

Trenco 818 Soundside Rd Edenton, NC 27932

Re: 24091A 150.1446.C

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.

Pages or sheets covered by this seal: I41780905 thru I41780935

My license renewal date for the state of North Carolina is December 31, 2020.

North Carolina COA: C-0844



June 24,2020

# Sevier, Scott

**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 or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO 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.



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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 3 and 1. This connection is for uplift only and does not consider lateral forces.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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 designe. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.





3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult gualified building designer as per ANSI/TPI 1.

4) Gable requires continuous bottom chord bearing.

5) Gable studs spaced at 2-0-0 oc.

6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

8) N/A

9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 10.



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818 Soundside Road Edenton, NC 27932



Edenton, NC 27932

| Job  | Truss                                       | Truss Type                              | Qty        | Ply       | 150.1446.C   |
|--|---|---|------------|-----------|--|
|  |   |   |            | -         | 141780907  |
| 24091A                                       | GG1   | COMMON GIRDER                           | 1          | -         |  |
|  |   |   | Ľ          | 2         | Job Reference (ontional)                                     |
| 84 Components (Dunn)                         | Dupp NC - 28334                             |   | 8          | 330 e May | 6 2020 MiTek Industries Inc. Wed Jun 24 09:57:19 2020 Page 2 |
| oq oomponenta (Dunin),                       | Dunn, NO - 20004,                           |   |            |           | Vav62Hm 1aDv0aaaD4faVHiv9EaWKlaaZHdaOEawZ01aaba269k          |
| NOTEO  |   | ID.2IGCyw                               | nuivievvcr | ∖а⊑5_∪пq  | Thyoshin-TukvospuD4lozhiyoEawkia0700hQEhwZ0Tgsb2300k         |
| NOTES-                                       |   |   |            |           |  |
| 10) N/A                                      |   |   |            |           |  |
|  |   |   |            |           |  |
| 11) N/A                                      |   |   |            |           |  |
| ,  |   |   |            |           |  |
| 10) N/A                                      |   |   |            |           |  |
| 12) N/A                                      |   |   |            |           |  |
|  |   |   |            |           |  |
| 13) N/A                                      |   |   |            |           |  |
| 14) N/A                                      |   |   |            |           |  |
|  |   |   |            |           |  |
| 15) N/A                                      |   |   |            |           |  |
| 10) 10/1                                     |   |   |            |           |  |
|  | have been in the second and with the second |   |            |           |  |
| ro) Fill all nall holes where                | nanger is in contact with lufr              | iber.                                   |            |           |  |
| <ol><li>17) "NAILED" indicates 3-1</li></ol> | 0d (0.148"x3") or 3-12d (0.14               | 48"x3.25") toe-nails per NDS guidlines. |            |           |  |

# LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-7=-60, 7-13=-60, 2-13=-20

Concentrated Loads (lb) Vert: 14=-169(B) 20=-1370(F) 38=-1893(F) 39=-1370(F) 40=-1370(F) 41=-1370(F) 42=-1370(F) 43=-164(B) 44=-1370(F) 45=-169(B) 46=-1370(F) 47=-169(B) 48=-1370(F) 49=-169(B) 50=-1370(F) 51=-169(B) 52=-1370(F) 53=-232(F) 54=-169(B) 55=-232(F) 56=-176(B)

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| <b> </b>   | 8-5-4  | <u>16-4-0</u> <u>17-2-8</u><br>7-10-12 0-10-8  | 3 21-8-0<br>3 4-5-8  | 26-8-12<br>5-0-12  | 29-6-12<br>2-10-0  | 31-3-11  | 38-0-0<br>6-8-5                            | ———————————————————————————————————————                              |
|--|--|--|--|--|--|--|--|--|
| Plate Offsets (X,Y)  | [2:0-4-0,0-1-15], [6:0-4-6,Edge], [8:0-3-0   | ),0-0-12], [13:0-4-0,0-1-15  | 5], [16:0-1-8,0-2-4],  | [18:0-10-4,Ed  | ge], [22:0-1-12,0  | -2-0]  |  |  |
| LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0         *           BCDL         10.0   | SPACING- 2-0-0<br>Plate Grip DOL 1.15<br>Lumber DOL 1.15<br>Rep Stress Incr YES<br>Code IRC2015/TPI2014  | CSI.<br>TC 0.72<br>BC 0.76<br>WB 0.74<br>Matrix-S  | DEFL.<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)<br>Attic   | in (loc)<br>-0.33 16<br>-0.57 15-16<br>0.02 13<br>-0.33 16-18  | l/defl L/d<br>>739 240<br>>424 180<br>n/a n/a<br>665 360   |  | PLATES<br>MT20<br>MT18HS<br>Weight: 300 lb | <b>GRIP</b><br>244/190<br>244/190<br>FT = 20%                        |
| LUMBER-<br>TOP CHORD 2x4 SP<br>6-8: 2xi<br>BOT CHORD 2x8 SP<br>2-20: 2<br>WEBS 2x4 SP<br>7-18: 2   | No.2 *Except*<br>5 SP No.2<br>DSS *Except*<br>x8 SP No.2, 16-18: 2x4 SP No.2<br>No.3 *Except*<br>x6 SP No.2  |  | BRACING-<br>TOP CHORI<br>BOT CHORI<br>WEBS<br>JOINTS   | D Structu<br>2-0-0 o<br>D Rigid co<br>1 Row a<br>1 Brace   | ral wood sheathin<br>c purlins (6-0-0 n<br>eiling directly app<br>at midpt<br>e at Jt(s): 22, 23 | ng directly<br>nax.): 6-8.<br>Ilied or 5-1<br>6-19 | applied or 3-9-3 c                         | oc purlins, except   |
| REACTIONS. (size<br>Max H<br>Max U<br>Max G  | e) 2=0-3-8, 13=0-3-8, 18=0-3-8<br>orz 2=-143(LC 13)<br>olift 2=-100(LC 12), 13=-190(LC 13), 18<br>rav 2=948(LC 1), 13=1116(LC 27), 18=   | =-109(LC 12)<br>1422(LC 2)   |  |  |  |  |  |  |
| FORCES. (lb) - Max.<br>TOP CHORD 2-3=-<br>8-9=-<br>BOT CHORD 2-21=<br>13-15<br>WEBS 3-21=<br>18-22<br>6-18=  | Comp./Max. Ten All forces 250 (lb) or<br>1511/264, 3-5=-1322/280, 5-6=-706/264<br>319/140, 9-10=-1050/273, 10-12=-1190,<br>-150/1277, 19-21=-56/922, 18-19=0/77<br>=-201/1829<br>304/178, 5-21=-75/497, 5-19=-583/212<br>=-772/188, 7-22=-879/235, 22-23=-823<br>-295/1797   | less except when shown.<br>k, 6-7=-968/307, 7-8=-309<br>/209, 12-13=-2108/332<br>7, 16-18=-24/1000, 15-16<br>2, 12-16=-1040/275, 12-15<br>/214, 9-23=-815/215, 6-15  | /185,<br>=-201/1829,<br>5=-42/636,<br>9=-1077/143,   |  |  |  |  |  |
| NOTES-<br>1) Unbalanced roof live<br>2) Wind: ASCE 7-10; V<br>MWFRS (envelope)<br>Interior(1) 27-1-3 to :<br>DOL=1.60<br>3) Provide adequate dr<br>4) All plates are MT20 [<br>5) This truss has been<br>will fit between the b<br>7) Ceiling dead load (5:<br>8) Bottom chord live load<br>9) One H2.5A Simpson<br>This connection is fo<br>10) Graphical purlin rep<br>11) ATTIC SPACE SHO | loads have been considered for this de<br>ult=130mph (3-second gust) Vasd=103r<br>gable end zone and C-C Exterior(2) -0-<br>38-10-8 zone;C-C for members and force<br>ainage to prevent water ponding.<br>blates unless otherwise indicated.<br>designed for a 10.0 psf bottom chord liv<br>n designed for a live load of 20.0psf on t<br>ottom chord and any other members.<br>0 psf) on member(s). 9-10, 22-23, 9-23<br>ad (40.0 psf) and additional bottom chorr<br>Strong-Tie connectors recommended t<br>r uplift only and does not consider laters<br>oresentation does not depict the size or<br>DWN IS DESIGNED AS UNINHABITAB | sign.<br>mph; TCDL=6.0psf; BCDL<br>10-8 to 2-11-2, Interior(1)<br>les & MWFRS for reaction<br>e load nonconcurrent with<br>he bottom chord in all are<br>d dead load (0.0 psf) appl<br>o connect truss to bearing<br>al forces.<br>the orientation of the purli<br>LE. | =6.0psf; h=25ft; Ca<br>2-11-2 to 16-4-0, E<br>is shown; Lumber I<br>any other live load<br>as where a rectang<br>ied only to room. 1<br>y walls due to UPLI<br>n along the top and | at. II; Exp B; E;<br>xterior(2) 16-4<br>DOL=1.60 plat<br>Is.<br>Je 3-6-0 tall by<br>6-18<br>FT at jt(s) 2, 1:<br>I/or bottom cho | nclosed;<br>-0 to 27-1-3,<br>e grip<br>7 2-0-0 wide<br>3, and 18.                                | the annument                                       | SE<br>O44                                  | ARO<br>SION<br>AL<br>925<br>NEER, IER, III<br>SE, IIII<br>ne 24,2020 |

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| <b> </b>   | 6-8-5  | 13-8-0   | 17-4-4  | 24-4-0   |  | 26   | 6-9-0  | 31-3-11  | 38-0-0  |                                    |
|--|--|--|---|--|--|--|--|--|---|------------------------------------|
| Plate Offsets (X,Y)  | [3:0-3-0,0-3-4], [7:0-3-0,0-3-4], [  | [13:0-3-0,0-2-8]   | 3-8-4   | 6-11-12  |  | 2  | 2-5-0  | 4-6-11   | 6-8-5   |                                    |
| LOADING (psf)<br>TCLL 20.0<br>TCDL 10.0<br>BCLL 0.0 *<br>BCDL 10.0   | SPACING- 2-0-<br>Plate Grip DOL 1.1<br>Lumber DOL 1.1<br>Rep Stress Incr YES<br>Code IRC2015/TPI2014   | 0 <b>CSI.</b><br>5 TC<br>5 BC<br>8 WB<br>Matrix  | 0.70<br>0.84<br>0.59<br>x-S   | DEFL.<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)  | in<br>-0.23<br>-0.49<br>0.05   | (loc)<br>2-15<br>2-15<br>8   | l/defl<br>>888<br>>420<br>n/a  | L/d<br>240<br>180<br>n/a                           | PLATES<br>MT20<br>Weight: 235 lb                      | <b>GRIP</b><br>244/190<br>FT = 20% |
| LUMBER-<br>TOP CHORD 2x4 SF<br>BOT CHORD 2x6 SF<br>10-14:<br>WEBS 2x4 SF   | P No.2<br>P No.2 *Except*<br>2x8 SP No.2, 12-13: 2x4 SP No<br>P No.3   | .2   |   | BRACING-<br>TOP CHORI<br>BOT CHORI   | D  | Structur<br>2-0-0 oc<br>Rigid ce   | ral wood s<br>c purlins (<br>eiling dired                              | sheathing dire<br>3-11-7 max.):<br>ctly applied or | ctly applied or 2-2-0 c<br>4-6.<br>10-0-0 oc bracing. | oc purlins, except                 |
| REACTIONS. (siz<br>Max H<br>Max U<br>Max G   | e) 2=0-3-8, 13=0-3-8, 8=0-3-8<br>lorz 2=120(LC 12)<br> plift 2=-102(LC 12), 13=-150(LC<br> rav 2=1227(LC 1), 13=786(LC   | 2 9), 8=-201(LC 13)<br>26), 8=1289(LC 25)  |   |  |  |  |  |  |   |                                    |
| FORCES.         (lb) - Max.           TOP CHORD         2-3=-           7-8=-         7-8=-           BOT CHORD         2-15=           WEBS         3-15=           6-11=         6-11=   | Comp./Max. Ten All forces 25<br>-2053/372, 3-4=-1575/276, 4-5=<br>-2224/384<br>=-225/1787, 13-15=-35/1315, 11<br>=-525/303, 4-15=0/498, 4-13=-1<br>=-2/556   | 0 (lb) or less except<br>1399/349, 5-6=-139<br>-13=-101/1395, 8-11<br>93/414, 5-13=-462/1  | when shown.<br>7/349, 6-7=-184<br>9=-272/1924<br>82, 7-11=-447/2  | 46/317,<br>272,  |  |  |  |  |   |                                    |
| <ul> <li>NOTES-</li> <li>1) Unbalanced roof live</li> <li>2) Wind: ASCE 7-10; MWFRS (envelope)<br/>Interior(1) 19-0-8 to<br/>for reactions shown;</li> <li>3) Provide adequate di</li> <li>4) All plates are 4x6 M</li> <li>5) This truss has been</li> <li>6) * This truss has been will fit between the b</li> <li>7) One H2.5A Simpsor<br/>connection is for up</li> <li>8) Graphical purlin rep</li> <li>9) ATTIC SPACE SHC</li> </ul> | a loads have been considered fo<br>/ult=130mph (3-second gust) Va<br>gable end zone and C-C Exterio<br>24-4-0, Exterior(2) 24-4-0 to 29-<br>; Lumber DOL=1.60 plate grip D<br>rainage to prevent water ponding<br>T20 unless otherwise indicated.<br>designed for a 10.0 psf bottom of<br>n designed for a live load of 20.0<br>oottom chord and any other merr<br>n Strong-Tie connectors recomm<br>ift only and does not consider la<br>resentation does not depict the so<br>WN IS DESIGNED AS UNINHA | r this design.<br>sd=103mph; TCDL=<br>or(2) -0-10-8 to 2-11-<br>8-8, Interior(1) 29-8-<br>OL=1.60<br>3-<br>chord live load nonce<br>opsf on the bottom cl<br>bers, with BCDL = 1<br>tended to connect tru-<br>teral forces.<br>size or the orientatior<br>BITABLE. | 6.0psf; BCDL=6<br>2, Interior(1) 2-<br>8 to 38-10-8 zor<br>oncurrent with a<br>hord in all areas<br>0.0psf.<br>uss to bearing w<br>n of the purlin al | 6.0psf; h=25ft; C<br>11-2 to 13-8-0, E<br>ne;C-C for memI<br>ny other live load<br>where a rectang<br>valls due to UPLI<br>long the top and/ | at. II; E<br>Exterior<br>bers ar<br>ds.<br>gle 3-6<br>IFT at j<br>for bott | Exp B; Er<br>r(2) 13-8<br>nd forces<br>-0 tall by<br>t(s) 2, 13<br>om chor | nclosed;<br>-0 to 19-0<br>s & MWFF<br>⁄ 2-0-0 wid<br>3, and 8. ⊺<br>d. | -8,<br>2S<br>de<br>This                            | SE<br>044   | AROLINA<br>SIDIAL<br>AL<br>925     |

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June 24,2020

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|                                  |                   | 6-8-5                                    | 11-0-0                | 17-4-4                            | 27-0-0  |  | 31-3-11   | 38-0-                             | -0                     |
|----------------------------------|-------------------|--|-----------------------|-----------------------------------|---|--|---|-----------------------------------|------------------------|
|                                  | I                 | 6-8-5                                    | 4-3-11                | 6-4-4                             | 9-7-12  |  | 4-3-11  | 6-8-                              | 5                      |
| Plate Offsets                    | (X,Y)             | [4:0-3-0,0-0-12], [7:0-4                 | 1-6,Edge]             |                                   |   |  |   |                                   |                        |
| LOADING (p<br>TCLL 20<br>TCDL 10 | sf)<br>).0<br>).0 | SPACING-<br>Plate Grip DOL<br>Lumber DOL | 2-0-0<br>1.15<br>1.15 | <b>CSI.</b><br>TC 0.61<br>BC 0.51 | <b>DEFL.</b> in<br>Vert(LL) -0.11<br>Vert(CT) -0.24 | (loc) l/defl<br>2-15 >999<br>2-15 >868                   | L/d<br>240<br>180                                 | <b>PLATES</b><br>MT20             | <b>GRIP</b><br>244/190 |
| BCLL (<br>BCDL 10                | ).0 *<br>).0      | Rep Stress Incl<br>Code IRC2015          | r YES<br>/TPI2014     | WB 0.72<br>Matrix-S               | Horz(CT) 0.02                                       | 9 n/a  | n/a   | Weight: 231 lb                    | FT = 20%               |
| LUMBER-<br>TOP CHORD             | 2x4 SP<br>4-6,6-7 | 9 No.2 *Except*<br>: 2x6 SP No.2         |                       |                                   | BRACING-<br>TOP CHORD                               | Structural wood  | sheathing directl                                 | y applied or 4-9-10               | 0 oc purlins,          |
| BOT CHORD<br>WEBS                | 2x6 SP<br>2x4 SP  | 9 No.2<br>9 No.3                         |                       |                                   | BOT CHORD<br>WEBS                                   | 2-0-0 oc purlins<br>Rigid ceiling dire<br>1 Row at midpt | (10-0-0 max.): 4-<br>ectly applied or 10<br>4-13, | 7.<br>0-0-0 oc bracing.<br>, 7-13 |                        |
| REACTIONS.                       | . (size<br>Max Ho | e) 2=0-3-8, 13=0-3-8<br>orz 2=-97(LC 13) | 8, 9=0-3-8            |                                   |   |  |   |                                   |                        |

Max Uplift 2=-96(LC 12), 13=-180(LC 9), 9=-119(LC 13) Max Grav 2=596(LC 23), 13=1843(LC 1), 9=756(LC 24)

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

- TOP CHORD 2-3=-692/139, 3-4=-350/71, 4-5=-3/483, 5-7=-5/484, 7-8=-724/127, 8-9=-1049/190
- BOT CHORD 2-15=-124/548, 11-13=0/582, 9-11=-93/864
- WEBS 3-15=-376/214, 4-15=-20/486, 4-13=-865/123, 5-13=-595/267, 7-11=0/549,
  - 8-11=-339/210, 7-13=-1152/166

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-11-2, Interior(1) 2-11-2 to 11-0-0, Exterior(2) 11-0-0 to 16-4-8, Interior(1) 16-4-8 to 27-0-0, Exterior(2) 27-0-0 to 32-4-8, Interior(1) 32-4-8 to 38-10-8 zone;C-C for members and forces & MWFRS for reactions shown; 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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 13, and 9. This connection is for uplift only and does not consider lateral forces.
- 7) 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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| 1  | 0-4-0   | 17-4-4   | 23-7-0  | 29-0-0  | 30-0-0   |
|--|---|--|---|---|--|
| Γ  | 8-4-0   | 9-0-4  | 6-2-12  | 6-1-0   | 8-4-0  |
| LOADING (psf<br>TCLL 20.0<br>TCDL 10.0<br>BCLL 0.0 | ) SPACING-<br>Plate Grip DOL<br>Lumber DOL<br>* Rep Stress Incr | 2-0-0 <b>CSI.</b><br>1.15 TC 0.85<br>1.15 BC 0.50<br>YES WB 0.62 | DEFL.         in           Vert(LL)         -0.12         1"           Vert(CT)         -0.24         1"           Horz(CT)         0.02         1" | (loc) l/defl L/d<br>1-13 >999 240<br>1-13 >999 180<br>9 n/a n/a                             | PLATES         GRIP           MT20         244/190 |
| BCDL 10.0  | Code IRC2015/TPI2   | 2014 Matrix-S  |   |   | Weight: 223 lb FT = 20%                            |
| LUMBER-<br>TOP CHORD                               | 2x4 SP No.2 *Except*  |  | BRACING-<br>TOP CHORD S   | Structural wood sheathing di  | ectly applied or 2-2-0 oc purlins, except          |
| BOT CHORD<br>WEBS                                  | 2x6 SP No.2<br>2x4 SP No.3                                      |  | BOT CHORD R<br>6  | -0-0 oc purins (6-0-0 max.):<br>Rigid ceiling directly applied (<br>-0-0 oc bracing: 13-15. | 3-8.<br>or 10-0-0 oc bracing, Except:              |
| REACTIONS.   | (size) 2=0-3-8, 13=0-3-8, 9=0                                   | )-3-8  | WEBS 1  | Row at midpt 7  | -13  |
|  | Max Uplift 2=-106(LC 12), 13=-22                                | 4(LC 9), 9=-116(LC 13)   |   |   |  |

2270

20 0 0

Max Grav 2=593(LC 23), 13=1822(LC 1), 9=750(LC 24)

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

TOP CHORD 2-3=-673/141, 3-4=-510/189, 4-5=-36/648, 5-7=-36/648, 7-8=-846/212, 8-9=-1053/166

BOT CHORD 2-15=-44/502, 11-13=-93/428, 9-11=-43/843

0 1 0

WEBS 4-15=-82/575, 4-13=-907/183, 5-13=-368/148, 7-11=-18/538, 7-13=-1219/249

### NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-11-2, Interior(1) 2-11-2 to 8-4-0, Exterior(2) 8-4-0 to 13-8-8, Interior(1) 13-8-8 to 29-8-0, Exterior(2) 29-8-0 to 35-0-8, Interior(1) 35-0-8 to 38-10-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

17 4 4

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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 13, and 9. This connection is for uplift only and does not consider lateral forces.

7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



20 0 0

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| L  | 8-4-1  | 15-5-15  | 19-0-0  | 22-6-1  | 29-7-15  | 35-0-   | 12                        |
|--|--|--|---|---|--|---|---------------------------|
|  | 8-4-1  | 7-1-14   | 3-6-1   | 3-6-1   | 7-1-14   | 5-4-  | 13                        |
| Plate Offsets (X, Y  | ) [5:0-4-0,0-4-8], [9:0-4-8,0-3-0]   |  |   |   |  |   |                           |
| LOADING (psf)  | SPACING- 2-0   | 0 CSI.   | DEFL.   | in (loc)  | l/defl L/d   | PLATES  | GRIP                      |
| TCLL 20.0  | Plate Grip DOL 1.1   | 5 TC 0.72  | Vert(LL)  | -0.19 11-13   | >999 240   | MT20  | 244/190                   |
| TCDL 10.0  | Lumber DOL 1.1   | 5 BC 0.71  | Vert(CT)  | -0.40 11-13   | >999 180   |   |                           |
| BCLL 0.0   | * Rep Stress Incr YE   | S WB 0.94  | Horz(CT)  | 0.09 8  | n/a n/a  |   |                           |
| BCDL 10.0  | Code IRC2015/TPI2014   | Matrix-S   |   |   |  | Weight: 221 lb  | FT = 20%                  |
| LUMBER-<br>TOP CHORD 2x<br>4-<br>BOT CHORD 2x<br>WEBS 2x   | 44 SP No.2 *Except*<br>5,5-6: 2x6 SP No.2<br>6 SP No.2<br>44 SP No.3   |  | BRACING-<br>TOP CHOR<br>BOT CHOR<br>WEBS                            | D Structu<br>except<br>D Rigid c<br>1 Row<br>2 Rows     | ral wood sheathing dir<br>end verticals, and 2-0-<br>eiling directly applied c<br>at midpt 5-<br>s at 1/3 pts 5- | ectly applied or 3-3-11<br>0 oc purlins (3-8-2 ma<br>or 10-0-0 oc bracing.<br>-13<br>-9 | oc purlins,<br>ix.): 4-6. |
| REACTIONS.<br>N<br>N<br>N  | (size) 2=0-3-8, 8=Mechanical<br>lax Horz 2=116(LC 12)<br>lax Uplift 2=-139(LC 9), 8=-153(LC 8<br>lax Grav 2=1453(LC 1), 8=1390(LC  | 3)<br>1)   |   |   |  |   |                           |
| FORCES. (lb) - I   | Max. Comp./Max. Ten All forces 2<br>2-3=-2727/451, 3-4=-2527/386, 4-5=<br>7-8=-1362/233  | 50 (lb) or less except when show<br>-2226/381, 5-6=-1600/291, 6-7=-  | n.<br>-1844/282,  |   |  |   |                           |
| BOT CHORD  | 2-13=-415/2381, 11-13=-505/3279, 9   | 9-11=-505/3279   | 005 5 44 0/440  |   |  |   |                           |
| WEBS   | 4-13=-5/691, 5-13=-1234/304, 5-9=-   | 1846/359, 6-9=0/455, 7-9=-175/1  | 605, 5-11=0/442   |   |  |   |                           |
| NOTES-<br>1) Unbalanced roo<br>2) Wind: ASCE 7-<br>MWFRS (envel<br>Interior(1) 13-3-<br>Lumber DOL=1               | of live loads have been considered for<br>10; Vult=130mph (3-second gust) V-<br>ope) gable end zone and C-C Exter<br>9 to 29-7-15, Exterior(2) 29-7-15 to<br>.60 plate grip DOL=1.60 | or this design.<br>asd=103mph; TCDL=6.0psf; BCE<br>or(2) -0-10-8 to 2-7-10, Interior(1<br>34-11-0 zone;C-C for members a | DL=6.0psf; h=25ft; C<br>) 2-7-10 to 8-4-1, E)<br>and forces & MWFR: | at. II; Exp B; E<br>kterior(2) 8-4-1<br>S for reactions | inclosed;<br>to 13-3-9,<br>shown;  |   |                           |
| 3) Provide adequa  | ate drainage to prevent water pondir   | g.   |   |   |  |   | 11177                     |
| <ul> <li>4) This truss has b</li> <li>5) * This truss has will fit between</li> <li>6) Refer to girder(</li> </ul> | been designed for a 10.0 psf bottom<br>been designed for a live load of 20.<br>the bottom chord and any other mer<br>s) for trues to trues connections                               | chord live load nonconcurrent wi<br>0psf on the bottom chord in all an<br>nbers.   | th any other live load<br>reas where a rectand                      | ds.<br>gle 3-6-0 tall b                                 | y 2-0-0 wide   | TAUNTH C  | AROLIN                    |
| 7) Provide mecha   | nical connection (by others) of trues  | to bearing plate capable of withs  | tanding 153 lb unlift   | at joint 8  |  |   | Vi. TY                    |

- 8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 9) 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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| L   | 5-9-4 11-0-1   | 19-0-0   |  | 26-11-15  | 35-0-12  |                                    |
|---|--|--|--|---|--|------------------------------------|
| 1   | 5-9-4 5-2-12   | 7-11-15  | I  | 7-11-15   | 8-0-13   |                                    |
| Plate Offsets (X,Y)   | [7:Edge,0-2-4]   |  |  |   |  |                                    |
| LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0         *           BCDL         10.0  | SPACING- 2-0-0<br>Plate Grip DOL 1.15<br>Lumber DOL 1.15<br>Rep Stress Incr YES<br>Code IRC2015/TPI2014  | CSI.<br>TC 0.66<br>BC 0.65<br>WB 0.62<br>Matrix-S  | DEFL. in<br>Vert(LL) -0.13<br>Vert(CT) -0.29<br>Horz(CT) 0.07  | (loc) l/defl L/d<br>2-13 >999 240<br>2-13 >999 180<br>8 n/a n/a   | PLATES<br>MT20<br>Weight: 231 lb   | <b>GRIP</b><br>244/190<br>FT = 20% |
| LUMBER-<br>TOP CHORD 2x6 SP<br>1-4: 2x<br>BOT CHORD 2x6 SP<br>WEBS 2x4 SP   | No.2 *Except*<br>4 SP No.2<br>No.2<br>No.3   |  | BRACING-<br>TOP CHORD<br>BOT CHORD<br>WEBS   | Structural wood sheathing dir<br>except end verticals, and 2-0-<br>Rigid ceiling directly applied of<br>1 Row at midpt 5          | ectly applied or 3-2-7 oc<br>-0 oc purlins (4-9-8 max.<br>or 10-0-0 oc bracing.<br>i-13, 5-9 | : purlins,<br>): 4-6.              |
| REACTIONS. (size<br>Max H<br>Max U<br>Max G   | a) 2=0-3-8, 8=Mechanical<br>orz 2=136(LC 12)<br>plift 2=-132(LC 12), 8=-99(LC 8)<br>rav 2=1453(LC 1), 8=1390(LC 1)   |  |  |   |  |                                    |
| FORCES.         (lb) - Max.           TOP CHORD         2-3=-           7-8=-         7-8=-           BOT CHORD         2-13=           WEBS         3-13=           7-9=-         7-9=-  | Comp./Max. Ten All forces 250 (lb)<br>2637/455, 3-4=-2292/369, 4-5=-1986/<br>1314/253<br>404/2295, 11-13=-299/2367, 9-11=-2<br>337/227, 4-13=-5/642, 5-13=-587/19<br>134/1500  | or less except when shown.<br>372, 5-6=-1645/329, 6-7=-1<br>99/2367<br>2, 5-11=0/285, 5-9=-947/19  | 945/305,<br>96, 6-9=0/477,   |   |  |                                    |
| NOTES-<br>1) Unbalanced roof live<br>2) Wind: ASCE 7-10; V<br>MWFRS (envelope)<br>Interior(1) 15-11-9 tr<br>MWFRS for reaction<br>3) Provide adequate dr<br>4) This truss has been<br>will fit between the b<br>6) Refer to girder(s) for<br>7) Provide mechanical<br>8) One H2.5A Simpsor<br>connection is for upl<br>9) Graphical purlin repr | e loads have been considered for this of<br>ult=130mph (3-second gust) Vasd=10<br>gable end zone and C-C Exterior(2) -<br>26-11-15, Exterior(2) 26-11-15 to 31-<br>s shown; Lumber DOL=1.60 plate grin<br>ainage to prevent water ponding.<br>designed for a 10.0 psf bottom chord I<br>n designed for a live load of 20.0psf or<br>ottom chord and any other members.<br>truss to truss connections.<br>connection (by others) of truss to bear<br>strong-Tie connectors recommended<br>if only and does not consider lateral for<br>esentation does not depict the size or | esign.<br>3mph; TCDL=6.0psf; BCDL<br>-10-8 to 2-7-10, Interior(1);<br>11-8, Interior(1) 31-11-8 to :<br>DOL=1.60<br>ve load nonconcurrent with<br>the bottom chord in all are<br>ing plate capable of withsta<br>to connect truss to bearing<br>rces.<br>the orientation of the purlin | L=6.0psf; h=25ft; Cat. II; E<br>2-7-10 to 11-0-1, Exterio<br>34-11-0 zone;C-C for me<br>an any other live loads.<br>the any other live loads.<br>the any other a rectangle 3-6<br>anding 99 lb uplift at joint<br>g walls due to UPLIFT at j<br>along the top and/or bot | Exp B; Enclosed;<br>r(2) 11-0-1 to 15-11-9,<br>rmbers and forces &<br>r-0 tall by 2-0-0 wide<br>8.<br>it(s) 2. This<br>com chord. | SE/<br>0449  | AROJINA<br>SIONAL<br>AL<br>225     |

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| F  | 7-1-4  | 13-8-1  | 19-  | 0-0<br>-15  | 24-3-15<br>5-3-15                         |  | <u>30-10-11</u><br>6-6-12   | <u>35-0-12</u><br>4-2-1                           |             |
|--|--|---|--|---|---|--|---|---|-------------|
| Plate Offsets (X,)   | () [3:0-3-0,0-3-4]   |   |  |   |   |  |   |   |             |
| LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0           BCDL         10.0 | SPACING-<br>Plate Grip DOL<br>Lumber DOL<br>* Rep Stress Incr<br>Code IRC2015/TPI  | 2-0-0 C<br>1.15 T<br>1.15 B<br>YES W<br>2014 M  | <b>SI.</b><br>C 0.76<br>C 0.89<br>/B 0.95<br>latrix-S      | DEFL.<br>Vert(LL) -0<br>Vert(CT) -0<br>Horz(CT) 0 | in (loc)<br>.26 2-12<br>.58 2-12<br>.07 9 | l/defl L/d<br>>999 240<br>>725 180<br>n/a n/a                            | PLATE<br>MT20<br>Weight   | <b>IS GRIP</b><br>244/1<br>t: 214 lb FT           | 90<br>= 20% |
| LUMBER-<br>TOP CHORD 2<br>BOT CHORD 2<br>WEBS 2<br>REACTIONS.  | x4 SP No.2<br>x6 SP No.2<br>x4 SP No.3<br>(size) 2=0-3-8, 9=Mechanica<br>⁄lax Horz 2=161(LC 12)<br>/lax Uplift 2=-157(LC 12), 9=-10/<br>/lax Grav 2=1453(LC 1), 9=139( | al<br>4(LC 13)<br>)(LC 1)   |  | BRACING-<br>TOP CHORD<br>BOT CHORD<br>WEBS        | Structu<br>except<br>Rigid c<br>1 Row     | iral wood sheathi<br>end verticals, ar<br>eiling directly ap<br>at midpt | ing directly applied o<br>nd 2-0-0 oc purlins (<br>plied or 10-0-0 oc b<br>5-12, 5-10 | or 2-2-0 oc purlii<br>4-1-7 max.): 4-6<br>racing. | ns,         |
| FORCES. (lb) -<br>TOP CHORD<br>BOT CHORD<br>WEBS   | Max. Comp./Max. Ten All forc<br>2-3=-2543/443, 3-4=-2078/340,<br>2-12=-383/2201, 10-12=-212/18<br>3-12=-484/290, 4-12=-14/595, 5<br>7-9=-1783/360                      | es 250 (lb) or less exc<br>4-5=-1766/352, 5-6=-<br>15, 9-10=-241/1410<br>-10=-507/145, 6-10=- | ept when shown.<br>1555/328, 6-7=-18<br>9/490, 7-10=-9/310 | 35/318<br>I,                                      |   |  |   |   |             |
| NOTES-<br>1) Unbalanced ro<br>2) Wind: ASCE 7<br>MWFRS (enve   | of live loads have been consider<br>-10; Vult=130mph (3-second gus<br>lope) gable end zone and C-C E   | red for this design.<br>st) Vasd=103mph; TC<br>xterior(2) -0-10-8 to 2                        | DL=6.0psf; BCDL=<br>-7-10, Interior(1) 2-                  | 6.0psf; h=25ft; Cat.<br>7-10 to 13-8-1, Ext       | II; Exp B; E<br>erior(2) 13-8             | Inclosed;<br>3-1 to 18-7-9,  |   |   |             |

Interior(1) 18-7-9 to 24-3-15, Exterior(2) 24-3-15 to 29-3-8, Interior(1) 29-3-8 to 34-11-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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 104 lb uplift at joint 9.
- 8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This

connection is for uplift only and does not consider lateral forces.

9) 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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|  | 8-5-4<br>8-5-4   |   | <u>16-4-1</u><br>7-10-12                            | 2  | 21-7-15   |                                 | -                                      | <u>28-2</u><br>6-6-                                 | - <u>12</u><br>12   | 35-0-12<br>6-10-0   |                                    |
|--|--|---|---|--|---|---------------------------------|--|---|---|---|------------------------------------|
| LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0           BCDL         10.0 | SPACING-<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code IRC2015/T  | 2-0-0<br>1.15<br>1.15<br>YES<br>Pl2014  | <b>CSI.</b><br>TC<br>BC<br>WB<br>Matri              | 0.59<br>0.89<br>0.64<br>x-S                            | DEFL.<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)                     | in<br>-0.16<br>-0.32<br>0.09    | (loc)<br>14-16<br>2-16<br>10           | l/defl<br>>999<br>>999<br>n/a                       | L/d<br>240<br>180<br>n/a                                    | PLATES<br>MT20<br>Weight: 204 lb  | <b>GRIP</b><br>244/190<br>FT = 20% |
| LUMBER-<br>TOP CHORD 2x4 S<br>BOT CHORD 2x4 S<br>WEBS 2x4 S<br>REACTIONS. (si<br>Max<br>Max<br>Max                                   | SP No.2<br>SP No.2<br>SP No.3<br>ze) 2=0-3-8, 10=Mechar<br>Horz 2=184(LC 12)<br>Uplift 2=-177(LC 12), 10=-<br>Grav 2=1453(LC 1), 10=1        | nical<br>129(LC 13)<br>390(LC 1)  |   |  | BRACING-<br>TOP CHOR<br>BOT CHOR<br>WEBS                      | D                               | Structu<br>except<br>Rigid co<br>1 Row | ral wood s<br>end vertic<br>eiling dire<br>at midpt | sheathing dire<br>cals, and 2-0-0<br>ctly applied or<br>7-1 | ctly applied or 2-10-1<br>oc purlins (4-2-4 ma:<br>9-6-8 oc bracing.<br>4 | 4 oc purlins,<br>x.): 6-7.         |
| FORCES. (lb) - Mai<br>TOP CHORD 2-3  | k. Comp./Max. Ten All fo<br>=-2608/364, 3-5=-2388/358  | rces 250 (lb) or<br>3, 5-6=-1747/35   | less except<br>4, 6-7=-149                          | when shown.<br>6/358, 7-8=-16                          | 81/340,   |                                 |  |   |   |   |                                    |
| 8-9<br>BOT CHORD 2-1<br>WEBS 3-1<br>7-1  | =-1859/287, 9-10=-1325/2<br>6=-371/2269, 14-16=-245/<br>6=-293/186, 5-16=-35/471,<br>3=-38/318, 8-13=-265/172,                               | 40<br>1886, 13-14=-11<br>5-14=-568/212<br>9-11=-184/153                                       | 5/1418, 11<br>, 6-14=-32/4<br>4                     | -13=-191/1592<br>451, 7-14=-91/2                       | 272,  |                                 |  |   |   |   |                                    |
| NOTES-<br>1) Unbalanced roof li<br>2) Wind: ASCE 7-10;<br>MWFRS (envelope<br>Interior(1) 21-3-9 t<br>for reactions show              | ve loads have been consid<br>Vult=130mph (3-second g<br>a) gable end zone and C-C<br>o 21-7-15, Exterior(2) 21-7<br>n; Lumber DOL=1.60 plate | ered for this des<br>ust) Vasd=103n<br>Exterior(2) -0-1<br>-15 to 26-7-8, In<br>grip DOL=1.60 | sign.<br>1ph; TCDL=<br>0-8 to 2-7-1<br>terior(1) 26 | =6.0psf; BCDL=<br> 0, Interior(1) 2<br>-7-8 to 34-11-0 | =6.0psf; h=25ft; C<br>-7-10 to 16-4-1, E<br>) zone;C-C for me | at. II; E<br>Exterior<br>embers | Exp B; E<br>r(2) 16-4<br>and for       | nclosed;<br>I-1 to 21-3<br>ces & MW                 | 3-9,<br>/FRS  |   |                                    |

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 129 lb uplift at joint 10.
- 8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at it(s) 2. This

connection is for uplift only and does not consider lateral forces.

9) 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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| Job                   | Truss             | Truss Type | Qty | Ply       | 150.1446.C  |
|-----------------------|-------------------|------------|-----|-----------|---|
|                       |                   |            |     |           | 141780916   |
| 24091A                | HG5               | HIP GIRDER | 1   | 1         |   |
|                       |                   |            |     |           | Job Reference (optional)                                      |
| 84 Components (Dunn), | Dunn, NC - 28334, |            | 8.3 | 330 s May | 6 2020 MiTek Industries, Inc. Wed Jun 24 09:57:31 2020 Page 2 |

ID:ztGCywnuMeWcKaE5\_UHqYny63Hm-h8ASYzyMOmA5z7dFrloKpq4opJoLEh1hKtxIHuz368Y

### LOAD CASE(S) Standard Concentrated Loads (Ib)

Vert: 3=-43(F) 2==43(F) 18=-18(F) 4=-43(F) 17=-18(F) 7=-43(F) 15=-18(F) 12=-18(F) 14=-18(F) 19=-27(F) 20=-31(F) 21=-43(F) 22=-43(F) 23=-43(F) 24=-43(F) 25=-43(F) 25=-33(F) 25=-

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818 Soundside Road Edenton, NC 27932

| Job                   | Truss             | Truss Type      | Qty     | Ply       | 150.1446.C  |
|-----------------------|-------------------|-----------------|---------|-----------|---|
| 0.4004.4              |                   |                 |         |           | I41780917   |
| 24091A                | HG6               | HALF HIP GIRDER | 1       | 1         | leh Reference (entional)                                      |
|                       |                   |                 |         |           | Job Reference (optional)                                      |
| 84 Components (Dunn), | Dunn, NC - 28334, |                 | 8.3     | 330 s May | 6 2020 MiTek Industries, Inc. Wed Jun 24 09:57:33 2020 Page 2 |
|                       |                   | ID:ztGCywnu     | MeWcKaE | 5_UHqYn   | y63Hm-dWICzfzcwOQpCRneyAqovF96P7Qsic3znBQPMnz368W             |

### LOAD CASE(S) Standard Concentrated Loads (Ib)

 $\begin{array}{l} & (1,0) \\ & (2,1,0) \\ &$ 

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| Plate Offsets (X,Y)  | [2:0-0-0,0-0-0], [2:0-0-11,0-4-5]   |  |  |  |
|--|---|--|--|--|
| LOADING (psf)<br>TCLL 20.0<br>TCDL 10.0<br>BCLL 0.0 *<br>BCDL 10.0 | SPACING- 2-0-0<br>Plate Grip DOL 1.15<br>Lumber DOL 1.15<br>Rep Stress Incr YES<br>Code IRC2015/TPI2014 | <b>CSI.</b><br>TC 0.24<br>BC 0.17<br>WB 0.00<br>Matrix-P | DEFL.         in         (loc)         l/defl         L/d           Vert(LL)         -0.01         2-4         >999         240           Vert(CT)         -0.02         2-4         >999         180           Horz(CT)         -0.00         3         n/a         n/a |  |

BRACING-

TOP CHORD

BOT CHORD

# LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 WEDGE Left: 2x4 SP No.3

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical Max Horz 2=120(LC 12)

Max Uplift 3=-86(LC 12), 2=-12(LC 12)

Max Grav 3=115(LC 19), 2=219(LC 1), 4=76(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
- MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-10-8 zone;C-C for members and
- forces & MWFRS for reactions shown; 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 86 lb uplift at joint 3.
- 6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.



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

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

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| LOADING | G (psf) | SPACING- 2         | -0-0 | CSI.  |      | DEFL.    | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------|---------|--------------------|------|-------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL    | 20.0    | Plate Grip DOL     | 1.15 | тс    | 0.18 | Vert(LL) | -0.00 | 2-5   | >999   | 240 | MT20          | 244/190  |
| TCDL    | 10.0    | Lumber DOL         | 1.15 | BC    | 0.07 | Vert(CT) | -0.01 | 2-5   | >999   | 180 |               |          |
| BCLL    | 0.0 *   | Rep Stress Incr    | YES  | WB    | 0.00 | Horz(CT) | 0.02  | 4     | n/a    | n/a |               |          |
| BCDL    | 10.0    | Code IRC2015/TPI20 | )14  | Matri | x-P  |          |       |       |        |     | Weight: 18 lb | FT = 20% |
|         |         |                    |      |       |      | -        |       |       |        |     |               |          |

TOP CHORD2x4 SP No.2BOT CHORD2x6 SP No.2

BRACING-TOP CHORD

BOT CHORD

Structural wood sheathing directly applied or 4-0-0 oc purlins, except 2-0-0 oc purlins: 3-4. Rigid ceiling directly applied or 10-0-0 oc bracing.

Max Horz 2=85(LC 12) Max Uplift 4=-37(LC 9), 2=-32(LC 12)

Max Grav 4=91(LC 1), 2=221(LC 1), 5=78(LC 3)

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

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-6-0, Exterior(2) 2-6-0 to 3-11-4 zone; C-C for members and forces & MWFRS for reactions shown; 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 37 lb uplift at joint 4.
- One MTS12 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This
  connection is for uplift only and does not consider lateral forces.
- 9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 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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**REACTIONS.** (size) 4=Mechanical, 2=0-3-8, 5=Mechanical



|                     |                                  | 1-11-7   |          |                 | 4-0-0     |                       |
|---------------------|----------------------------------|----------|----------|-----------------|-----------|-----------------------|
| Plate Offsets (X,Y) | [3:0-2-0,0-2-3], [4:0-3-0,0-0-8] | 1-11-/   |          |                 | 2-0-9     |                       |
|                     |                                  | 081      | DEEL     | in (loo)  /dafl |           |                       |
| TCLL 20.0           | Plate Grip DOL 1.15              | TC 0.17  | Vert(LL) | -0.00 2-6 >999  | 240 MT    | 120 244/190           |
| TCDL 10.0           | Lumber DOL 1.15                  | BC 0.07  | Vert(CT) | -0.01 2-6 >999  | 180       |                       |
| BCDL 10.0           | Code IRC2015/TPI2014             | Matrix-P | Horz(CT) | 0.01 4 n/a      | n/a<br>We | eight: 18 lb FT = 20% |

TOP CHORD2x4 SP No.2BOT CHORD2x6 SP No.2WEBS2x4 SP No.3

BRACING-TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 4-0-0 oc purlins, except 2-0-0 oc purlins: 3-4. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 4=Mechanical, 6=Mechanical

Max Horz 2=47(LC 8)

Max Uplift 2=-35(LC 8), 4=-38(LC 5)

Max Grav 2=212(LC 1), 4=87(LC 1), 6=85(LC 3)

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

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;
- MWFRS (envelope) gable end zone; 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 38 lb uplift at joint 4.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This
  connection is for uplift only and does not consider lateral forces.
- 9) One MTS12 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 11) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- 12) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 13) 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=-60, 3-4=-60, 2-5=-20



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| LOADING<br>TCLL<br>TCDL<br>BCLL | (psf)<br>20.0<br>10.0<br>0.0 * | SPACING- 2-0-0<br>Plate Grip DOL 1.15<br>Lumber DOL 1.15<br>Rep Stress Incr YES | CSI.<br>TC 0.06<br>BC 0.03<br>WB 0.00 | <b>DEFL.</b> in<br>Vert(LL) -0.00<br>Vert(CT) -0.00<br>Horz(CT) -0.00 | (loc)<br>2<br>2<br>3 | l/defl L/d<br>>999 240<br>>999 180<br>n/a n/a | PLATES<br>MT20 | <b>GRIP</b><br>244/190 |
|---------------------------------|--------------------------------|---|---------------------------------------|---|----------------------|---|----------------|------------------------|
| BCDL                            | 10.0                           | Code IRC2015/TPI2014  | Matrix-P                              |   |                      |   | Weight: 7 lb   | FT = 20%               |

TOP CHORD2x4 SP No.2BOT CHORD2x4 SP No.2

BRACING-TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 1-8-0 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

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

Max Horz 2=47(LC 12)

Max Uplift 3=-24(LC 12), 2=-29(LC 12) Max Grav 3=34(LC 1), 2=134(LC 1), 4=33(LC 3)

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

## NOTES-

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; 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 24 lb uplift at joint 3.
- 6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.



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|      |         | 1                             |             | 3-8   |      | 4-8-1    | 2          |              |                |            | 1             |                        |
|------|---------|-------------------------------|-------------|-------|------|----------|------------|--------------|----------------|------------|---------------|------------------------|
|      | G (psf) | SPACING-<br>Plate Grip DOI    | 2-0-0       | CSI.  | 0.38 | DEFL.    | in<br>0.05 | (loc)<br>2-6 | l/defl<br>⊳999 | L/d<br>240 | PLATES        | <b>GRIP</b><br>244/190 |
| TCDL | 10.0    | Lumber DOL<br>Rep Stress Ipcr | 1.15<br>YES | BC    | 0.37 | Vert(CT) | -0.05      | 2-6          | >999<br>n/a    | 180<br>n/a |               | 21,,100                |
| BCDL | 10.0    | Code IRC2015/TPI              | 2014        | Matri | x-P  | 1012(01) | 0.00       |              | 11/a           | 11/4       | Weight: 21 lb | FT = 20%               |

TOP CHORD2x4 SP No.2BOT CHORD2x4 SP No.2WEBS2x4 SP No.3

BRACING-TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 5-0-4 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-0, 6=Mechanical Max Horz 2=111(LC 12) Max Uplift 2=-31(LC 12), 6=-60(LC 12)

Max Grav 2=250(LC 1), 6=189(LC 1)

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

### NOTES-

 Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-0-0 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; 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.

Refer to girder(s) for truss to truss connections.

- 5) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 6) One MTS12 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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 **ANSUTPI Quality criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.





REACTIONS. (size) 1=0-3-0, 5=Mechanical Max Horz 1=97(LC 12)

Max Uplift 1=-5(LC 8), 5=-62(LC 12)

Max Grav 1=172(LC 1), 5=184(LC 1)

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

### NOTES-

 Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-8 to 3-1-8, Interior(1) 3-1-8 to 4-8-8 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; 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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1. This connection is for uplift only and does not consider lateral forces.

6) One MTS12 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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 **ANSUTPI Quality criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.





|                     |                 | 0-3-8    | 2      | -4-0 |          |       |       | 5-     | 0-4 |               |          |
|---------------------|-----------------|----------|--------|------|----------|-------|-------|--------|-----|---------------|----------|
| Plate Offsets (X,Y) | [3:0-2-0,0-2-8] | 0-3-8    | 2      | -0-8 |          |       |       | 2-1    | 8-4 |               |          |
| LOADING (psf)       | SPACING-        | 2-0-0    | CSI.   |      | DEFL.    | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
| TCLL 20.0           | Plate Grip DOL  | 1.15     | TC     | 0.33 | Vert(LL) | -0.01 | 2-7   | >999   | 240 | MT20          | 244/190  |
| TCDL 10.0           | Lumber DOL      | 1.15     | BC     | 0.11 | Vert(CT) | -0.01 | 2-7   | >999   | 180 |               |          |
| BCLL 0.0 *          | Rep Stress Incr | NO       | WB     | 0.00 | Horz(CT) | 0.00  | 6     | n/a    | n/a |               |          |
| BCDL 10.0           | Code IRC2015    | /TPI2014 | Matrix | «-R  |          |       |       |        |     | Weight: 22 lb | FT = 20% |
| LUMBER-             |                 |          |        |      | BRACING- |       |       |        |     |               |          |

TOP CHORD

BOT CHORD

| LUMBER- |  |
|---------|--|
|---------|--|

TOP CHORD 2x4 SP No.2 BOT CHORD 2x6 SP No.2 WEBS 2x4 SP No.3

REACTIONS. (size) 6=Mechanical, 2=0-3-0

Max Horz 2=60(LC 34)

Max Uplift 6=-60(LC 4), 2=-64(LC 8)

Max Grav 6=195(LC 1), 2=277(LC 1)

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

# NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;

MWFRS (envelope) gable end zone; porch left 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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6 and 2. This connection is for uplift only and does not consider lateral forces.

8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines

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: 1-3=-60, 3-4=-60, 4-5=-60, 2-6=-20 Concentrated Loads (lb) Vert: 8=-22(B)



Structural wood sheathing directly applied or 5-0-4 oc purlins,

except end verticals, and 2-0-0 oc purlins: 3-5.

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

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| 0-3-8 | 0-6-0 | 0-8-7 | 1-6-0 |  |
|-------|-------|-------|-------|--|
| 0-3-8 | 0-2-8 | 0-2-7 | 0-9-9 |  |
|       |       |       |       |  |
|       |       |       |       |  |

2-0-0 oc purlins: 3-4.

Structural wood sheathing directly applied or 1-6-0 oc purlins, except

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

| LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0         *           BCDL         10.0 | SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2015/TPI2014 | <b>CSI.</b><br>TC 0.14<br>BC 0.12<br>WB 0.00<br>Matrix-S | DEFL.         in         (loc)         l/defl         L/d           Vert(LL)         -0.00         6         >999         240           Vert(CT)         -0.00         6         >999         180           Horz(CT)         0.00         n/a         n/a | PLATES         GRIP           MT20         244/190           Weight: 6 lb         FT = 20% |
|--|---|--|---|--|
| LUMBER-  |   |  | BRACING-  |  |

TOP CHORD

BOT CHORD

UMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2

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

REACTIONS. (size) 5=Mechanical, 6=0-3-0 Max Horz 6=34(LC 12) Max Uplift 5=-24(LC 9), 6=-36(LC 12)

Max Grav 5=26(LC 24), 6=177(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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) One MTS12 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5 and 6. This
- connection is for uplift only and does not consider lateral forces.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



🛕 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. ARXING - Verify design parameters and READ NOTES ON THIS AND INCLODED MITER REFERENCE PAGE MIT-14's rev. Towards BEFORE OSE. Design valid for use only with MiTeR's 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 quidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component** fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Qua** Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.





- BOT CHORD 2-19=-147/388, 17-19=-258/244, 13-15=-80/844, 11-13=-80/844
- WEBS 3-19=-368/211, 5-19=-82/476, 5-17=-607/259, 17-20=-1036/163, 6-20=-943/137, 10-15=-1125/325, 10-13=-104/698, 7-20=-541/203
- NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-11-2, Interior(1) 2-11-2 to 19-0-0, Exterior(2) 19-0-0 to 22-9-10, Interior(1) 22-9-10 to 38-10-8 zone; C-C for members and forces & MWFRS for reactions shown; 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, with BCDL = 10.0psf.

5) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 11, and 17. This connection is for uplift only and does not consider lateral forces.

6) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



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| L   | 8-6-7   | 19-0-0  |   | 24-6-4  |  | 29-6-5   | 35-0-12   |                     |
|---|---|---|---|---|--|--|---|---------------------|
|   | 8-6-7   | 10-5-9  |   | 5-6-4   | I  | 5-0-1  | 5-6-7   |                     |
| LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0           PODL         10.0  | SPACING- 2-0-0<br>Plate Grip DOL 1.15<br>Lumber DOL 1.15<br>Rep Stress Incr YES   | <b>CSI.</b><br>TC 0.53<br>BC 0.93<br>WB 0.42  | <b>DEFL.</b><br>Vert(LL)<br>Vert(CT)<br>Horz(CT)  | in (loc)<br>-0.37 14-16<br>-0.62 14-16<br>0.02 10                           | l/defl<br>>794<br>>474<br>n/a                          | L/d<br>240<br>180<br>n/a                           | PLATES<br>MT20  | <b>GRIP</b> 244/190 |
| BCDL 10.0   | Code IRC2015/TPI2014  | Matrix-S  |   |   |  |  | Weight: 203 lb  | FT = 20%            |
| LUMBER-<br>TOP CHORD 2x4 SP<br>BOT CHORD 2x4 SP<br>WEBS 2x4 SP  | No.2<br>No.2<br>No.3  |   | BRACING-<br>TOP CHOR<br>BOT CHOR<br>WEBS  | D Struct<br>excep<br>D Rigid<br>1 Rov                                       | ural wood<br>t end verti<br>ceiling dire<br>v at midpt | sheathing dire<br>cals.<br>ectly applied or<br>5-1 | ctly applied or 3-11-6<br>2-2-0 oc bracing.<br>14, 6-14, 7-12 | oc purlins,         |
| FORCES.         (b)         Max. Hi           Max Uj         Max Uj           Max G         Max. G           FORCES.         (lb) - Max.           TOP CHORD         2-3=-           BOT CHORD         2-16=           WEBS         3-16=           8-12=         8-12= | <ul> <li>2=0-3-8, 12=0-3-8, 10=Mechanical<br/>orz 2=207(LC 12)<br/>pift 2=-135(LC 12), 12=-196(LC 12), 10<br/>rav 2=917(LC 1), 12=1792(LC 1), 10=23<br/>Comp./Max. Ten All forces 250 (lb) or<br/>1447/190, 3-5=-1251/213, 5-6=-339/149<br/>-286/1216, 14-16=-136/711, 12-14=-403<br/>-348/214, 5-16=-79/653, 5-14=-692/264<br/>-462/128, 8-11=0/261</li> </ul> | =-57(LC 23)<br>52(LC 24)<br>less except when shown.<br>, 6-7=-327/151, 7-8=-55/<br>5/131<br>, 7-14=-123/1000, 7-12=-  | 521<br>1412/213,  |   |  |  |   |                     |
| NOTES-<br>1) Unbalanced roof live<br>2) Wind: ASCE 7-10; V<br>MWFRS (envelope)<br>Interior(1) 22-6-2 to :<br>DOL=1.60<br>3) This truss has been<br>4) * This truss has been<br>will fit between the b   | loads have been considered for this deult=130mph (3-second gust) Vasd=103r<br>gable end zone and C-C Exterior(2) -0-1<br>34-11-0 zone;C-C for members and forc<br>designed for a 10.0 psf bottom chord live<br>n designed for a live load of 20.0psf on to<br>ottom chord and any other members, wi   | sign.<br>nph; TCDL=6.0psf; BCDL<br>0-8 to 2-7-10, Interior(1)<br>es & MWFRS for reaction<br>e load nonconcurrent with<br>he bottom chord in all are<br>th BCDL = 10.0psf. | =6.0psf; h=25ft; C<br>2-7-10 to 19-0-0, E<br>s shown; Lumber<br>any other live loa<br>as where a rectan | at. II; Exp B;<br>Exterior(2) 19<br>DOL=1.60 pla<br>ds.<br>gle 3-6-0 tall l | Enclosed;<br>-0-0 to 22-<br>ate grip<br>by 2-0-0 w     | 6-2,<br>ide  |   |                     |

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 10. 7) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 12. This

connection is for uplift only and does not consider lateral forces.



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June 24,2020

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mm





BRACING-TOP CHORD

BOT CHORD

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2

OTHERS 2x4 SP No.3

REACTIONS. All bearings 20-5-13.

(lb) -Max Horz 1=-161(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-199(LC 12), 6=-198(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=335(LC 22), 8=579(LC 19), 6=579(LC 20)

Matrix-S

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

WEBS 2-8=-389/256, 4-6=-389/256

### NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 10-2-14, Exterior(2) 10-2-14 to 13-2-14, Interior(1) 13-2-14 to 20-0-1 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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, with BCDL = 10.0psf



Structural wood sheathing directly applied or 6-0-0 oc purlins.

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

🙏 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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 **ANSUTPIT Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.





MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 8-8-14, Exterior(2) 8-8-14 to 11 Interior(1) 11-8-14 to 17-0-1 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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, with BCDL = 10.0psf.



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- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-2-14, Interior(1) 3-2-14 to 7-2-14, Exterior(2) 7-2-14 to 10-2-14, Interior(1) 10-2-14 to 14-0-1 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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 buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.





FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. WEBS 2-4=-272/84

#### NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 5-8-14, Exterior(2) 5-8-14 to 8-8-14, Interior(1) 8-8-14 to 11-0-1 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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.



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**REACTIONS.** (size) 1=8-5-1, 3=8-5-1, 4=8-5-1 Max Horz 1=-62(LC 8)

Max Uplift 1=-36(LC 12), 3=-44(LC 13)

Max Grav 1=161(LC 1), 3=161(LC 1), 4=279(LC 1)

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

### NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed;

- MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 4-2-14, Exterior(2) 4-2-14 to 7-2-14, Interior(1) 7-2-14, Exterior(2) 4-2-14, Exteri
- Interior(1) 7-2-14 to 8-0-1 zone;C-C for members and forces & MWFRS for reactions shown; 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) N/A

6) Non Standard bearing condition. Review required.



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|                      | 0-0 <u>r6</u><br>0-0-6 |          | 5-5-13<br>5-5-7       |                        |
|----------------------|------------------------|----------|-----------------------|------------------------|
| Plate Olisets (X, Y) | [2:0-2-0,Edge]         | I        |                       |                        |
| LOADING (psf)        | <b>SPACING-</b> 2-0-0  | CSI.     | DEFL. in (loc) I/defl | L/d PLATES GRIP        |
| TCLL 20.0            | Plate Grip DOL 1.15    | TC 0.15  | Vert(LL) n/a - n/a    | 999 MT20 244/190       |
| TCDL 10.0            | Lumber DOL 1.15        | BC 0.44  | 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 IRC2015/TPI2014   | Matrix-P |                       | Weight: 16 lb FT = 20% |

TOP CHORD2x4 SP No.3BOT CHORD2x4 SP No.3

REACTIONS. (size) 1=5-5-1, 3=5-5-1 Max Horz 1=-37(LC 8) Max Uplift 1=-19(LC 12), 3=-19(LC 13) Max Grav 1=181(LC 1), 3=181(LC 1)

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

#### NOTES-

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; 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) N/A

6) Non Standard bearing condition. Review required.



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Structural wood sheathing directly applied or 5-5-13 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

