









AT SE-18425

| SET N. VERSIC RELEAS DRAWN DATE: |
|----------------------------------------------|
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| |

TRUSS BRACING NOTES:

- IF TRUSS DOES NOT APPEAR ON THIS TRUSS BRACING SHEET, NO ADDITIONAL LATERAL BRACING IS
- SHEET, NO ADDITIONAL LATERAL BRACING IS REQUIRED.
 2X4 SPF#2 LATERAL BRACES SHALL BE NAILED TO MINIMUM (3) TRUSS MEMBERS WITH MINIMUM (2) IOD NAILS. PROVISIONS MUST BE MADE AT ENDS OR SPECIFIED INTERVALS TO RESTRAIN OR ANCHOR LATERAL BRACING.
 NEEN THE BRACE DETAIL 2005 IN CREATING TO THE STATE OF THE STA
- LATERAL BRACING.
 WEB "T" BRACE, DETAIL **3/RF-IC**, IS REQUIRED WHERE LATERAL BRACING IS NOT CONTINUOUS ACROSS THREE (3) OR MORE TRUSSES AND MAY BE USED IN LIEU OF 2X4 LATERAL BRACING.
 DIAGONAL BRACING REQUIRED WHEN LATERAL BRACING IS REQUIRED (4/RF-IC)
 STUDDED GABLE BRACING DETAIL (I/RF-IC) TO BE UTILIZED FOR TRUSSES 6'-9" IN HEIGHT OR GREATER.
 PARTIALLY SHEATHED GABLES SEE (5/RE-IC) FOR "I"

- OF THE WEB MEMBER IDENTIFIED IN THE OF GREATER.
 6. PARTIALLY SHEATHED GABLES, SEE (5/RF-IC) FOR "L" BRACING WHEN REQUIRED.
 7. LATERAL BRACING CAN BE APPLIED TO EITHER SIDE OF THE WEB MEMBER IDENTIFIED IN THE DRAWING.
 8. SHEATHING (OSB OR GYPSUM) REPLACES LATERAL AND DIAGONAL TRUSS BRACING.









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 system. See MSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

I KENL

818 Soundside Road Edenton, NC 27932



LOAD CASE(S) Standard

Continued on page 2

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Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | 11_Southeast-Girder-Int | |
|----------------------|----------|------------|-----|-------------|----------------------------------------------------------|----------|
| | | | | | ŀ | 49147402 |
| ORDERS | SE-14546 | COMN | 1 | 2 | | |
| | | | | _ | Job Reference (optional) | |
| NVR, Frederick, MD - | 21703, | | 8 | 8.530 s Nov | 29 2021 MiTek Industries, Inc. Tue Dec 7 20:30:58 2021 F | Page 2 |

8.530 s Nov 29 2021 MiTek Industries, Inc. Tue Dec 7 20:30:58 2021 Page 2 ID:?RrLVUNcBotMPeFP6cfGVKyEIz_-dNuehugAW3?uUdwtK6sdUvuoU0ClqvQdcOFf3uyBF8R

LOAD CASE(S) Standard

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

Vert: 2-6=-734(B=-714), 1-4=-60, 4-6=-60





COAD GASE (S) geStandard

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818 Soundside Road

Edenton, NC 27932

| Job | | Truss | Truss Type | Qty | Ply | 11_Southeast-Girder-Int | |
|--------|-------------------|----------|------------|-----|------------|--------------------------------------------------------|-----------|
| | | | | | | | I49147403 |
| ORDERS | | SE-14547 | COMN | 1 | 2 | | |
| | | | | | 2 | Job Reference (optional) | |
| NVR, | Frederick, MD - 2 | 21703, | | 8 | .530 s Nov | 29 2021 MiTek Industries, Inc. Tue Dec 7 20:30:59 2021 | Page 2 |

8.530 s Nov 29 2021 MiTek Industries, Inc. Tue Dec 7 20:30:59 2021 Page 2 ID:?RrLVUNcBotMPeFP6cfGVKyEIz_-5aS0uEhoHN7l6nV3upOs07R?XQhHZSanq2_DbLyBF8Q

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-5=-20, 1-3=-60, 3-6=-60 Concentrated Loads (lb)

Vert: 9=-198(F) 10=-198(F) 11=-198(F) 12=-198(F) 14=-198(F) 16=-198(F) 17=-198(F) 18=-198(F) 19=-198(F)





- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10, 16, 17, 18, 14. 13. 12.
- 10) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.
- 11) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.
- 12) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.







Left: 2x4 SP or SPF No.3 or Stud , Right: 2x4 SP or SPF No.3 or Stud

REACTIONS. All bearings 20-0-0.

- (lb) Max Horz 2=-185(LC 8)
 - Max Uplift All uplift 100 lb or less at joint(s) 2, 16, 25, 26, 27, 28, 29, 30, 23, 22. 21. 20. 19. 18 Max Grav All reactions 250 lb or less at joint(s) 2, 16, 24, 25, 26, 27, 28, 29, 30,
 - 23, 22, 21, 20, 19, 18

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

NOTES-(10-13)

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 3x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 16, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 18,
- 10) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.
- 11) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.
- 12) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.
- 13) Framing and bracing of the gable end frame shall be provided by the building designer.



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NUMBER OF STREET

TH CARO



| 1 | | 9-9-3 | 19-0-0 | 2 | 28-2-13 | 38-0-0 | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------|--|--|--|
| | | 9-9-3 | 9-2-13 | | 9-2-13 | 9-9-3 | <u> </u> | | | |
| Plate Offse | ets (X,Y) | [3:0-2-12,0-3-0], [5:0-3-0,0-3-4], [7:0-2 | -5,0-1-8], [10:0-3-12,0-3-0] | | | | | | | |
| LOADING TCLL TCDL BCLL BCDL | (psf) 20.0 10.0 0.0 * 10.0 | SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IBC2021/TPI2014 | CSI. TC 0.96 BC 0.94 WB 0.52 Matrix-S | DEFL. ir Vert(LL) -0.26 Vert(CT) -0.51 Horz(CT) 0.12 Wind(LL) 0.13 | n (loc) l/defl L/d 9-10 >999 360 1-11 >897 240 7 n/a n/a 10 >999 240 | PLATES GRIP MT20 197/144 Weight: 194 lb FT = 5% | | | | |
| LUMBER- TOP CHO BOT CHO WEBS | LUMBER- BRACING- TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2 *Except* TOP CHORD Structural wood sheathing directly applied. BOT CHORD 2x4 SP No.2D BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. BOT CHORD 2x4 SP No.2D *Except* WEBS 1 Row at midpt 3-10, 5-10 WEBS 2x4 SP No.3 or 2x4 SPF Stud REACTIONS. (size) 7=0-3-8. 1=Mechanical | | | | | | | | | |
| REACTIO | REACTIONS. (size) 7=0-3-8, 1=Mechanical Max Horz 1=-178(LC 11) Max Uplift 7=-219(LC 11), 1=-195(LC 10) Max Grav 7=1577(LC 1), 1=1511(LC 1) | | | | | | | | | |
| FORCES. (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown. TOP CHORD 1-2=-2848/387, 2-3=-2585/356, 3-4=-1783/288, 4-5=-1791/289, 5-6=-2570/352, 6-7=-2820/378 BOT CHORD 1-11=-424/2485, 10-11=-240/1999, 9-10=-96/1991, 7-9=-242/2452 WEBS 2-11=-370/234, 3-11=-56/569, 3-10=-709/267, 4-10=-127/1208, 5-10=-694/266, 5-9=-54/555, 6-9=-347/224 | | | | | | | | | | |
| NOTES- | (7-9) | | | | | | | | | |

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

2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;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) 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=219, 1=195.

7) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.

8) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.

9) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.







| 3-0-0 | 3-1 ₁ 12 9-9-3 | 19-0-0 | : | 28-2-13 | 34-10-4 | 38-0-0 |
|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------|-----------------------------------|
| Blote Offecte (X X) | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 9-2-13 | 2.0.2.4.0.2.01 [4.4.0.4 | 9-2-13 2 1 2 0 2 01 [15:0 2 / | <u> </u> | 3-1-12 |
| Flate Offsets (X, T) | [2.0-4-13,0-1-6], [5.0-3-6,0-3-0], [7.0-3 | -8,0-3-0], [10.0-4-13,0-1-6], [1 | 3.0-3-4,0-3-0], [14.0- | 3-12,0-3-0], [15.0-3-2 | +,0-3-0] | |
| 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 IBC2021/TPI2014 | CSI. TC 0.52 BC 0.94 WB 0.99 Matrix-S | DEFL. in Vert(LL) -0.20 Vert(CT) -0.40 Horz(CT) 0.08 Wind(LL) 0.09 | i (loc) l/defl 13-14 >999 3 13-14 >999 2 10 n/a 13 >999 2 | L/d PLATES 360 MT20 240 n/a 240 Weight: 213 lb | GRIP 197/144 FT = 5% |
| LUMBER- TOP CHORD 2x4 S BOT CHORD 2x4 S 10-13 2-15: WEBS 2x4 S | P No.2 or 2x4 SPF No.2 P No.2D *Except* : 2x4 SP 2250F 1.9E or 2x4 SPF 2100F 2x4 SP No.2 or 2x4 SPF No.2 P No.3 or 2x4 SPF Stud | BRACING- TOP CHORD BOT CHORD WEBS | Structural wood sh Rigid ceiling directl 1 Row at midpt | eathing directly applied or 3-4-1 y applied or 2-2-0 oc bracing. 5-14, 7-14 | [MCT] 1 oc purlins. | |
| REACTIONS. (si Max Max Max | ze) 10=0-3-8, 16=0-3-8 Horz 16=171(LC 10) Uplift 10=-212(LC 11), 16=-237(LC 10) Grav 10=1437(LC 1), 16=1712(LC 1) | | | | | |
| FORCES. (lb) - Max TOP CHORD 2-3= 7-8= | Comp./Max. Ten All forces 250 (lb) c 111/370, 3-4=-55/371, 4-5=-1644/226, 2237/335, 8-9=-2565/393, 9-10=-2643 | r less except when shown. 5-6=-1481/271, 6-7=-1486/24 /335 | 49, | | | |

 BOT CHORD
 2-16=-285/136, 15-16=-218/1188, 14-15=-169/1455, 13-14=-60/1715, 12-13=-210/2167, 10-12=-239/2280

 WEBS
 4-15=0/393, 5-14=-362/222, 6-14=-115/960, 7-14=-691/274, 7-13=-50/514,

NOTES- (6-8)

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

8-13=-355/194, 4-16=-2001/255

2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=212, 16=237.

6) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.

7) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.

8) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.



ENGINEERING BY ERENCED A Mi Tek Atfiliate 818 Soundside Road

Edenton, NC 27932



| | 3-0-0 3-1 ₁ 12 9-9-3 | 19-0-0 | 2 | 8-2-13 | 34-10-4 | 38-0-0 | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------|--|--|--|
| | 3-0-0 0-1-12 6-7-7 | 9-2-13 | 9 | 9-2-13 | 6-7-7 | 3-1-12 | | | |
| Plate Offsets (X | ,Y) [2:0-4-13,0-1-8], [5:0-3-8,0-3-0], [7:0-3- | 8,0-3-0], [10:0-4-13,0-1-8], [13: | 0-3-4,0-3-0], [14:0-3 | 3-12,0-3-0], [15:0-3-4,0 | -3-0] | | | | |
| LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 BCDL 10.0 | SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IBC2021/TPI2014 | CSI. TC 0.52 BC 0.94 WB 0.98 Matrix-S | DEFL. in Vert(LL) -0.21 Vert(CT) -0.42 Horz(CT) 0.09 Wind(LL) 0.10 | (loc) I/defl L/d 14-15 >999 360 14-15 >990 240 12 n/a n/a 15 >999 240 | d PLATES D MT20 D a D Weight: 213 lb | GRIP 197/144 9 FT = 5% | | | |
| LUMBER- TOP CHORD BOT CHORD | 2x4 SP No.2 or 2x4 SPF No.2 2x4 SP No.2D *Except* 10-13: 2x4 SP 2250F 1.9E or 2x4 SPF 2100F 2-15: 2x4 SP No.2 or 2x4 SPF No.2 | 1.8E | BRACING- TOP CHORD BOT CHORD WEBS | Structural wood shea Rigid ceiling directly a 1 Row at midpt | thing directly applied or 3-4-1 applied or 2-2-0 oc bracing. 5-14, 7-14 | [MCT] 1 oc purlins. | | | |
| WEBS | 2x4 SP No.3 or 2x4 SPF Stud | | | | | | | | |
| REACTIONS. (size) 2=0-3-8, 12=0-3-8 Max Horz 2=-171(LC 15) Max Uplift 2=-212(LC 10), 12=-237(LC 11) Max Grav 2=1437(LC 1), 12=1712(LC 1) | | | | | | | | | |
| FORCES. (Ib) - Max. Comp./Max. Ten All forces 250 (Ib) or less except when shown. TOP CHORD 2-3=-2649/334, 3-4=-2571/392, 4-5=-2231/333, 5-6=-1478/247, 6-7=-1485/271, 7.81641/226 8-954/370, 9-10109/367 | | | | | | | | | |
| BOT CHORD | 2-16=-409/2285, 15-16=-381/2167, 14-15=-2 10-12=-284/135 | 228/1715, 13-14=-71/1455, 12-7 | 13=-58/1156, | | | | | | |
| WEBS | 4-15=-358/194, 5-15=-48/513, 5-14=-694/27 8-13=0/392, 8-12=-2000/253 | 4, 6-14=-114/958, 7-14=-359/22 | 22, | | | | | | |

NOTES- (6-8)

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

2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=212, 12=237.
- 6) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.
- 7) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.
- Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.





| 3-0-0 | 9-9-3 | 19-0-0 | 28-2-13 | 38-0-0 |
|---------------------|--------------------------------------------|----------------------------------|-----------------------------|---------------------------|
| 3-0-0 | 6-9-3 | 9-2-13 | 9-2-13 | 9-9-3 |
| Plate Offsets (X,Y) | [3:0-3-0,0-3-4], [5:0-3-0,0-3-4], [9:0-3-1 | 2,0-3-4], [10:0-3-12,Edge], [11: | 0-3-8,0-3-4] | |
| LOADING (psf) | SPACING- 2-0-0 | CSI. | DEFL. in (loc) I/defl L | /d PLATES GRIP |
| TCLL 20.0 | Plate Grip DOL 1.15 | TC 0.75 | Vert(LL) -0.24 9-10 >999 30 | 60 MT20 197/144 |
| TCDL 10.0 | Lumber DOL 1.15 | BC 1.00 | Vert(CT) -0.45 7-9 >920 24 | 40 |
| BCLL 0.0 * | Rep Stress Incr YES | WB 0.59 | Horz(CT) 0.09 7 n/a r | /a |
| BCDL 10.0 | Code IBC2021/TPI2014 | Matrix-S | Wind(LL) 0.10 7-9 >999 24 | 40 Weight: 201 lb FT = 5% |

LUMBER-

TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2 2x4 SP No.2 or 2x4 SPF No.2 *Except* BOT CHORD

7-9: 2x4 SP No.2D WEBS 2x4 SP No.3 or 2x4 SPF Stud

BRACING-TOP CHORD BOT CHORD WEBS

Structural wood sheathing directly applied or 2-4-0 oc purlins. Rigid ceiling directly applied or 2-2-0 oc bracing. 1 Row at midpt 3-10, 5-10, 2-12

REACTIONS. All bearings 3-3-8 except (jt=length) 7=0-3-8.

(lb) - Max Horz 1=-178(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) except 7=-214(LC 11), 1=-168(LC 26), 12=-219(LC 10) Max Grav All reactions 250 lb or less at joint(s) 1 except 7=1436(LC 1), 12=1785(LC 1), 12=1785(LC 1)

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

TOP CHORD 1-2=-133/701, 2-3=-1658/251, 3-4=-1475/277, 4-5=-1481/254, 5-6=-2261/343,

6-7=-2513/368

BOT CHORD 1-12=-540/196, 11-12=-259/1183, 10-11=-175/1446, 9-10=-62/1714, 7-9=-233/2179 2-11=0/385, 3-10=-372/222, 4-10=-116/944, 5-10=-694/267, 5-9=-56/552, 6-9=-350/224, WEBS 2-12=-2367/367

NOTES-(6-8)

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

2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 214 lb uplift at joint 7, 168 lb uplift at joint 1 and 219 lb uplift at joint 12.

6) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.

7) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.

8) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.







| | L | 9-9-3 | 13-1-0 | 0 1 | 19-0-0 | | 28- | -2-13 | | 1 | 38-0-0 | | |
|-----------|------------|-----------------------------|-----------------|--------------|--------|----------|-------|-------|--------|-----|----------------|---------|-------|
| | Ι | 9-9-3 | 3-3-1 | 3 ' | 5-11-0 | 1 | 9-: | 2-13 | | 1 | 9-9-3 | 1 | |
| Plate Off | sets (X,Y) | [1:0-4-13,0-1-8], [10:0-2-1 | 3,0-1-8], [15:0 |)-4-12,0-3-0 | | | | | | | | | |
| LOADIN | 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 | 0.61 | Vert(LL) | -0.24 | 1-15 | >654 | 360 | MT20 | 197/144 | |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.77 | Vert(CT) | -0.51 | 1-15 | >311 | 240 | | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.57 | Horz(CT) | 0.02 | 10 | n/a | n/a | | | |
| BCDL | 10.0 | Code IBC2021/TPI | 2014 | Matri | x-S | Wind(LL) | 0.07 | 10-12 | >999 | 240 | Weight: 210 lb | FT = 5% | |
| LUMBER | २- | | | | | BRACING | | | | | | | [MCT] |

TOP CHORD

BOT CHORD

WEBS

LUMBER-

TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2

BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2 *Except* 10-12: 2x4 SP No.1, 12-13: 2x4 SP No.2D

WEBS 2x4 SP No.3 or 2x4 SPF Stud

REACTIONS. (size) 10=0-3-8, 1=Mechanical, 14=0-3-8 Max Horz 1=-178(I C 11) Max Uplift 10=-178(LC 11), 1=-43(LC 10), 14=-234(LC 10) Max Grav 10=936(LC 1), 1=379(LC 23), 14=1842(LC 1)

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

- TOP CHORD 1-2=-359/138, 5-6=-360/200, 6-7=-366/176, 7-9=-1176/263, 9-10=-1432/289
- BOT CHORD 1-15=-122/270, 14-15=-398/234, 13-14=-398/234, 12-13=0/732, 10-12=-163/1220
- WEBS 2-15=-385/222, 5-15=-115/591, 5-13=-58/984, 7-13=-710/266, 7-12=-53/581,
 - 9-12=-364/226, 5-14=-1800/253

NOTES-(7-9)

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;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) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 178 lb uplift at joint 10, 43 lb uplift at joint 1 and 234 lb uplift at joint 14.
- 7) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.
- 8) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.
- 9) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.



Structural wood sheathing directly applied or 3-10-14 oc purlins.

6-13, 7-13, 5-14

Rigid ceiling directly applied or 6-0-0 oc bracing.

1 Row at midpt





WEBS

1 Row at midpt

REACTIONS. (size) 15=0-3-8, 10=0-3-8, 1=Mechanical Max Horz 1=-178(LC 11) Max Uplift 15=-250(LC 10), 10=-192(LC 11), 1=-26(LC 24) Max Grav 15=1863(LC 1), 10=1104(LC 1), 1=205(LC 23)

2x4 SP No.3 or 2x4 SPF Stud

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

TOP CHORD 1-2=-59/377, 2-3=-76/524, 3-5=-41/602, 5-6=-731/229, 6-7=-740/206, 7-9=-1542/292, 9-10=-1796/318

 BOT CHORD
 1-15=-301/192, 14-15=0/307, 13-14=0/307, 12-13=-14/1062, 10-12=-189/1543

 WEBS
 2-15=-378/221, 5-15=-1472/162, 5-13=-24/559, 6-13=-74/330, 7-13=-705/265, 7-12=-52/575, 9-12=-358/225

NOTES- (7-9)

WEBS

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

2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;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) Refer to girder(s) for truss to truss connections.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 250 lb uplift at joint 15, 192 lb uplift at joint 10 and 26 lb uplift at joint 1.

7) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.

8) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.

9) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.

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 system. See MSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



5-15, 7-13



| 1 | | 9-9-3 | 13-1-0 | 1 | 9-0-0 | 1 | 28-2-13 | | | 38-0-0 | | |
|------------|------------|------------------------------|-------------------|-------------|--------|----------|-------------|--------|-----|----------------|---------|--|
| Г | | 9-9-3 | 3-3-13 | 5 | 5-11-0 | 1 | 9-2-13 | | 1 | 9-9-3 | 1 | |
| Plate Offs | sets (X,Y) | [1:0-4-13,0-1-8], [10:0-2-1] | 3,0-1-8], [15:0-4 | 4-12,0-3-0] | | | | | | | | |
| | | | | | | | | | | | | |
| 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 | TC 0.8 | 31 | Vert(LL) | -0.30 12-13 | >999 | 360 | MT20 | 197/144 | |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC 0.9 | 95 | Vert(CT) | -0.54 12-13 | >776 | 240 | | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB 0.5 | 50 | Horz(CT) | 0.12 10 | n/a | n/a | | | |
| BCDL | 10.0 | Code IBC2021/TPI | 2014 | Matrix-S | | Wind(LL) | 0.14 14-15 | >999 | 240 | Weight: 210 lb | FT = 5% | |

| | | | | | |
|-----------------|-------------------------------------|-----------|--------------------------------|-------------------------------------|-------|
| LUMBER- | | BRACING- | | | [MCT] |
| TOP CHORD 2x4 S | P No.2 or 2x4 SPF No.2 | TOP CHORD | Structural wood sheathing di | rectly applied or 2-2-0 oc purlins. | |
| BOT CHORD 2x4 S | P No.2 or 2x4 SPF No.2 *Except* | BOT CHORD | Rigid ceiling directly applied | or 2-2-0 oc bracing. | |
| 10-12 | 2: 2x4 SP No.1, 12-13: 2x4 SP No.2D | WEBS | 1 Row at midpt 5 | 5-13, 7-13 | |
| WEBS 2x4.9 | P No 3 or 2x4 SPF Stud | | • | | |

REACTIONS. (size) 10=0-3-8, 1=3-0-0, 16=0-3-8 Max Horz 1=-178(LC 15) Max Uplift 10=-224(LC 11), 1=-228(LC 10) Max Grav 10=1561(LC 1), 1=1307(LC 1), 16=296(LC 3)

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

 TOP CHORD
 1-2=-2696/414, 2-3=-2435/375, 3-5=-2383/411, 5-6=-1740/300, 6-7=-1749/298, 7-9=-2537/362, 9-10=-2787/387

 BOT CHORD
 1-16=-447/2326, 15-16=-447/2326, 14-15=-233/1913, 13-14=-233/1913, 12-13=-103/1959, 10-12=-250/2422

 WEBS
 2-15=-330/221, 5-15=-144/433, 5-13=-668/258, 6-13=-140/1156, 7-13=-699/264, 7-12=-51/566, 9-12=-347/224

NOTES- (6-8)

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

2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 224 lb uplift at joint 10 and 228 lb uplift at joint 1.

6) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.

7) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.

8) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.





| | | 9-9-3 | | 19-0- | 0 | | 28-2 | -13 | | | 38-0-0 | |
|-------------|----------|------------------------------|----------------|---------------|--------------------|------------|------|-------|--------|-----|----------------|---------|
| | l | 9-9-3 | | 9-2-1 | 3 | | 9-2- | 13 | | 1 | 9-9-3 | I |
| Plate Offse | ts (X,Y) | [3:0-3-0,0-3-4], [5:0-3-0,0- | 3-4], [9:0-4-0 | ,Edge], [10:0 | -5-0,0-3-0], [11:0 | -4-0,Edge] | | | | | | |
| 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 | 0.59 | Vert(LL) | 0.03 | 8 | n/r | 120 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.81 | Vert(CT) | 0.07 | 8 | n/r | 120 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.39 | Horz(CT) | 0.01 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code IBC2021/TP | 2014 | Matrix | k-S | | | | | | Weight: 221 lb | FT = 5% |
| | | | | | | | | | | | | |

| LUMBER- | | BRACING- | | |
|-----------|-----------------------------|-----------|-----------------------------|-----------------------------------------|
| TOP CHORD | 2x4 SP No.2 or 2x4 SPF No.2 | TOP CHORD | Structural wood sheathin | g directly applied or 6-0-0 oc purlins. |
| BOT CHORD | 2x4 SP No.2 or 2x4 SPF No.2 | BOT CHORD | Rigid ceiling directly appl | lied or 10-0-0 oc bracing, Except: |
| WEBS | 2x4 SP No.3 or 2x4 SPF Stud | | 6-0-0 oc bracing: 10-11. | |
| | | WEBS | 1 Row at midpt | 3-10, 4-10, 5-10 |

REACTIONS. All bearings 38-0-0.

(lb) - Max Horz 1=-178(LC 15)

Max Uplift All uplift 100 lb or less at joint(s) 10, 7, 1 except 11=-175(LC 10), 9=-158(LC 11) Max Grav All reactions 250 lb or less at joint(s) except 11=834(LC 23), 10=764(LC 2), 9=837(LC 24), 7=380(LC

24), 1=320(LC 23)

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

WEBS 2-11=-402/239, 3-11=-359/131, 4-10=-386/50, 5-9=-364/116, 6-9=-397/233

NOTES- (7-9)

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 7, 1 except (jt=lb) 11=175, 9=158.
- 7) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.
- 8) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.
- 9) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.



November 9,2022





| | 9-9-3 | | 19-0- | 0 | | 20-2 | -13 | | | 38-0-0 | |
|---------------------------------------------------------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| | 9-9-3 | 1 | 9-2-1 | 3 | | 9-2- | 13 | | 1 | 9-9-3 | 1 |
| Plate Offsets (X,Y) [3:0-3-0,0-3-4], [5:0-3-0,0-3-4], [9:0-4-0,Edge], [10:0-5-0,0-3-0], [11:0-4-0,Edge] | | | | | | | | | | | |
| | | | | | | | | | | | |
| (psf) | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
| 20.0 | Plate Grip DOL | 1.15 | TC | 0.59 | Vert(LL) | 0.03 | 8 | n/r | 120 | MT20 | 197/144 |
| 10.0 | Lumber DOL | 1.15 | BC | 0.81 | Vert(CT) | 0.07 | 8 | n/r | 120 | | |
| 0.0 * | Rep Stress Incr | YES | WB | 0.39 | Horz(CT) | 0.01 | 7 | n/a | n/a | | |
| 10.0 | Code IBC2021/TPI | 2014 | Matrix | -S | | | | | | Weight: 221 lb | FT = 5% |
| | ts (X,Y) (psf) 20.0 10.0 0.0 * 10.0 | SP3-3 9-9-3 ts (X,Y) [3:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0-3-0,0-3-4], [5:0- | 3-9-3 9-9-3 ts (X,Y) [3:0-3-0,0-3-4], [5:0-3-0,0-3-4], [9:0-4-0, (psf) SPACING- 20.0 Plate Grip DOL 10.0 Lumber DOL 0.0 * Rep Stress Incr 10.0 Code IBC2021/TPI2014 | 9-9-3 9-2-1 9-9-3 9-2-1 1s (X,Y) [3:0-3-0,0-3-4], [5:0-3-0,0-3-4], [9:0-4-0,Edge], [10:0 (psf) SPACING- 2-0-0 CSI. 20.0 Plate Grip DOL 1.15 TC 10.0 Lumber DOL 1.15 BC 0.0 * Rep Stress Incr YES WB 10.0 Code IBC2021/TPI2014 Matrix | 9-9-3 | 9-9-3 9-9-3 9-9-3 9-2-13 ts (X,Y) [3:0-3-0,0-3-4], [5:0-3-0,0-3-4], [9:0-4-0,Edge], [10:0-5-0,0-3-0], [11:0-4-0,Edge] (psf) SPACING- 2-0-0 CSI. DEFL. 20.0 Plate Grip DOL 1.15 TC 0.59 Vert(LL) 10.0 Lumber DOL 1.15 BC 0.81 Vert(CT) 0.0 * Rep Stress Incr YES WB 0.39 Horz(CT) 10.0 Code IBC2021/TPI2014 Matrix-S Horz(CT) | 3-9-3 19-0-0 28-2 9-9-3 9-2-13 9-2-3 ts (X,Y) [3:0-3-0,0-3-4], [5:0-3-0,0-3-4], [9:0-4-0,Edge], [10:0-5-0,0-3-0], [11:0-4-0,Edge] DEFL. in (psf) SPACING- 2-0-0 CSI. DEFL. in 20.0 Plate Grip DOL 1.15 TC 0.59 Vert(LL) 0.03 10.0 Lumber DOL 1.15 BC 0.81 Vert(CT) 0.07 0.0 * Rep Stress Incr YES WB 0.39 Horz(CT) 0.01 10.0 Code IBC2021/TPI2014 Matrix-S Matrix-S D2 0.01 | 3-9-3 19-0-0 26-2-13 9-9-3 9-2-13 9-2-13 ts (X,Y) [3:0-3-0,0-3-4], [5:0-3-0,0-3-4], [9:0-4-0,Edge], [10:0-5-0,0-3-0], [11:0-4-0,Edge] (psf) SPACING- 2-0-0 CSI. DEFL. in (loc) 20.0 Plate Grip DOL 1.15 TC 0.59 Vert(LL) 0.03 8 10.0 Lumber DOL 1.15 BC 0.81 Vert(CT) 0.07 8 0.0 * Rep Stress Incr YES WB 0.39 Horz(CT) 0.01 7 10.0 Code IBC2021/TPI2014 Matrix-S Particle Parti | 9-9-3 | 9-9-3 19-0-0 20-2-13 9-2-13 ts (X,Y) [3:0-3-0,0-3-4], [5:0-3-0,0-3-4], [9:0-4-0,Edge], [10:0-5-0,0-3-0], [11:0-4-0,Edge] 9-2-13 9-2-13 (psf) SPACING- 2-0-0 CSI. DEFL. in (loc) l/defl L/d 20.0 Plate Grip DOL 1.15 TC 0.59 Vert(LL) 0.03 8 n/r 120 0.0 Lumber DOL 1.15 BC 0.81 Vert(CT) 0.07 8 n/r 120 0.0 * Rep Stress Incr YES WB 0.39 Horz(CT) 0.01 7 n/a n/a 10.0 Code IBC2021/TPI2014 Matrix-S Matrix-S Horz(CT) 0.01 7 n/a n/a | 9-9-3 |

| LUMBER- | | BRACING- | | | |
|-----------|-----------------------------|-----------|------------------------------------------------------------|--------------------------------------------|--|
| TOP CHORD | 2x4 SP No.2 or 2x4 SPF No.2 | TOP CHORD | Structural wood sheat | hing directly applied or 6-0-0 oc purlins. | |
| BOT CHORD | 2x4 SP No.2 or 2x4 SPF No.2 | BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing, Excep | | |
| WEBS | 2x4 SP No.3 or 2x4 SPF Stud | | 6-0-0 oc bracing: 10-11. | | |
| | | WEBS | 1 Row at midpt | 3-10, 4-10, 5-10 | |

REACTIONS. All bearings 38-0-0.

(lb) - Max Horz 1=-178(LC 15)

Max Uplift All uplift 100 lb or less at joint(s) 10, 7, 1 except 11=-175(LC 10), 9=-158(LC 11) Max Grav All reactions 250 lb or less at joint(s) except 11=834(LC 23), 10=764(LC 2), 9=837(LC 24), 7=380(LC

24), 1=320(LC 23)

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

WEBS 2-11=-402/239, 3-11=-359/131, 4-10=-386/50, 5-9=-364/116, 6-9=-397/233

NOTES- (7-10)

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 7, 1 except (jt=lb) 11=175, 9=158.
- 7) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.
- 8) Design checked for ASCE 7-16 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.
- 9) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.
- 10) Framing and bracing of the gable end frame shall be provided by the building designer.



November 9,2022





3x4 💋

3x4 📎

3-0-0 3-0-0 Plate Offsets (X,Y)--[2:0-2-0,Edge] LOADING (psf) SPACING-CSI. DEFL. PLATES GRIP 2-0-0 in (loc) I/defl I/d TCLL 30.0 Plate Grip DOL 1.15 тс 0.08 Vert(LL) 999 197/144 n/a n/a MT20 (Roof Snow=30.0) BC Lumber DOL 1.15 0.08 Vert(CT) n/a n/a 999 TCDL 10.0 Rep Stress Incr YES WB 0.00 Horz(CT) 0.00 3 n/a n/a BCLL 0.0 Code IBC2021/TPI2014 Matrix-P Weight: 8 lb FT = 5% BCDI 10.0

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SP No.3 or 2x4 SPF Stud BOT CHORD 2x4 SP No.3 or 2x4 SPF Stud

REACTIONS. (size) 1=3-0-0, 3=3-0-0 Max Horz 1=23(LC 11) Max Uplift 1=-22(LC 12), 3=-22(LC 13) Max Grav 1=108(LC 18), 3=108(LC 19)

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

NOTES- (7)

 Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) zone; cantilever left and right exposed ;C-C for members and forces &

- MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



Structural wood sheathing directly applied or 3-0-0 oc purlins.

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

October 13,2022







| Plate Offsets (X,Y) [2: | 0-2-0,Edge] | | | |
|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| LOADING (psf) TCLL 30.0 (Roof Snow=30.0) TCDL 10.0 BCLL 0.0 BCDL 10.0 | SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IBC2021/TPI2014 | CSI. TC 0.41 BC 0.55 WB 0.00 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 3 n/a n/a | PLATES GRIP MT20 197/144 Weight: 18 lb FT = 5% |
| LUMBER- TOP CHORD 2x4 SP N | o.3 or 2x4 SPF Stud | | BRACING- TOP CHORD Structural wood sheathing dire | ectly applied or 6-0-0 oc purlins. |

BOT CHORD

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

TOP CHORD 2x4 SP No.3 or 2x4 SPF Stud BOT CHORD 2x4 SP No.3 or 2x4 SPF Stud

REACTIONS. (size) 1=6-0-0, 3=6-0-0 Max Horz 1=58(LC 9) Max Uplift 1=-54(LC 12), 3=-54(LC 13) Max Grav 1=292(LC 18), 3=292(LC 19)

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

NOTES-(7)

- 1) Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) zone; cantilever left and right exposed ;C-C for members and forces &
- MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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NOTES- (7)

 Wind: ASCE 7-16; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) zone; cantilever left and right exposed ;C-C for members and forces &

MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

2) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

3) Unbalanced snow loads have been considered for this design.

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.



October 13,2022









October 13,2022

818 Soundside Road Edenton, NC 27932

GANG







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 October 13,2022

