Uplift 5=143(LC 4), 3=22(LC 1), 4=16(LC 1)
Max Grav 5=306(LC 1), 3=16(LC 4), 4=18(LC 4)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-262/142

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=143.
- 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.



May 18, 2021

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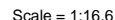
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:18 2021 Page 1
ID:Ei7EWovY 94Pzt7UVV1qWAZ t70-ssuLXBPrwa1u717CJlWVN3DulvYKZpbS4qBdmzFEWF



BRACING-	
TOP CHORD	Structural wood sheathing directly applied or 5-2-10 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

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; TCDD=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4, 2, 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.



May 18, 2021



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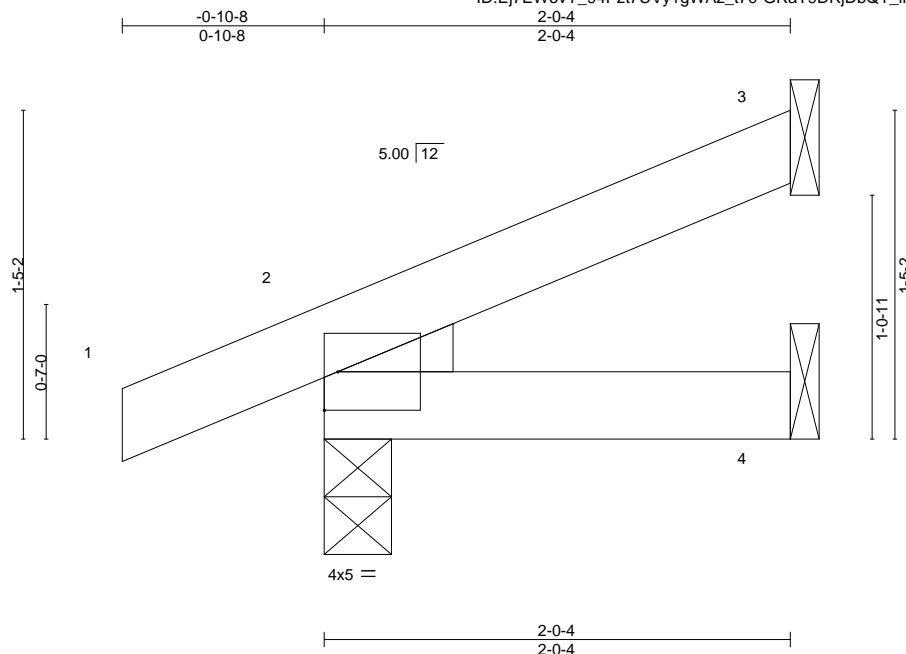
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178907
210521	J6	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:21 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-GRaT9DRjDbQT_lrm_qJD6?hpfz30XwZ192urD5zFEWC



Scale = 1:10.0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	2	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	2-4	>999	240		
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-P	Wind(LL)	0.00	2	****	240		
									Weight: 6 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x3 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 2-0-4 oc purlins.

BOT CHORD

Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical

Max Horz 2=48(LC 8)

Max Uplift 3=-33(LC 8), 2=-36(LC 4)

Max Grav 3=43(LC 1), 2=173(LC 1), 4=36(LC 3)

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3, 2.
- 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.



May 18, 2021

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

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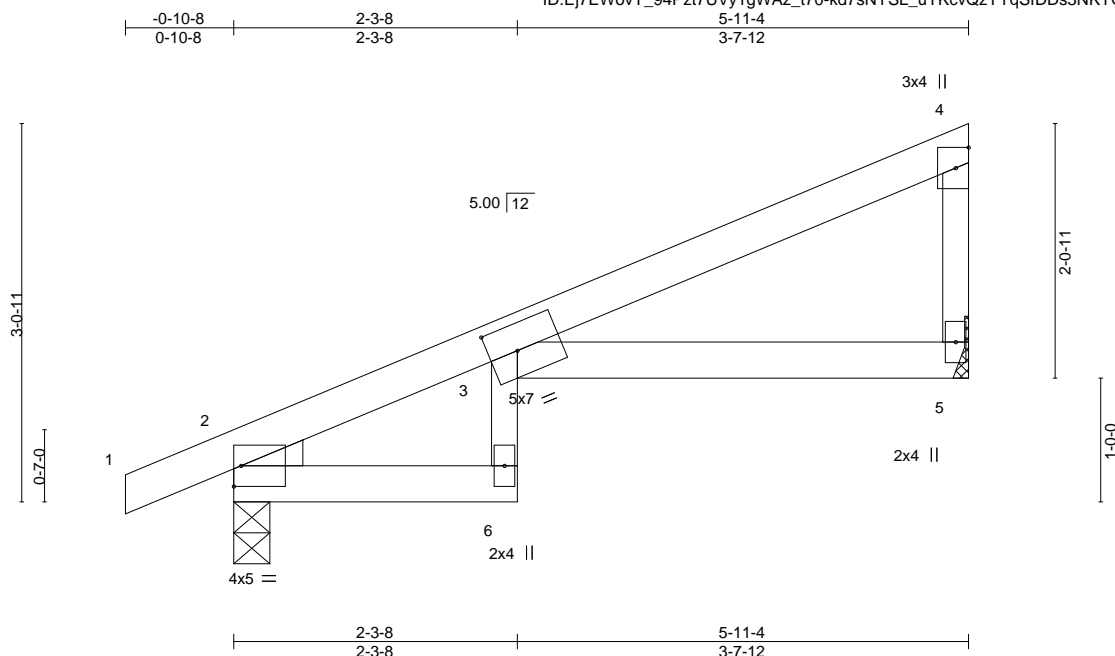
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178908
210521	J7	Jack-Closed	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:22 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-kd7sNYSL_uYKcvQzYYqSfDDs3NKYGNbNBieOmXzFEWB



Scale = 1:18.6

Plate Offsets (X,Y)--		[3:0-2-12,0-2-9]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)		l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC	0.60	Vert(LL)	-0.10 6	>711	360	MT20	197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.33	Vert(CT)	-0.17 6	>397	240		
BCLL	0.0 *	Rep Stress Incr YES		WB	0.00	Horz(CT)	0.11 5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.10 6	>705	240	Weight: 18 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 3-6: 2x3 SPF No.2
 WEBS 2x3 SPF No.2
 WEDGE
 Left: 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=Mechanical, 2=0-3-8
 Max Horz 2=104(LC 5)
 Max Uplift 5=61(LC 8), 2=58(LC 8)
 Max Grav 5=250(LC 1), 2=334(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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 2.
- 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.



May 18, 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



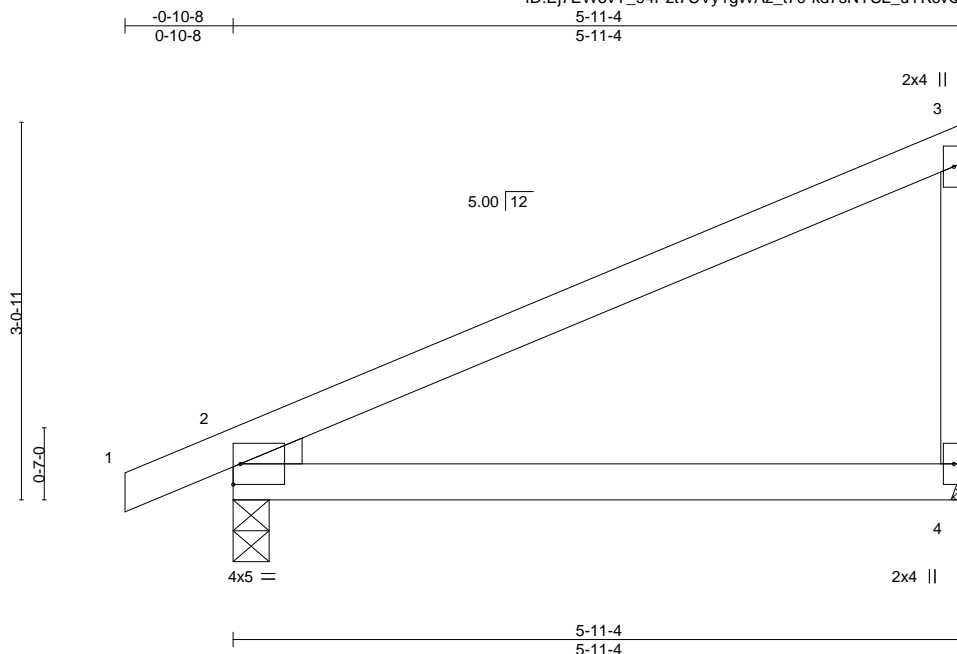
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178909
210521	J8	Jack-Closed	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:22 2021 Page 1

ID:Ej7EWovY_94PztUVy1gWAZ_t70-kd7sNYSL_uYKcvQzYYqSfDDs2NKIGNoBNieOmXzFEWB



Scale = 1:18.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.60	Vert(LL)	-0.06	2-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.35	Vert(CT)	-0.13	2-4	>544	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	240	Weight: 18 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
WEDGE
Left: 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8
Max Horz 2=120(LC 5)
Max Uplift 4=-59(LC 8), 2=-60(LC 8)
Max Grav 4=250(LC 1), 2=334(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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4, 2.
- 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.



May 18, 2021

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

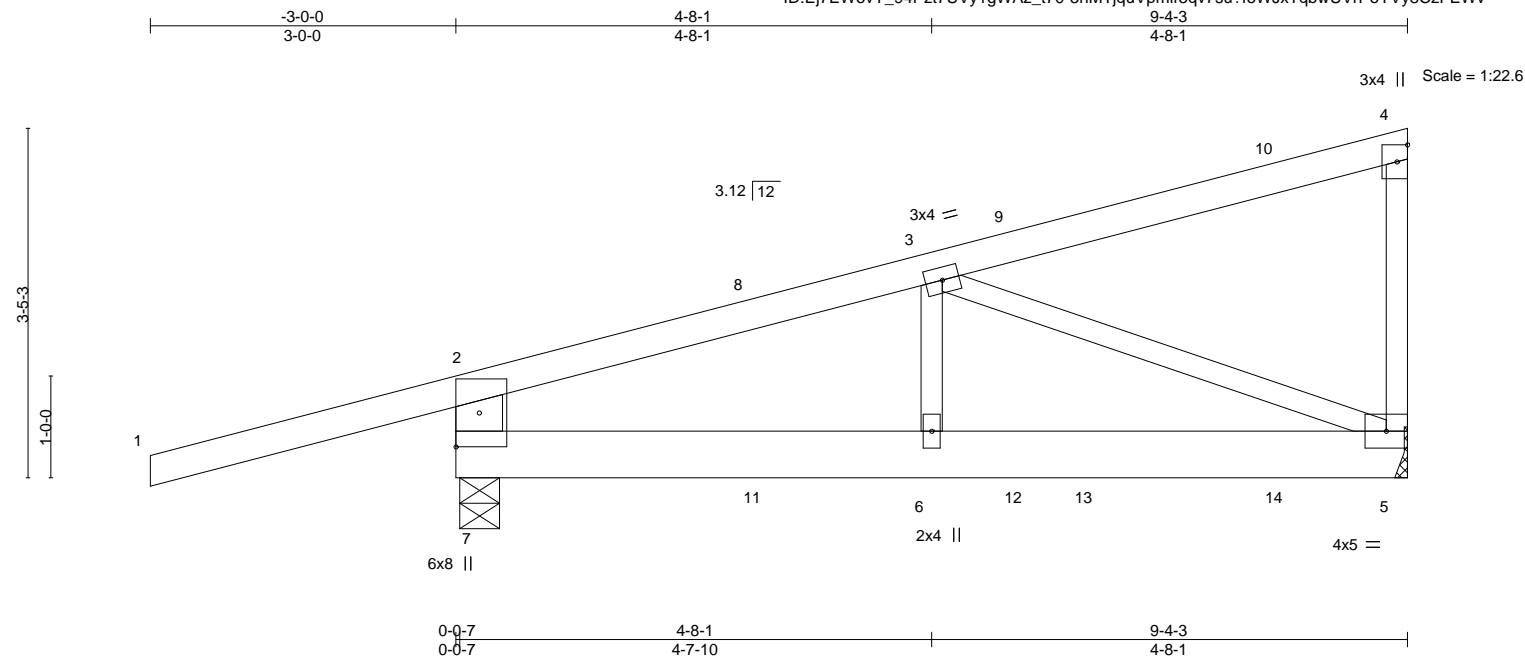
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210521	Truss J10	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	Lot 142 W0	I46178910
Wheeler Lumber, Waverly, KS - 66871,						Job Reference (optional)

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:36 2021 Page 1
ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-5nMTJquVpmlr5qv7su?foWJxTqbwUVrPoYVY8CzFEWv



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.87	Vert(LL)	-0.05	5-6	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.45	Vert(CT)	-0.08	5-6	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.29	Horz(CT)	0.00	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.04	5-6	>999	240	
								Weight: 39 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-7: 2x6 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.

(size) 7=0-4-11, 5=Mechanical
Max Horz 7=145(LC 5)
Max Uplift 7=266(LC 4), 5=149(LC 8)
Max Grav 7=715(LC 1), 5=535(LC 1)

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

TOP CHORD 2-7=-554/247, 2-3=-563/132
BOT CHORD 6-7=-165/481, 5-6=-165/481
WEBS 3-5=-490/167

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 7=266, 5=149.
- 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 55 lb down and 94 lb up at 2-11-15, 78 lb down and 36 lb up at 3-0-9, and 79 lb down and 54 lb up at 5-6-11, and 102 lb down and 86 lb up at 8-1-6 on top chord, and 10 lb down and 16 lb up at 2-11-15, 9 lb down and 7 lb up at 3-0-9, 16 lb down and 2 lb up at 5-6-11, and 168 lb down and 75 lb up at 6-2-15, and 40 lb down at 8-1-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 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

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-4=-70, 5-7=-20
Concentrated Loads (lb)
Vert: 8=26(B) 10=-54(B) 11=7(F) 12=2(B) 13=-168(F) 14=-25(B)



May 18, 2021

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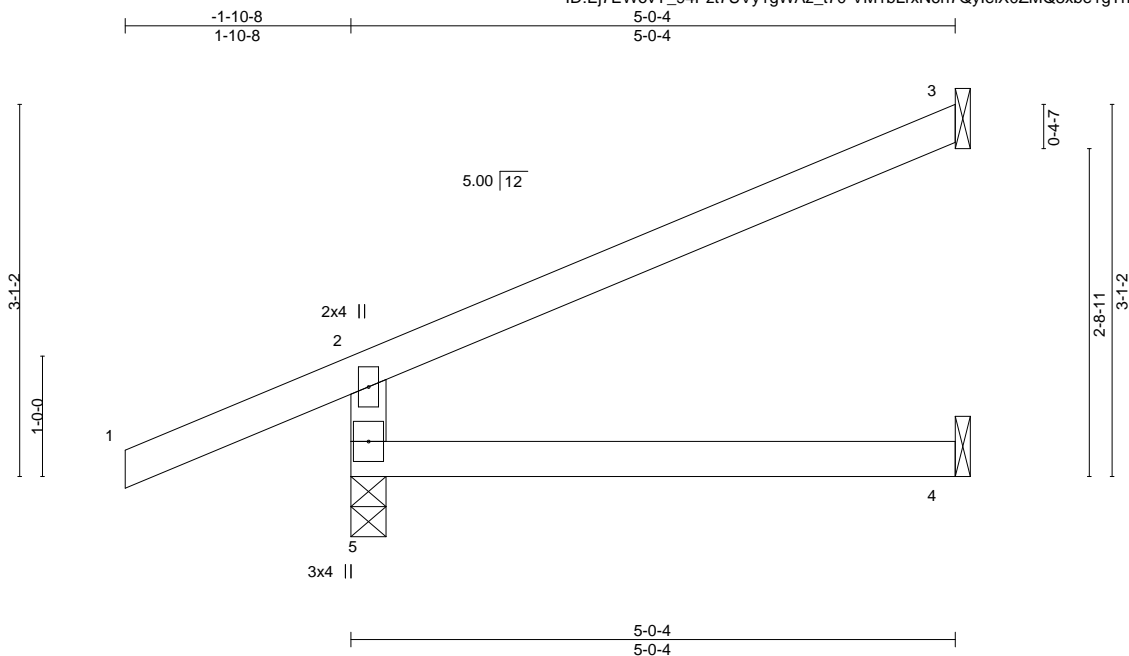
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178911
210521	J11	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:39 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-VM1bLrxN6h7QyleiX0ZMQ8xbe1gThw9rVWjdxzFEWs



Scale = 1:19.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.30	Vert(LL)	-0.02	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.05	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.02	4-5	>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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=101(LC 8)
Max Uplift 5=-66(LC 4), 3=-75(LC 8)
Max Grav 5=388(LC 1), 3=138(LC 1), 4=88(LC 3)

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

TOP CHORD 2-5=-340/110

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 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.



May 18, 2021

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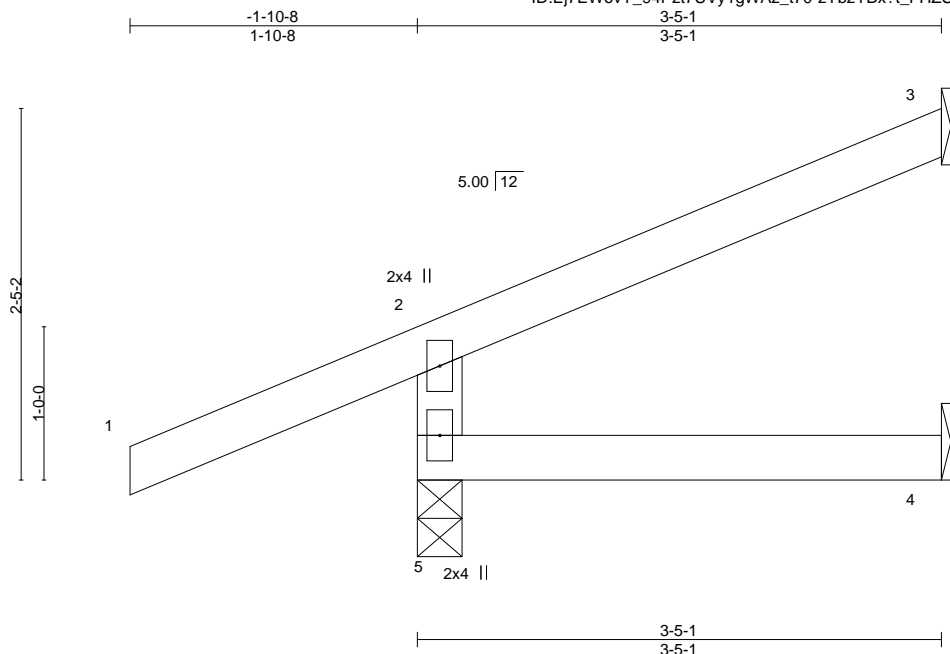


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178912
210521	J12	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:40 2021 Page 1
ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-zYbzYBx?t_FHZSDu5j4byMUmbR2fQNP?jATAHzzFEWr



Scale = 1:15.0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.01	4-5	>999	240		
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: 11 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 3-5-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=73(LC 8)
Max Uplift 5=71(LC 4), 3=48(LC 8)
Max Grav 5=330(LC 1), 3=77(LC 1), 4=57(LC 3)

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

TOP CHORD 2-5=-289/94

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 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.



May 18, 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



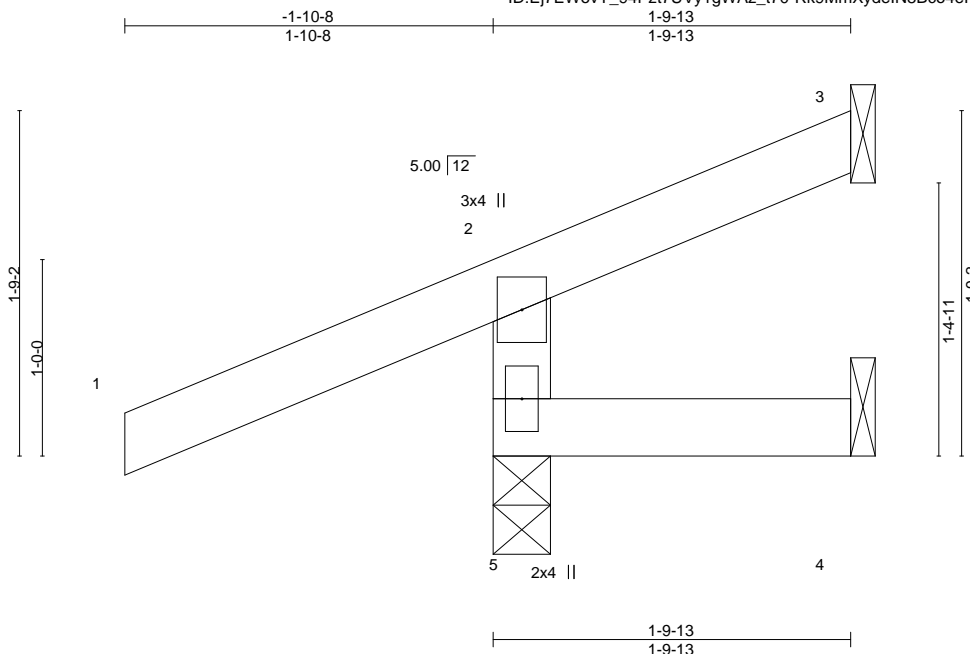
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178913
210521	J13	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:41 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_170-Rk9MmXydeIN8Bco4eRbqVZ1xLrOw9qf8yqCjpQzFEWq



Scale = 1:11.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.00	5	>999	240		
									Weight: 7 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 1-9-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=53(LC 5)
Max Uplift 5=-87(LC 4), 3=-14(LC 8), 4=-7(LC 1)
Max Grav 5=302(LC 1), 3=4(LC 4), 4=24(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-262/96

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 3, 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.



May 18, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210521	Truss J14	Truss Type Jack-Closed	Qty 1	Ply 1	Lot 142 W0	I46178914
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

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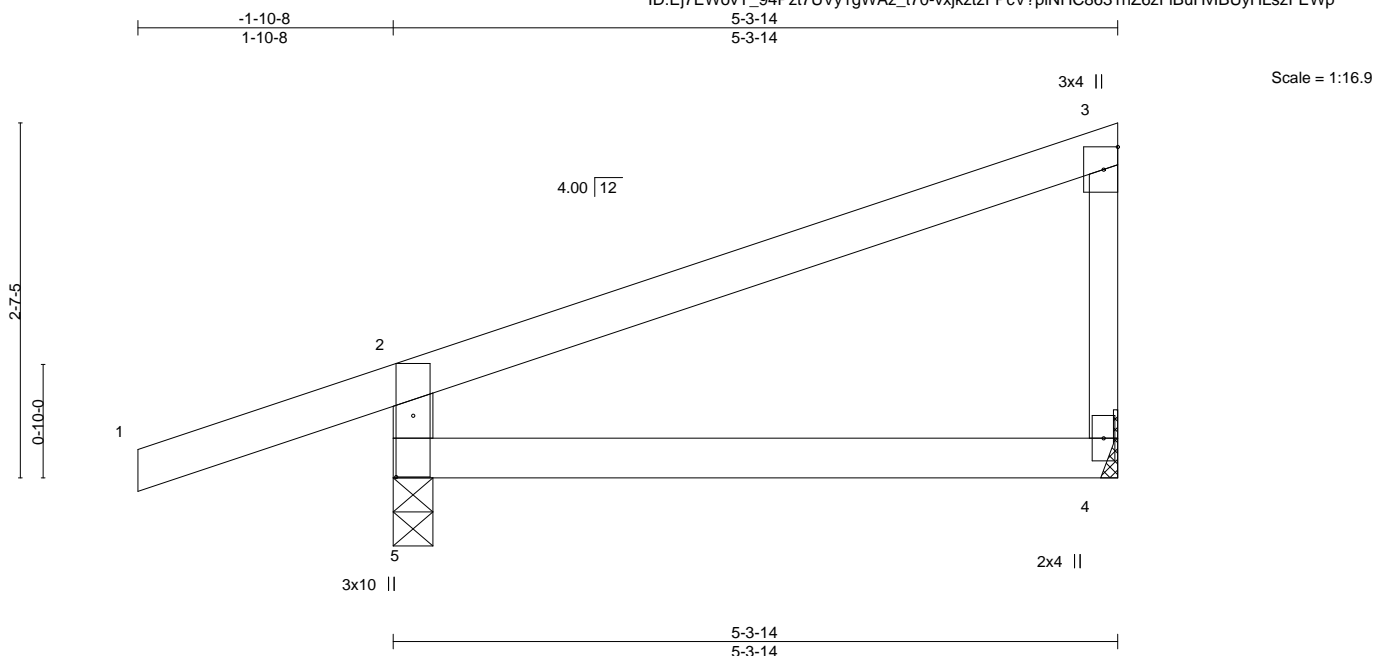


Plate Offsets (X,Y)--		[5:0-5-6,0-1-8]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.29	Vert(LL)	-0.03	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.05	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240	Weight: 17 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
3-4: 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-3-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 4=Mechanical
Max Horz 5=112(LC 5)
Max Uplift 5=136(LC 4), 4=43(LC 8)
Max Grav 5=398(LC 1), 4=200(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-352/170

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4 except (jt=lb) 5=136.
- 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.



May 18, 2021

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

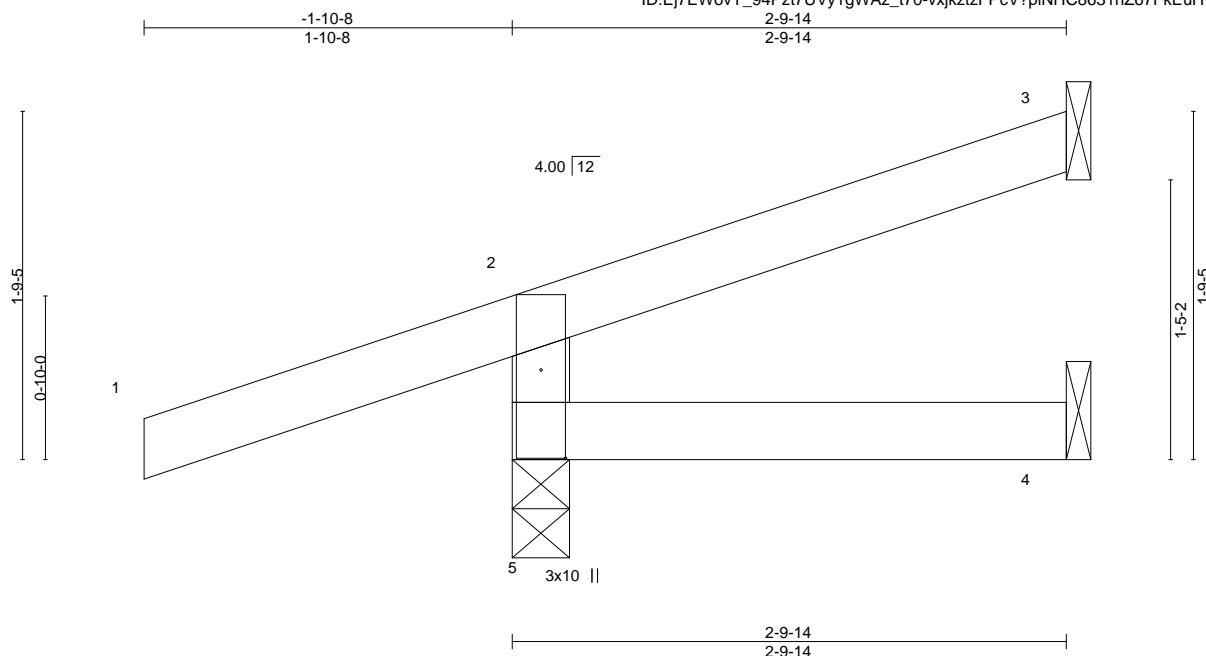


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210521	Truss J15	Truss Type Jack-Open	Qty 1	Ply 1	Lot 142 W0 Job Reference (optional)	I46178915
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:42 2021 Page 1
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Scale = 1:11.7

Plate Offsets (X,Y)-- [5:0-5-6,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	4-5	>999	240		
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: 9 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 2-9-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=62(LC 4)
Max Uplift 5=124(LC 4), 3=31(LC 8)
Max Grav 5=314(LC 1), 3=52(LC 1), 4=44(LC 3)

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

TOP CHORD 2-5=-273/139

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3 except (jt=lb) 5=124.
- 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.



May 18, 2021

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

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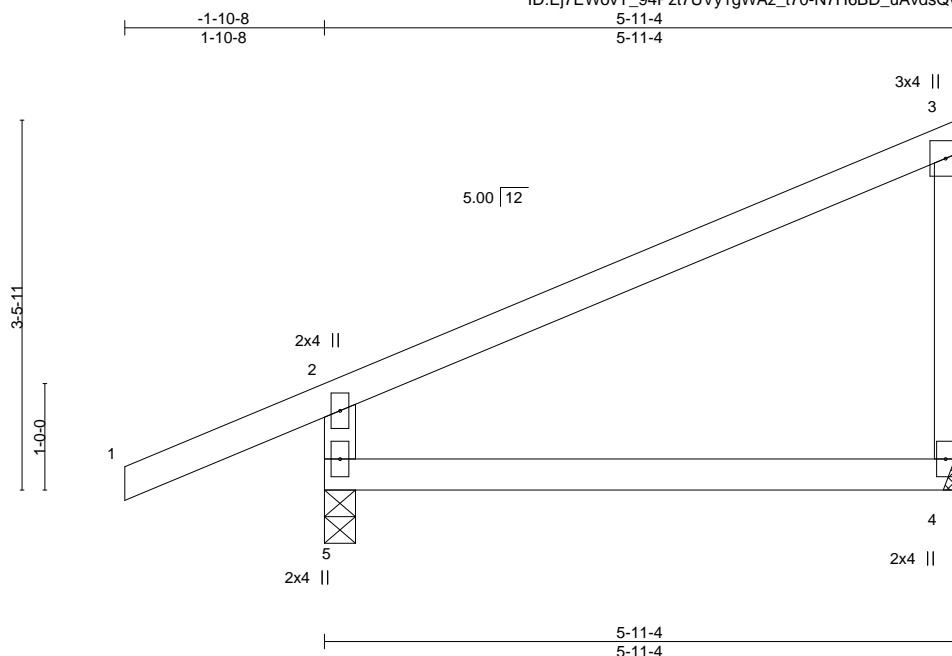
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178916
210521	J16	Jack-Closed	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:21.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.38	Vert(LL)	-0.04	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	-0.09	4-5	>773	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.02	4-5	>999	240	Weight: 19 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2 *Except*
 3-4: 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 4=Mechanical
 Max Horz 5=150(LC 5)
 Max Uplift 5=-85(LC 8), 4=-56(LC 8)
 Max Grav 5=423(LC 1), 4=231(LC 1)

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

TOP CHORD 2-5=-373/129

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 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.



May 18, 2021

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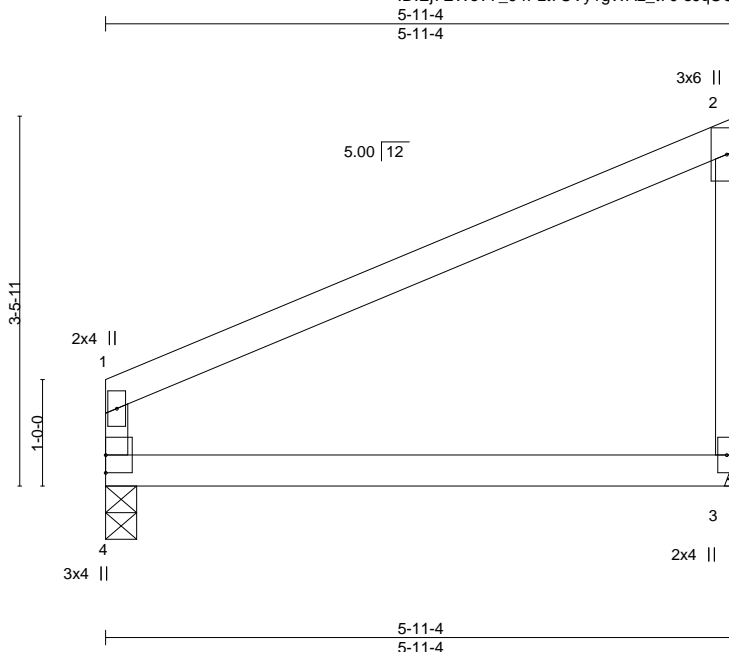
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178917
210521	J17	Jack-Closed	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:21.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.50	Vert(LL)	-0.05	3-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	-0.10	3-4	>707	240		
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)	0.02	3-4	>999	240	Weight: 17 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 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=0-3-8, 3=Mechanical
Max Horz 4=133(LC 5)
Max Uplift 4=33(LC 8), 3=63(LC 8)
Max Grav 4=258(LC 1), 3=258(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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4, 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.



May 18, 2021

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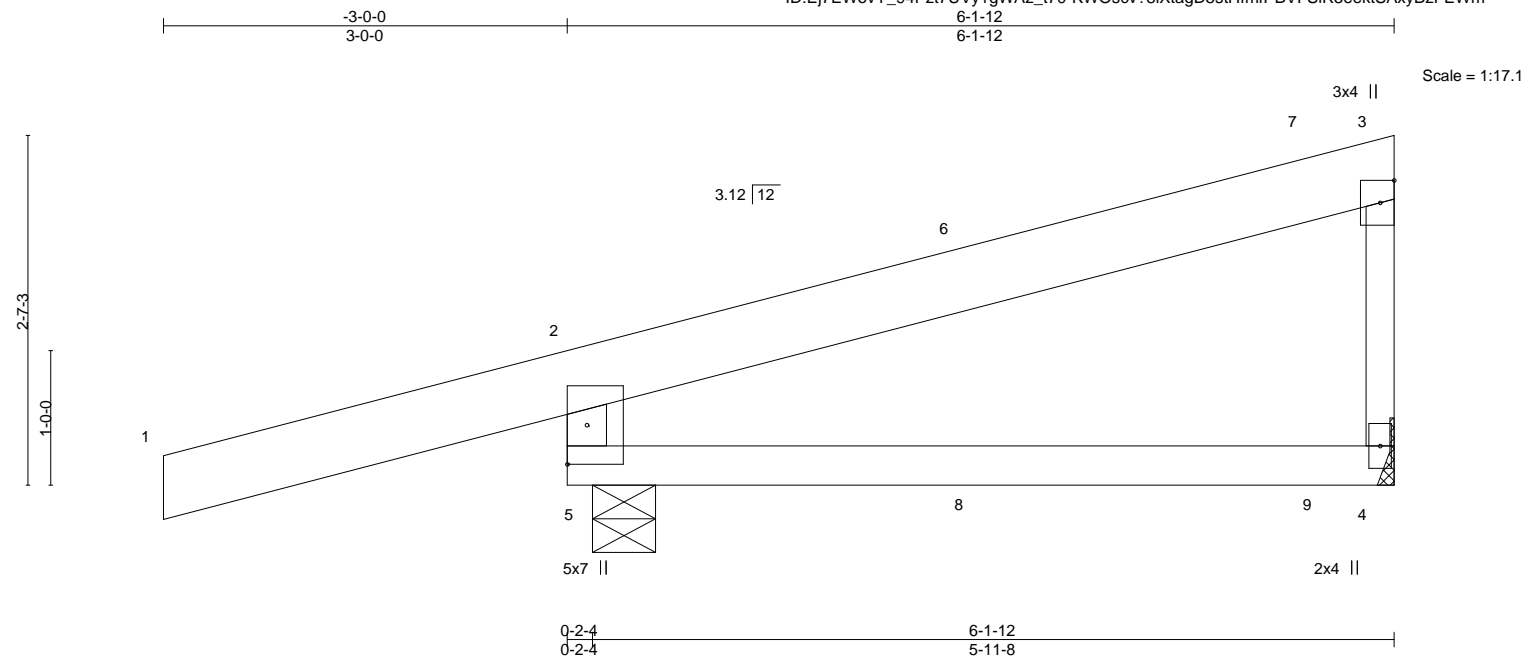
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178918
210521	J18	Diagonal Hip Girder	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:45 2021 Page 1

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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.80	Vert(LL)	-0.05	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.29	Vert(CT)	-0.09	4-5	>764	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.02	4-5	>999	240	Weight: 26 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF 1650F 1.4E
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2 *Except*
 3-4: 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.

(size) 5=0-5-10, 4=Mechanical
 Max Horz 5=108(LC 7)
 Max Uplift 5=-212(LC 4), 4=-54(LC 8)
 Max Grav 5=926(LC 41), 4=229(LC 1)

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

TOP CHORD 2-5=-849/249

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4 except (jt=lb) 5=212.
- 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) Load case(s) 40, 41 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 78 lb down and 36 lb up at 3-0-9, and 68 lb down and 65 lb up at 3-0-14, and 67 lb down and 54 lb up at 5-7-10 on top chord, and 9 lb down and 7 lb up at 3-0-9, and 10 lb down and 16 lb up at 3-0-14, and 24 lb down at 5-7-10 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 9) 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 Except:

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-2=-70, 2-3=-70, 4-5=-20
 Concentrated Loads (lb)
 Vert: 7=-20(B) 8=7(F) 9=-8(B)



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Continued on page 2

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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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0
210521	J18	Diagonal Hip Girder	2	1	I46178918
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:45 2021 Page 2
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LOAD CASE(S)

- 40) Reversal: User defined: Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-2=-70(F), 2-3=-70(F), 4-5=-20(F)
- Concentrated Loads (lb)
- Vert: 1=-250 6=1(B) 7=-20(B) 8=22(F=7, B=16) 9=-8(B)
- 41) User defined: Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-2=-70(F), 2-3=-70(F), 4-5=-20(F)
- Concentrated Loads (lb)
- Vert: 1=-250 7=-20(B) 8=7(F) 9=-8(B)

 **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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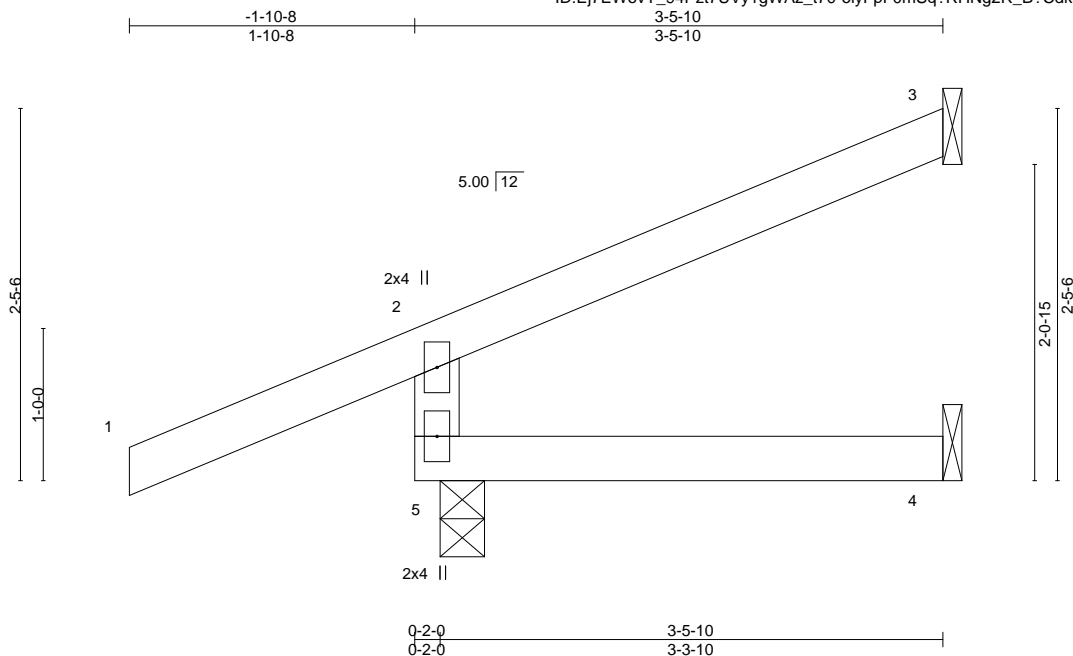


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178919
210521	J19	Jack-Open	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:46 2021 Page 1
ID:Ej7EWovY_94Pzt7UVy1gWAZ_170-oiyFpF0mSq?RHNg2R_B?Cdko4s50q5ut65wUUdzFEWI



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.01	4-5	>999	240		
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: 11 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 3-5-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

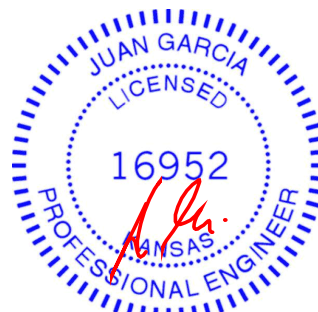
(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=74(LC 8)
Max Uplift 5=71(LC 4), 3=49(LC 8)
Max Grav 5=332(LC 1), 3=79(LC 1), 4=58(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-290/95

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 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.



May 18, 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



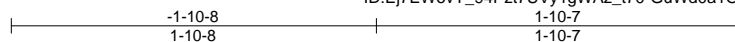
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178920
210521	J20	Jack-Open	2	1	Job Reference (optional)	

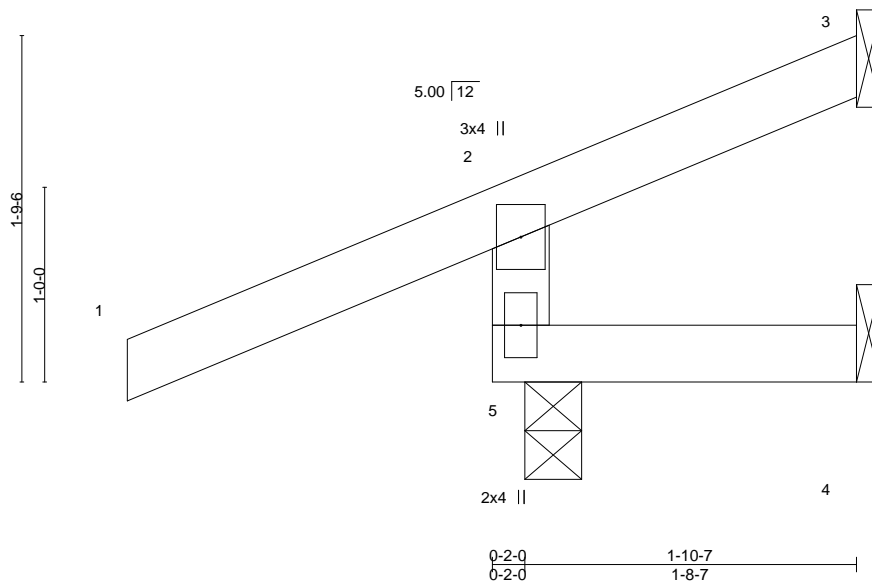
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:47 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-GuWd0a1OD87HvXFE?hiEkqHqzGRKZY81Klf213zFEWk



Scale = 1:11.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.00	5	>999	240		
									Weight: 7 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 1-10-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=53(LC 5)
Max Uplift 3=16(LC 8), 4=6(LC 1), 5=86(LC 4)
Max Grav 3=5(LC 19), 4=25(LC 3), 5=302(LC 1)

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

TOP CHORD 2-5=-262/95

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3, 4, 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.



May 18, 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

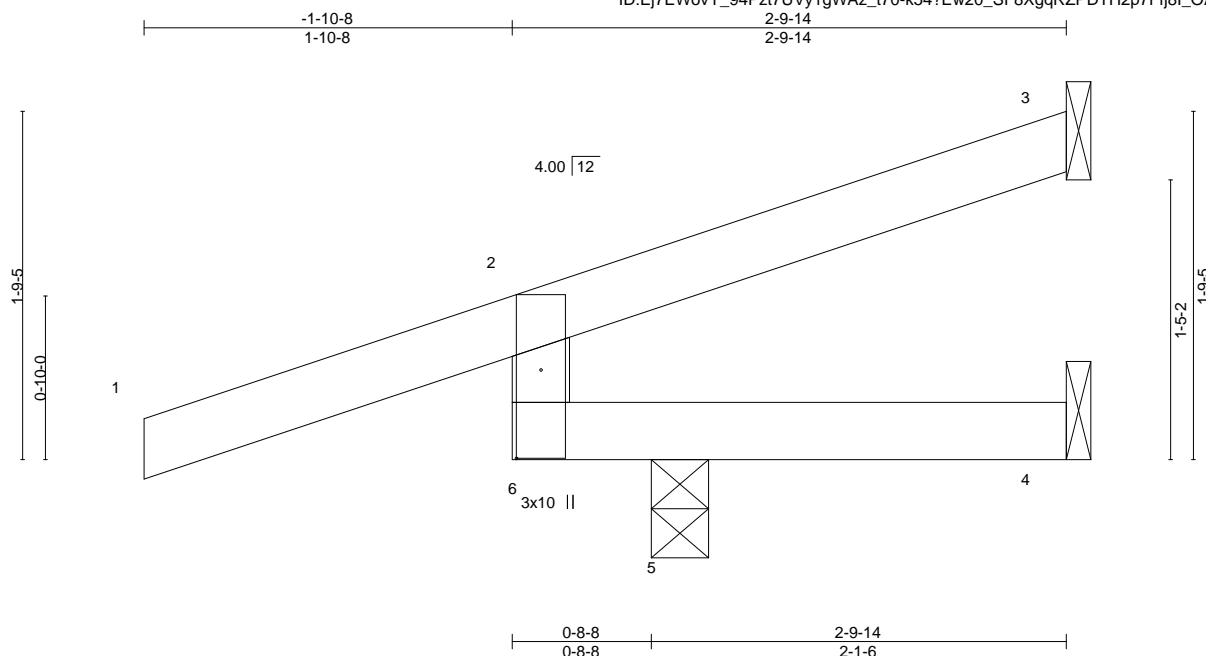


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210521	Truss J21	Truss Type Jack-Open	Qty 1	Ply 1	Lot 142 W0	I46178921
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:48 2021 Page 1
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Scale = 1:11.7

Plate Offsets (X,Y)--		[6:0-5-6,0-1-8]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	0.01	4-5	>999
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	0.01	4-5	>999
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.03	3	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	-0.01	4-5	>999
								PLATES	GRIP
								MT20	197/144
								Weight: 9 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 2-9-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=62(LC 4)
Max Uplift 3=-25(LC 8), 4=-78(LC 1), 5=-187(LC 4)
Max Grav 3=25(LC 1), 4=55(LC 4), 5=430(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-300/150

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=187.
- 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.



May 18, 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

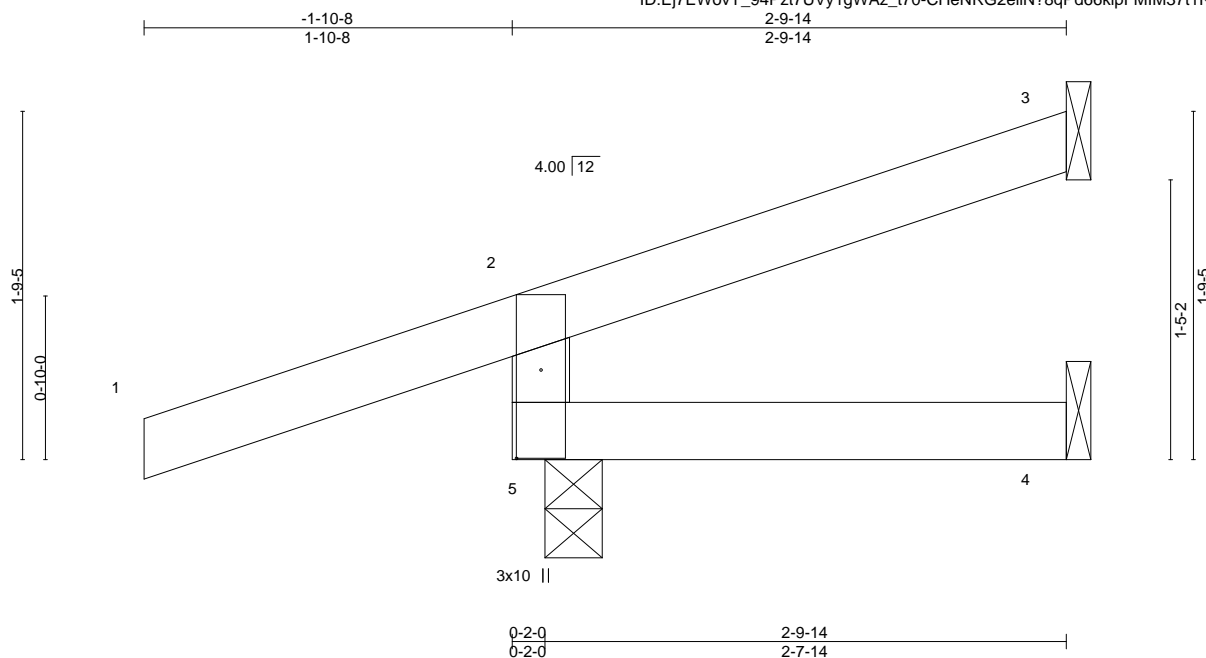


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210521	Truss J22	Truss Type Jack-Open	Qty 1	Ply 1	Lot 142 W0	I46178922
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:49 2021 Page 1
ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-CHeNRG2eIN?8qPd66kipFMIM3711ReKo3885yzFEWi



Scale = 1:11.7

Plate Offsets (X,Y)-- [5:0-5-6,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	4-5	>999	240		
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: 9 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 2-9-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

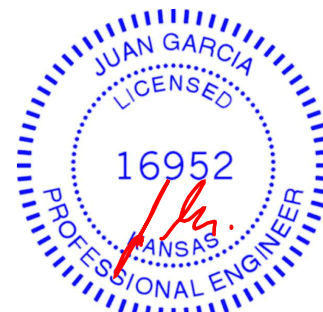
(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=62(LC 4)
Max Uplift 5=124(LC 4), 3=31(LC 8)
Max Grav 5=314(LC 1), 3=52(LC 1), 4=44(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-273/139

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3 except (jt=lb) 5=124.
- 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.



May 18, 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

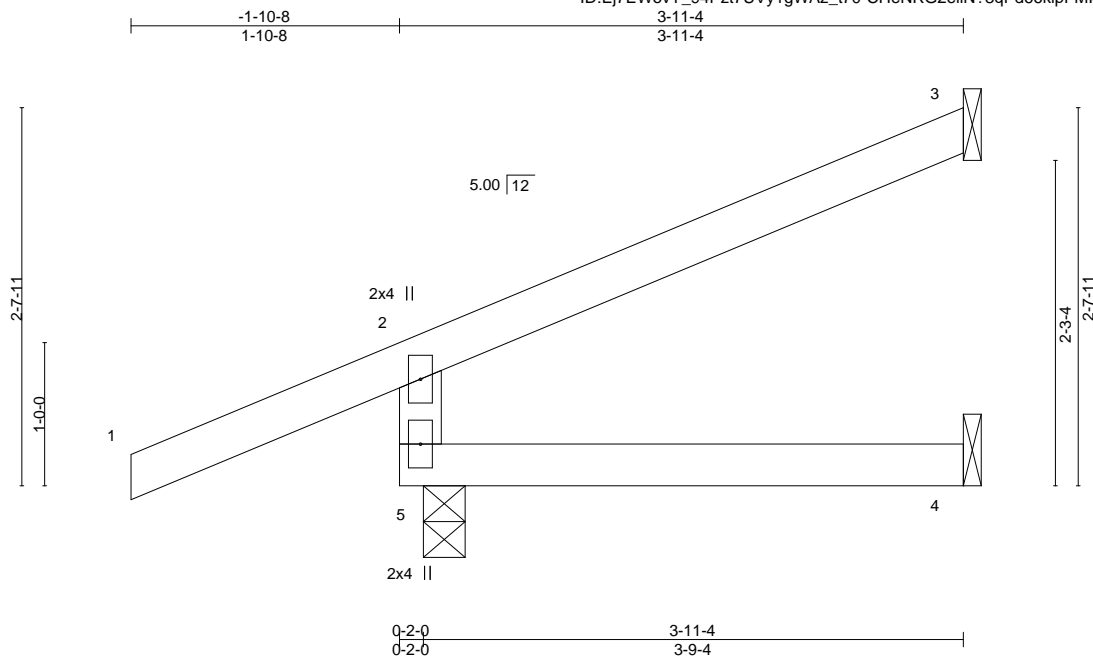


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178923
210521	J23	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:49 2021 Page 1
ID:Ej7EWovY_94Pzt7UVy1gWaz_t70-CHeNRG2eIN?8qPd66kipFMJ37E1ReKo3885yzFEWi



Scale: 3/4"=1'

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	-0.02	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240	Weight: 12 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 3-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

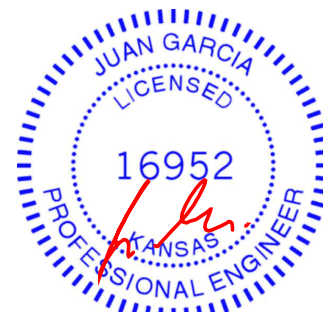
(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=82(LC 8)
Max Uplift 5=69(LC 4), 3=57(LC 8)
Max Grav 5=348(LC 1), 3=98(LC 1), 4=67(LC 3)

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

TOP CHORD 2-5=-305/97

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 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.



May 18, 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 142 W0	I46178924
210521	J24	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:50 2021 Page 1

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-2-7-13
2-7-13

5-6-6
5-6-6

Scale = 1:15.4

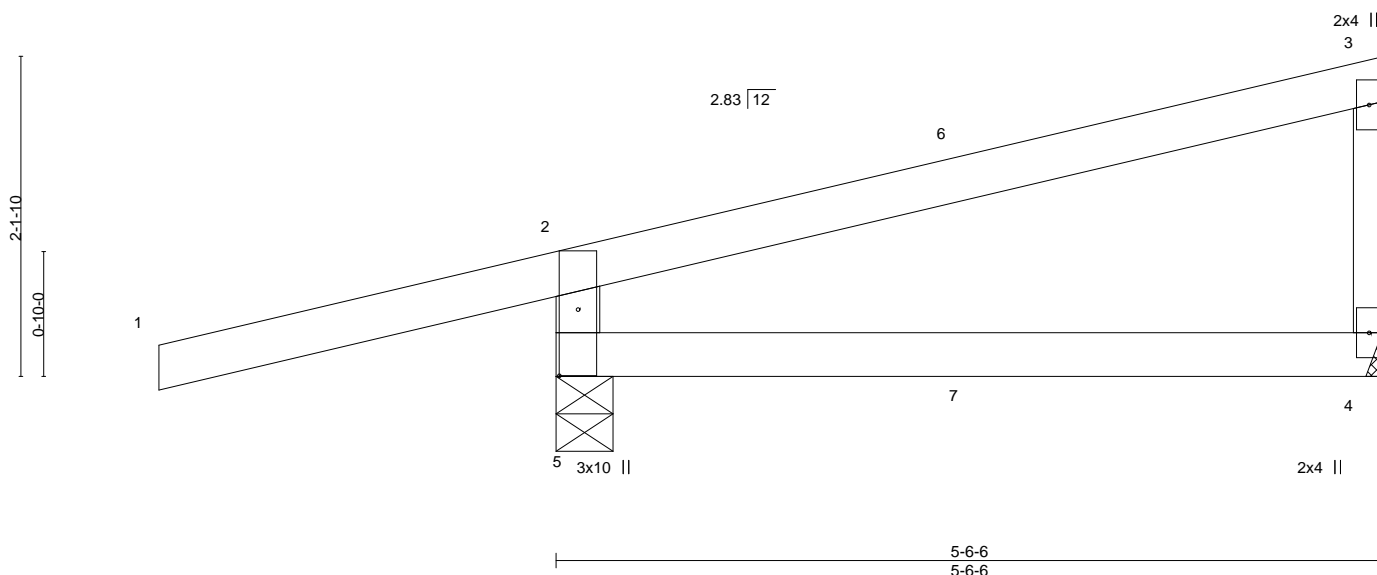


Plate Offsets (X,Y)--		[5:0-5-5,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL 1.15		TC	0.63	Vert(LL)	-0.03	4-5	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.23	Vert(CT)	-0.06	4-5	>999	240	
BCLL	0.0 *	Rep Stress Incr NO		WB	0.00	Horz(CT)	0.00	4	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	-0.02	4-5	>999	240	Weight: 18 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
3-4: 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-6-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-4-9, 4=Mechanical
Max Horz 5=88(LC 5)
Max Uplift 5=186(LC 4), 4=31(LC 8)
Max Grav 5=485(LC 1), 4=186(LC 1)

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

TOP CHORD 2-5=-429/217

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4 except (jt=lb) 5=186.
- 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 70 lb down and 14 lb up at 2-9-8, and 70 lb down and 14 lb up at 2-9-8 on top chord, and 14 lb down and 16 lb up at 2-9-8, and 14 lb down and 16 lb up at 2-9-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 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 (plf)
Vert: 1-2=-70, 2-3=-70, 4-5=-20



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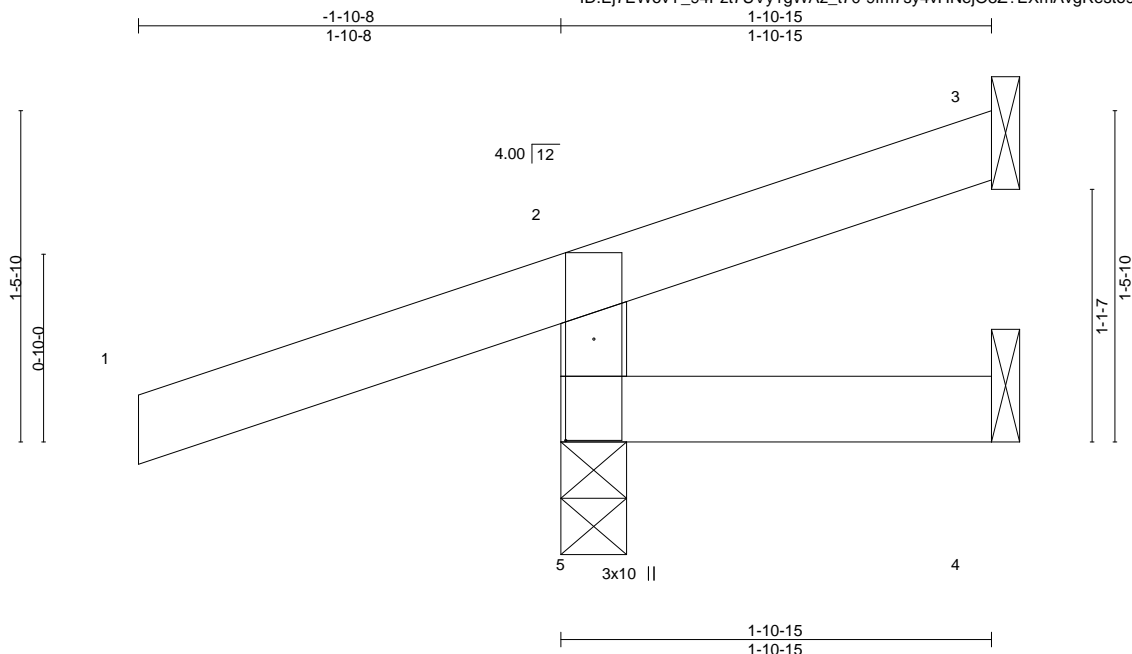
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178925
210521	J25	Jack-Open	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:51 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-9fm7sy4vHNejO8Z?EXmAvgResto9VL7dFNdFAqzFEWg



Scale = 1:10.2

Plate Offsets (X,Y)-- [5:0-5-6,0-1-8]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC	0.28	Vert(LL)	0.00	4-5	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.08	Vert(CT)	0.00	4-5	>999	240	
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	5	>999	240	Weight: 7 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 1-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=51(LC 4)
Max Uplift 5=134(LC 4), 3=13(LC 8), 4=7(LC 1)
Max Grav 5=302(LC 1), 3=5(LC 18), 4=26(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-260/138

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=134.
- 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.



May 18, 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

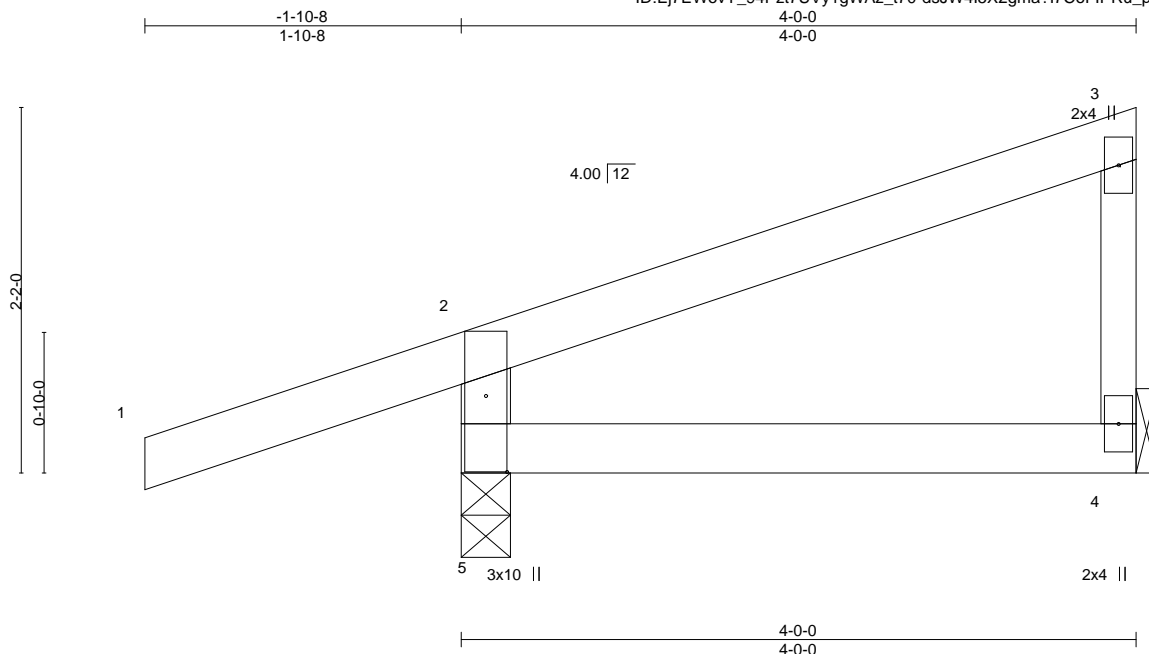


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210521	Truss J26	Truss Type Jack-Closed	Qty 2	Ply 1	Lot 142 W0	I46178926
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

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ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-dsJW4I5X2gma?I7CoFIPRu_pcH83EoNmU1NpiHzFEWf



Scale = 1:13.7

Plate Offsets (X,Y)--		[5:0-5-6,0-1-8]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d
TCLL 25.0		Plate Grip DOL	1.15	TC 0.28		Vert(LL)	-0.01 4-5	>999	360
TCDL 10.0		Lumber DOL	1.15	BC 0.10		Vert(CT)	-0.02 4-5	>999	240
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.00		Horz(CT)	-0.00 4	n/a	n/a
BCDL 10.0		Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.00 4-5	>999	240
						PLATES	GRIP		
						MT20	197/144		
						Weight: 13 lb	FT = 10%		

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
3-4: 2x3 SPF No.2

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 4=Mechanical
Max Horz 5=93(LC 5)
Max Uplift 5=132(LC 4), 4=27(LC 8)
Max Grav 5=348(LC 1), 4=131(LC 1)

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

TOP CHORD 2-5=-308/154

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4 except (jt=lb) 5=132.
- 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.



May 18, 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

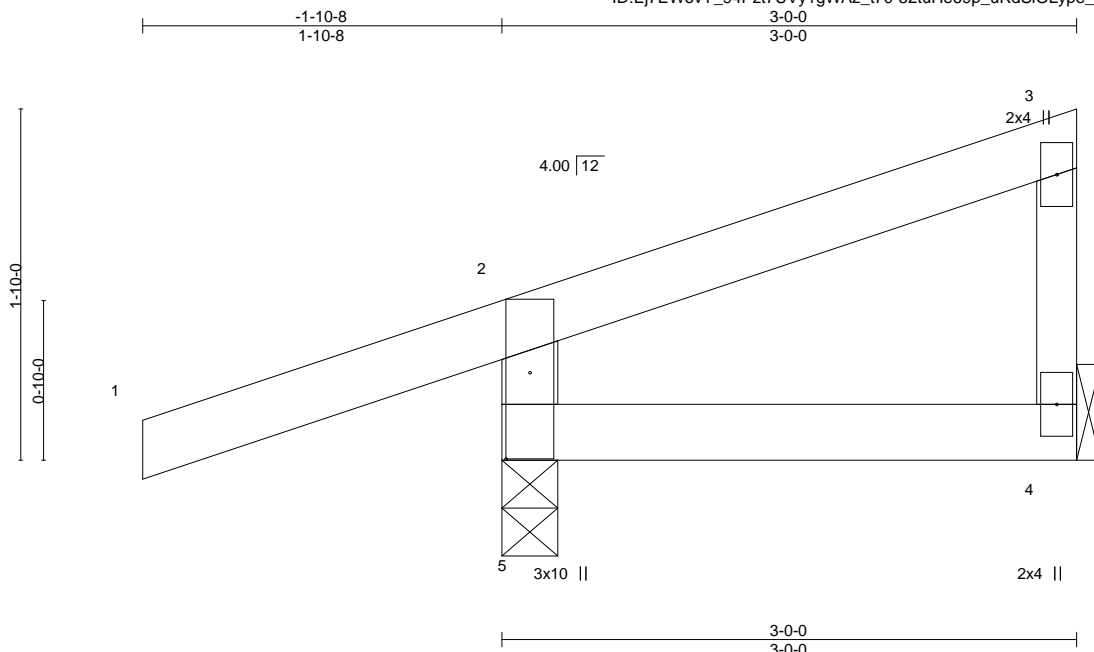


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178927
210521	J27	Jack-Closed	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:53 2021 Page 1
ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-52tuHe69p_uRdSiOLype_5W_MgV6zFdvjh6MEjzFEWe



Scale: 1"=1'

Plate Offsets (X,Y)--		[5:0-5-6,0-1-8]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.28		Vert(LL)	-0.00 4-5	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.05		Vert(CT)	-0.00 4-5	>999	240		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.00		Horz(CT)	-0.00 4	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-R		Wind(LL)	-0.00 5	>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*
3-4: 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

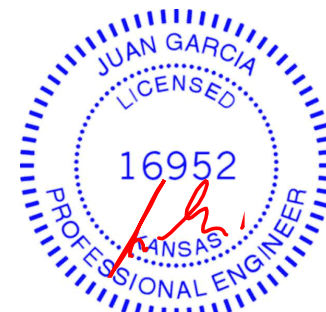
(size) 5=0-3-8, 4=Mechanical
Max Horz 5=78(LC 5)
Max Uplift 5=133(LC 4), 4=17(LC 5)
Max Grav 5=317(LC 1), 4=72(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-279/145

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4 except (jt=lb) 5=133.
- 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.



May 18, 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



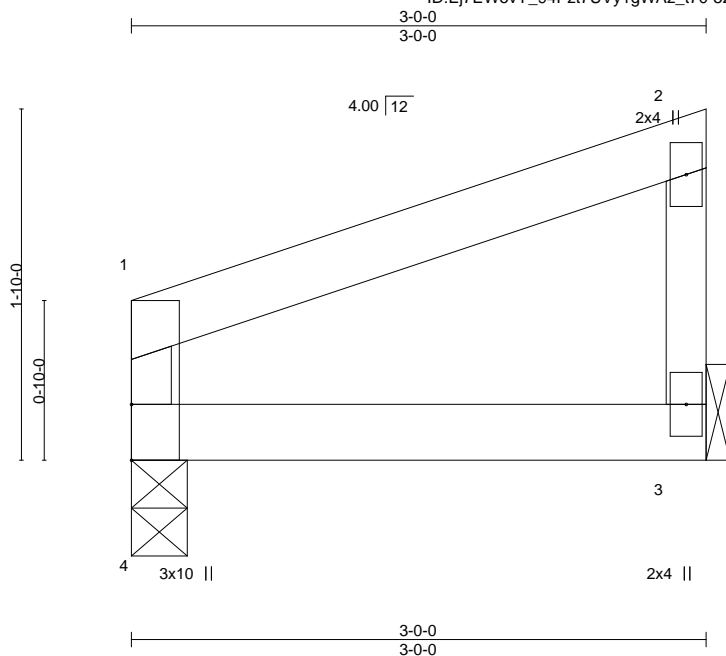
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178928
210521	J28	Jack-Closed	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-52tuHe69p_uRdSiOLype_5W15gVyzFdvjh6MEjzFEWe



Scale: 1"=1'

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	-0.00	3-4	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.01	3-4	>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	>999	240	
								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 3-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=0-3-8, 3=Mechanical
Max Horz 4=63(LC 5)
Max Uplift 4=19(LC 4), 3=29(LC 8)
Max Grav 4=126(LC 1), 3=126(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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4, 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.



May 18, 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 210521	Truss J29	Truss Type Jack-Closed Girder	Qty 1	Ply 1	Lot 142 W0	I46178929
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:54 2021 Page 1

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Scale = 1:13.4

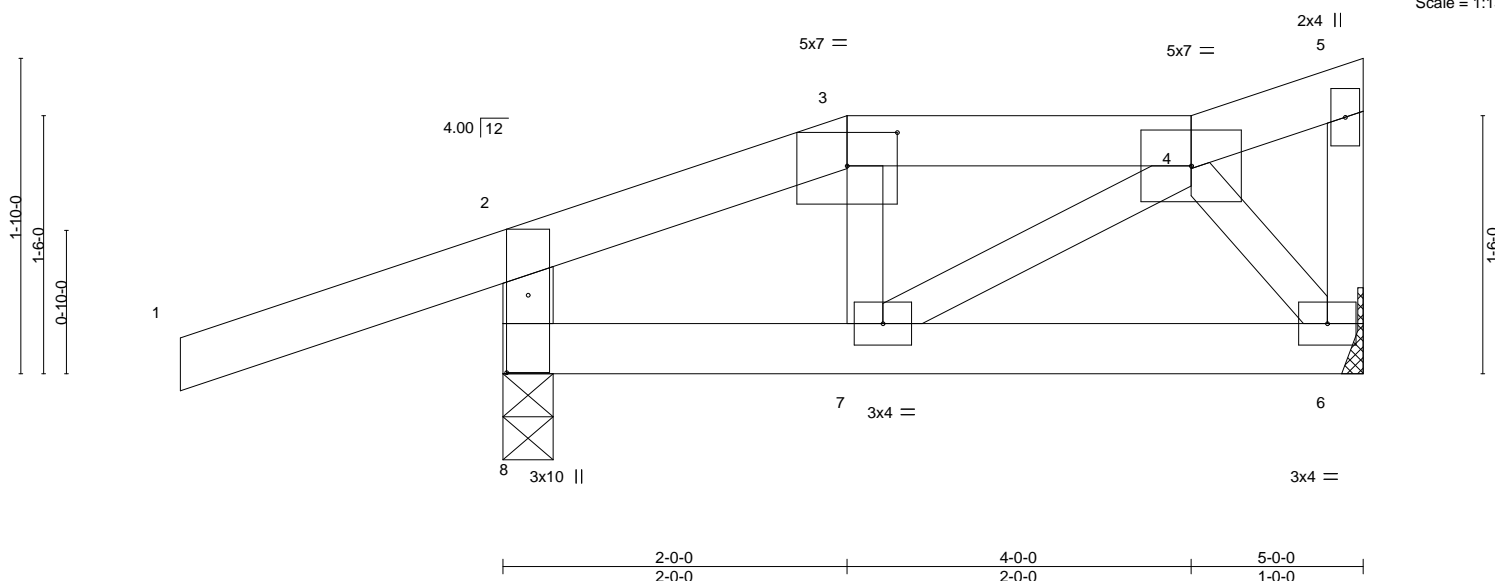


Plate Offsets (X,Y)--		[3:0-3-8,0-2-5], [8:0-5-6,0-1-8]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC	0.32	Vert(LL)	-0.01 7 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.12	Vert(CT)	-0.01 6-7 >999 240		
BCLL	0.0 *	Rep Stress Incr NO		WB	0.03	Horz(CT)	0.00 6 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.00 7 >999 240	Weight: 19 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-8: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 8=0-3-8, 6=Mechanical
Max Horz 8=78(LC 5)
Max Uplift 8=166(LC 4), 6=52(LC 8)
Max Grav 8=364(LC 1), 6=170(LC 1)

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

TOP CHORD 2-8=-313/160

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 8=166.
- 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.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 59 lb down and 126 lb up at 2-0-0 on top chord, and 29 lb down and 60 lb up at 2-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) 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 (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 6-8=-20
Concentrated Loads (lb)
Vert: 3=35(B)



May 18, 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 210521	Truss J30	Truss Type Jack-Closed	Qty 1	Ply 1	Lot 142 W0	I46178930
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Wheeler Lumber, Waverly, KS - 66871,

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ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-VdZ0vf816vG0UvRz14MLck8VbuVNAc8MPfL0r2zFEWb

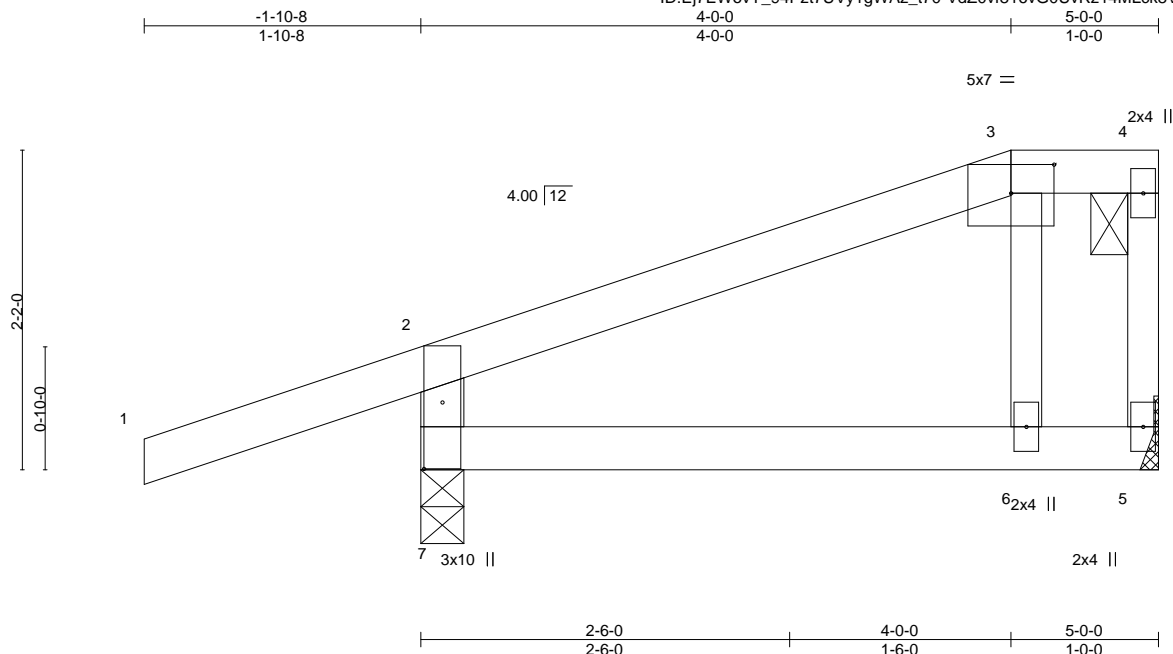


Plate Offsets (X,Y)--		[3:0-3-8,0-2-5], [7:0-5-6,0-1-8]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC	0.28	Vert(LL)	-0.01 6-7 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.14	Vert(CT)	-0.03 6-7 >999 240		
BCLL	0.0 *	Rep Stress Incr YES		WB	0.02	Horz(CT)	0.00 5 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01 6-7 >999 240	Weight: 17 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=0-3-8, 5=Mechanical
Max Horz 7=95(LC 5)
Max Uplift 7=137(LC 4), 5=32(LC 5)
Max Grav 7=385(LC 1), 5=184(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=326/156

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 7=137.
- 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.



May 18, 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 210521	Truss J31	Truss Type Jack-Closed	Qty 1	Ply 1	Lot 142 W0 Job Reference (optional)	I46178931
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:36:56 2021 Page 1
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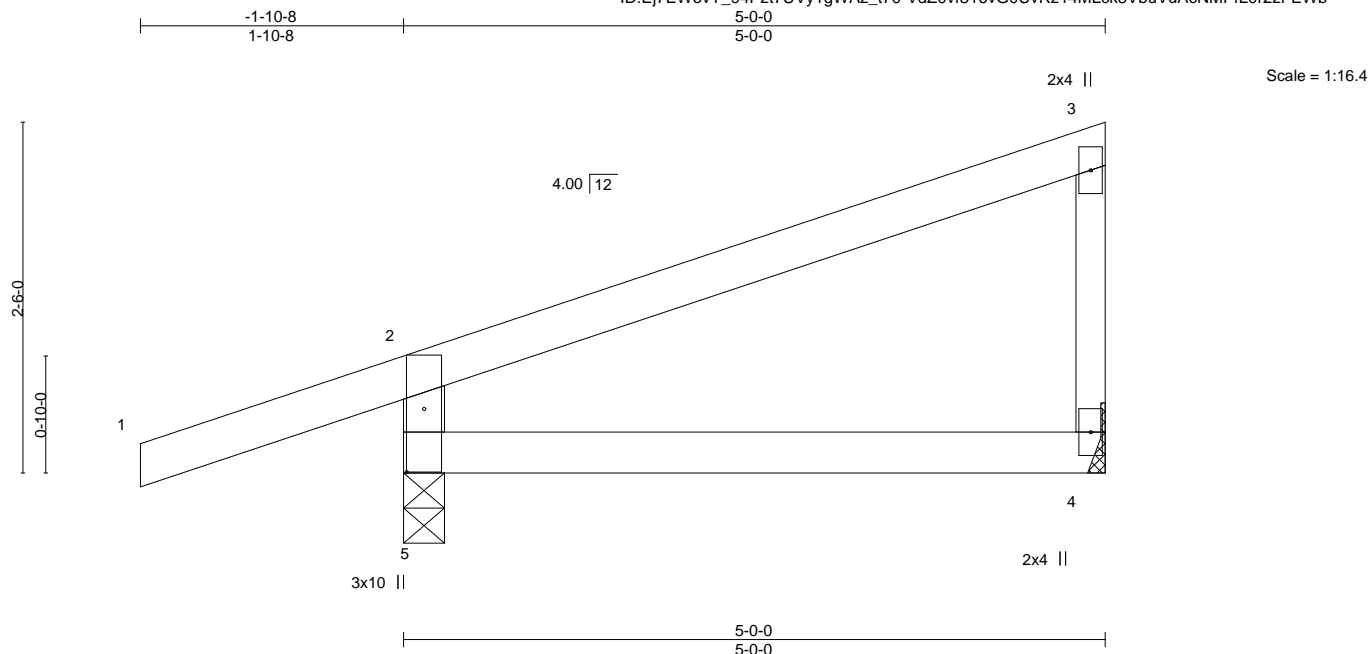


Plate Offsets (X,Y)--		[5:0-5-6,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL 1.15		TC	0.28	Vert(LL)	-0.02	4-5	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.17	Vert(CT)	-0.04	4-5	>999	240	
BCLL	0.0 *	Rep Stress Incr YES		WB	0.00	Horz(CT)	-0.00	4	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01	4-5	>999	240	Weight: 16 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
3-4: 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.

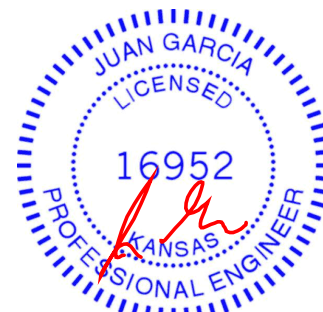
(size) 5=0-3-8, 4=Mechanical
Max Horz 5=108(LC 5)
Max Uplift 5=134(LC 4), 4=40(LC 8)
Max Grav 5=385(LC 1), 4=184(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-340/166

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4 except (jt=lb) 5=134.
- 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.



May 18, 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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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

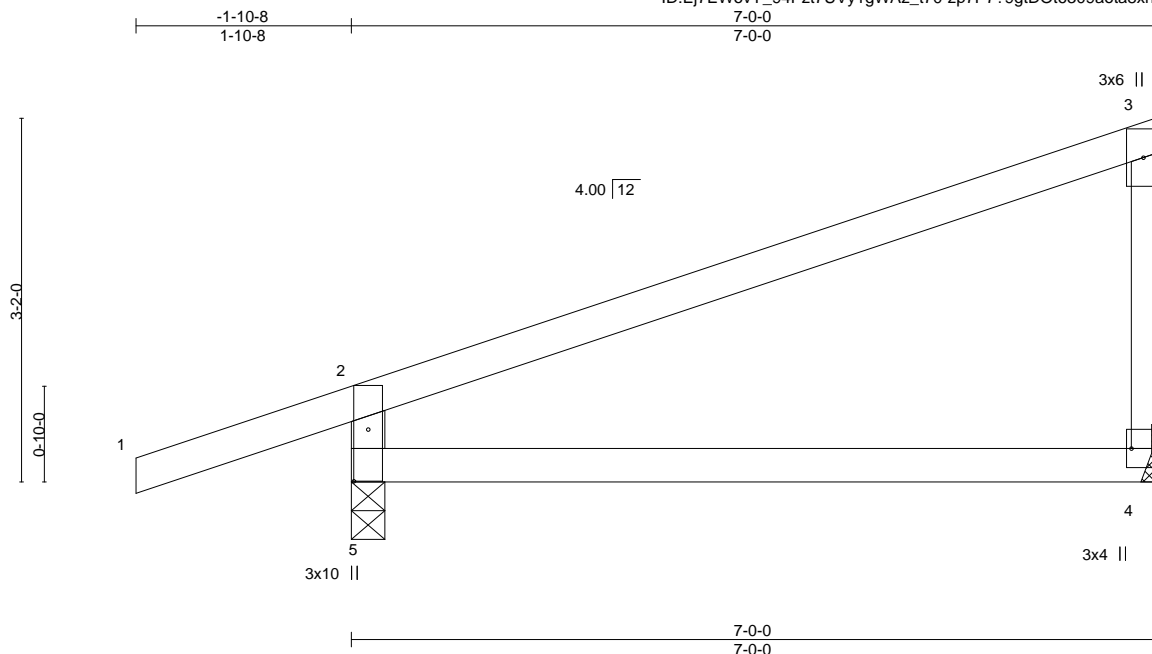


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210521	Truss J32	Truss Type Jack-Closed	Qty 6	Ply 1	Lot 142 W0 Job Reference (optional)	I46178932
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Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:20.1

Plate Offsets (X,Y)--		[4:Edge,0-2-8], [5:0-5-6,0-1-8]	
LOADING (psf)		SPACING-	2-0-0
TCLL 25.0		Plate Grip DOL	1.15
TCDL 10.0		Lumber DOL	1.15
BCLL 0.0 *		Rep Stress Incr	YES
BCDL 10.0		Code IRC2018/TPI2014	
		CSI.	
		TC 0.58	
		BC 0.38	
		WB 0.00	
		Matrix-R	
		DEFL.	
		in (loc) l/defl L/d	
		Vert(LL) -0.08 4-5 >985 360	
		Vert(CT) -0.17 4-5 >472 240	
		Horz(CT) 0.00 4 n/a n/a	
		Wind(LL) 0.03 4-5 >999 240	
		PLATES	GRIP
		MT20	197/144
		Weight: 21 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
3-4: 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.

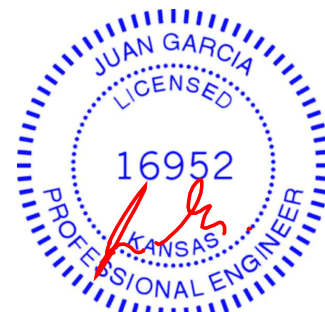
(size) 5=0-3-8, 4=Mechanical
Max Horz 5=137(LC 5)
Max Uplift 5=144(LC 4), 4=62(LC 8)
Max Grav 5=466(LC 1), 4=283(LC 1)

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

TOP CHORD 2-5=-412/192

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) gable end 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'-6-0 tall by 2'-0-0 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 100 lb uplift at joint(s) 4 except (jt=lb) 5=144.
- 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.



May 18, 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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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

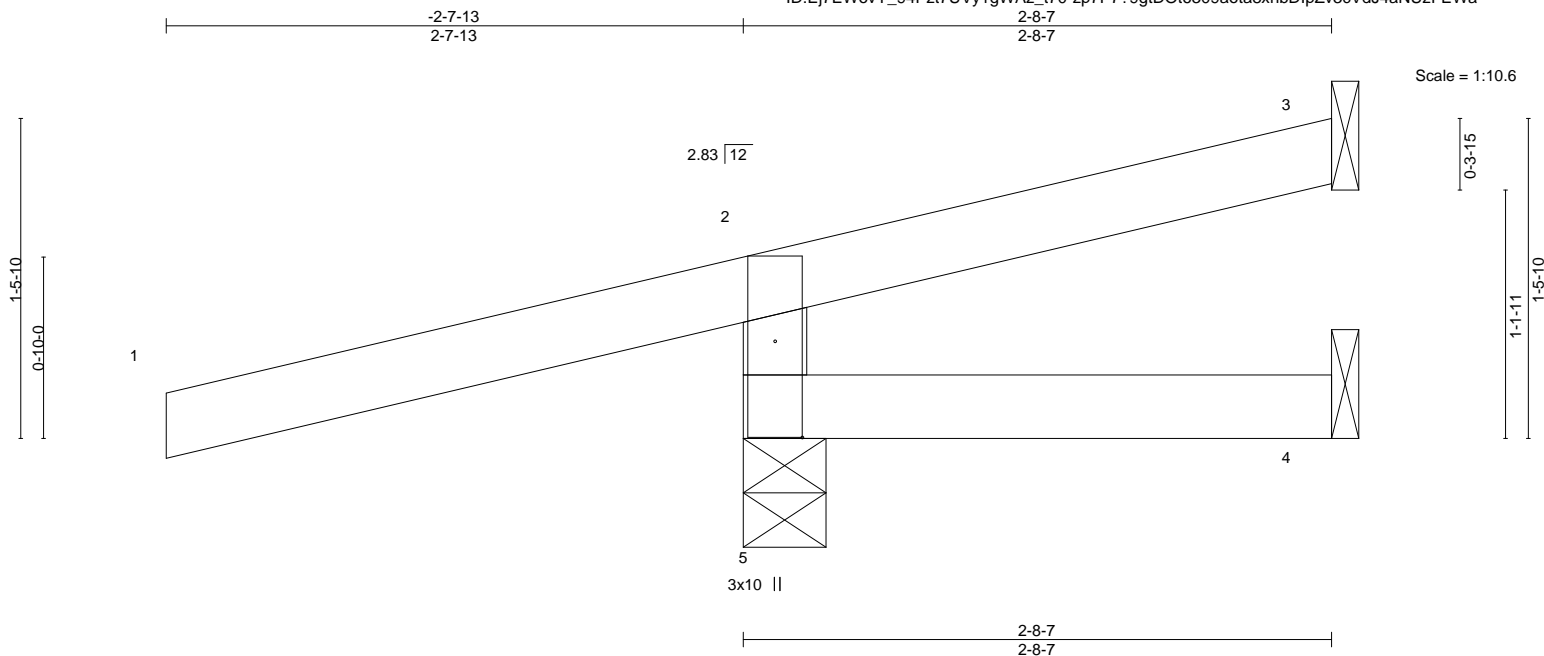


Plate Offsets (X,Y)-- [5:0-5-5,0-1-8]														
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	0.01	4-5	>999	360	MT20	197/144		
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	0.01	4-5	>999	240				
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	-0.01	4-5	>999	240	Weight: 10 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 2-8-7 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-4.9, 3=Mechanical, 4=Mechanical
Max Horz 5=52(LC 7)
Max Uplift 5=-158(LC 4), 3=-42(LC 17), 4=-26(LC 1)
Max Grav 5=276(LC 1), 3=23(LC 4), 4=28(LC 4)

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=158.
- 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 46 lb down and 16 lb up at -2-7-13, and 46 lb down and 16 lb up at -2-7-13 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 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
Concentrated Loads (lb)
Vert: 1=-71(F=-36, B=-36)
Trapezoidal Loads (plf)
Vert: 1=-0(F=35, B=35)-to-2=-49(F=11, B=11), 2=-5(F=33, B=33)-to-3=-49(F=10, B=10), 5=0(F=10, B=10)-to-4=-14(F=3, B=3)



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

WARNING – Velly design parameters are READ-ONLY and INCLUDED WITHIN KEY-REFERENCE AISC MH-1493 (Rev. 3/19/2020) BY ONE USER.
 Design valid for use only with MiTeK® connectors. This design is based only upon parameters shown, and is for the 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 142 W0	I46178934
210521	J34	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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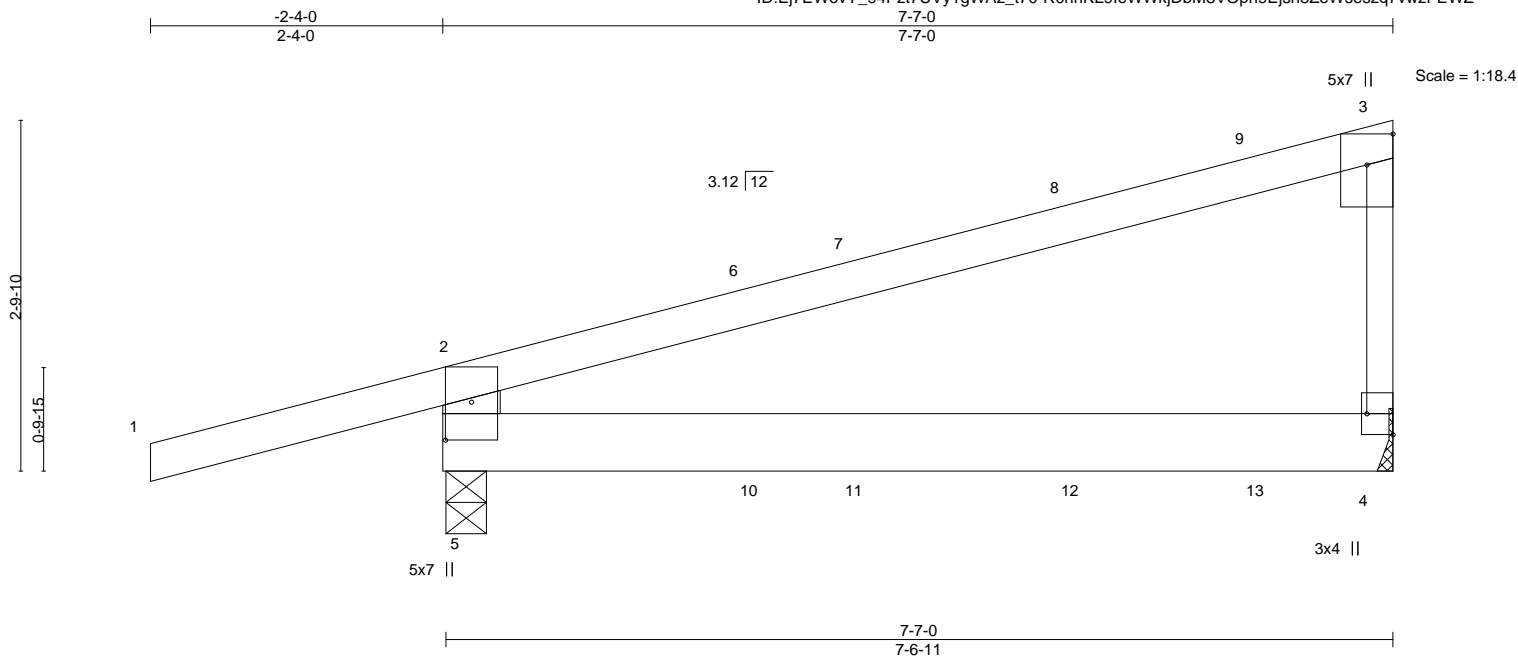


Plate Offsets (X,Y)--		[3:Edge,0-2-8], [4:Edge,0-2-8], [5:0-3-10,0-2-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.81
TCDL 10.0	Lumber DOL	1.15	BC 0.29
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.04 4-5 >999 360
			Vert(CT) -0.08 4-5 >999 240
			Horz(CT) -0.00 4 n/a n/a
			Wind(LL) 0.02 4-5 >999 240
			PLATES GRIP
			MT20 197/144
			Weight: 27 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x6 SPF No.2
 WEBS 2x6 SPF No.2 *Except*
 3-4: 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.

(size) 5=0-3-14, 4=Mechanical
 Max Horz 5=115(LC 5)
 Max Uplift 5=191(LC 4), 4=91(LC 8)
 Max Grav 5=553(LC 1), 4=380(LC 1)

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

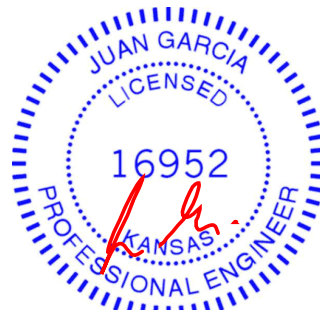
TOP CHORD 2-5=-501/250, 3-4=-261/131

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4 except (jt=lb) 5=191.
- 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 64 lb down and 38 lb up at 2-6-8, 77 lb down and 29 lb up at 3-4-9, and 89 lb down and 71 lb up at 5-1-4, and 101 lb down and 78 lb up at 6-6-15 on top chord, and 4 lb down at 2-6-8, 10 lb down and 8 lb up at 3-4-9, and 20 lb down at 5-1-4, and 39 lb down at 6-6-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 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 (plf)
 Vert: 1-2=-70, 2-3=-70, 4-5=-20
 Concentrated Loads (lb)
 Vert: 8=-23(F) 9=-52(B) 11=8(B) 12=-10(F) 13=-24(B)



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 Chesterfield, MO 63017

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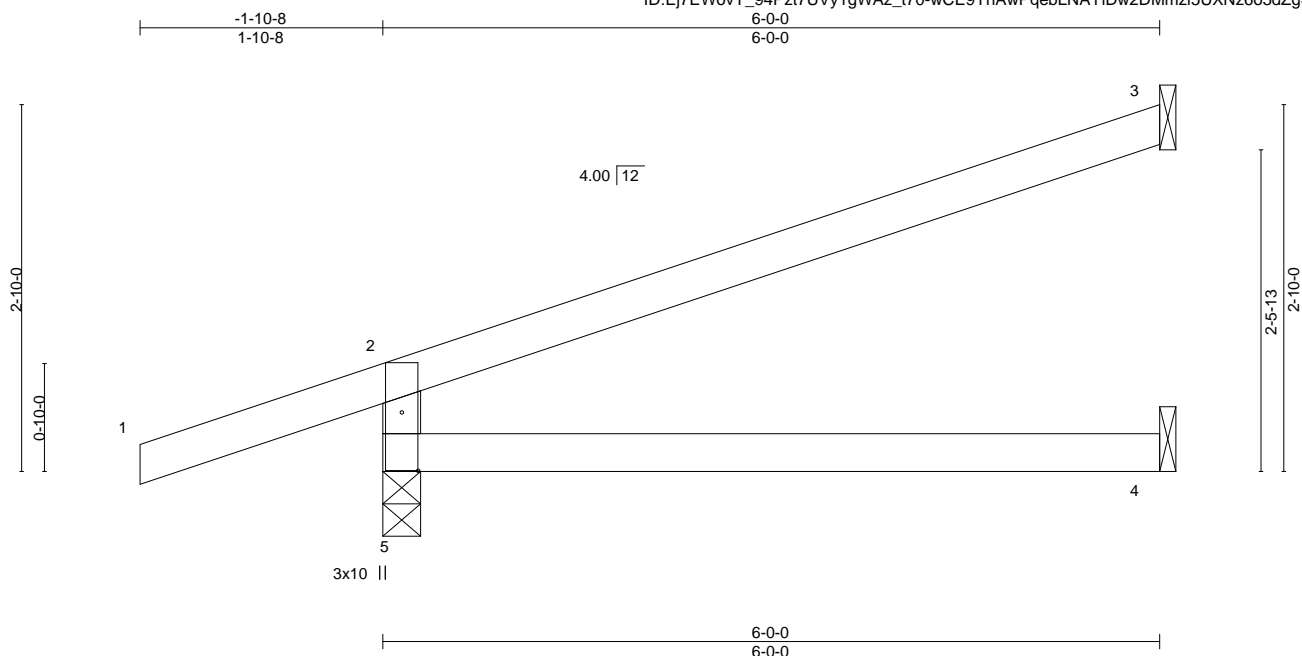


Plate Offsets (X,Y)-- [5:0-5-6,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	-0.05	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.11	4-5	>632	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.03	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.04	4-5	>999	240	Weight: 17 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 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
 Max Horz 5=106(LC 4)
 Max Uplift 5=-127(LC 4), 3=-82(LC 8)
 Max Grav 5=427(LC 1), 3=173(LC 1), 4=107(LC 3)

FORCES.

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-374/174

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3 except (jt=lb) 5=127.
- 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.



May 18, 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 Code**

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 142 W0	I46178936
210521	J36	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:00 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-OOoXl1BY98mRzXlkGwRHmaJBfVrM6QMxKHJE_pzFEWX

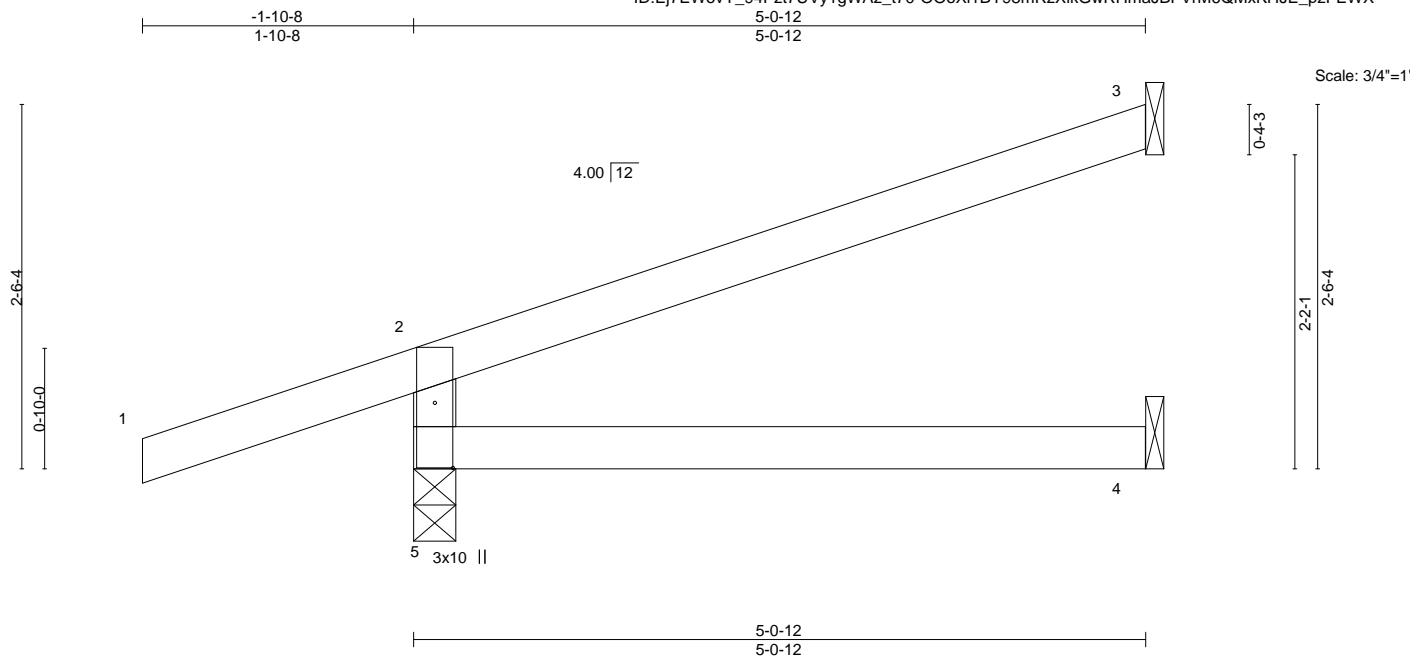


Plate Offsets (X,Y)--		[5:0-5-6,0-1-8]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d
TCLL 25.0		Plate Grip DOL	1.15	TC 0.30		Vert(LL)	-0.03 4-5	>999	360
TCDL 10.0		Lumber DOL	1.15	BC 0.20		Vert(CT)	-0.05 4-5	>999	240
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.00		Horz(CT)	0.02 3	n/a	n/a
BCDL 10.0		Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.02 4-5	>999	240
						PLATES	GRIP		
						MT20	197/144		
						Weight: 15 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 5-0-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=93(LC 4)
Max Uplift 5=124(LC 4), 3=68(LC 8)
Max Grav 5=389(LC 1), 3=140(LC 1), 4=89(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-341/162

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3 except (jt=lb) 5=124.
- 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.



May 18, 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

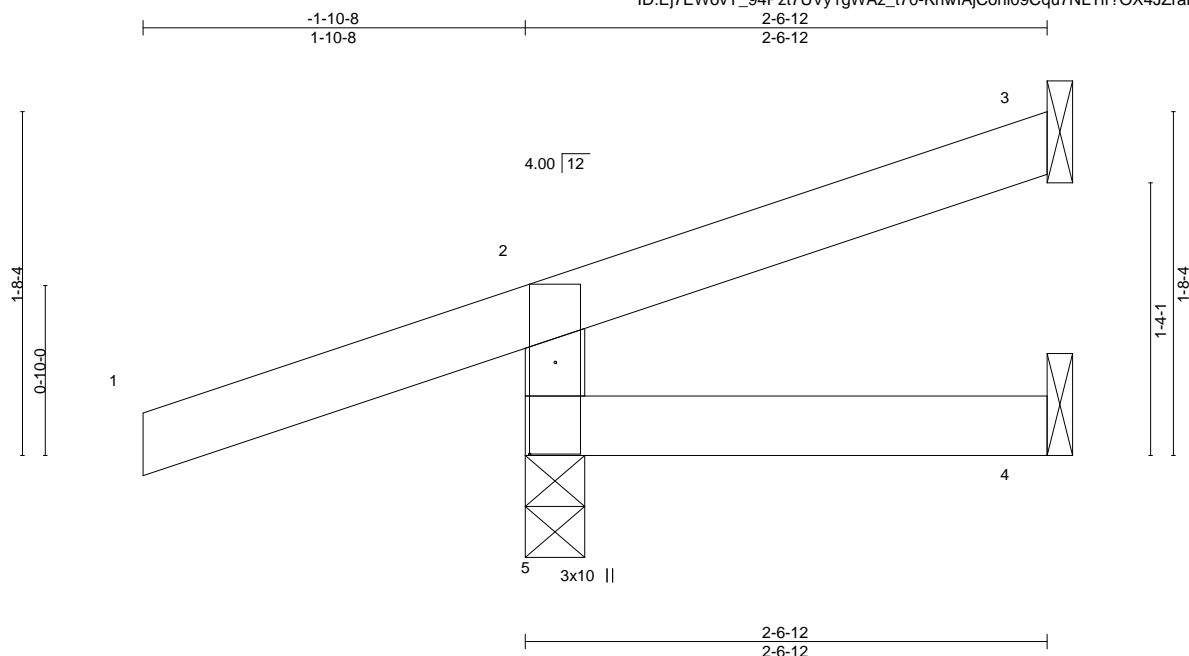


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210521	Truss J37	Truss Type Jack-Open	Qty 2	Ply 1	Lot 142 W0 Job Reference (optional)	I46178937
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:02 2021 Page 1
ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-KnwIAjCohI09Cqu7NLTr?OX4JZraKsEnboK2izFEWV



Scale = 1:11.3

Plate Offsets (X,Y)--		[5:0-5-6,0-1-8]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC	0.28	Vert(LL)	0.00 4-5 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.07	Vert(CT)	-0.00 4-5 >999 240		
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: 9 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 2-6-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=59(LC 4)
Max Uplift 5=126(LC 4), 3=26(LC 8)
Max Grav 5=308(LC 1), 3=39(LC 1), 4=38(LC 3)

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

TOP CHORD 2-5=-267/137

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3 except (jt=lb) 5=126.
- 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.



May 18, 2021

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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



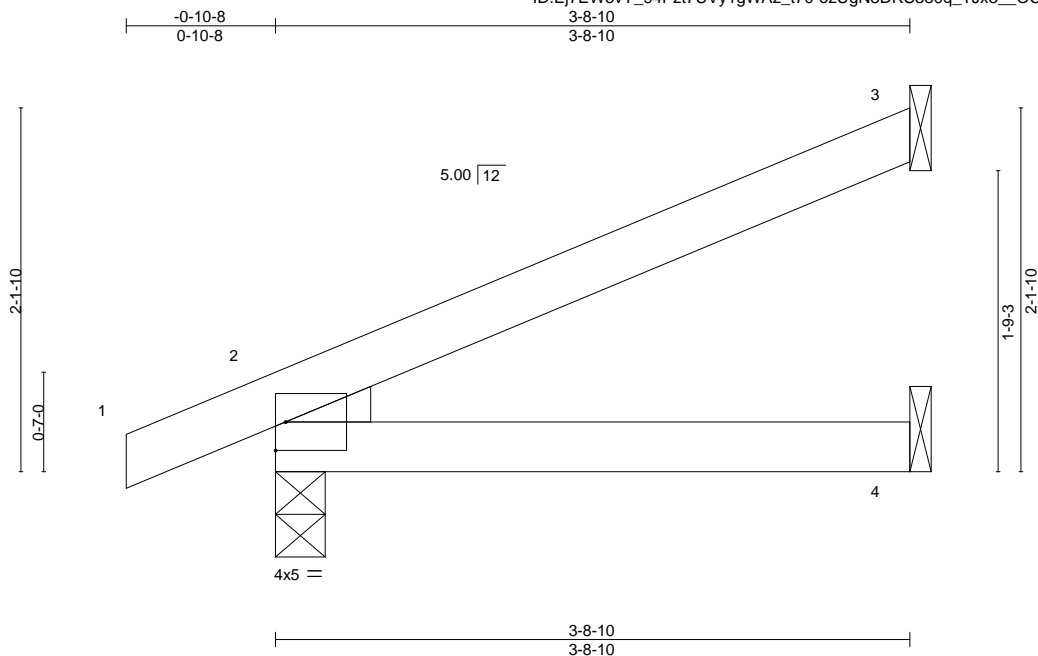
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178938
210521	J38	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:03 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-ozUgN3DRS380q_TJx3_OCxkFivLJn5O0FXub8zFEWU



Scale = 1:13.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	-0.01	2-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.02	2-4	>999	240		
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-P	Wind(LL)	0.00	2	****	240	Weight: 10 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x3 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 3-8-10 oc purlins.

BOT CHORD

Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical

Max Horz 2=77(LC 8)

Max Uplift 3=66(LC 8), 2=37(LC 8)

Max Grav 3=113(LC 1), 2=240(LC 1), 4=70(LC 3)

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3, 2.
- 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.



May 18, 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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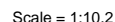
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:04 2021 Page 1
ID:Ej7EWovY_94Pt7UVy1gWaz_t70-GA22bPE3DMGtS82VVmVDwQUvx6Fz2ELXEvHR7azFEWT



LUMBER- TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2 WEDGE Left: 2x3 SPF No.2	BRACING- TOP CHORD Structural wood sheathing directly applied or 2-1-7 oc purlins. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
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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; TCDD=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3, 2.
- 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.



May 18, 2021



WARNING – Velly design parameters are listed below and included within key reference 1. See MH-1413 (Rev. 3/19/2020) for more details.
Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for the 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

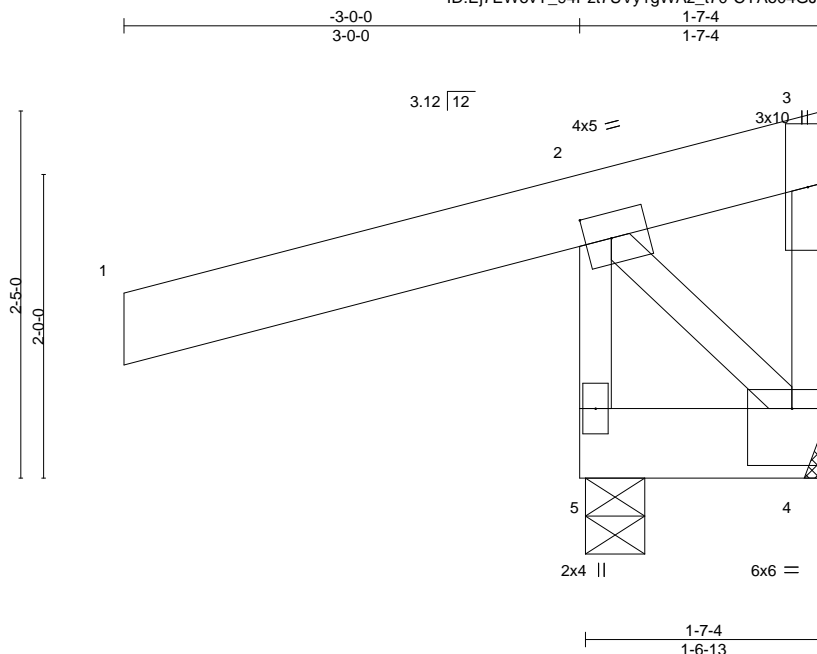


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178940
210521	J40	Jack-Closed Girder	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:06 2021 Page 1
ID:Ej7EWovY_94Pt7UVy1gWAZ_t70-CYAo04GJI_XbhSCucBYh0rZ4CwpxW7WqiDmYCTzFEWR



Scale = 1:15.2

Plate Offsets (X,Y)--		[2:0-2-1,0-2-0], [4:Edge,0-4-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL 1.15		TC	0.78	Vert(LL)	-0.00	5	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.01	Vert(CT)	-0.00	5	>999	240	
BCLL	0.0 *	Rep Stress Incr NO		WB	0.02	Horz(CT)	-0.00	4	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.00	5	****	240	Weight: 15 lb FT = 10%

LUMBER-

TOP CHORD 2x6 SPF 1650F 1.4E
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-7-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-4-11, 4=Mechanical
Max Horz 5=92(LC 5)
Max Uplift 5=278(LC 4), 4=734(LC 21)
Max Grav 5=1327(LC 21), 4=123(LC 4)

FORCES.

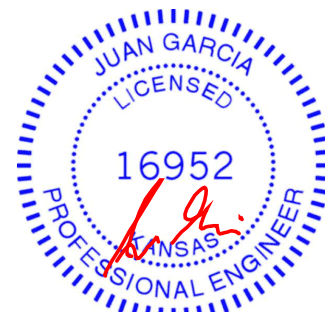
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-1313/286, 3-4=-142/748

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 5=278, 4=734.
- 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) Load case(s) 21 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 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 Except:
21) User defined: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70(F), 2-3=-70(F), 4-5=-20(F)
Concentrated Loads (lb)
Vert: 1=-250



May 18, 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



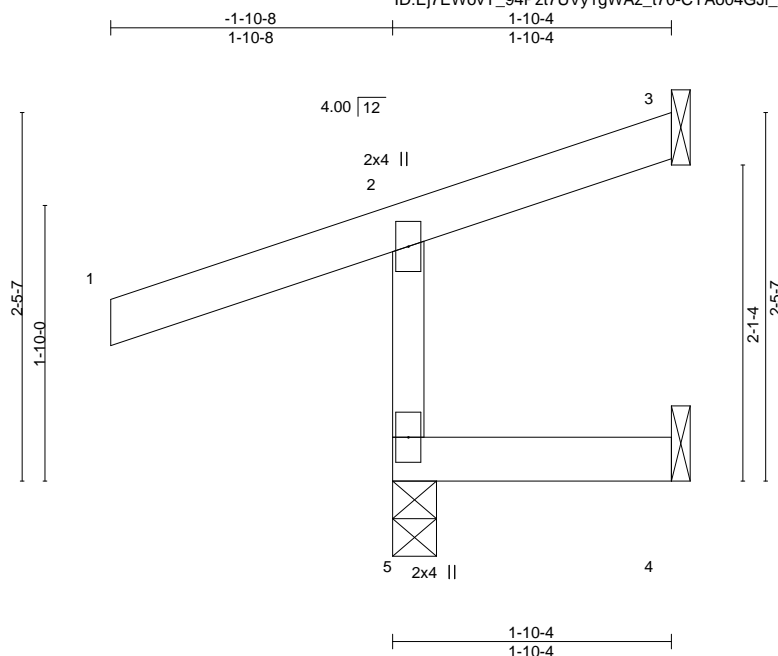
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178941
210521	J41	Jack-Open	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:06 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-CYA04GJL_XbhSCucBYh0rZCGwx5W7rqIDmYCTzFEWR



Scale = 1:15.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						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 1-10-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

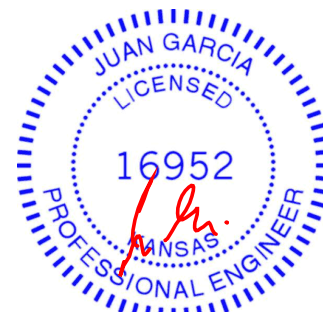
(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=64(LC 5)
Max Uplift 5=107(LC 4), 3=23(LC 5), 4=12(LC 5)
Max Grav 5=296(LC 1), 3=6(LC 19), 4=32(LC 3)

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

TOP CHORD 2-5=-270/132

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=107.
- 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.



May 18, 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 210521	Truss J42	Truss Type JACK-CLOSED GIRDER	Qty 1	Ply 1	Lot 142 W0 Job Reference (optional)	I46178942
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:07 2021 Page 1
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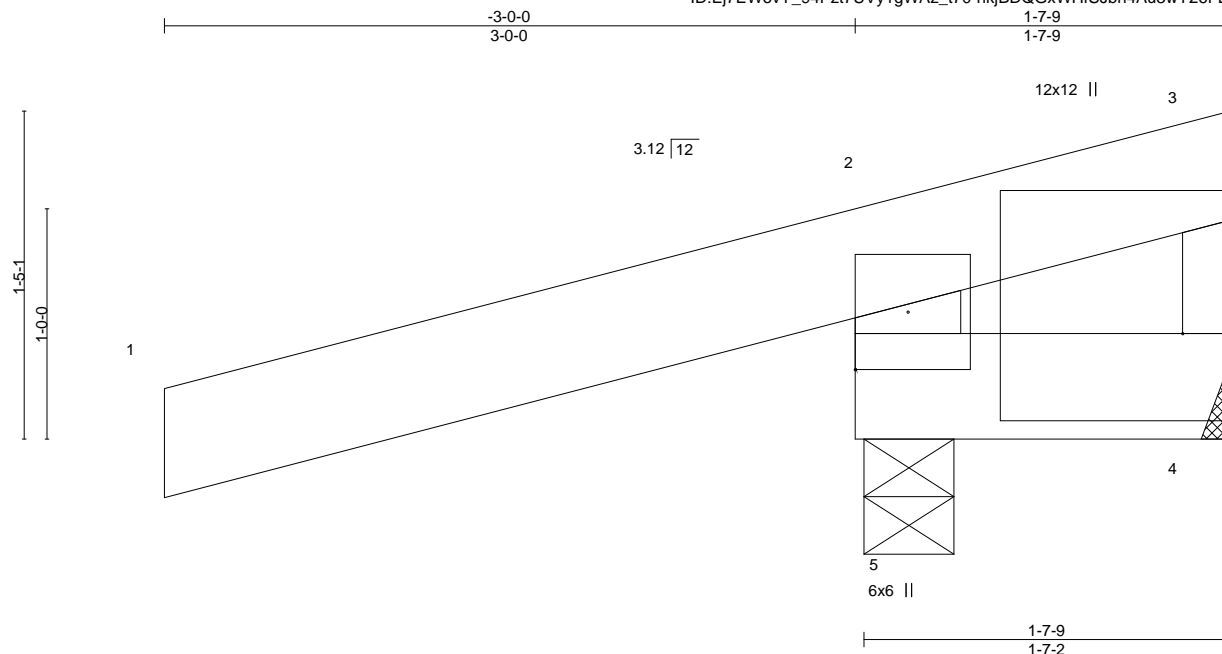


Plate Offsets (X,Y)--		[3:Edge,0-2-8]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	0.00	5	>999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	0.00	4-5	>999		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.00	4	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	-0.00	5	>999	Weight: 12 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF 1650F 1.4E
BOT CHORD 2x6 SPF No.2
WEBS 2x6 SPF No.2 *Except*
3-4: 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-7-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 5=0-4-11, 4=Mechanical
Max Horz 5=66(LC 7)
Max Uplift 5=314(LC 4), 4=846(LC 21)
Max Grav 5=1438(LC 21), 4=155(LC 4)

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

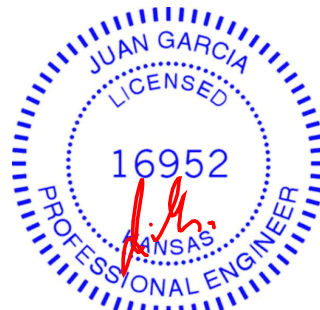
TOP CHORD 2-5=-1210/287, 3-4=-112/643

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 5=314, 4=846.
- 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) Load case(s) 21 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 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 Except:

- 21) User defined: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70(F), 2-3=-70(F), 4-5=-20(F)
Concentrated Loads (lb)
Vert: 1=-250



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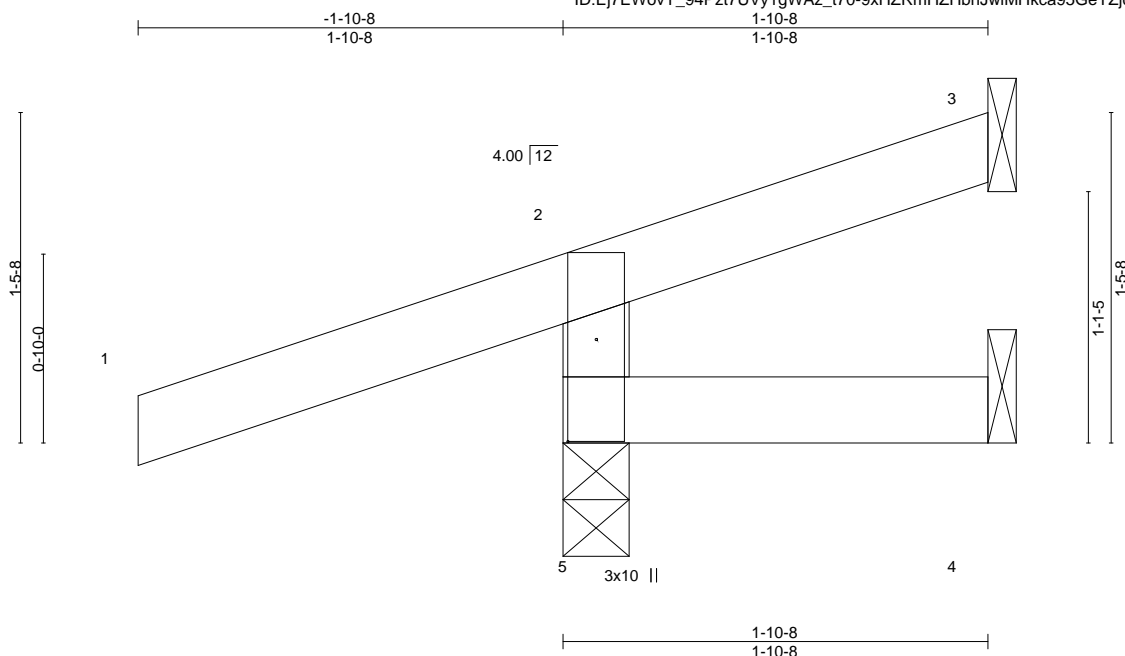
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178943
210521	J43	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-9xHZRmHZHbnJwIMHkca95GeYZjc8_1L79XFfGLzFEWP



Scale = 1:10.2

Plate Offsets (X,Y)-- [5:0-5-6,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL 1.15		TC	0.28	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.08	Vert(CT)	0.00	4-5	>999	240		
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	5	>999	240	Weight: 7 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 1-10-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=50(LC 4)
Max Uplift 5=135(LC 4), 3=12(LC 8), 4=8(LC 1)
Max Grav 5=302(LC 1), 3=4(LC 19), 4=25(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-260/138

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=135.
- 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.



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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 142 W0	I46178944
210521	J44	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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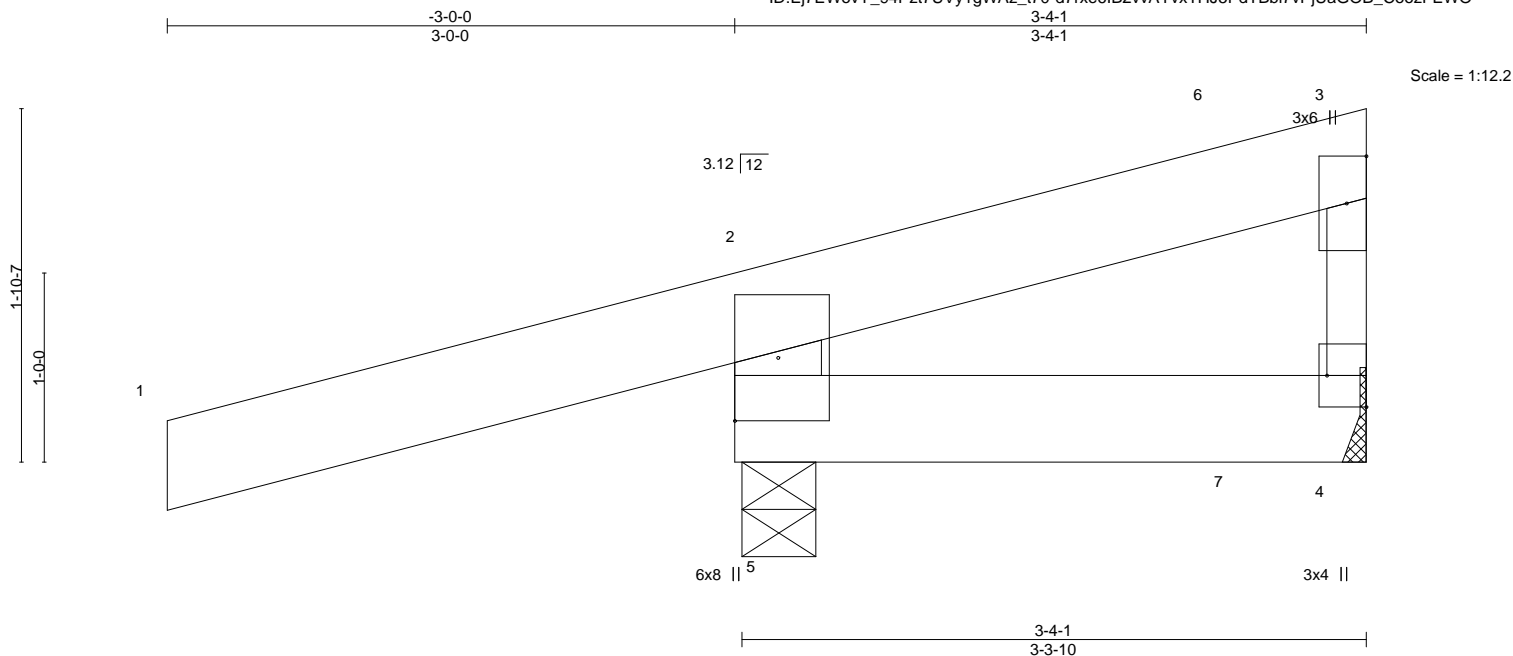


Plate Offsets (X,Y)-- [4:Edge,0-2-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	0.01	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	-0.00	4-5	>999	240	Weight: 19 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF 1650F 1.4E
 BOT CHORD 2x6 SPF No.2
 WEBS 2x6 SPF No.2 *Except*
 3-4: 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-4-1 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 5=0-4-11, 4=Mechanical
 Max Horz 5=85(LC 7)
 Max Uplift 5=231(LC 4), 4=261(LC 37)
 Max Grav 5=1000(LC 37), 4=100(LC 21)

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

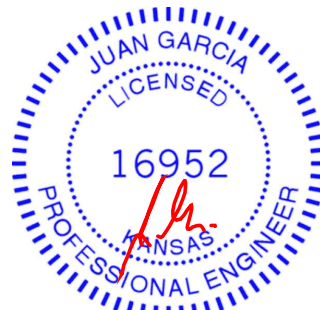
TOP CHORD 2-5=-857/233

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 5=231, 4=261.
- 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) Load case(s) 37 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 55 lb down and 28 lb up at 2-8-7 on top chord, and 14 lb down and 8 lb up at 2-8-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 9) 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 Except:

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



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Continued on page 2

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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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178944
210521	J44	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:09 2021 Page 2
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LOAD CASE(S)

- 37) User defined: Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-2=-70(F), 2-3=-70(F), 4-5=-20(F)
 - Concentrated Loads (lb)
 - Vert: 1=-250 7=8(F)

 **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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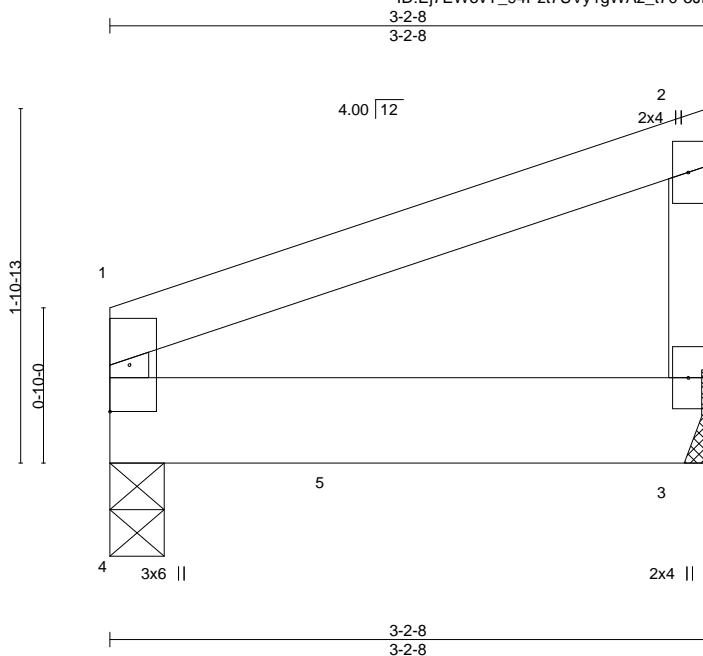
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178945
210521	J45	Jack-Closed Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-5JPJrSJqpC11A3Wfr1ceAhkwDXEsSxqQdqkmLEzFEWN



Scale = 1:12.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	-0.01	3-4	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	-0.01	3-4	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	3-4	>999	240	
									Weight: 11 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-2-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=0-3-8, 3=Mechanical
Max Horz 4=63(LC 5)
Max Uplift 4=31(LC 4), 3=37(LC 8)
Max Grav 4=347(LC 1), 3=270(LC 1)

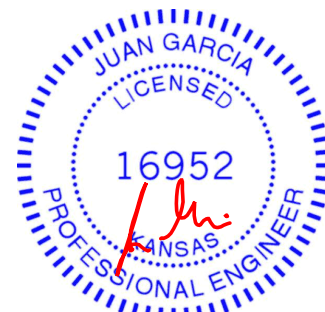
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4, 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 347 lb down and 25 lb up at 1-3-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 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 (plf)
Vert: 1-2=-70, 3-4=-20
Concentrated Loads (lb)
Vert: 5=-347(F)



May 18, 2021

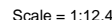
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:11 2021 Page 1
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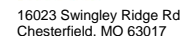
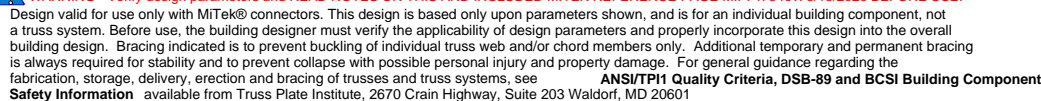
BRACING-	
TOP CHORD	Structural wood sheathing directly applied or 3-2-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-283/94

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=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
- 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 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.



May 18, 2021



Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178947
210521	J47	Jack-Closed Girder	2	1	Job Reference (optional)	

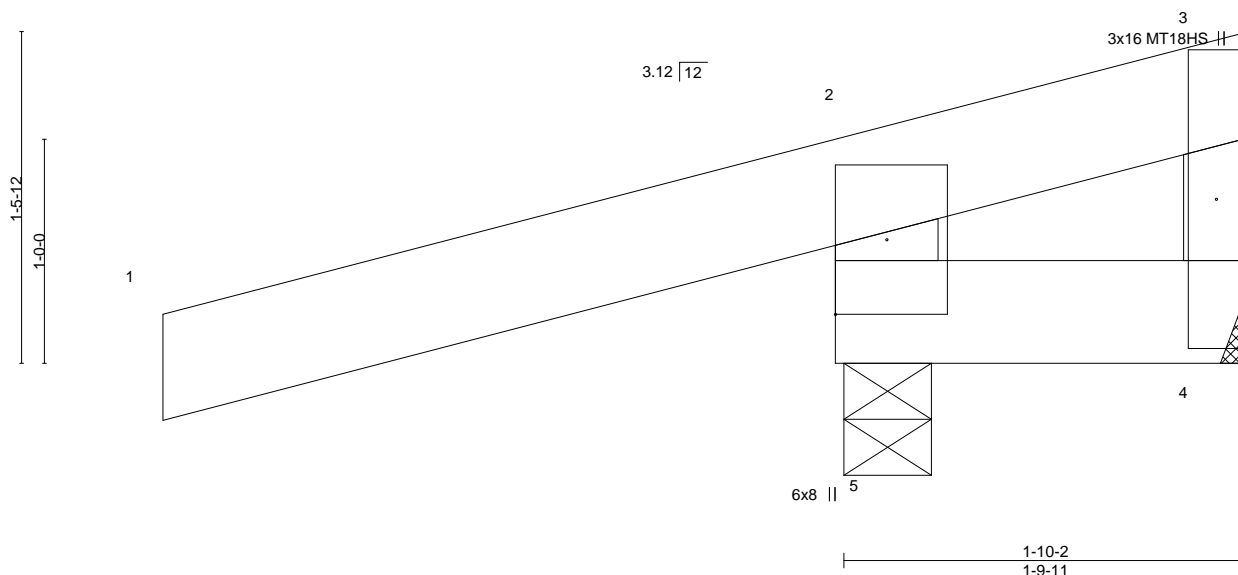
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:14 2021 Page 1

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-3-0-0 3-0-0 1-10-2 1-10-2

Scale = 1:10.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.83	Vert(LL)	0.00	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	0.00	5	>999	240	MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.00	5	>999	240		
									Weight: 13 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF 1650F 1.4E
BOT CHORD 2x6 SPF No.2
WEBS 2x6 SPF No.2 *Except*
3-4: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-10-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 5=0-4-11, 4=Mechanical
Max Horz 5=68(LC 7)
Max Uplift 5=295(LC 4), 4=731(LC 21)
Max Grav 5=1340(LC 21), 4=134(LC 4)

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

TOP CHORD 2-5=-1121/271, 3-4=-92/542

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are MT20 plates unless otherwise indicated.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=295, 4=731.
- 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) Load case(s) 21 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 9) 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 Except:

- 21) User defined: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70(F), 2-3=-70(F), 4-5=-20(F)
Concentrated Loads (lb)
Vert: 1=-250



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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



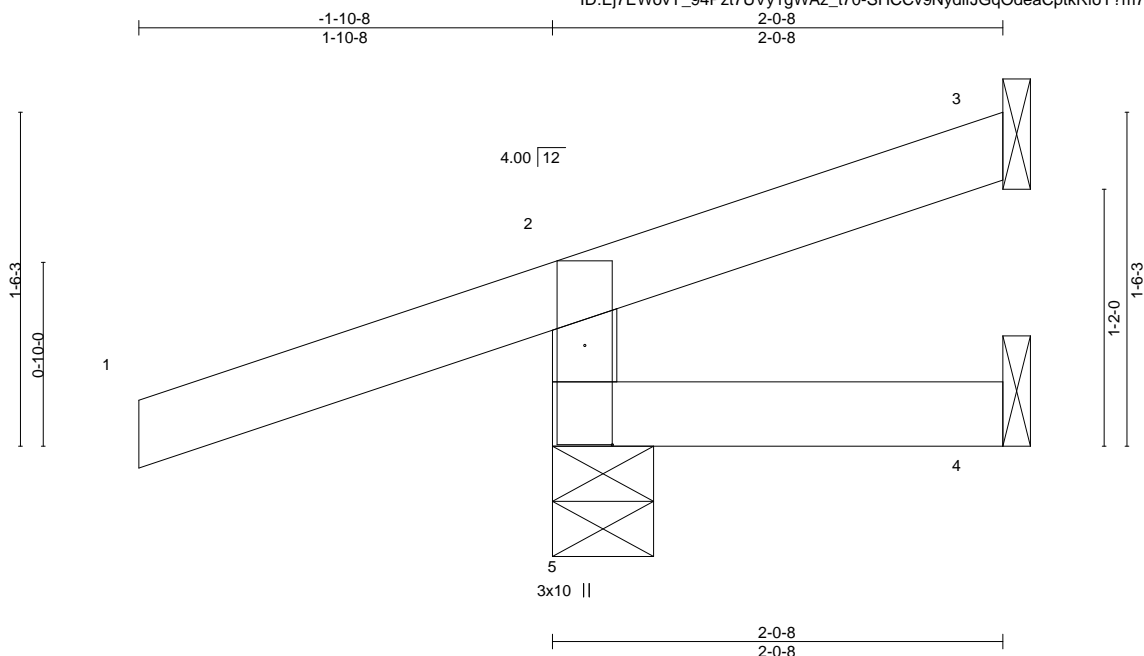
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178948
210521	J48	Jack-Open	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:15 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWaz_t70-SHCCv9NydIfJGqOdeaCptkRloY?m7C49mRW0RzFEWI



Scale = 1:10.4

Plate Offsets (X,Y)--	[5:0-5-6,0-1-8]				
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc) l/defl L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL) 0.00	4-5 >999 360
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT) 0.00	4-5 >999 240
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	5 >999 240
					PLATES MT20 GRIP 197/144
					Weight: 8 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 2-0-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-5-8, 3=Mechanical, 4=Mechanical
Max Horz 5=52(LC 4)
Max Uplift 5=133(LC 4), 3=15(LC 8), 4=5(LC 1)
Max Grav 5=302(LC 1), 3=10(LC 1), 4=27(LC 3)

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

TOP CHORD 2-5=-260/137

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=133.
- 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.



May 18,2021

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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



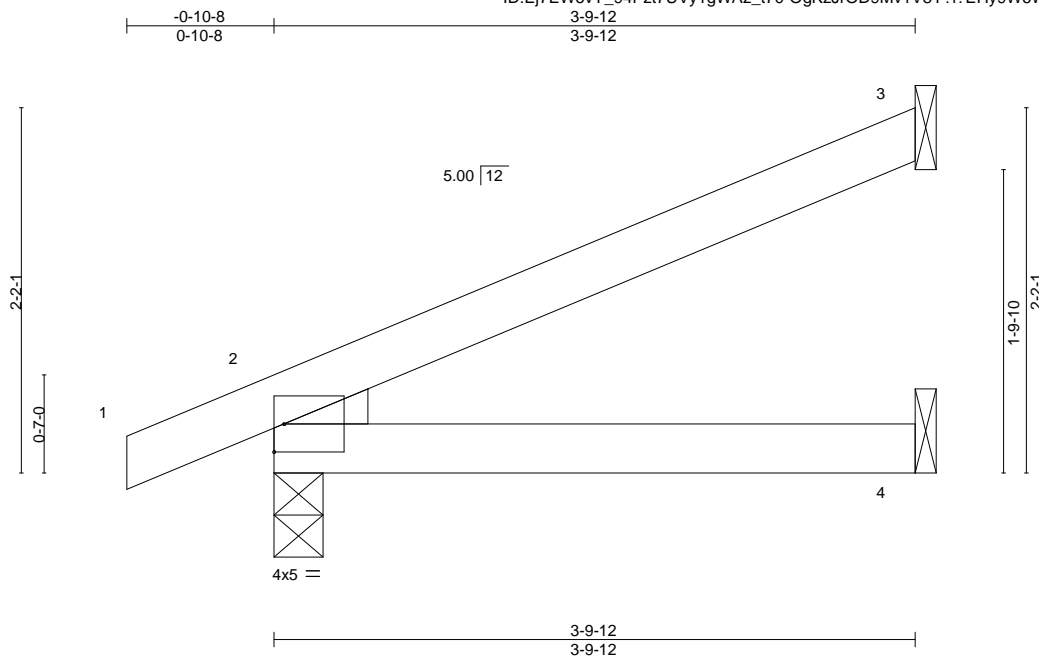
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210521	Truss J49	Truss Type Jack-Open	Qty 7	Ply 1	Lot 142 W0 Job Reference (optional)	I46178949
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:17 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWaz_t70-OgKzJrOD9Mv1V8Y?l?EHY9W6WMfWb6ZREQwd4KzFEWG



Scale = 1:13.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	-0.01	2-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.02	2-4	>999	240		
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-P	Wind(LL)	0.00	2	****	240		
									Weight: 11 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x3 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 3-9-12 oc purlins.

BOT CHORD

Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical

Max Horz 2=78(LC 8)

Max Uplift 3=68(LC 8), 2=38(LC 8)

Max Grav 3=116(LC 1), 2=244(LC 1), 4=72(LC 3)

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3, 2.
- 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.



May 18, 2021

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

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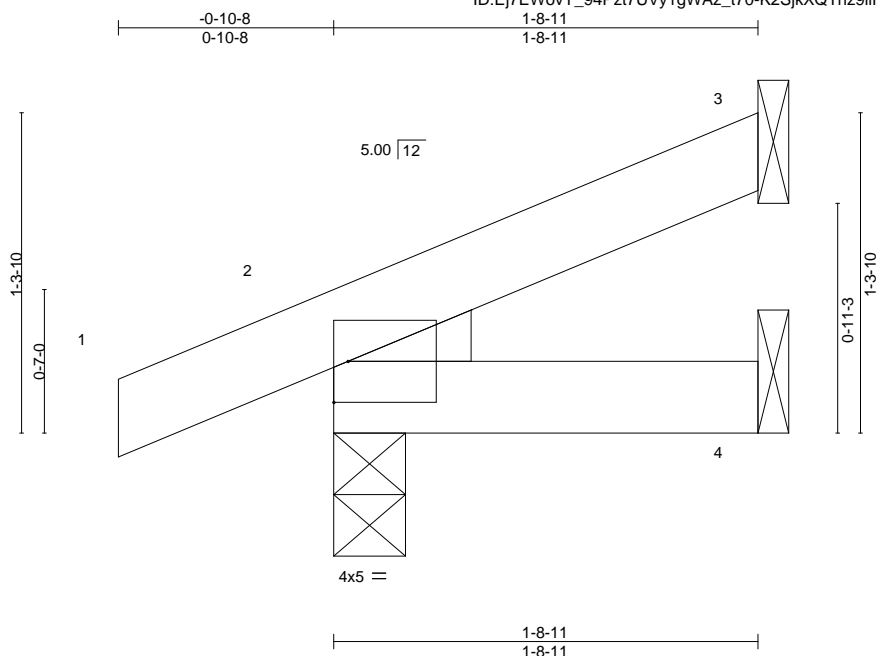
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178950
210521	J50	Jack-Open	4	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:19 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-K2SjkXQThz9IIIRiOtQHl1abVM9Nc303khkPk9DzFEWE



Scale = 1:9.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	-0.00	2	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	2	>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-P	Wind(LL)	0.00	2	****	240	
								Weight: 6 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x3 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 1-8-11 oc purlins.

BOT CHORD

Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical

Max Horz 2=43(LC 8)

Max Uplift 3=-31(LC 8), 2=-32(LC 4)

Max Grav 3=42(LC 1), 2=156(LC 1), 4=34(LC 3)

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3, 2.
- 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.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178951
210521	J51	Diagonal Hip Girder	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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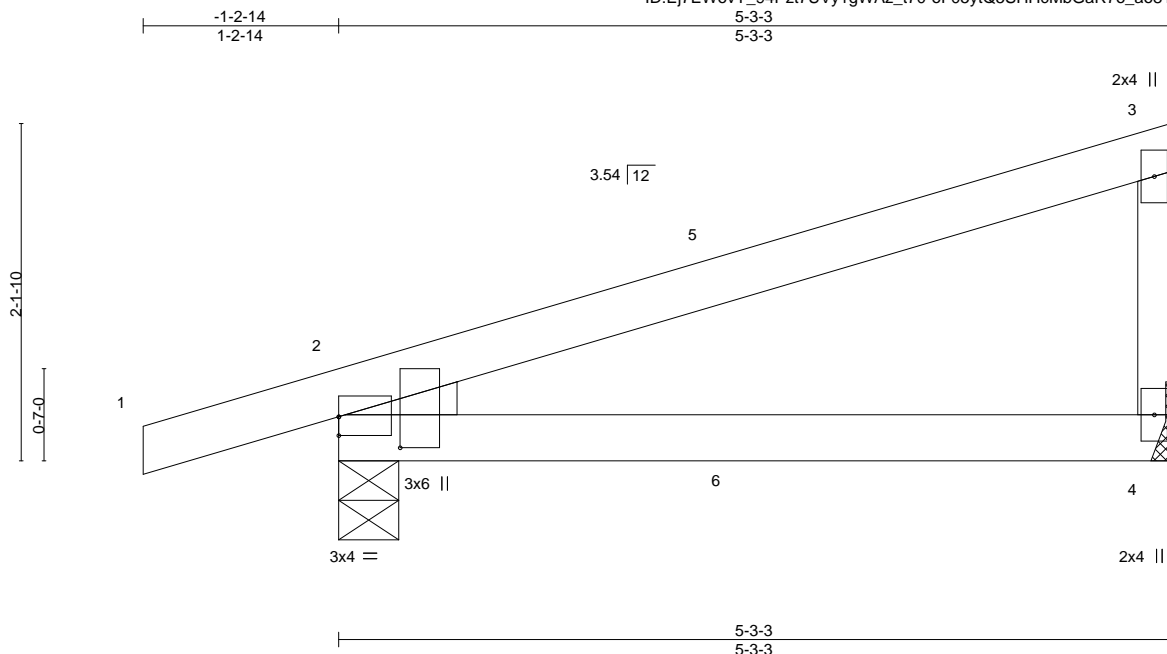


Plate Offsets (X,Y)--		[2:0-0-0,0-1-7], [2:0-2-6,0-4-11]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.46
TCDL 10.0	Lumber DOL	1.15	BC 0.30
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.04 2-4 >999 360
			Vert(CT) -0.07 2-4 >814 240
			Horz(CT) -0.00 4 n/a n/a
			Wind(LL) 0.00 2 **** 240
			PLATES MT20 GRIP 197/144
			Weight: 16 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
WEDGE
Left: 2x3 SPF No.2

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 2=0-4-9
Max Horz 2=81(LC 5)
Max Uplift 4=44(LC 8), 2=105(LC 4)
Max Grav 4=209(LC 1), 2=338(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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4 except (jt=lb) 2=105.
- 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 68 lb down and 34 lb up at 2-6-5, and 68 lb down and 34 lb up at 2-6-5 on top chord, and at 2-6-5, and at 2-6-5 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 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 (plf)
Vert: 1-3=-70, 2-4=-20



May 18, 2021

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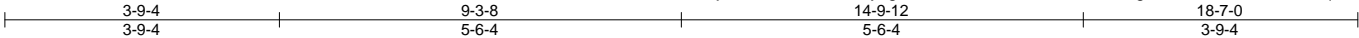
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	146178952
210521	K1	Hip Girder	1	1		

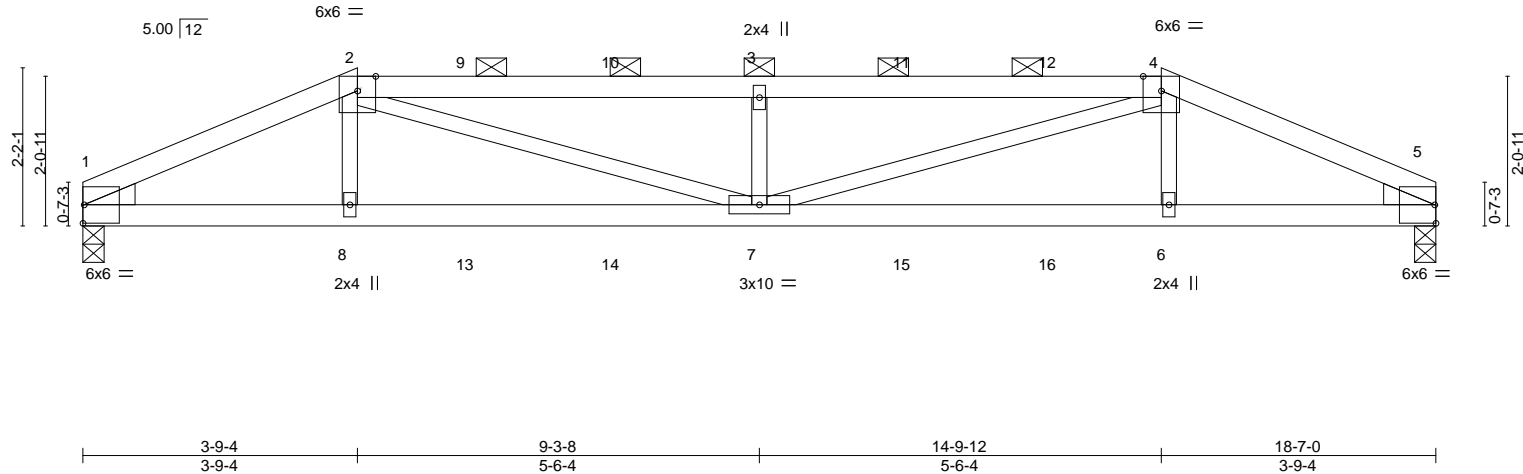
Wheeler Lumber, Waverly, KS - 66871,

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ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-h0FcnEUcWWo1rDaLgzswkeJAwArbk9FTTr07VqQzFEW9



Scale = 1:31.6



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.77	Vert(LL)	-0.16	7	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 1.00	Vert(CT)	-0.28	7-8	>782	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.45	Horz(CT)	0.06	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.15	7	>999	240	Weight: 58 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
2-4: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
WEDGE
Left: 2x4 SPF No.2 , Right: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-6-13 oc purlins, except
2-0-0 oc purlins (3-9-11 max.): 2-4.
BOT CHORD Rigid ceiling directly applied or 8-1-7 oc bracing.

REACTIONS.

(size) 1=0-3-8, 5=0-3-8
Max Horz 1=-32(LC 30)
Max Uplift 1=-280(LC 4), 5=-280(LC 5)
Max Grav 1=1221(LC 1), 5=1221(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2483/612, 2-3=-3366/894, 3-4=-3366/894, 4-5=-2483/612
BOT CHORD 1-8=-520/2187, 7-8=-521/2168, 6-7=-517/2168, 5-6=-516/2187
WEBS 2-8=0/361, 2-7=-348/1315, 3-7=-637/322, 4-7=-348/1315, 4-6=0/361

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) gable end 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 3-6-0 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 100 lb uplift at joint(s) except (jt=lb) 1=280, 5=280.
- 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) 77 lb down and 76 lb up at 3-9-4, 82 lb down and 76 lb up at 5-3-8, 82 lb down and 76 lb up at 7-3-8, 82 lb down and 76 lb up at 9-3-8, 82 lb down and 76 lb up at 11-3-8, and 82 lb down and 76 lb up at 13-3-8, and 77 lb down and 76 lb up at 14-9-12 on top chord, and 197 lb down and 71 lb up at 3-9-4, 32 lb down at 5-3-8, 32 lb down at 7-3-8, 32 lb down at 9-3-8, 32 lb down at 11-3-8, and 32 lb down at 13-3-8, and 197 lb down and 71 lb up at 14-9-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 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

Continued on page 2



May 18,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0
210521	K1	Hip Girder	1	1	I46178952
Job Reference (optional)					

LOAD CASE(S)
Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)

Vert: 1-2=-70, 2-4=-70, 4-5=-70, 1-5=-20
- Concentrated Loads (lb)

Vert: 2=-46(F) 4=-46(F) 8=-197(F) 7=-16(F) 3=-46(F) 6=-197(F) 9=-46(F) 10=-46(F) 11=-46(F) 12=-46(F) 13=-16(F) 14=-16(F) 15=-16(F) 16=-16(F)



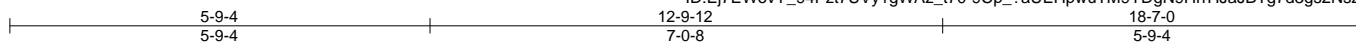
Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178953
210521	K2	Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

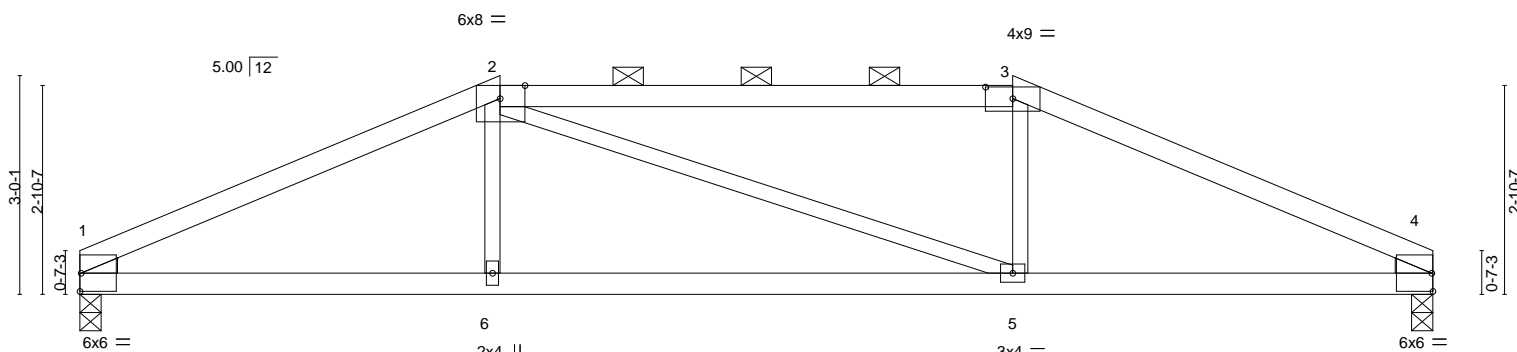
8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:25 2021 Page 1

ID:Ej7EWovY_94Pzi7UVy1gWAZ_t70-9Cp_?aUEHpwuTM9YDgN9HrrHJaJBtg7d3gs2NsZFEW8

Job Reference (optional)



Scale = 1:31.6



	5-9-4	12-9-12	18-7-0
	5-9-4	7-0-8	5-9-4

Plate Offsets (X,Y)-- [2:0-4-2,Edge], [3:0-4-8,0-1-15]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.07 5-6 >999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.16 5-6 >999	240	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.04 4 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.04 6 >999	240	Weight: 55 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2
 WEDGE
 Left: 2x3 SPF No.2, Right: 2x3 SPF No.2

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 4=0-3-8
 Max Horz 1=47(LC 13)
 Max Uplift 1=87(LC 4), 4=87(LC 5)
 Max Grav 1=823(LC 1), 4=823(LC 1)

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

TOP CHORD 1-2=-1522/186, 2-3=-1304/200, 3-4=-1522/186
 BOT CHORD 1-6=-126/1310, 5-6=-129/1304, 4-5=-119/1310
 WEBS 2-6=0/283, 3-5=0/284

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) gable end 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 3-6-0 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 100 lb uplift at joint(s) 1, 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.



May 18, 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

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:26 2021 Page 1

ID:Ei7EWovY 94Pzt7UVv1qWAZ t70-dONMCwVs272l4WkknOvOp2OXb d6C9HmIKccyJzFEW7

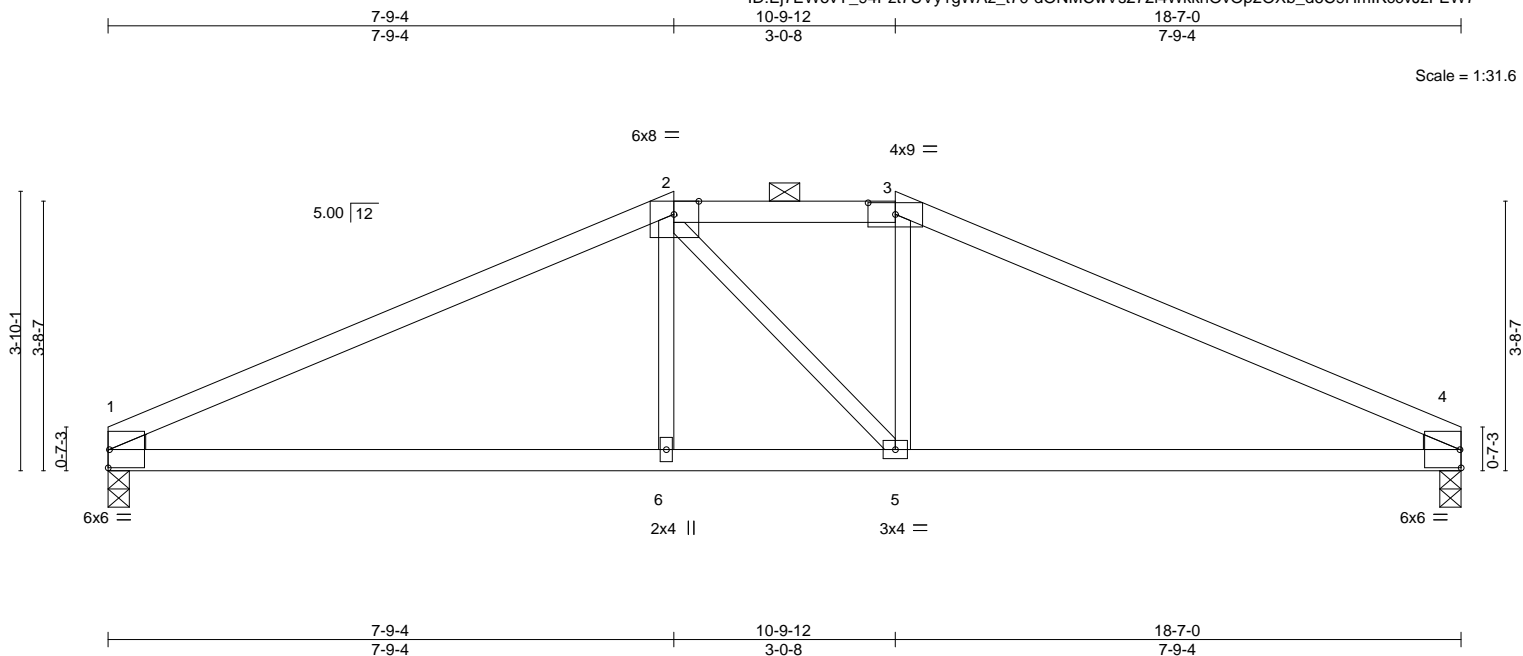


Plate Offsets (X,Y)-- [2:0-4-2,Edge], [3:0-4-8,0-1-15]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.11	1-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.25	1-6	>881	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.03	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.06	1-6	>999	240	Weight: 54 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 4-5-7 oc purlins, except 2-0-0 oc purlins (5-0-8 max.): 2-3.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=0-3-8, 4=0-3-8
 Max Horz 1=61(LC 8)
 Max Uplift 1=-93(LC 8), 4=-93(LC 9)
 Max Grav 1=823(LC 1), 4=823(LC 1)

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

TOP CHORD 1-2=-1334/124, 2-3=-1134/153, 3-4=-1334/123
BOT CHORD 1-6=-70/1138, 5-6=-71/1134, 4-5=-45/1138

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 1, 4.
- 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.



May 18, 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 142 W0	146178955
210521	K4	Common	2	1	Job Reference (optional)	

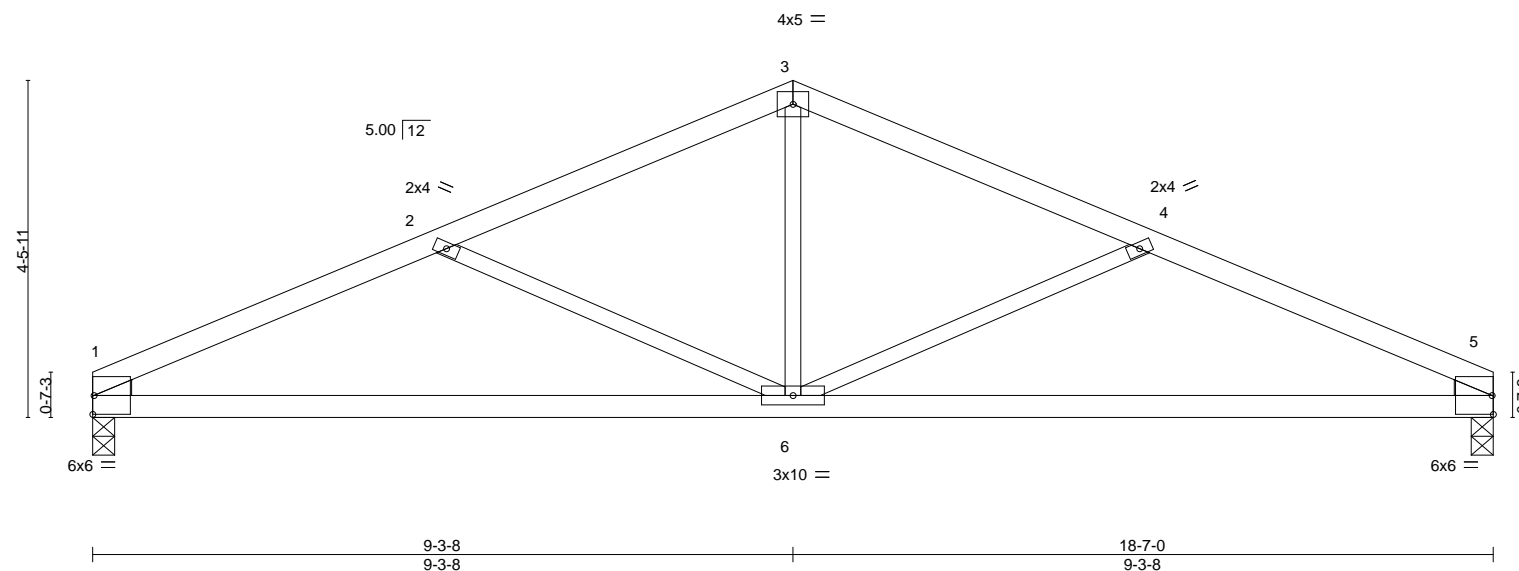
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:27 2021 Page 1

ID:Ej7EWovY_94PztUVy1gWaz_t70-5bxtQGWUoRAcigJwL5QdMGxnpOwOxa6wX_L9RizFEW6

4-8-5	9-3-8	13-10-11	18-7-0
4-8-5	4-7-3	4-7-3	4-8-5

Scale = 1:30.6



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.34	Vert(LL)	-0.16	1-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.80	Vert(CT)	-0.33	1-6	>664	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.25	Horz(CT)	0.04	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.04	1-6	>999	240	Weight: 57 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x3 SPF No.2

WEDGE

Left: 2x3 SPF No.2 , Right: 2x3 SPF No.2

REACTIONS.

(size) 1=0-3-8, 5=0-3-8

Max Horz 1=73(LC 8)

Max Uplift 1=-105(LC 8), 5=-105(LC 9)

Max Grav 1=823(LC 1), 5=823(LC 1)

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

TOP CHORD 1-2=-1462/228, 2-3=-1116/124, 3-4=-1116/124, 4-5=-1462/228

BOT CHORD 1-6=-226/1275, 5-6=-153/1275

WEBS 3-6=0/501, 4-6=-377/215, 2-6=-377/215

NOTES-

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

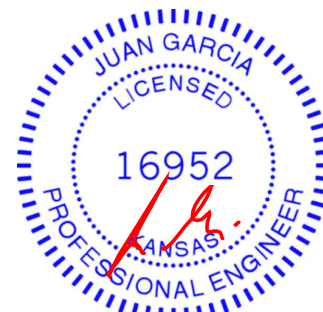
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=105, 5=105.

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.



May 18, 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



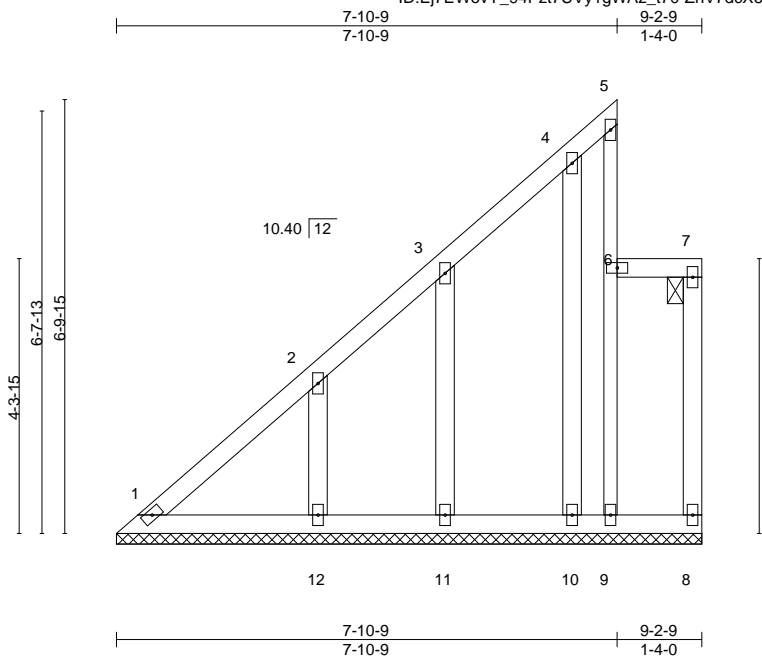
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178956
210521	LAY1	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:28 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-ZnV7dcX6ZklTKqu7vpXsvTT?KnR4g3m3me5jzBzFEW5



Scale = 1:36.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	n/a	-	n/a	999	MT20	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	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 46 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2 *Except*
 5-9: 2x3 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.): 6-9, 6-7.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 8-9.

REACTIONS.

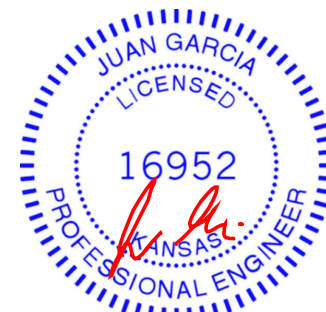
All bearings 9-2-9.
 (lb) - Max Horz 1=277(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 8, 11, 10 except 12=135(LC 8)
 Max Grav All reactions 250 lb or less at joint(s) 1, 9, 8, 11, 10 except 12=277(LC 15)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-364/211

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) gable end 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 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- 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 3-6-0 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 100 lb uplift at joint(s) 1, 9, 8, 11, 10 except (jt=lb) 12=135.
- 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.



May 18, 2021

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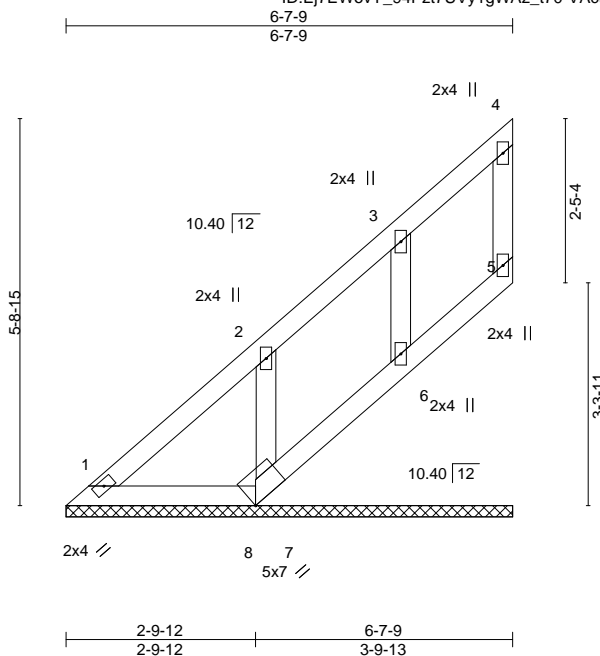
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178957
210521	LAY2	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:30 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-VAct2IYM5MYBZ81V0DzK_uZMvb7i8_LMDyap24zFEW3



Scale = 1:34.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	5	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 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, Except: 6-0-0 oc bracing: 5-6.

REACTIONS.

All bearings 6-7-9.

- (lb) - Max Horz 1=175(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6 except 7=-121(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 8, 6 except 7=271(LC 15)

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

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- 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 3-6-0 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 100 lb uplift at joint(s) 1, 5, 8, 6 except (jt=lb) 7=121.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 5, 7, 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.



May 18, 2021

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



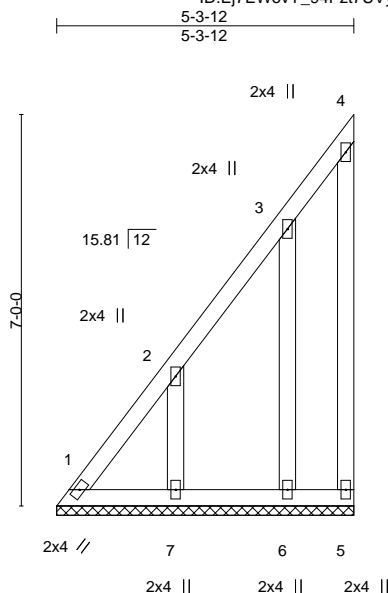
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178958
210521	LAY3	Lay-In Gable	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:30 2021 Page 1

ID:Ej7EWovY_94Pt7UVy1gWAZ_t70-VAct2IYM5MYBZ81V0DzK_uZJpb788znMDYap24zFEW3



Scale = 1:41.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.29	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 31 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 5-3-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 5-3-12.

(lb) - Max Horz 1=254(LC 5)

Max Uplift All uplift 100 lb or less at joint(s) except 1=-125(LC 6), 5=-115(LC 7), 7=-197(LC 8), 6=-138(LC 8)

Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 6

FORCES.

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

TOP CHORD 1-2=-301/225

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 125 lb uplift at joint 1, 115 lb uplift at joint 5, 197 lb uplift at joint 7 and 138 lb uplift at joint 6.
- 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.



May 18, 2021

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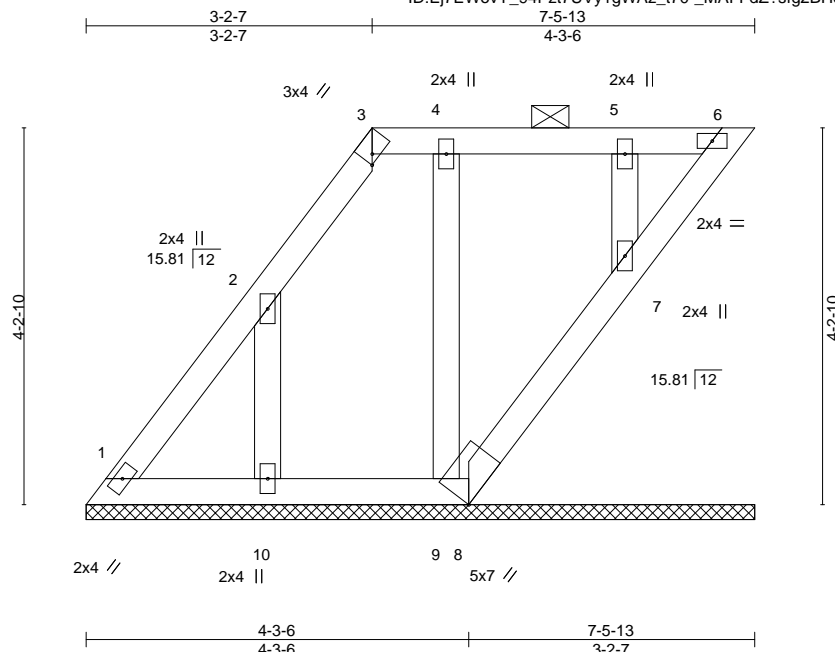
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178959
210521	LAY4	GABLE	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:31 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWaz_t70-_MAFFdZ?sfg2BHchaxUZW65YS?TLtRVVScJNaWzFEW2



Scale = 1:25.8

Plate Offsets (X,Y)--		[3:0-1-3,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	-0.00	6	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 29 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, except 2-0-0 oc purlins (6-0-0 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

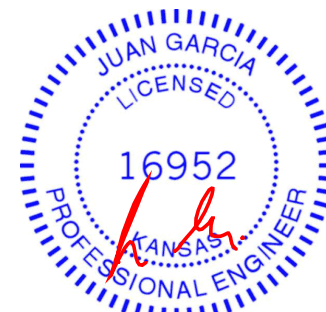
REACTIONS.

All bearings 7-5-13.
(lb) - Max Horz 1=160(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 6, 8, 9, 7 except 10=-159(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 6, 8, 10, 9, 7

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) gable end 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.
- Gable requires continuous bottom chord bearing.
- 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 3-6-0 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 100 lb uplift at joint(s) 1, 6, 8, 9, 7 except (jt=lb) 10=159.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 6, 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.



May 18, 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



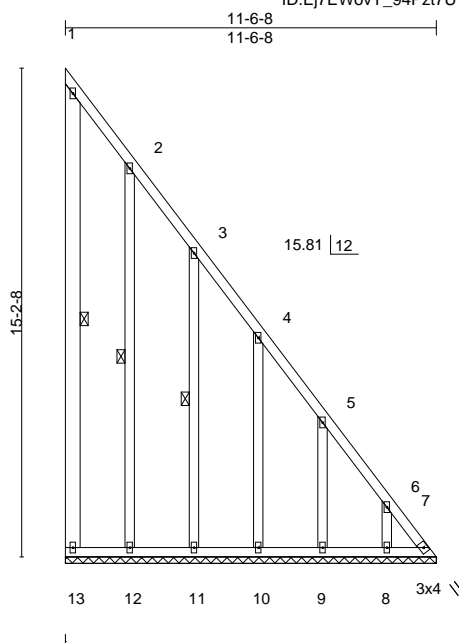
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0
210521	LAY5	GABLE	1	1	I46178960
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:32 2021 Page 1

ID:EJ7EWovY_94Pzt7UVy1gWAZ_t70-SYkdTzaddzovpRBu8e?o3JeiXPoNcsyfgG3w6yzFEW1



Scale = 1:71.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.01	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 99 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x6 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.
WEBS 1 Row at midpt 1-13, 2-12, 3-11

REACTIONS.

All bearings 11-6-8.

(lb) - Max Horz 13=-592(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 13 except 7=-290(LC 7), 12=-165(LC 9), 11=-180(LC 9), 10=-174(LC 9), 9=-179(LC 9), 8=-158(LC 9)

Max Grav All reactions 250 lb or less at joint(s) 13, 12, 11, 10, 9, 8 except 7=743(LC 9)

FORCES.

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

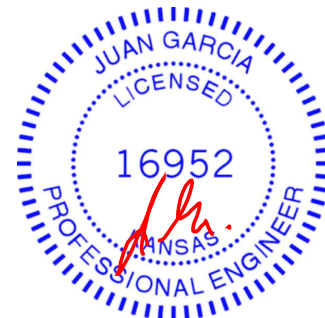
TOP CHORD 2-3=-252/120, 3-4=-433/193, 4-5=-609/266, 5-6=-791/343, 6-7=-940/404

BOT CHORD 12-13=-247/591, 11-12=-247/591, 10-11=-247/591, 9-10=-247/591, 8-9=-247/591,

7-8=-247/591

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) gable end zone; cantilever left and right exposed; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are 2x4 MT20 unless otherwise indicated.
- 3) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 13 except (jt=lb) 7=290, 12=165, 11=180, 10=174, 9=179, 8=158.
- 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.



May 18, 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



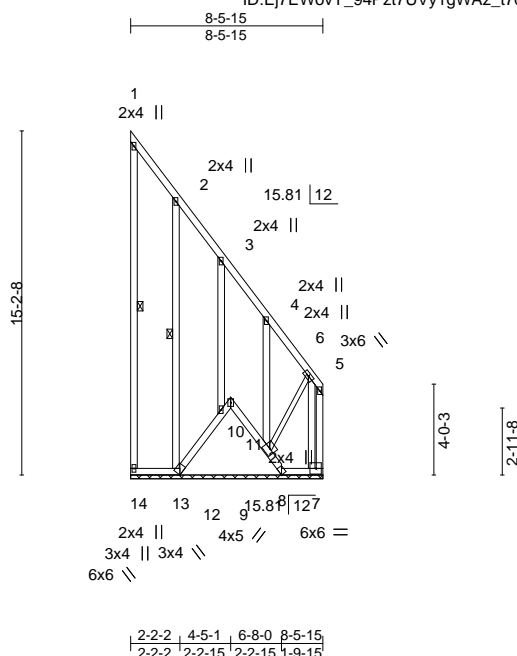
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178961
210521	LAY6	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:33 2021 Page 1

ID:EJ7EWovY_94Pzt7UVy1gWAZ_t70-wl0gJbFOHwmQbm4hMX1cXAt6o8WLHWovvoTfPzFEW0



Scale = 1:101.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.26	Horz(CT)	0.01	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 87 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2 *Except*
 5-9: 2x3 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.
 WEBS 1 Row at midpt 1-14, 2-13

REACTIONS.

All bearings 8-5-15.
 (lb) - Max Horz 14=-387(LC 9)
 Max Uplift All uplift 100 lb or less at joint(s) 14, 8 except 7=-493(LC 7), 12=-548(LC 9), 10=-770(LC 7), 13=-164(LC 9), 11=-169(LC 9), 9=-1288(LC 9)
 Max Grav All reactions 250 lb or less at joint(s) 14, 8, 11 except 7=1068(LC 9), 12=373(LC 7), 10=1019(LC 9), 13=262(LC 16), 9=787(LC 7)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-261/124, 3-4=-450/202, 4-5=-596/256
 BOT CHORD 13-14=-293/387, 12-13=-293/387, 11-12=-506/667, 10-11=-501/635, 9-10=-498/643
 WEBS 5-7=-843/451, 5-9=-431/753

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) gable end zone; cantilever left and right exposed; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 8 except (jt=lb) 7=493, 12=548, 10=770, 13=164, 11=169, 9=1288.
- 6) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 10, 11, 9.
- 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.



May 18, 2021

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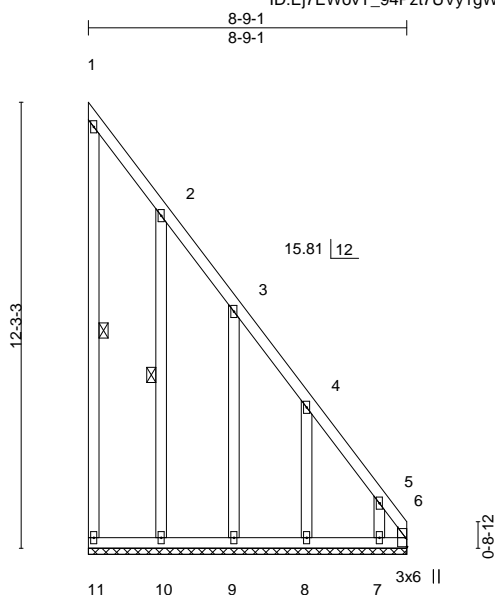
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 210521	Truss LAY7	Truss Type GABLE	Qty 1	Ply 1	Lot 142 W0 I46178962
Wheeler Lumber, Waverly, KS - 66871,					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:34 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-OxsOufbt9a2d2ILGF32G8kj25CUC4mhy8ZY1BrzFEW?



Scale = 1:63.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.01	6	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 64 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
WEDGE
Right: 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.
WEBS 1 Row at midpt 1-11, 2-10

REACTIONS.

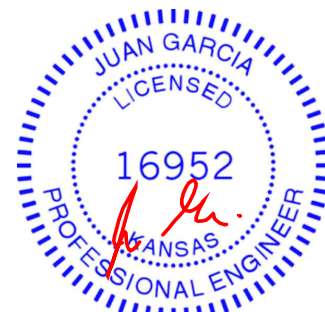
All bearings 8-9-1.
(lb) - Max Horz 11=-477(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 11 except 10=-186(LC 9), 9=-172(LC 9), 6=-337(LC 7), 8=-185(LC 9), 7=-348(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 11, 10, 9, 8, 7 except 6=812(LC 9)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-264/126, 3-4=-439/195, 4-5=-626/275, 5-6=-940/406
BOT CHORD 10-11=-199/477, 9-10=-199/477, 8-9=-199/477, 7-8=-199/477, 6-7=-199/477
WEBS 5-7=-216/368

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) gable end zone; cantilever left and right exposed; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are 2x4 MT20 unless otherwise indicated.
- 3) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 11 except (jt=lb) 10=186, 9=172, 6=337, 8=185, 7=348.
- 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.



May 18, 2021

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

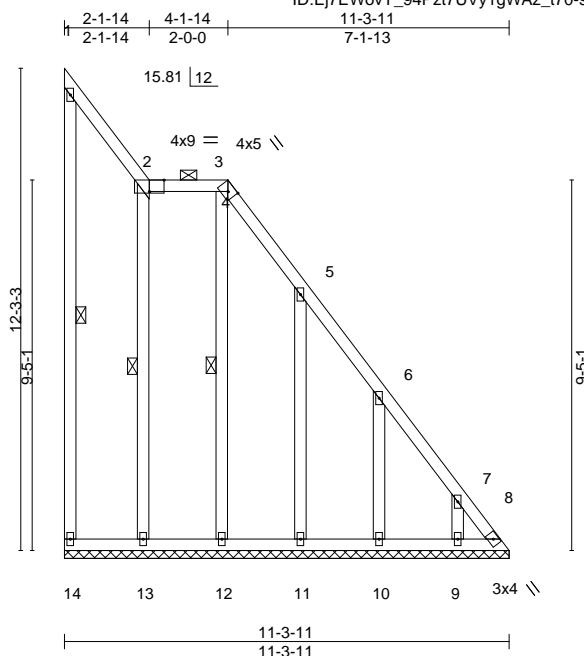
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210521	Truss LAY8	Truss Type GABLE	Qty 1	Ply 1	Lot 142 W0 I46178963
Wheeler Lumber, Waverly, KS - 66871,					Job Reference (optional)

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:35 2021 Page 1
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Scale = 1:58.6

Plate Offsets (X,Y)--		[2:0-4-8,Edge], [4:0-2-3,Edge]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 79 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.): 2-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-14, 2-13, 3-12

REACTIONS.

All bearings 11-3-11.
(lb) - Max Horz 14=-477(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 14 except 8=-243(LC 7), 12=-227(LC 9), 11=-192(LC 9), 10=-173(LC 9), 9=-152(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 14, 13, 12, 11, 10, 9 except 8=606(LC 9)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-5=-251/112, 5-6=-444/201, 6-7=-621/276, 7-8=-763/333
BOT CHORD 13-14=-201/476, 12-13=-201/476, 11-12=-201/476, 10-11=-201/476, 9-10=-201/476, 8-9=-201/476
WEBS 3-12=-156/250

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) gable end 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) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 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 3-6-0 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 100 lb uplift at joint(s) 14 except (jt=lb) 8=243, 12=227, 11=192, 10=173, 9=152.
- 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.



May 18, 2021

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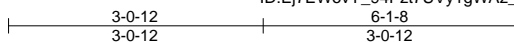
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210521	Truss LAY9	Truss Type GABLE	Qty 1	Ply 1	Lot 142 W0 I46178964
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:36 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-KK_8JLd7hCILH3VfNU4kD9oO50AYioEbt18EkzFEVz



3x4 =

Scale = 1:27.7

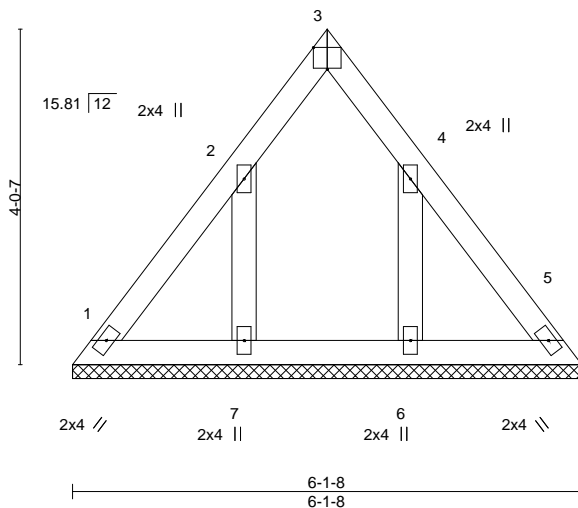


Plate Offsets (X,Y)--		[3:Edge,0-3-2]	
LOADING (psf)		SPACING-	2-0-0
TCLL 25.0		Plate Grip DOL	1.15
TCDL 10.0		Lumber DOL	1.15
BCLL 0.0 *		Rep Stress Incr	YES
BCDL 10.0		Code	IRC2018/TPI2014
		CSI.	
		TC	0.05
		BC	0.03
		WB	0.03
		Matrix-P	
		DEFL.	
		in (loc)	l/defl L/d
		Vert(LL)	n/a - n/a 999
		Vert(CT)	n/a - n/a 999
		Horz(CT)	0.00 5 n/a n/a
		PLATES	GRIP
		MT20	197/144
		Weight: 23 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 6-1-8.

(lb) - Max Horz 1=103(LC 4)

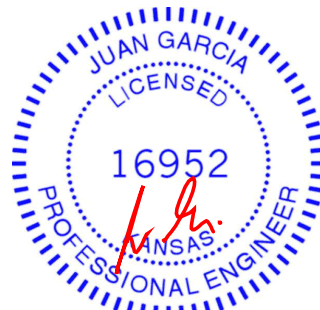
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 7=149(LC 8), 6=148(LC 9)

Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 6

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- 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 3-6-0 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 100 lb uplift at joint(s) 1, 5 except (jt=lb) 7=149, 6=148.
- 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.



May 18, 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



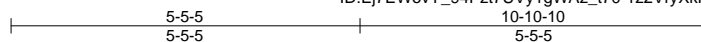
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210521	Truss LAY10	Truss Type GABLE	Qty 1	Ply 1	Lot 142 W0 I46178965
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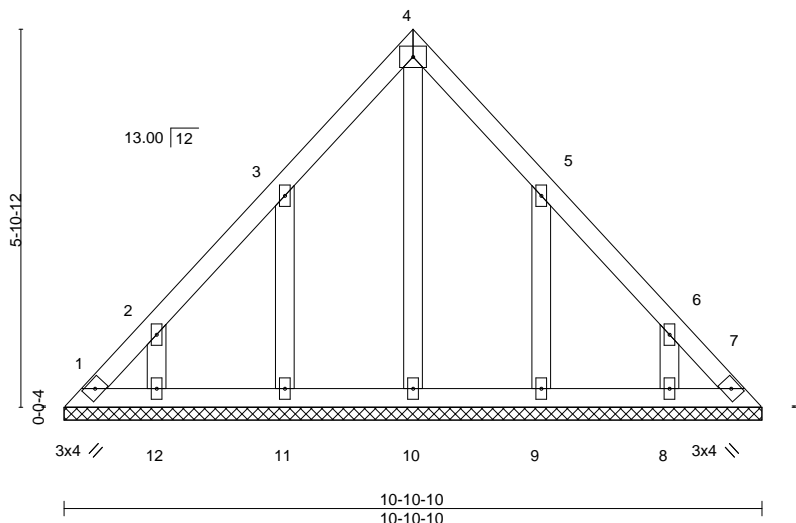
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:29 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-1z2VryXkk2QKx_TJSWS5Rh0CpBnvPXgC_lqGWezFEW4



Scale = 1:35.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	7	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
								Weight: 45 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 10-10-10.
(lb) - Max Horz 1=-148(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=-140(LC 8), 12=-112(LC 8), 9=-139(LC 9), 8=-113(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 11, 12, 9, 8

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- 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 3-6-0 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 100 lb uplift at joint(s) 1, 7 except (jt=lb) 11=140, 12=112, 9=139, 8=113.
- 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.



May 18, 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

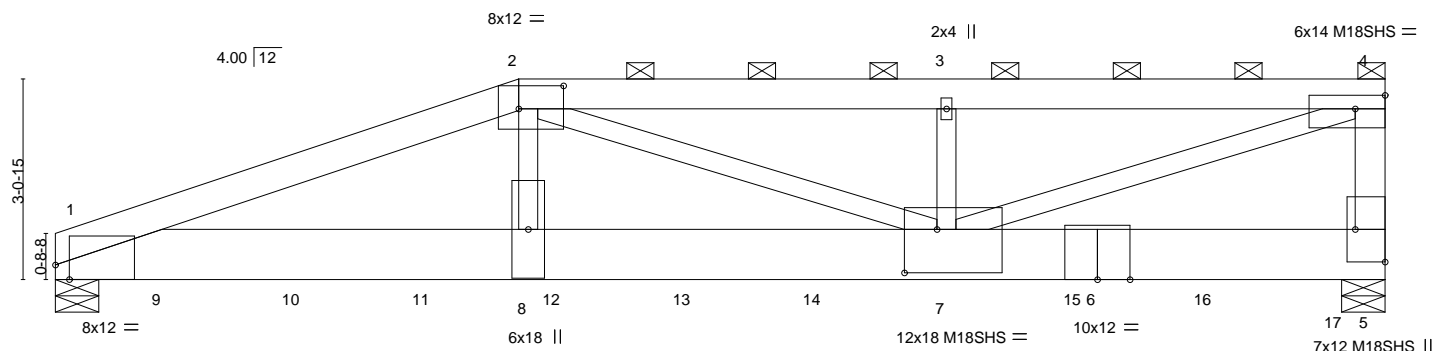


16023 Swingley Ridge Rd
Chesterfield, MO 63017

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:38 2021 Page 1
4Pzt7UvV1qWAZ t70-Gi5vj1eODpZ2XMf2Uv6CJauYrpe50OPX3BWEJczFEVx

7-1-6	13-8-3	20-5-0
7-1-6	6-6-13	6-8-13

Scale = 1:35.4



	7-1-6	13-8-3	20-5-0
	7-1-6	6-6-13	6-8-13
Plate Offsets (X,Y)--	[1:0-2-9.Edge], [2:0-8-4,0-4-4], [4:Edge,0-2-8], [5:Edge,0-5-8], [7:0-6-0,0-8-0]		

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.80	Vert(LL) -0.30 7-8 >795 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.92	Vert(CT) -0.53 7-8 >450 240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr NO	WB 0.92	Horz(CT) 0.06 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.18 7-8 >999 240	Weight: 280 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF 1650F 1.4E
BOT CHORD 2x10 SP DSS
WEBS 2x4 SPF No.2 *Except*
4-5: 2x6 SPF No.2, 2-7,4-7: 2x4 SPF 2100F 1.8E

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-6-12 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-1 max.): 2-4.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

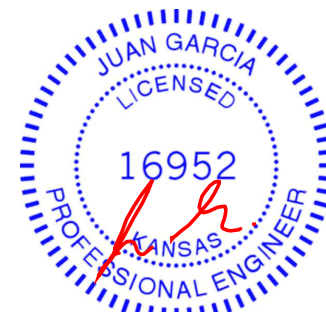
(size) 1=0-8-0, 5=0-8-0
 Max Horz 1=83(LC 7)
 Max Uplift 1=-898(LC 4), 5=-97(LC 4)
 Max Grav 1=8861(LC 1), 5=10216(LC 1)

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

TOP CHORD 1-2=-19330/1756, 2-3=-17184/1029, 3-4=-17184/1029, 4-5=-6569/433
BOT CHORD 1-8=-1637/18122, 7-8=-1681/18506, 5-7=-20/840
WEBS 2-8=-744/6490, 2-7=-1412/765, 3-7=-362/265, 4-7=-1073/17478

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 0-4-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Wind: ASCE 7-16; Vult=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
- 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 3-6-0 tall by 2-0-0 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) 5 except (jt=lb) 1=898.
- 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.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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Continued on page 2



WARNING – Velly design parameters are listed below and included within key reference 1. See MH-1413 (Rev. 3/19/2020) for more details.
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0
210521	R1	Half Hip Girder	1	2	I46178966
Wheeler Lumber, Waverly, KS - 66871,					Job Reference (optional)

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:38 2021 Page 2
ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-Gi5vj1eODpZ2XMf2Uv6CJauYrpe50OPX3BWEJczFEVx

NOTES-

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 754 lb down and 153 lb up at 1-7-12, 347 lb down and 24 lb up at 1-7-12, 1123 lb down and 185 lb up at 3-7-12, 754 lb down and 182 lb up at 3-7-12, 967 lb down and 31 lb up at 5-7-12, 754 lb down and 94 lb up at 5-7-12, 967 lb down and 70 lb up at 7-7-12, 754 lb down and 109 lb up at 7-7-12, 1051 lb down and 190 lb up at 9-7-12, 754 lb down and 109 lb up at 9-7-12, 1057 lb down and 163 lb up at 11-7-12, 754 lb down and 109 lb up at 11-7-12, 1057 lb down and 23 lb up at 13-7-12, 754 lb down and 109 lb up at 13-7-12, 1057 lb down at 15-7-12, 754 lb down and 109 lb up at 15-7-12, 1053 lb down at 17-7-12, 754 lb down and 109 lb up at 17-7-12, and 1062 lb down at 19-7-12, and 759 lb down and 104 lb up at 19-7-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-2=-70, 2-4=-70, 1-5=-20

Concentrated Loads (lb)

Vert: 7=-1812(F=-754, B=-1057) 9=-1101(F=-754, B=-347) 10=-1878(F=-754, B=-1123) 11=-1721(F=-754, B=-967) 12=-1721(F=-754, B=-967) 13=-1805(F=-754, B=-1051) 14=-1812(F=-754, B=-1057) 15=-1812(F=-754, B=-1057) 16=-1807(F=-754, B=-1053) 17=-1821(F=-759, B=-1062)

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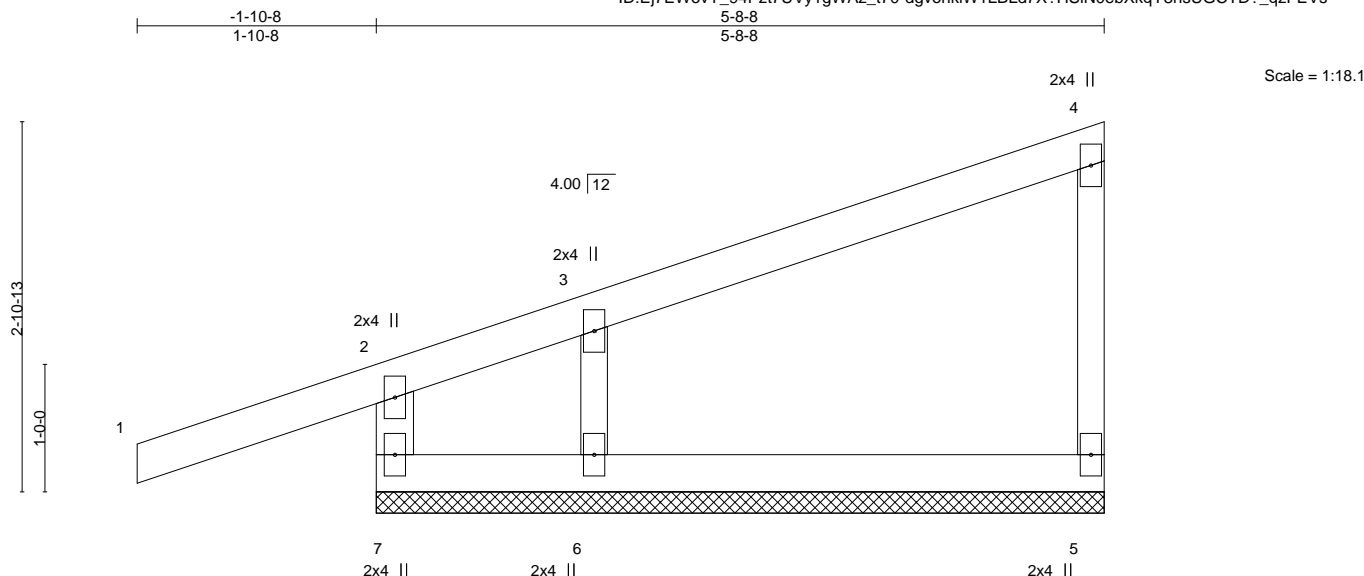


16023 Swingley Ridge Rd
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Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178967
210521	V8	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:43 2021 Page 1
ID:Ej7EWovY_94Pzt7UVy1gWAz_t70-dgvonkiW1LBLd7X?HSIN0ebXkqY8hsUGCTD?_qzFEVs



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	0.01	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 19 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=5-8-8, 5=5-8-8, 6=5-8-8
Max Horz 7=124(LC 5)
Max Uplift 7=-102(LC 4), 5=-28(LC 4), 6=-76(LC 8)
Max Grav 7=248(LC 1), 5=153(LC 1), 6=232(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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6 except (jt=lb) 7=102.
- 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.



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



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Chesterfield, MO 63017

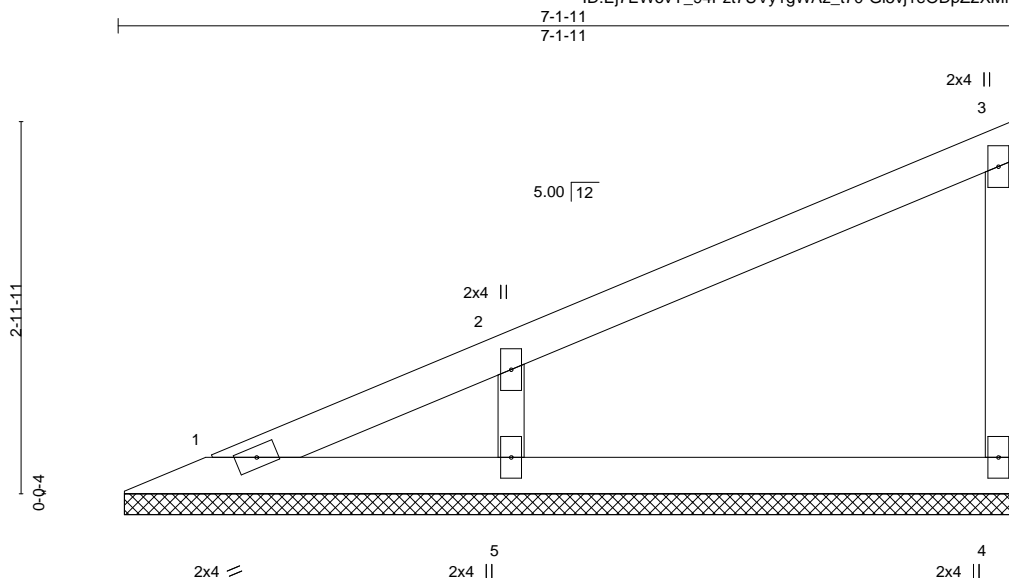
$$\begin{array}{r} 6-2-8 \\ \hline 6-2-8 \end{array}$$

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178969
210521	V10	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:38 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-Gi5vj1eODpZ2XMf2Uv6CJauITprs0czX3BWEJczFEVx



Scale = 1:18.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	999	MT20	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 0.05	Horz(CT)	-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.

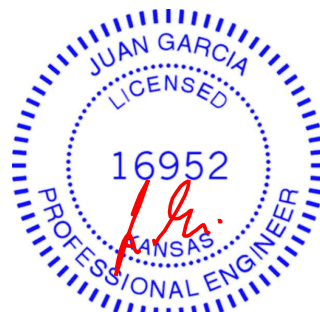
(size) 1=7-1-2, 4=7-1-2, 5=7-1-2
Max Horz 1=115(LC 5)
Max Uplift 4=27(LC 8), 5=98(LC 8)
Max Grav 1=62(LC 16), 4=142(LC 1), 5=370(LC 1)

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

WEBS 2-5=-288/148

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 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.



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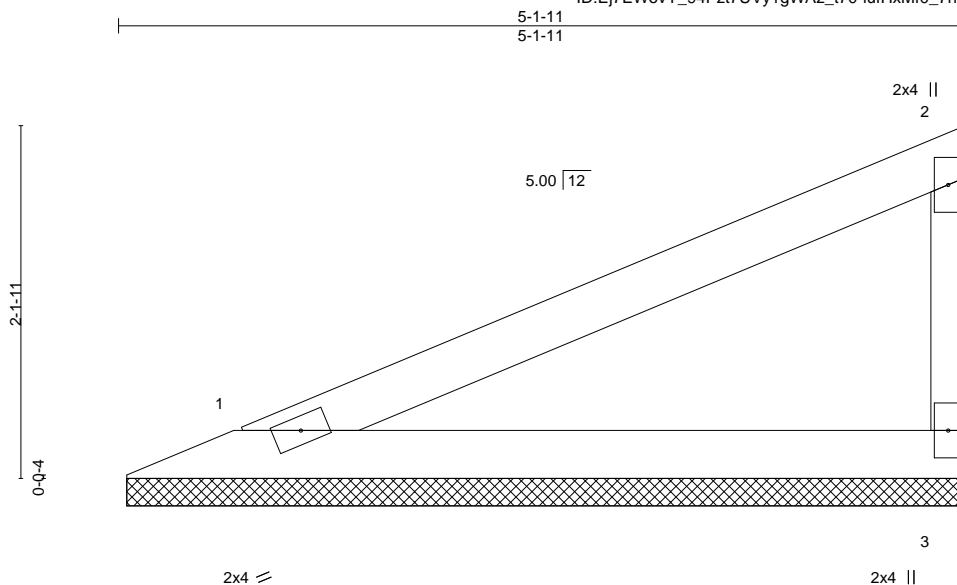


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178970
210521	V11	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:39 2021 Page 1
ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-lufHxMf0_7hv8WDE2cdRroQqkDAI130hrFor2zFEVw



Scale = 1:14.0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.34	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	n/a	-	n/a	999		
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-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 5-1-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=5-1-2, 3=5-1-2
Max Horz 1=78(LC 5)
Max Uplift 1=28(LC 8), 3=44(LC 8)
Max Grav 1=193(LC 1), 3=193(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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.



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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 142 W0	I46178971
210521	V12	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

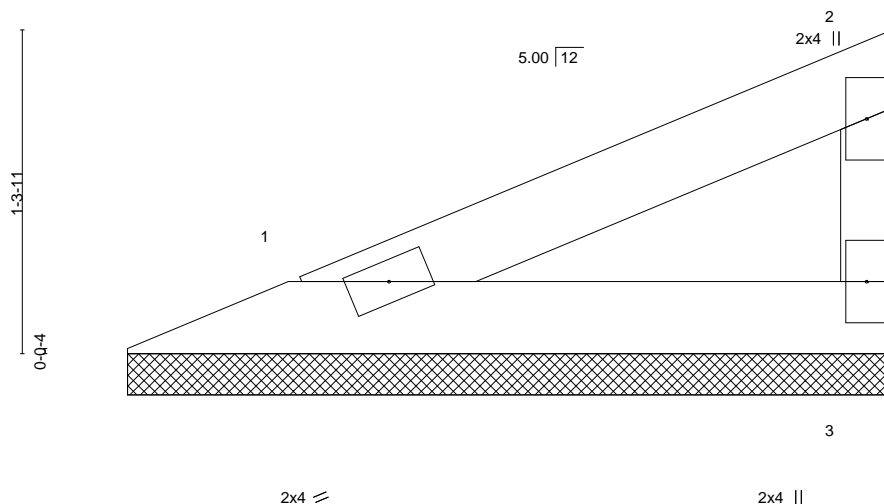
8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:40 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-D5Df8igelQpmmgoQcK9gO?z3UdY9UWGqWV?LNVzFEVv

3-1-11

3-1-11

Scale = 1:9.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-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 3-1-11 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=3-1-2, 3=3-1-2
Max Horz 1=42(LC 5)
Max Uplift 1=15(LC 8), 3=23(LC 8)
Max Grav 1=103(LC 1), 3=103(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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.



May 18, 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 142 W0	I46178972
210521	V13	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

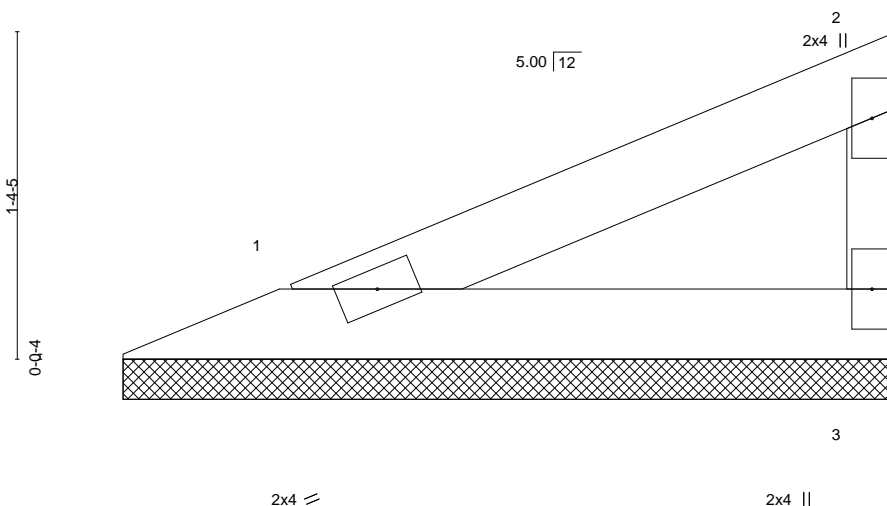
8.430 s Apr 20 2021 MiTek Industries, Inc. Tue May 18 14:37:40 2021 Page 1

ID:Ej7EWovY_94Pzt7UVy1gWAZ_t70-D5Df8igelQpmmgoQcK9gO?z3KdY3UWGqWV?LNVzFEVv

3-3-3

3-3-3

Scale = 1:9.6



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-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 3-3-3 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=3-2-10, 3=3-2-10
Max Horz 1=44(LC 5)
Max Uplift 1=-16(LC 8), 3=-25(LC 8)
Max Grav 1=108(LC 1), 3=108(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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.



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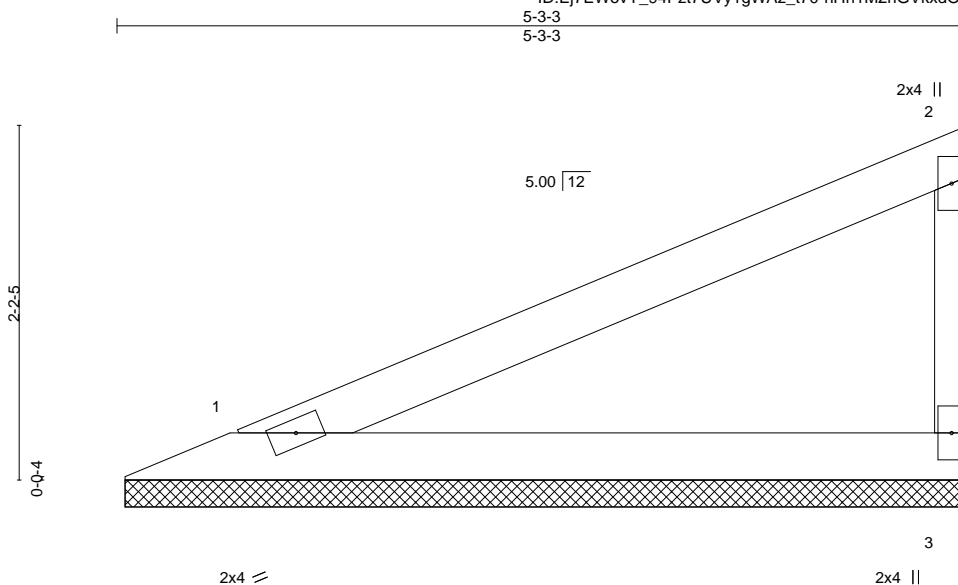
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178973
210521	V14	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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ID:Ej7EWovY_94Pt7UVy1gWAZ_t70-hHn1M2hGVkxOqNc91gvdWAu1r1DzV_9kvwxzFEVU



Scale = 1:14.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.37	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	n/a	-	n/a	999		
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-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 5-3-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=5-2-10, 3=5-2-10
Max Horz 1=81(LC 5)
Max Uplift 1=29(LC 8), 3=45(LC 8)
Max Grav 1=198(LC 1), 3=198(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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.



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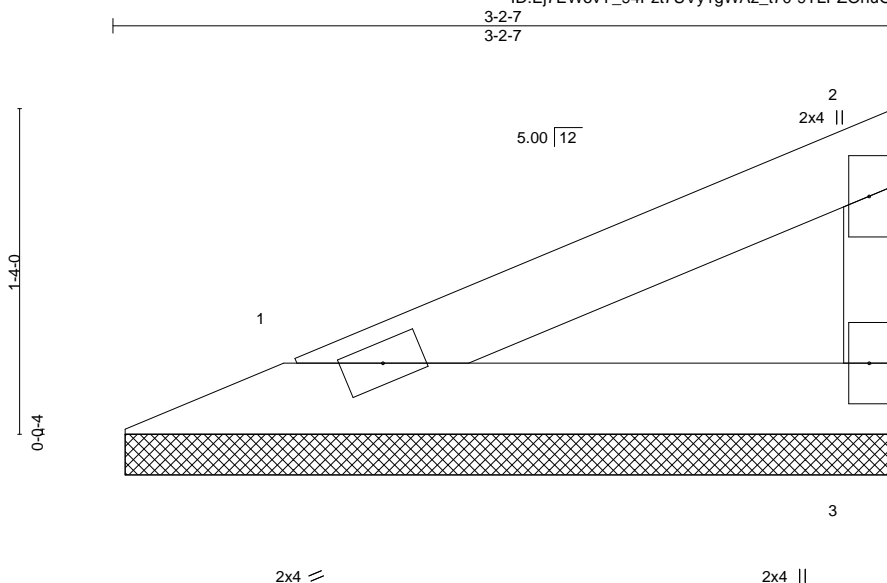
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 142 W0	I46178974
210521	V15	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:9.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-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 3-2-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

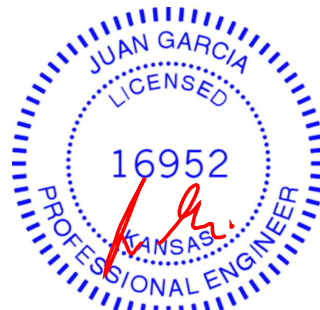
REACTIONS.

(size) 1=3-1-14, 3=3-1-14
Max Horz 1=43(LC 5)
Max Uplift 1=-15(LC 8), 3=-24(LC 8)
Max Grav 1=106(LC 1), 3=106(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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.



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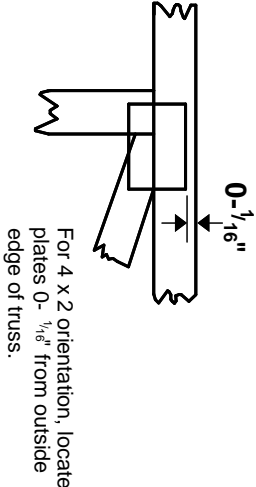
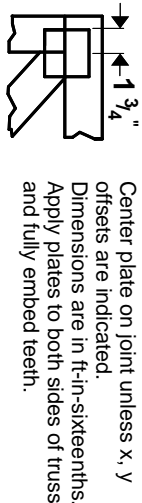
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

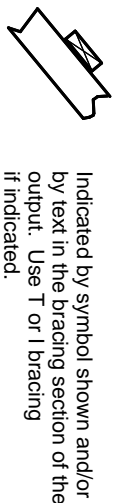
This symbol indicates the required direction of slots in connector plates.

PLATE SIZE

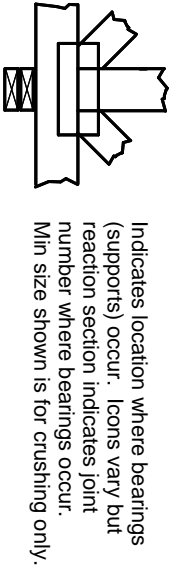
4 X 4

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

LATERAL BRACING LOCATION

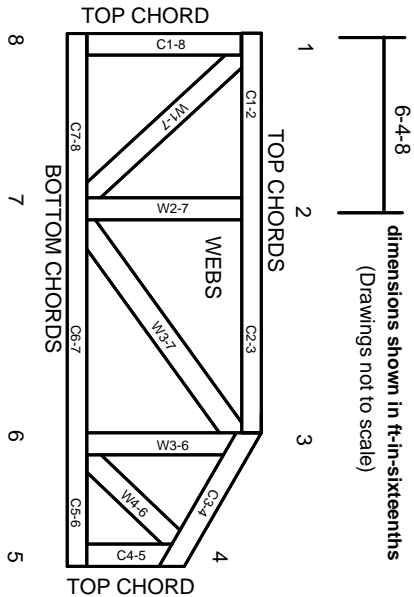


BEARING



Industry Standards:
ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: 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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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Mittek 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 Tor I 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/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 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/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.