# Florida Cover Letter

Job Name: 9841- New Residence

Site Adress: 9841 SW 73rd Court
Pinecrest Fl 33156

JOB # J2507729

STRUCTURE J2507729A

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

| Roof Loading | | | |
|---|---|---|---|
| TC Live: | TC Dead: | BC Live: | BC Dead: |
| 30 | 10 | 0 | 10 |

| Building Code | Wind Design Method | Exp Cat | Occ Cat | Velocity | TC Dead | BC Dead |
|---|---|---|---|---|---|---|
| FBC2020/TPI2014 | MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16 | C | II | 175 | 5 | 5 |

This package includes 8 individual, dated Truss Design Drawings and 0 Additional Drawings. With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

| No. | Date | Truss | Seal # |
|---|---|---|---|
| 1 | 7/14/2025 | T1 | RT00084243 |
| 2 | 7/14/2025 | T2 | RT00084244 |
| 3 | 7/14/2025 | T3 | RT00084245 |
| 4 | 7/14/2025 | T4 | RT00084246 |
| 5 | 7/14/2025 | T5 | RT00084247 |
| 6 | 7/14/2025 | T6 | RT00084248 |
| 7 | 7/14/2025 | T7 | RT00084249 |
| 8 | 7/14/2025 | TG1 | RT00084250 |

SUBMITTAL REVIEW STAMP

STRUCTURAL CONSULTING ENGINEERING

Vila Structural Consulting Engineers, Inc.
18701 SW 87th Ave., Cutler Bay, FL

☒ APPROVED ☐ REVISE & RESUBMIT

☐ APPROVED AS NOTED ☐ REJECTED

The Engineer of Record (EOR) shall review and approve the contractor's submittal solely to ensure conformance with the information and design concept expressed in the Contract Documents. This review is not intended to verify the accuracy and completeness of other information such as dimensions, quantities, or the installation and performance of equipment or systems.

DATE: 07/25/2025 BY: Jose E. Vila Alvarez, PE-Structural

The truss drawing(s) referenced above have been prepared by MiTek Industries, Inc. under my direct supervision based on the parameters provided by Royal Truss Manufacturing, Medley, FL.

**Truss Design Engineer's Name: Roger Chavarria, P.E.**

PE # 050712

NOTE: The seal on these drawings indicate acceptance of the professional engineering responsibility for the truss components shown.

Roger A CHAVARRIA

Digitally signed by Roger A CHAVARRIA
DN: c=US, o=RC. Engineering, dnQualifier=A01410C0000019585A8B9810017418D, cn=Roger A CHAVARRIA
Date: 2025.07.30 14:04:16 -04'00'

Engineer's Name Date

| Job | Truss | Truss Type | Qty | Ply | 9841- New Residence | |
|---|---|---|---|---|---|---|
| J2507729 | T1 | Monopitch | 18 | 1 | Job Reference (optional) | RT00084243 |

Royal Truss,Medley,FL — Run: 9.13 S 8.83 Feb 1 2025 Print: 8.830 S Feb 1 2025 MiTek Industries, Inc. Mon Jul 14 10:22:08 — Page: 1

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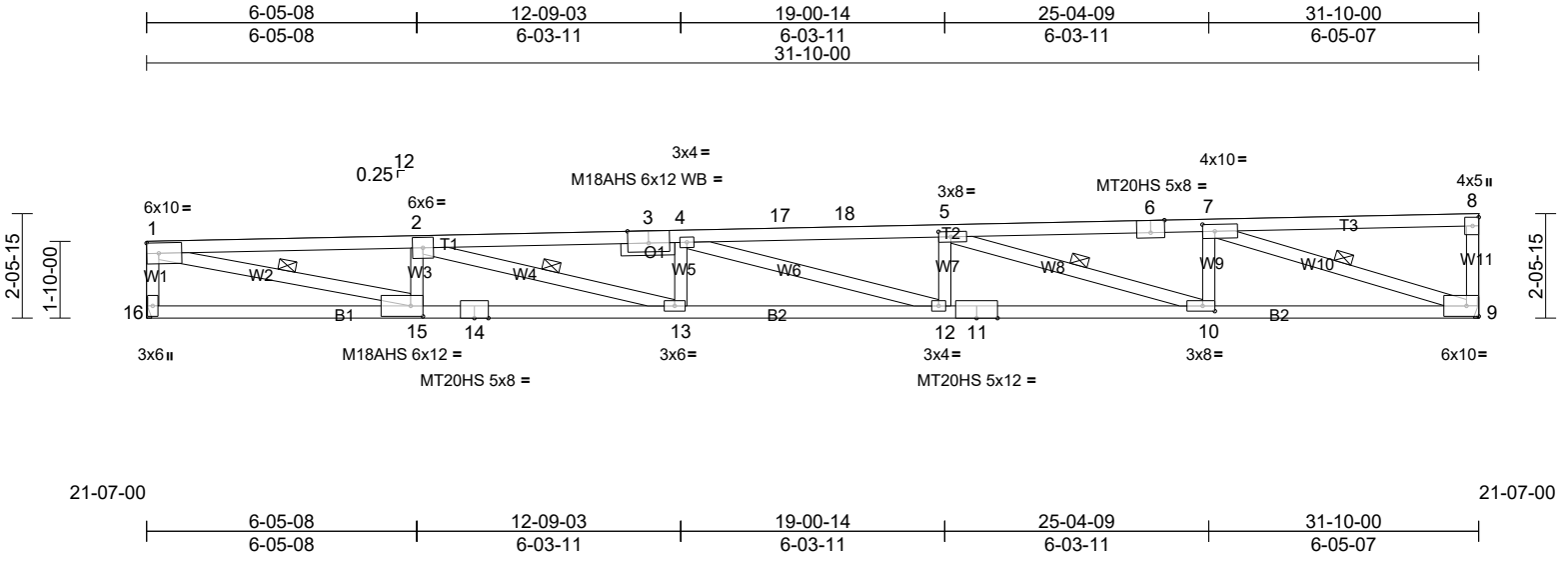


21-07-00 — 21-07-00

| 6-05-08 | 12-09-03 | 19-00-14 | 25-04-09 | 31-10-00 |
|---|---|---|---|---|
| 6-05-08 | 6-03-11 | 6-03-11 | 6-03-11 | 6-05-07 |

Scale = 1:55.3

Plate Offsets (X, Y): [3:6-00,Edge], [5:3-08,1-08], [6:4-00,Edge], [7:3-08,2-00], [8:Edge,3-08], [10:3-08,1-08], [15:3-08,3-00]

| Loading | (psf) | Spacing | 2-00-00 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 30.0 | Plate Grip DOL | 1.33 | TC | 0.86 | Vert(LL) | -0.68 | 12-13 | >559 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.33 | BC | 0.54 | Vert(CT) | -1.14 | 12-13 | >331 | 240 | MT20HS | 187/143 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.97 | Horz(CT) | 0.16 | 9 | n/a | n/a | M18AHS | 186/179 |
| BCDL | 10.0 | Code | FBC2020/TPI2014 | Matrix-AS | | Wind(LL) | 1.07 | 12-13 | >355 | 240 | Weight: 157 lb | FT = 20% |

**LUMBER**

| | |
|---|---|
| TOP CHORD | 2x4 SP 2400F 2.0E |
| BOT CHORD | 2x4 SP 2400F 2.0E |
| WEBS | 2x4 SP No.2 *Except* W2:2x4 SP 2400F 2.0E |
| OTHERS | 2x4 SP No.2 |

**BRACING**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied. |
| WEBS | 1 Row at midpt 1-15, 7-9, 2-13, 5-10 |

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

**REACTIONS** (lb/size) 9=1577/ Mechanical, 16=1577/ Mechanical
Max Horiz 16=62 (LC 8)
Max Uplift 9=-1178 (LC 8), 16=-1171 (LC 8)

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

| | |
|---|---|
| TOP CHORD | 1-16=-1495/1771, 1-2=-4879/5481, 2-3=-6710/7529, 3-4=-6700/7529, 4-17=-6267/7031, 17-18=-6262/7031, 5-18=-6260/7032, 5-6=-3974/4461, 6-7=-3964/4462, 8-9=-240/361 |
| BOT CHORD | 15-16=-325/213, 14-15=-5558/4873, 13-14=-5558/4873, 12-13=-7588/6703, 11-12=-7073/6260, 10-11=-7073/6260, 9-10=-4487/3968 |
| WEBS | 1-15=-5388/4797, 7-9=-4043/4573, 2-15=-1034/1380, 2-13=-2101/1894, 4-13=-362/601, 4-12=-460/535, 5-12=-89/326, 5-10=-2398/2706, 7-10=-703/819 |

**NOTES**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=175mph (3-second gust) Vasd=136mph; TCDL=5.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) 0-1-12 to 15-1-12, Exterior (2) 15-1-12 to 16-8-4, Corner (3) 16-8-4 to 31-8-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1171 lb uplift at joint 16 and 1178 lb uplift at joint 9.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard

| Job | Truss | Truss Type | Qty | Ply | 9841- New Residence | |
|---|---|---|---|---|---|---|
| J2507729 | T2 | Common | 2 | 1 | Job Reference (optional) | RT00084244 |

Royal Truss,Medley,FL — Run: 9.13 S 8.83 Feb 1 2025 Print: 8.830 S Feb 1 2025 MiTek Industries, Inc. Mon Jul 14 10:22:08 — Page: 1

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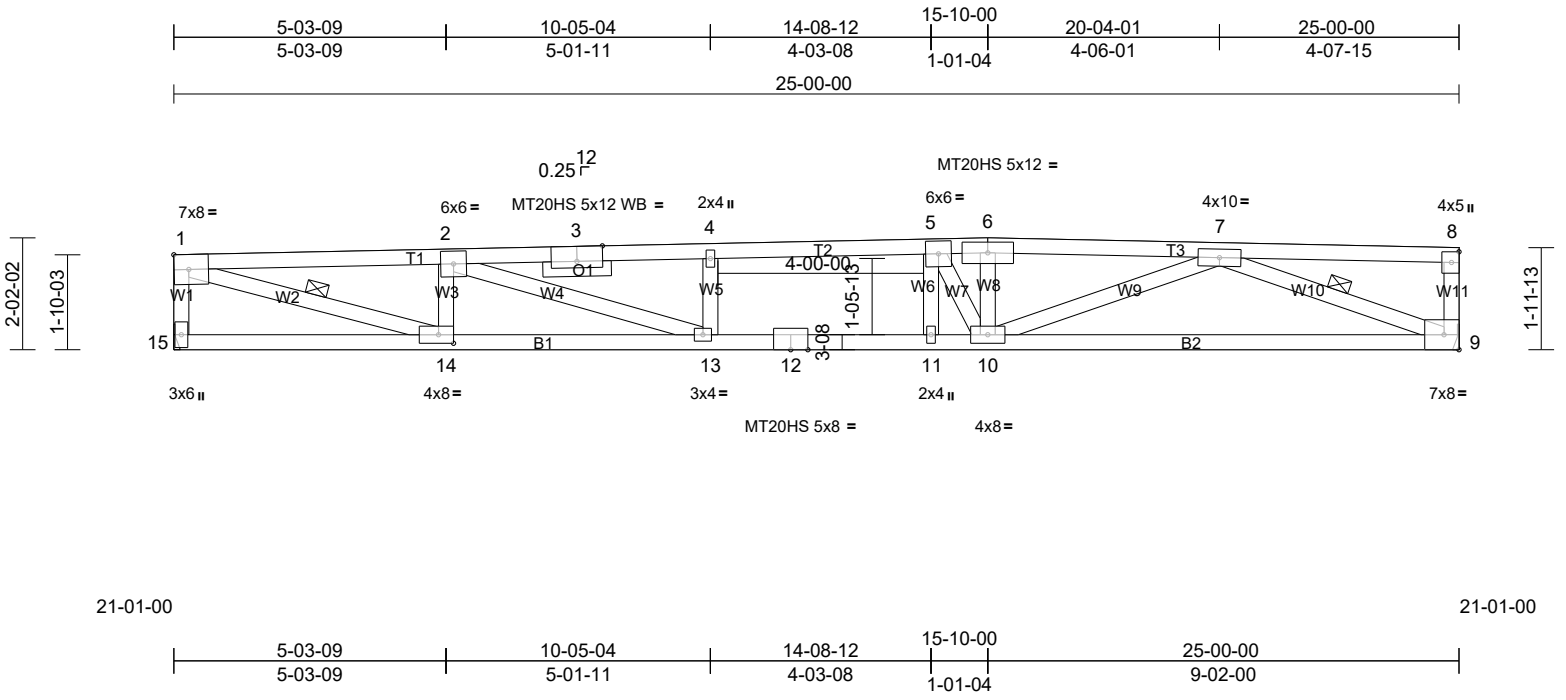





Scale = 1:45

Plate Offsets (X, Y): [3:6-00,Edge], [14:3-08,2-00]

| Loading | (psf) | Spacing | 2-00-00 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 30.0 | Plate Grip DOL | 1.33 | TC | 0.69 | Vert(LL) | -0.35 | 13-14 | >835 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.33 | BC | 0.98 | Vert(CT) | -0.59 | 13-14 | >499 | 240 | MT20HS | 187/143 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.77 | Horz(CT) | -0.11 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code | FBC2020/TPI2014 | Matrix-AS | | Wind(LL) | 0.62 | 13-14 | >477 | 240 | Weight: 121 lb | FT = 20% |

**LUMBER**

| | |
|---|---|
| TOP CHORD | 2x4 SP 2400F 2.0E |
| BOT CHORD | 2x4 SP No.2 |
| WEBS | 2x4 SP No.2 |
| OTHERS | 2x4 SP No.2 |

**BRACING**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied. |
| WEBS | 1 Row at midpt 7-9, 1-14 |

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

**REACTIONS** (lb/size) 9=1235/ Mechanical, 15=1235/ Mechanical
Max Horiz 15=21 (LC 8)
Max Uplift 9=-717 (LC 9), 15=-852 (LC 8)

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

| | |
|---|---|
| TOP CHORD | 1-15=-1173/1605, 1-2=-3132/4067, 2-3=-4138/5384, 3-4=-4133/5384, 4-5=-4135/5396, 5-6=-3822/4878, 6-7=-3822/4870, 8-9=-185/306 |
| BOT CHORD | 13-14=-4078/3127, 12-13=-5378/4132, 11-12=-5378/4132, 10-11=-5378/4132, 9-10=-3439/2545 |
| WEBS | 6-10=-200/389, 7-10=-1514/1369, 7-9=-2598/3609, 5-10=-1000/1043, 5-11=-260/199, 4-13=-286/549, 2-13=-1366/1056, 2-14=-796/1233, 1-14=-4058/3124 |

**NOTES**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=175mph (3-second gust) Vasd=136mph; TCDL=5.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 852 lb uplift at joint 15 and 717 lb uplift at joint 9.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard

| Job | Truss | Truss Type | Qty | Ply | 9841- New Residence | |
|---|---|---|---|---|---|---|
| J2507729 | T3 | Common | 4 | 1 | Job Reference (optional) | RT00084245 |

Royal Truss,Medley,FL — Run: 9.13 S 8.83 Feb 1 2025 Print: 8.830 S Feb 1 2025 MiTek Industries, Inc. Mon Jul 14 10:22:08 — Page: 1

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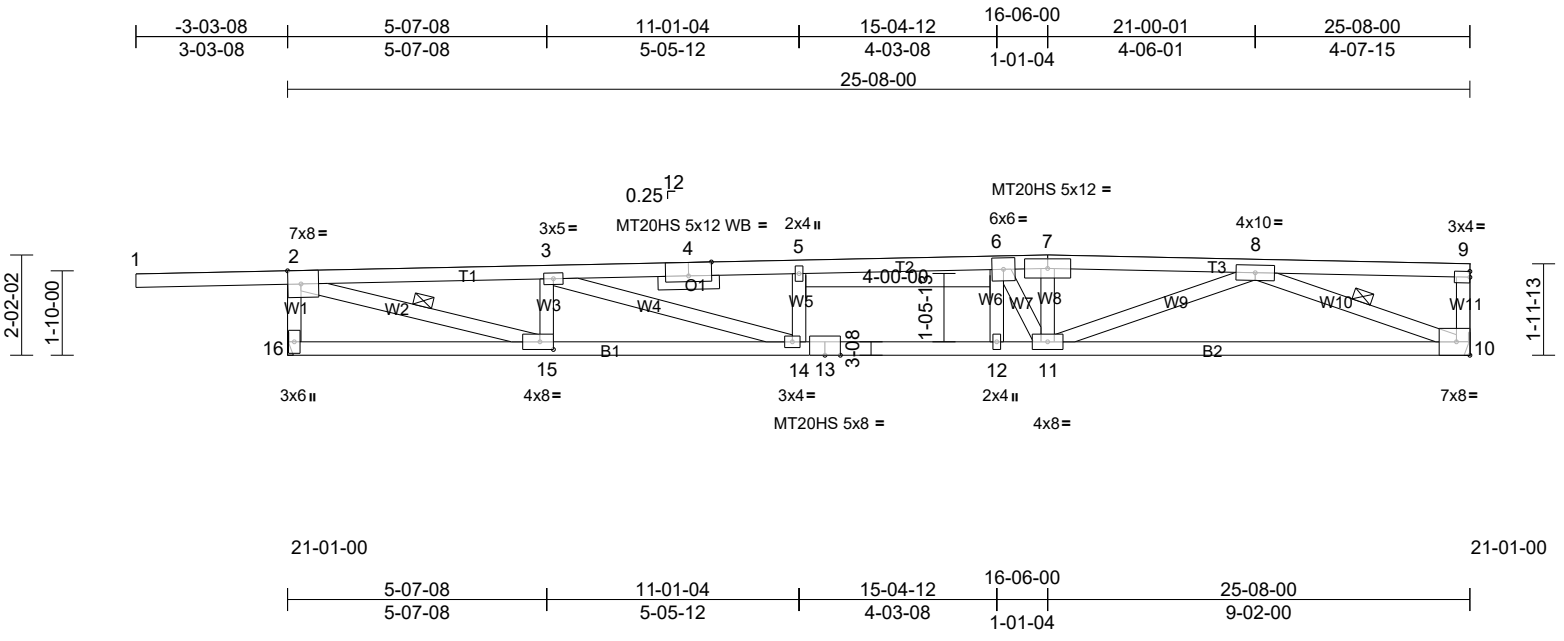





Scale = 1:50.2

Plate Offsets (X, Y): [2:3-07,Edge], [4:6-00,Edge], [15:3-08,2-00]

| Loading | (psf) | Spacing | 2-00-00 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 30.0 | Plate Grip DOL | 1.33 | TC | 0.69 | Vert(LL) | -0.37 | 14-15 | >827 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.33 | BC | 1.00 | Vert(CT) | -0.63 | 14-15 | >486 | 240 | MT20HS | 187/143 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.83 | Horz(CT) | -0.09 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code | FBC2020/TPI2014 | Matrix-AS | | Wind(LL) | 0.65 | 14-15 | >471 | 240 | Weight: 128 lb | FT = 20% |

**LUMBER**

| | |
|---|---|
| TOP CHORD | 2x4 SP 2400F 2.0E |
| BOT CHORD | 2x4 SP No.2 *Except* B2:2x4 SP 2400F 2.0E |
| WEBS | 2x4 SP No.2 |
| OTHERS | 2x4 SP No.2 |

**BRACING**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied. |
| WEBS | 1 Row at midpt 8-10, 2-15 |

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

**REACTIONS** (lb/size) 10=1250/ Mechanical, 16=1562/ Mechanical
Max Horiz 16=31 (LC 8)
Max Uplift 10=-723 (LC 9), 16=-1303 (LC 8)

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

TOP CHORD 2-16=-1503/2092, 7-8=-3882/4873, 9-10=-181/297, 2-3=-3163/4041, 3-4=-4257/5458, 4-5=-4252/5458, 5-6=-4254/5471, 6-7=-3882/4882

BOT CHORD 14-15=-4053/3157, 13-14=-5453/4251, 12-13=-5453/4251, 11-12=-5453/4251, 10-11=-3447/2587

WEBS 7-11=-207/403, 8-11=-1510/1388, 8-10=-2643/3610, 6-12=-360/290, 6-11=-1109/1183, 5-14=-310/586, 2-15=-4215/3300, 3-15=-768/1192, 3-14=-1491/1143

**NOTES**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=175mph (3-second gust) Vasd=136mph; TCDL=5.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1303 lb uplift at joint 16 and 723 lb uplift at joint 10.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard

| Job | Truss | Truss Type | Qty | Ply | 9841- New Residence | |
|---|---|---|---|---|---|---|
| J2507729 | T4 | Roof Special | 13 | 1 | Job Reference (optional) | RT00084246 |

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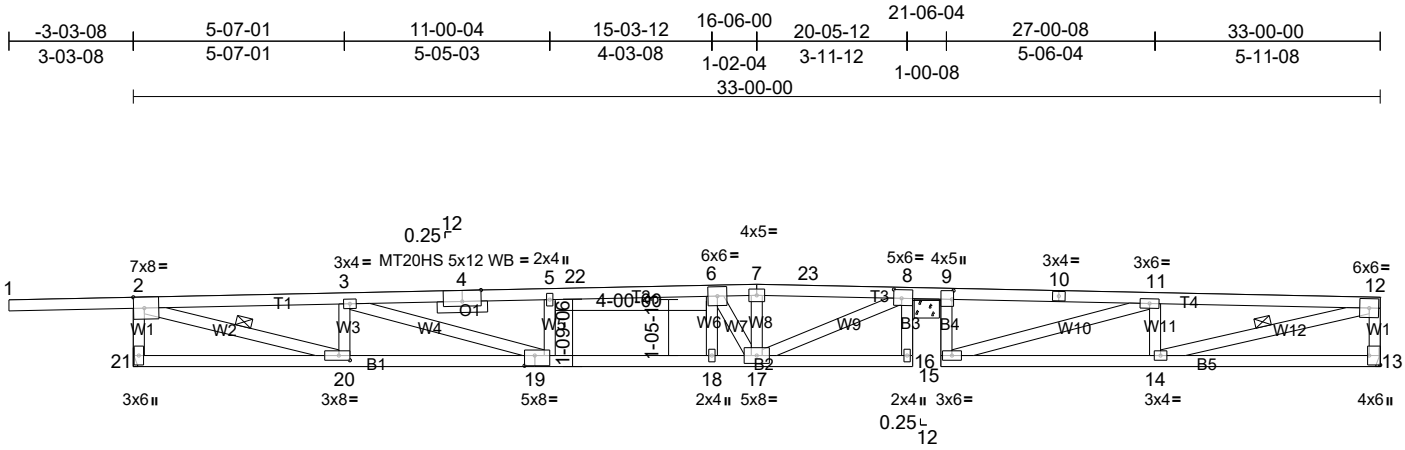








Scale = 1:61.2

Plate Offsets (X, Y): [2:3-07,Edge], [4:6-00,Edge], [8:2-08,2-12], [9:Edge,3-08], [13:Edge,3-08], [19:3-04,3-04], [20:3-08,1-08]

| Loading | (psf) | Spacing | 2-00-00 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 30.0 | Plate Grip DOL | 1.33 | TC | 0.82 | Vert(LL) | -0.31 | 19-20 | >800 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.33 | BC | 0.59 | Vert(CT) | -0.51 | 19-20 | >478 | 240 | MT20HS | 187/143 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.59 | Horz(CT) | -0.02 | 13 | n/a | n/a | | |
| BCDL | 10.0 | Code | FBC2020/TPI2014 | Matrix-AS | | Wind(LL) | 0.49 | 19-20 | >503 | 240 | Weight: 164 lb | FT = 20% |

**LUMBER**

| | |
|---|---|
| TOP CHORD | 2x4 SP 2400F 2.0E *Except* T3,T4:2x4 SP No.2 |
| BOT CHORD | 2x4 SP No.2 *Except* B2,B1:2x4 SP 2400F 2.0E |
| WEBS | 2x4 SP No.2 |
| OTHERS | 2x4 SP No.2 |

**BRACING**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied. |
| WEBS | 1 Row at midpt 12-14, 2-20 |

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

**REACTIONS** All bearings 1-08. except 8=8-00, 9=8-00

(lb) - Max Horiz 21=183 (LC 8)

Max Uplift All uplift 100 (lb) or less at joint(s) except 8=-620 (LC 8), 9=-800 (LC 9), 13=-653 (LC 9), 21=-1155 (LC 8)

Max Grav All reactions 250 (lb) or less at joint(s) except 8=1022 (LC 1), 9=670 (LC 26), 13=555 (LC 1), 21=1310 (LC 1)

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

TOP CHORD 2-21=-1261/1515, 2-3=-2381/2620, 3-4=-2475/2666, 4-5=-2469/2667, 5-22=-2502/2741, 6-22=-2495/2741, 6-7=-1605/1751, 7-23=-1595/1737, 8-23=-1599/1737, 11-12=-1061/1893, 12-13=-490/817

BOT CHORD 9-15=-703/360, 14-15=-1885/1057, 19-20=-2711/2375, 18-19=-2773/2501, 17-18=-2773/2501

WEBS 11-14=-179/261, 12-14=-1697/951, 11-15=-1040/1896, 7-17=-344/523, 8-17=-1839/1687, 6-18=-595/607, 6-17=-1789/1917, 3-20=-512/737, 2-20=-2766/2528, 5-19=-150/310

**NOTES**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=175mph (3-second gust) Vasd=136mph; TCDL=5.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -3-3-8 to 11-8-8, Exterior (2) 11-8-8 to 17-10-4, Corner (3) 17-10-4 to 32-10-4 zone; cantilever left and right exposed ; porch right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1154 lb uplift at joint 21, 652 lb uplift at joint 13, 619 lb uplift at joint 8 and 800 lb uplift at joint 9.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 8, 9.
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

**LOAD CASE(S)** Standard

| Job | Truss | Truss Type | Qty | Ply | 9841- New Residence | |
|---|---|---|---|---|---|---|
| J2507729 | T5 | Monopitch | 18 | 1 | Job Reference (optional) | RT00084247 |

Royal Truss,Medley,FL — Run: 9.13 S 8.83 Feb 1 2025 Print: 8.830 S Feb 1 2025 MiTek Industries, Inc. Mon Jul 14 10:22:08 — Page: 1

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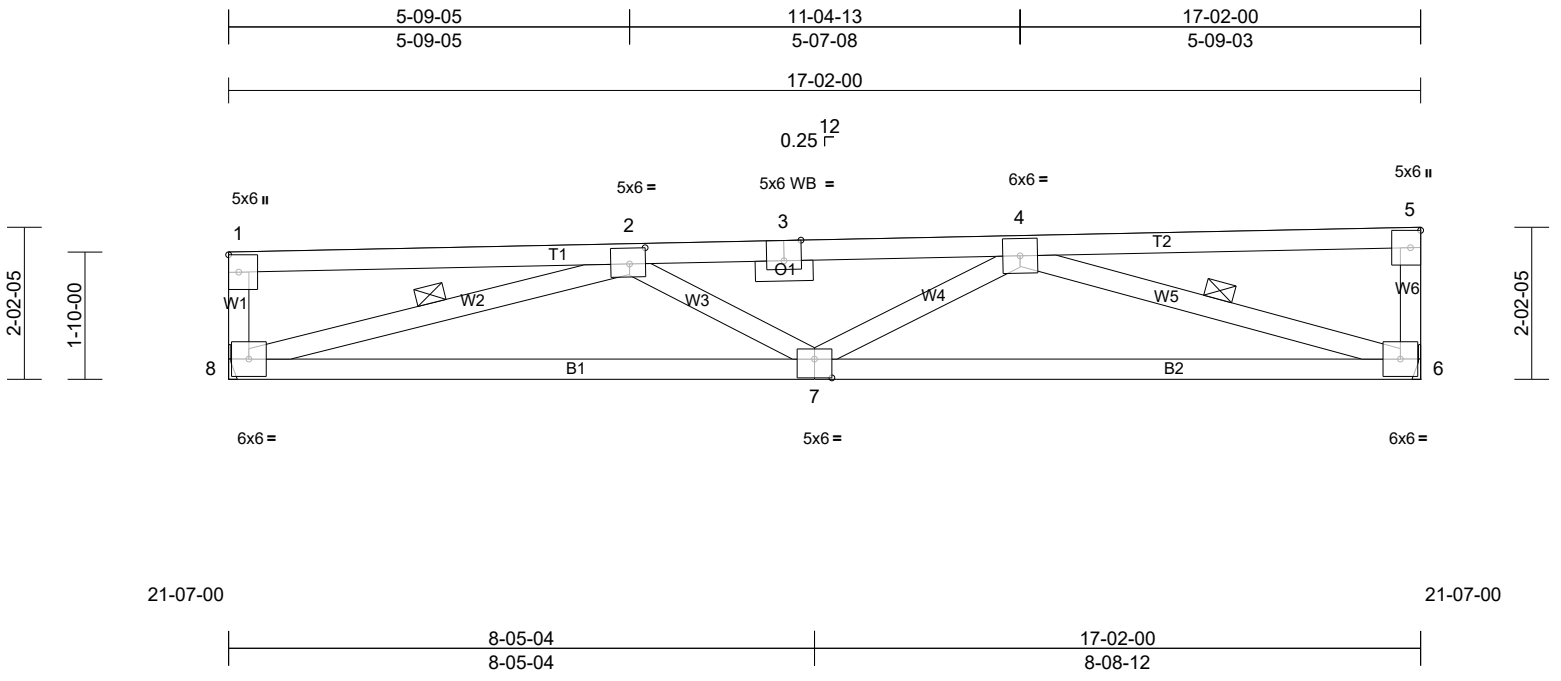


Scale = 1:33.3

Plate Offsets (X, Y): [2:2-12,2-12], [3:3-00,Edge], [5:Edge,3-08], [7:3-00,3-04]

| Loading | (psf) | Spacing | 2-00-00 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 30.0 | Plate Grip DOL | 1.33 | TC | 0.62 | Vert(LL) | -0.12 | 6-7 | >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.33 | BC | 0.80 | Vert(CT) | -0.26 | 6-7 | >767 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.66 | Horz(CT) | -0.07 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code | FBC2020/TPI2014 | Matrix-AS | | Wind(LL) | 0.23 | 7 | >892 | 240 | Weight: 83 lb | FT = 20% |

**LUMBER**

| | |
|---|---|
| TOP CHORD | 2x4 SP 2400F 2.0E |
| BOT CHORD | 2x4 SP No.2 |
| WEBS | 2x4 SP No.2 |
| OTHERS | 2x4 SP No.2 |

**BRACING**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied. |
| WEBS | 1 Row at midpt 2-8, 4-6 |

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

**REACTIONS** (lb/size) 6=844/ Mechanical, 8=844/ Mechanical
Max Horiz 8=33 (LC 8)
Max Uplift 6=-632 (LC 8), 8=-625 (LC 8)

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

| | |
|---|---|
| TOP CHORD | 1-8=-225/453, 2-3=-2055/2997, 3-4=-2050/2998, 5-6=-214/436 |
| BOT CHORD | 7-8=-3231/1975, 6-7=-3018/1843 |
| WEBS | 2-7=0/301, 2-8=-1895/3105, 4-7=-11/400, 4-6=-1805/3023 |

**NOTES**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=175mph (3-second gust) Vasd=136mph; TCDL=5.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 625 lb uplift at joint 8 and 632 lb uplift at joint 6.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard

| Job | Truss | Truss Type | Qty | Ply | 9841- New Residence | |
|---|---|---|---|---|---|---|
| J2507729 | T6 | Monopitch | 10 | 1 | Job Reference (optional) | RT00084248 |

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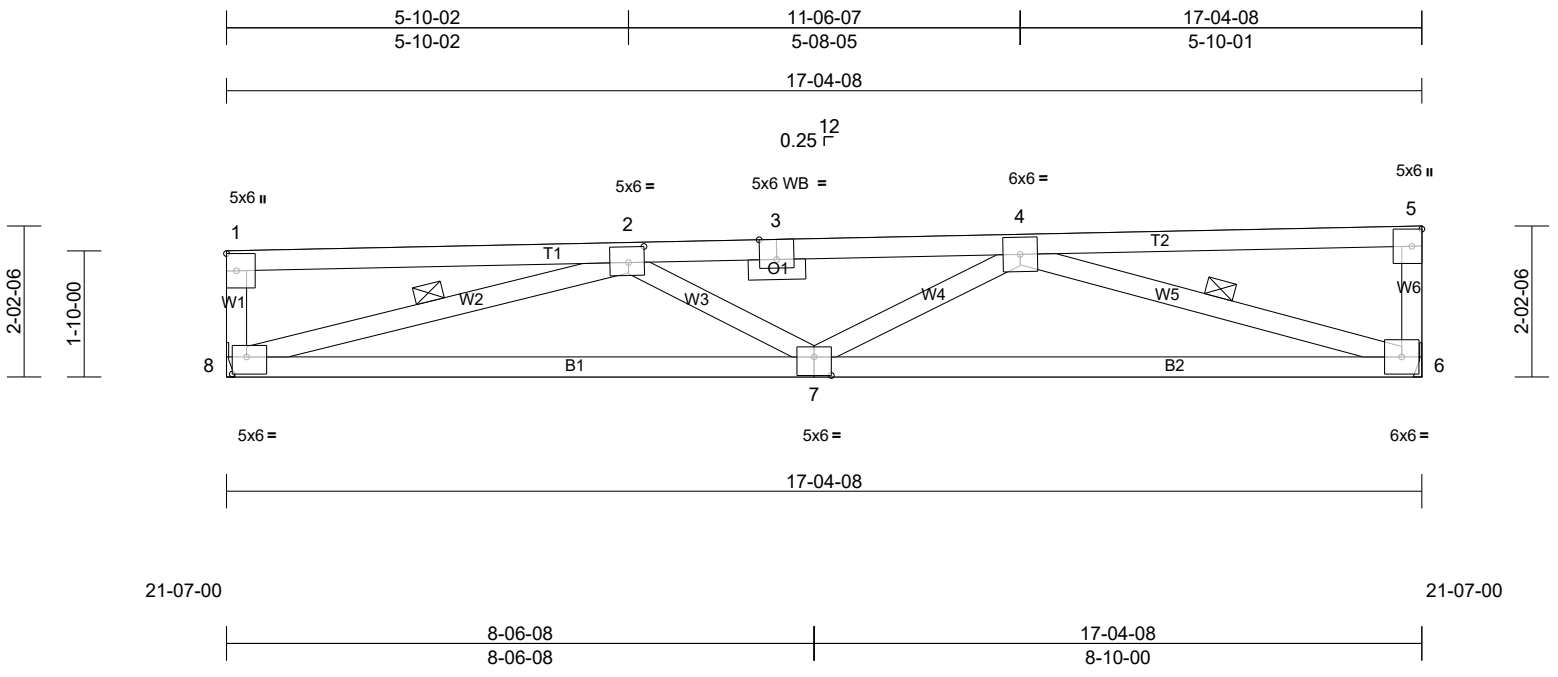


Scale = 1:33.6

Plate Offsets (X, Y): [2:2-12,2-12], [3:3-00,Edge], [5:Edge,3-08], [7:3-00,3-04], [8:2-08,2-00]

| Loading | (psf) | Spacing | 2-00-00 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 30.0 | Plate Grip DOL | 1.33 | TC | 0.63 | Vert(LL) | -0.13 | 6-7 | >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.33 | BC | 0.86 | Vert(CT) | -0.28 | 6-7 | >740 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.67 | Horz(CT) | -0.07 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code | FBC2020/TPI2014 | Matrix-AS | | Wind(LL) | 0.24 | 7 | >869 | 240 | Weight: 84 lb | FT = 20% |

**LUMBER**

| | |
|---|---|
| TOP CHORD | 2x4 SP 2400F 2.0E |
| BOT CHORD | 2x4 SP No.2 |
| WEBS | 2x4 SP No.2 |
| OTHERS | 2x4 SP No.2 |

**BRACING**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied. |
| WEBS | 1 Row at midpt 2-8, 4-6 |

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

**REACTIONS** (lb/size) 6=854/ Mechanical, 8=854/ Mechanical
Max Horiz 8=34 (LC 8)
Max Uplift 6=-640 (LC 8), 8=-633 (LC 8)

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

| | |
|---|---|
| TOP CHORD | 1-8=-228/456, 2-3=-2103/3051, 3-4=-2098/3052, 5-6=-217/439 |
| BOT CHORD | 7-8=-3291/2022, 6-7=-3072/1886 |
| WEBS | 2-7=0/307, 2-8=-1938/3160, 4-7=-12/409, 4-6=-1845/3074 |

**NOTES**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=175mph (3-second gust) Vasd=136mph; TCDL=5.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 633 lb uplift at joint 8 and 640 lb uplift at joint 6.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard

| Job | Truss | Truss Type | Qty | Ply | 9841- New Residence | |
|---|---|---|---|---|---|---|
| J2507729 | T7 | Monopitch | 9 | 1 | Job Reference (optional) | RT00084249 |

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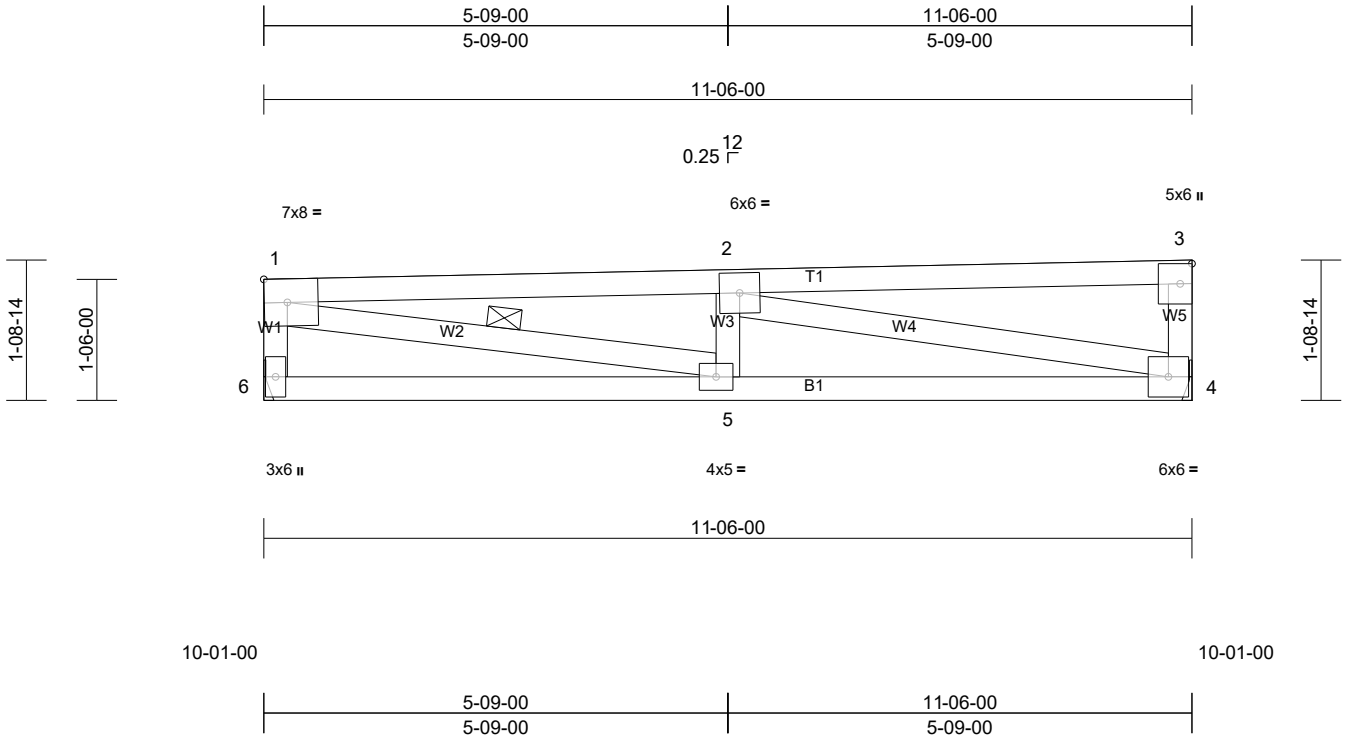


Scale = 1:28.7

Plate Offsets (X, Y): [3:Edge,3-08]

| Loading | (psf) | Spacing | 2-00-00 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 30.0 | Plate Grip DOL | 1.33 | TC | 0.79 | Vert(LL) | -0.05 | 5 | >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.33 | BC | 0.39 | Vert(CT) | -0.09 | 5 | >999 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.68 | Horz(CT) | -0.02 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code | FBC2020/TPI2014 | Matrix-AS | | Wind(LL) | 0.13 | 5 | >999 | 240 | Weight: 55 lb | FT = 20% |

**LUMBER**

| | |
|---|---|
| TOP CHORD | 2x4 SP 2400F 2.0E |
| BOT CHORD | 2x4 SP No.2 |
| WEBS | 2x4 SP No.2 |

**REACTIONS** (lb/size) 4=560/ Mechanical, 6=560/ Mechanical
Max Horiz 6=22 (LC 8)
Max Uplift 4=-420 (LC 8), 6=-415 (LC 8)

**BRACING**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied. |
| WEBS | 1 Row at midpt 1-5 |

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

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

| | |
|---|---|
| TOP CHORD | 1-6=-493/1017, 1-2=-1328/2424, 3-4=-215/508 |
| BOT CHORD | 5-6=-368/179, 4-5=-2457/1322 |
| WEBS | 1-5=-2140/1170, 2-5=-157/581, 2-4=-1210/2258 |

**NOTES**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=175mph (3-second gust) Vasd=136mph; TCDL=5.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 415 lb uplift at joint 6 and 420 lb uplift at joint 4.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard

| Job | Truss | Truss Type | Qty | Ply | 9841- New Residence | |
|---|---|---|---|---|---|---|
| J2507729 | TG1 | Flat Girder | 1 | 2 | Job Reference (optional) | RT00084250 |

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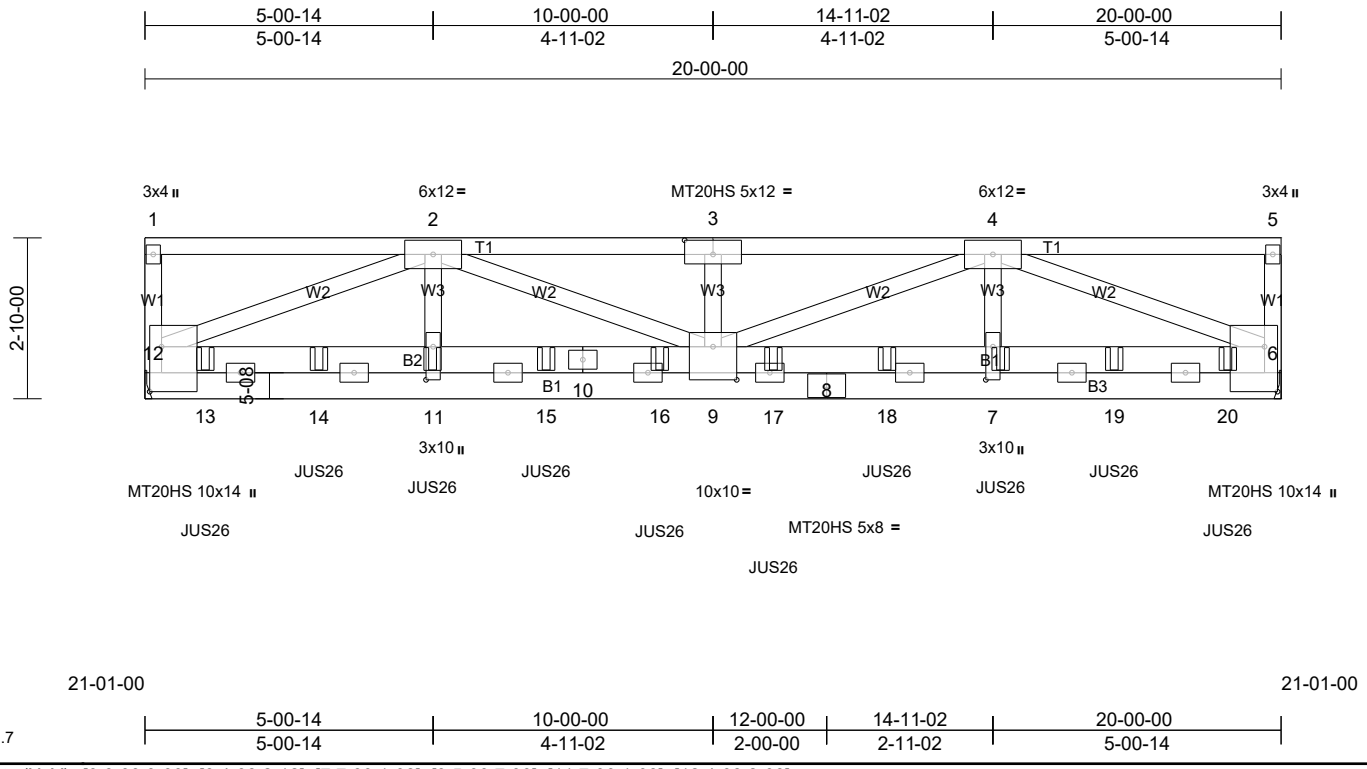


Scale = 1:40.7

Plate Offsets (X, Y): [3:6-00,3-00], [6:4-08,2-12], [7:7-00,1-08], [9:5-00,7-00], [11:7-00,1-08], [12:4-08,2-08]

| Loading | (psf) | Spacing | 2-00-00 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 30.0 | Plate Grip DOL | 1.33 | TC | 0.74 | Vert(LL) | -0.20 | 9 | >999 | 360 | MT20HS | 187/143 |
| TCDL | 10.0 | Lumber DOL | 1.33 | BC | 0.68 | Vert(CT) | -0.34 | 9 | >704 | 240 | MT20 | 244/190 |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.69 | Horz(CT) | 0.05 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code | FBC2020/TPI2014 | Matrix-MS | | Wind(LL) | 0.33 | 9 | >725 | 240 | Weight: 329 lb | FT = 20% |

**LUMBER**

| | |
|---|---|
| TOP CHORD | 2x4 SP 2400F 2.0E |
| BOT CHORD | 2x6 SP No.2 |
| WEBS | 2x4 SP No.2 *Except* W2:2x4 SP 2400F 2.0E |

**BRACING**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 4-5-5 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 7-2-6 oc bracing. |

**REACTIONS** (lb/size) 6=6263/ Mechanical, 12=6220/ Mechanical
Max Uplift 6=-4284 (LC 8), 12=-4248 (LC 8)

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

| | |
|---|---|
| TOP CHORD | 1-12=-412/660, 2-3=-13446/11438, 3-4=-13446/11438, 5-6=-412/660 |
| BOT CHORD | 12-13=-8987/10546, 13-14=-8987/10546, 11-14=-8987/10546, 11-15=-8987/10546, 10-15=-8987/10546, 10-16=-8987/10546, 9-16=-8987/10546, 9-17=-8990/10545, 8-17=-8990/10545, 8-18=-8990/10545, 7-18=-8990/10545, 7-19=-8990/10545, 19-20=-8990/10545, 6-20=-8990/10545 |
| WEBS | 4-6=-11360/9637, 2-11=-1538/2421, 2-12=-11361/9634, 2-9=-2689/3183, 3-9=-824/1401, 4-9=-2686/3185, 4-7=-1539/2420 |

**NOTES**

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 9-00 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 9-00 oc.
Web connected as follows: 2x4 - 1 row at 9-00 oc, Except member 2-11 2x4 - 1 row at 4-00 oc, Except member 4-7 2x4 - 1 row at 4-00 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=175mph (3-second gust) Vasd=136mph; TCDL=5.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) All plates are 4x6 (=) MT20 unless otherwise indicated.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) Refer to girder(s) for truss to truss connections.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4248 lb uplift at joint 12 and 4284 lb uplift at joint 6.
13) Use MiTek JUS26 (With 4-10d nails into Girder & 4-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-0-12 from the left end to 19-0-12 to connect truss (es) T6 (1 ply 2x4 SP) to front face of bottom chord.
14) Fill all nail holes where hanger is in contact with lumber.
15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.33, Plate Increase=1.33

Continued on page 2

Uniform Loads (lb/ft)

Vert: 1-5=-180, 6-12=-20

Concentrated Loads (lb)

Vert: 11=-854, 7=-854, 13=-854, 14=-854, 15=-854, 16=-854, 17=-854, 18=-854, 19=-854, 20=-854