

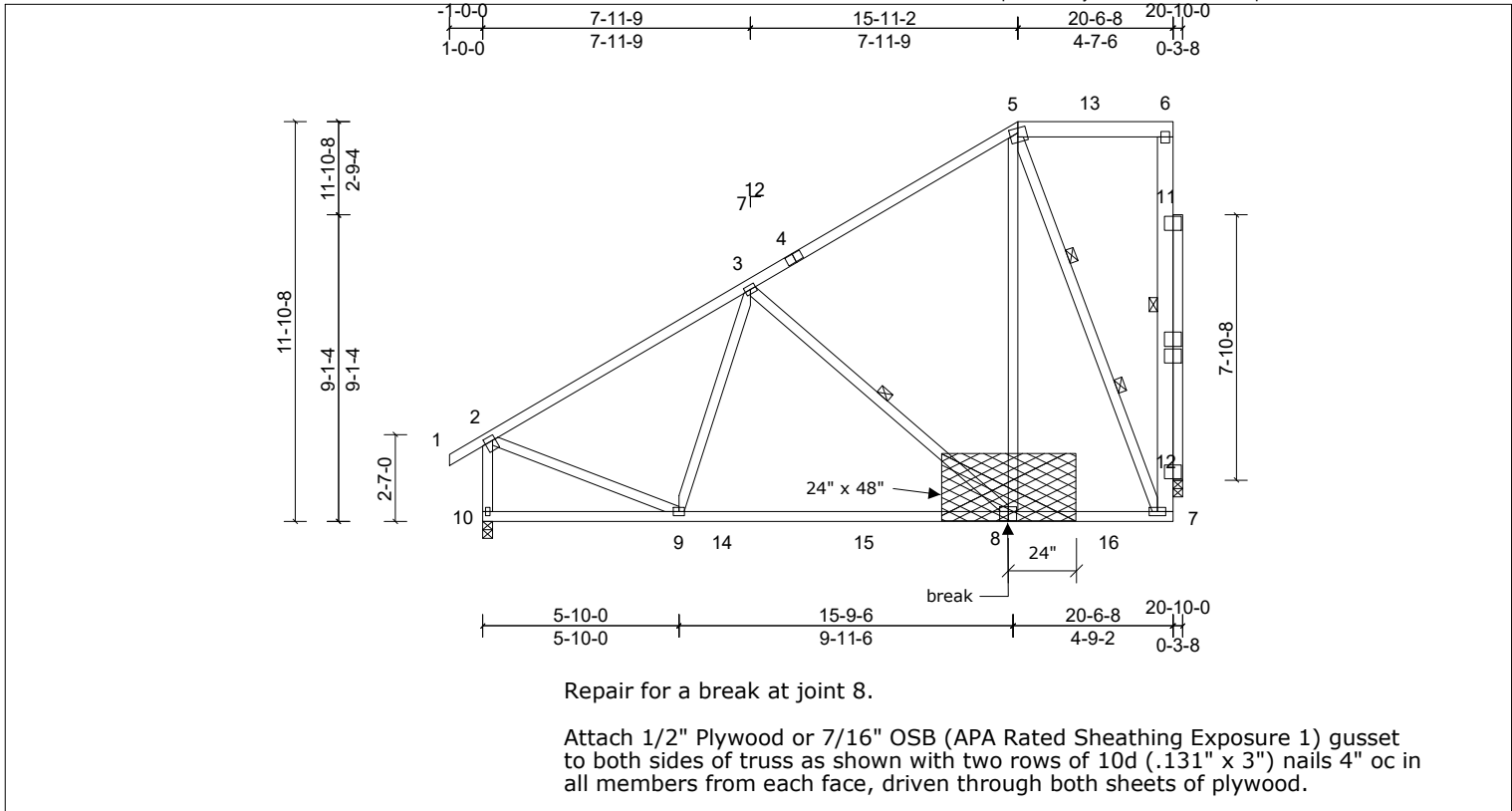
|                     |              |                     |          |          |  |
|---------------------|--------------|---------------------|----------|----------|--|
| Job<br>70043822REPA | Truss<br>A01 | Truss Type<br>Truss | Qty<br>5 | Ply<br>1 | Dan RYAN / MIDDLETON 2 BN RM<br>Job Reference (optional) |
|---------------------|--------------|---------------------|----------|----------|--|

UFP Mid Atlantic LLC, 5631 S. NC 62, Burlington, NC, JMP

Run: 8.41 S Jul 24 2020 Print: 8.410 S Jul 24 2020 MiTek Industries, Inc. Wed Jan 27 14:35:57

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Repair for a break at joint 8.

Attach 1/2" Plywood or 7/16" OSB (APA Rated Sheathing Exposure 1) gusset to both sides of truss as shown with two rows of 10d (.131" x 3") nails 4" oc in all members from each face, driven through both sheets of plywood.

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

| Loading     | (psf) | Spacing         | 2-0-0           | CSI        | DEFL     | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|------------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0  | Plate Grip DOL  | 1.15            | TC         | Vert(LL) | -0.25 | 8-9   | >984   | 240 | MT20           | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.15            | BC         | Vert(CT) | -0.46 | 8-9   | >529   | 180 |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB         | Horz(CT) | 0.02  | 12    | n/a    | n/a |                |          |
| BCDL        | 10.0  | Code            | IRC2015/TPI2014 | Matrix-MSH |          |       |       |        |     | Weight: 180 lb | FT = 20% |

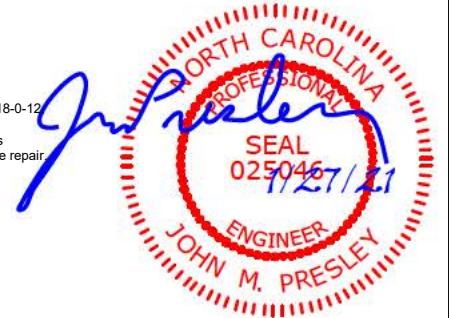
| LUMBER   | BRACING  |
|--|--|
| TOP CHORD<br>2x4 SP No.2 *Except* T3:2x6 SP No.2 | TOP CHORD<br>Structural wood sheathing directly applied or 4-9-2 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6. |
| BOT CHORD<br>2x4 SP No.2                         | BOT CHORD<br>Rigid ceiling directly applied or 8-5-7 oc bracing.   |
| WEBS<br>2x4 SP No.3 *Except* W7:2x6 SP No.2      | WEBS<br>1 Row at midpt 6-7, 3-8  |
| OTHERS<br>2x4 SP No.3                            | WEBS<br>2 Rows at 1/3 pts 5-7  |

| REACTIONS  | (lb/size)   |
|------------|---|
| Max Horiz  | 10=1077/0-3-8, (min. 0-1-8), 12=2448/0-3-8, (min. 0-1-11) |
| Max Uplift | 10=361 (LC 10)  |
| Max Grav   | 10=-85 (LC 10), 12=-476 (LC 10)                           |
|            | 10=1086 (LC 17), 12=2448 (LC 1)                           |

| FORCES    | (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.                            |
|-----------|---|
| TOP CHORD | 2-3=-1068/85, 3-4=-765/43, 4-5=-633/86, 7-12=-328/1444, 11-12=-1065/201, 6-11=-1065/201, 2-10=-1071/115 |
| BOT CHORD | 9-10=-467/404, 9-14=-344/929, 14-15=-344/929, 8-15=-344/929, 8-16=-130/546, 7-16=-130/546               |
| WEBS      | 3-8=-510/330, 5-8=-119/626, 5-7=-1512/360, 2-9=0/803  |

- NOTES (11)**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left exposed; end vertical left exposed; 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.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 85 lb uplift at joint 10 and 476 lb uplift at joint 12.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 624 lb down and 96 lb up at 15-11-2, and 607 lb down and 95 lb up at 18-0-12 and 629 lb down and 99 lb up at 20-3-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - This repair has been prepared based on information and use conditions supplied by client. Designer has made a good faith effort to outline damage and repair conditions as reported by client. When actual field conditions do not approximate those indicated on this drawing, client shall immediately inform the engineer and refrain from applying the repair.

| LOAD CASE(S)  | Standard                                  |
|---|---|
| 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15 |   |
| Uniform Loads (lb/ft)   |   |
|   | Vert: 1-2=-60, 2-5=-60, 5-6=-60, 7-10=-20 |
| Concentrated Loads (lb)   |   |
|   | Vert: 5=-607, 6=-629, 13=-607             |



This design is based upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of the Building Designer. Building Designer shall verify all design information on this sheet for conformance with conditions and requirements of the specific building and governing codes and ordinances. Building Designer accepts responsibility for the correctness or accuracy of the design information as it may relate to a specific building. Certification is valid only when truss is fabricated by a UFP plant. Bracing shown is for lateral support of truss members only and does not replace erection and permanent bracing. Refer to Building Component Safety Information (BCSI) for general guidance regarding storage, erection and bracing available from SBCA and Truss Plate Institute.

