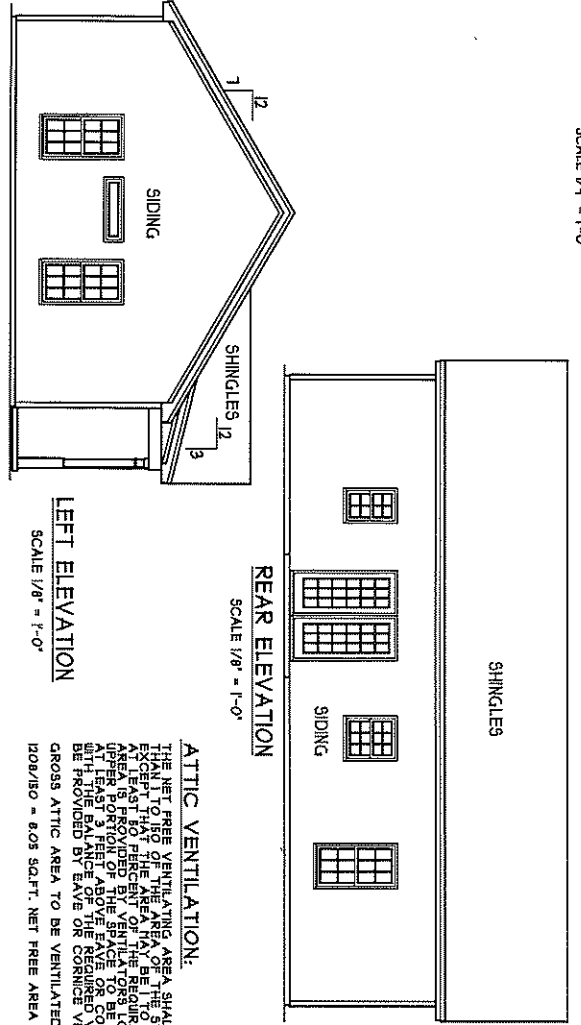
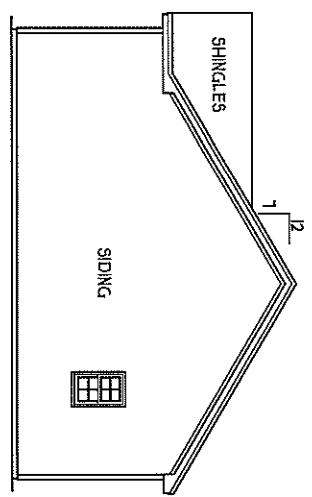


**FRONT ELEVATION**  
SCALE 1/4" = 1'-0"



**REAR ELEVATION**  
SCALE 1/8" = 1'-0"

**LEFT ELEVATION**  
SCALE 1/8" = 1'-0"



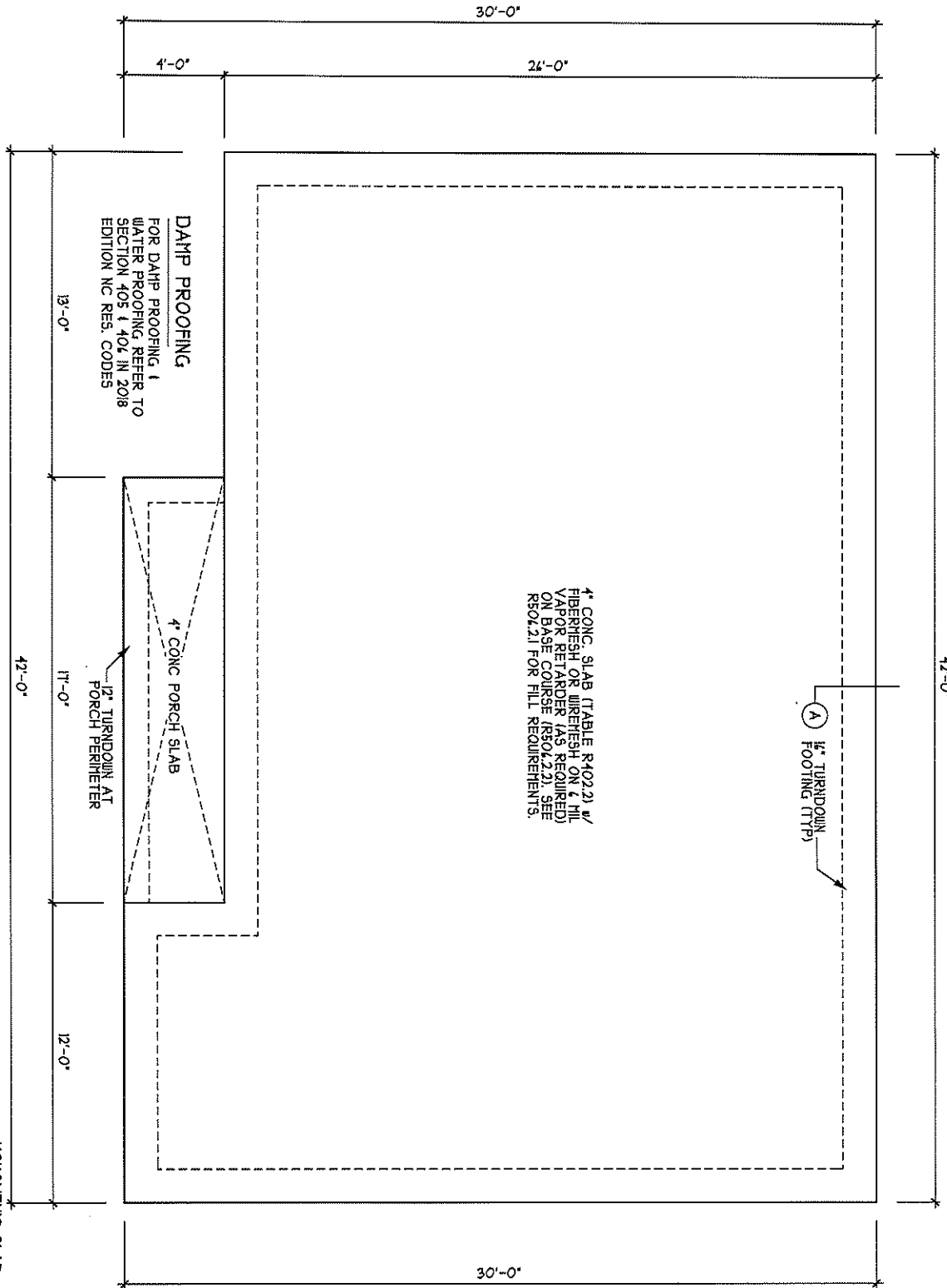
**RIGHT ELEVATION**  
SCALE 1/8" = 1'-0"

**ENERGY COMPLIANCE**  
 ZONE 3 = MAX. GLAZING U-FACTOR .35  
 R-VALUE = CEILING, R3.0, WALLS, R15, FLOORS R4  
 FOR JOHNSTON, SAMPSON, WYNNE COUNTY  
 ZONE 4 = MAX. GLAZING U-FACTOR .35  
 R-VALUE = CEILING, R3.0, WALLS, R15, FLOORS R4  
 FOR WILKE, DARRIN, ORANGE COUNTY

**ATTIC VENTILATION:**

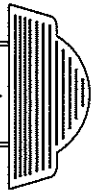
THE NET FREE VENTILATING AREA SHALL BE NOT LESS THAN 1/300 OF THE AREA OF THE ROOF. PROVIDE AT LEAST 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE ATTIC AT LEAST 3 FEET ABOVE EAVE OR CORNICE VENTS TO WITH THE BALANCE OF THE REQUIRED VENTILATION TO BE PROVIDED BY EAVE OR CORNICE VENTS.  
 GROSS ATTIC AREA TO BE VENTILATED 1208 SQ.FT.  
 1208/150 = 8.05 SQ.FT. NET FREE AREA

DATE: 04/02/2021 THE ARCHITECT HAS BEEN ADVISED BY THE BOARD OF ARCHITECTS THAT THE ARCHITECT'S PROFESSIONAL SEAL IS REQUIRED FOR ALL ARCHITECTURAL DRAWINGS SUBMITTED TO ANY STATE AGENCY FOR PERMITTING PURPOSES. THE ARCHITECT HAS BEEN ADVISED BY THE BOARD OF ARCHITECTS THAT THE ARCHITECT'S PROFESSIONAL SEAL IS REQUIRED FOR ALL ARCHITECTURAL DRAWINGS SUBMITTED TO ANY STATE AGENCY FOR PERMITTING PURPOSES.		<b>H SQUARED HOME DESIGN, INC.</b>	HEATHER HALL 155 HEATHERSTONE CT BENSON NC 27504 (919) 207-1403	<b>SQUARE FOOTAGE:</b> FIRST FLOOR = 540 FRONT PORCH = 88	<b>HEATED FOOTAGE:</b> <b>#1140</b>	<b>THE BIRCH</b> RIGHT HAND JRT MANG. PROP.
		SHEET NO: 010921 1 STORY				

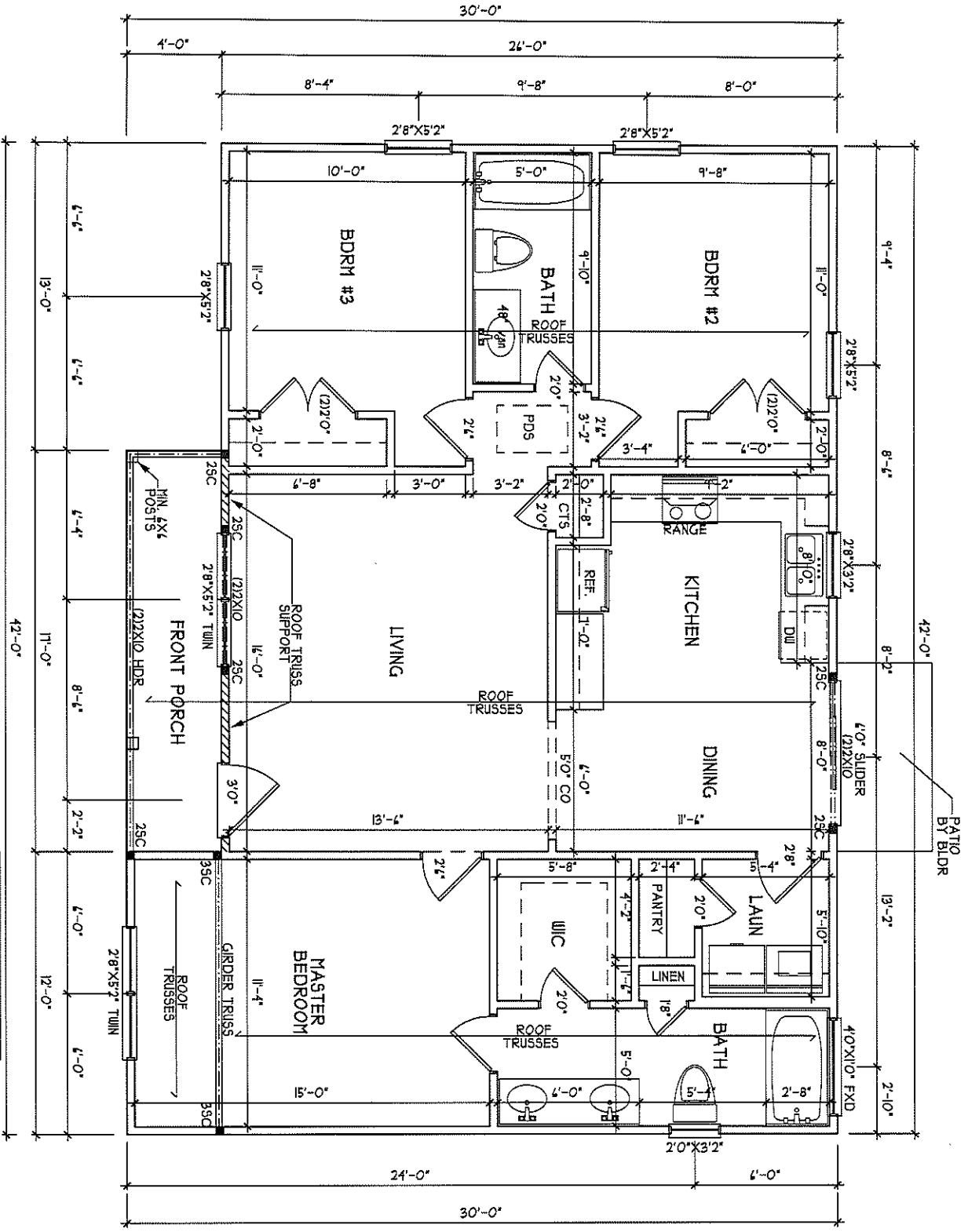


REFER TO BASIC DETAIL SHEETS FOR STANDARD DETAILS, BRACING DETAILS, AND STRUCTURAL NOTES

MONOLITHIC SLAB FOUNDATION PLAN  
SCALE 1/4" = 1'-0"




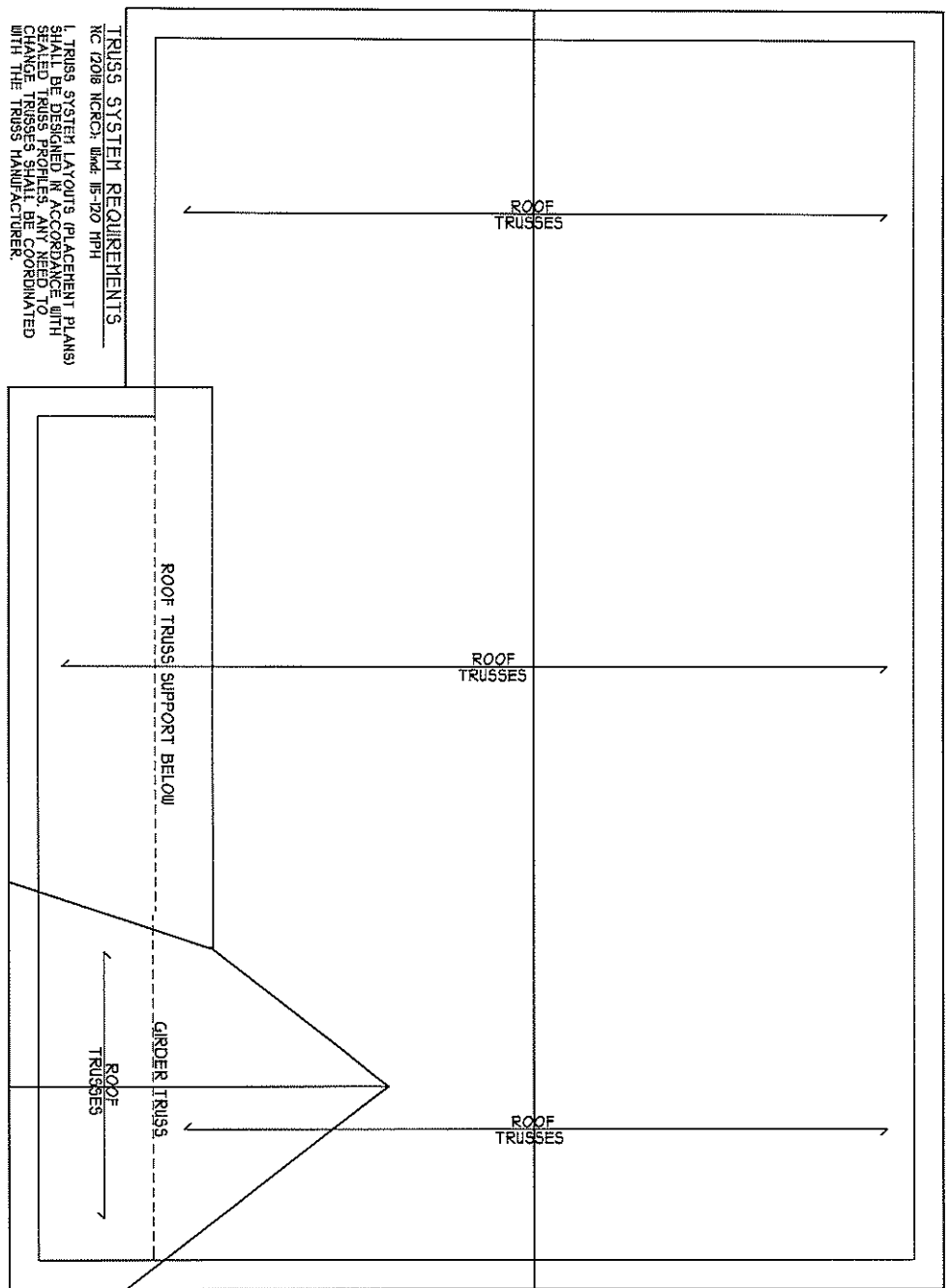
DATE 01/02/2021	DRAWN 1 STORY	<b>H SQUARED HOME DESIGN, INC.</b> 185 HEATHERSTONE CT BENSON NC 27504 (919) 207-1403	ANY CREATOR OF THE WORKING DRAWINGS OR CONTRACT DOCUMENTS IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION CONTAINED HEREIN. THIS PLAN HAS BEEN PREPARED BY AN ARCHITECT OR ARCHITECTURAL FIRM LICENSED IN THE STATE OF NORTH CAROLINA.	SQUARE FOOTAGE: FIRST FLOOR = 140 FRONT PORCH = 68	HEATED FOOTAGE: <b>#1140</b>	<b>THE BIRCH</b> RIGHT HAND JRT MANG. PROP.
			SCALE 1/4" = 1'-0"	REFERENCE TO BASIC DETAIL SHEETS FOR STANDARD DETAILS, BRACING DETAILS, AND STRUCTURAL NOTES	MONOLITHIC SLAB FOUNDATION PLAN	DATE 01/02/2021



REFER TO BASIC DETAIL SHEETS  
FOR STANDARD DETAILS BRACING  
DETAILS, AND STRUCTURAL NOTES

FIRST FLOOR PLAN  
SCALE 1/4" = 1'-0"

 <b>H SQUARED HOME DESIGN, INC.</b>	HEATHER HALL 185 HEATHERSTONE CT BENSON NC 27504 (919) 207-1408	SQUARE FOOTAGE: FIRST FLOOR = 140 FRONT PORCH = 68	HEATED FOOTAGE: <b>#1140</b>	<b>THE BIRCH RIGHT HAND JRT MANG. PROP.</b>
		DATE: 01/02/2022 DRAWN BY: [Name] CHECKED BY: [Name] PROJECT NO: [Number]	PROJECT NO: 010921 STOREY: 1 STOREY	




**TRUSS SYSTEM REQUIREMENTS**  
 NC (2018) NCRCA: Wind: IS-120 HPH

1. TRUSS SYSTEM LAYOUTS (PLACEMENT PLANS) SHALL BE DESIGNED IN ACCORDANCE WITH CHANGE TRUSSES SHALL BE COORDINATED WITH THE TRUSS MANUFACTURER.
2. TRUSS SCHEMATICS (PROFILES) SHALL BE PREPARED AND SEALED BY TRUSS MANUFACTURER.
3. ALL TRUSSES SHALL BE DESIGNED FOR BEARING ON SPF #2 OR #3 PLATES OR LEDGERS (MIN).
4. ALL REQUIRED ANCHORS FOR TRUSSES DUE TO BEARING OR BEARING SHALL MEET THE REQUIREMENTS AS SPECIFIED ON THE TRUSS SCHEMATICS.

REFER TO BASIC DETAIL SHEETS(S) FOR STANDARD DETAILS, BRACING DETAILS, AND STRUCTURAL NOTES

**ROOF PLAN**  
 SCALE 1/4" = 1'-0"

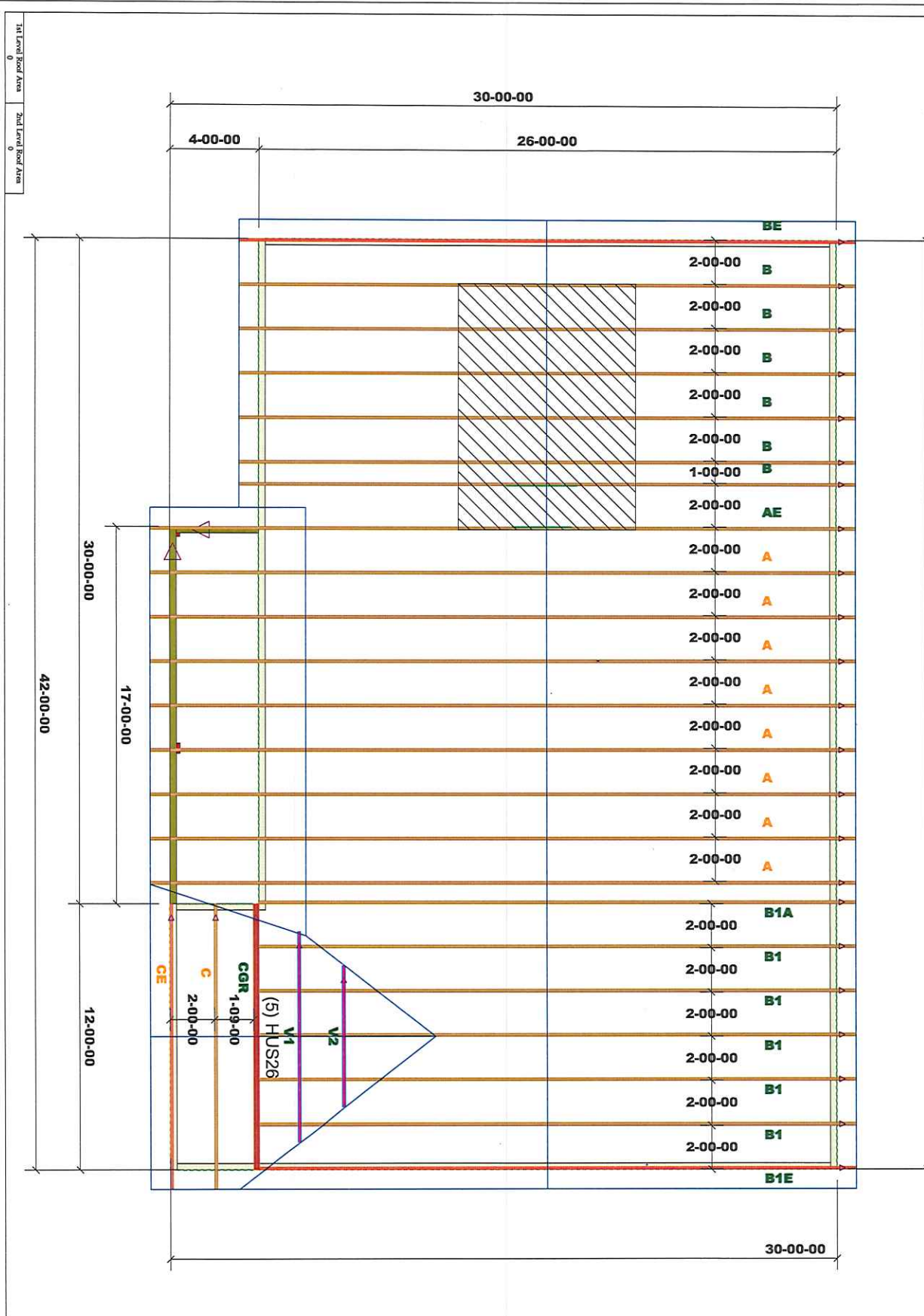


DATE 01/14/2021	 <b>H SQUARED HOME DESIGN, INC.</b>	HEATHER HALL 185 HEATHERSTONE CT BENSON NC 27504 (919) 207-1403	SQUARE FOOTAGE: FIRST FLOOR = 140 FRONT PORCH = 68	HEATED FOOTAGE: <b>#1140</b>	<b>THE BIRCH</b> RIGHT HAND <b>JRT MANG. PROP.</b>
--------------------	--	--	--	---------------------------------	--

PREPARED BY: JRT  
 CHECKED BY: JRT  
 DATE: 01/14/2021  
 SCALE: 1/4" = 1'-0"  
 SHEET NO: 010921



THIS LAYOUT IS INTENDED FOR THE PURPOSE OF TRUSS LOCATION AND PLACEMENT ONLY. REFER TO THE BUILDING PLANS FOR ACTUAL BUILDING CONSTRUCTION.



<p><b>GENERAL NOTES:</b></p> <ul style="list-style-type: none"> <li>- DO NOT CUT OR MODIFY TRUSSES</li> <li>- TRUSSES ARE SPACED 24" ON CENTER UNLESS OTHERWISE NOTED</li> <li>- REFER TO THE INDIVIDUAL TRUSS DESIGN DRAWINGS FOR THE LOCATION OF LATERAL BRACING AND MULTI-PLY CONNECTION REQUIREMENTS.</li> <li>- PER ANSI TP1 1-2002 THE TRUSS ENGINEER IS RESPONSIBLE FOR TRUSS TO TRUSS CONNECTIONS AND TRUSS PLY TO PLY CONNECTIONS. THIS TRUSS PLACEMENT PLAN RECOMMENDS TRUSS TO BEARING CONNECTIONS AND TRUSS TO BEAM CONNECTIONS WHICH SHALL BE REVIEWED BY THE BUILDING DESIGNER. IT IS THE RESPONSIBILITY OF THE BUILDING DESIGNER TO RESOLVE ALL ROOF FORCES ADEQUATELY TO THE FOUNDATION.</li> </ul>	<p>TOP LINE LOAD: 200 BM<sup>2</sup></p>	<p>PROJECT: BIRCH NO VAULT</p>	<p>DEDICATED TO QUALITY AND EXCELLENCE                  200 EMMETT ROAD                  DUNN, NORTH CAROLINA 28334                  PHONE: 910-828-8100</p> <p><b>B4 LUMBER</b>                  COMPONENTS</p>
	<p>TOP DEAD LOAD: 100.0 BM<sup>2</sup></p>	<p>CUSTOMER: 2307-84 Fayetteville</p>	
	<p>BOTTOM DEAD LOAD: 100.0 BM<sup>2</sup></p>	<p>MODEL: BIRCH NO VAULT</p>	
	<p>WIND SPEED: 130 mph</p>	<p>QUOTE #: 28291    PRINT DATE: 9/2/2021    DRAWN BY:    SCALE: N.T.S</p>	

**Trenco**  
818 Soundside Rd  
Edenton, NC 27932

Re: 28291-28291A  
BIRCH PLAN - JRT

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.  
Pages or sheets covered by this seal: 147752333 thru 147752344

My license renewal date for the state of North Carolina is December 31, 2021.

North Carolina COA: C-0844

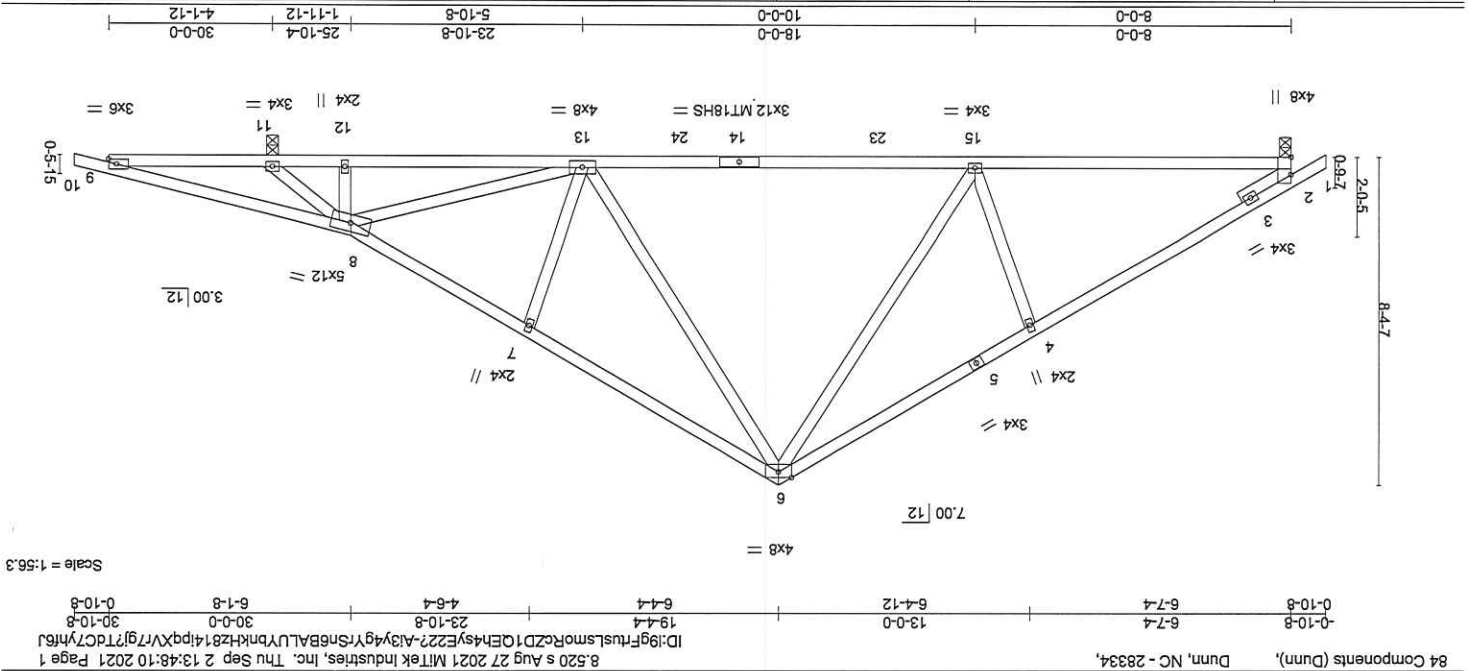


September 3, 2021

Sevier, Scott

**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MITTEK or TRENCO. Any project specific information included is for MITTEK's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MITTEK or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	28291-28291A	Truss	A	Dunn, NC - 28334,	84 Components (Dunn),	0-10-8	6-7-4	13-0-0	6-4-12	6-4-4	19-4-4	23-10-8	30-0-0	30-0-0	0-10-8	147752333
Truss Type	Roof Special	Qty	8	Ply	BIRCH PLAN - JRT	Job Reference (optional)	8,520 s Aug 27 2021 Mitek Industries, Inc. Thu Sep 2 13:48:10 2021 Page 1	ID:19gFrtuslsmoRCD1Qeh4sye22?-A13y4gYrSnbBALUVbnkH814ipqXVr7g?Tdc7yh6l	0-10-8	6-1-8	6-1-8	6-1-8	6-1-8	6-1-8	0-10-8	



LOADING (psf)	TCLL	20.0	PLATE GRIP DOL	1.15	SPACING-	2-0-0	CSI,	0.75	DEFL.	in (loc)	0.41	13-15	>754	240	L/D	PLATES	GRIP	197/144	197/144	MT20	MT18HS	197/144	Weight: 155 lb	FT = 20%
BTCL	0.0	Rep Stress Incr	YES	Code IRC2015/TP12014	Matrix-MS	WB	0.41	Horz(CT)	0.04	11	n/a	n/a	n/a	n/a	n/a									
BCDL	10.0	Lumber DOL	1.15			BC	1.00	Vert(LL)	-0.41	13-15	>754	240												
TCDL	10.0	Plate Grip DOL	1.15			TC	0.75																	
BTCL	0.0																							
BCDL	10.0																							

**LUMBER-**  
 TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2  
 BOT CHORD 2x4 SP No.3  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 1-6-0

**REACTIONS.**  
 (size) 2=0-3-8, 11=0-3-8  
 Max Horiz 2=204(LC 8)  
 Max Uplift 2=134(LC 10), 11=200(LC 11)  
 Max Grav 2=1066(LC 17), 11=1443(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1486/249, 4-6=-1416/333, 6-7=-1384/300, 7-8=-1425/222, 8-9=-316/748  
 BOT CHORD 2-15=-186/1347, 13-15=-26/875, 12-13=-47/901, 11-12=-44/895, 9-11=-686/349  
 WEBS 4-15=-341/249, 6-15=-152/688, 6-13=-117/637, 7-13=-355/221, 8-13=-89/407, 8-11=-1850/405

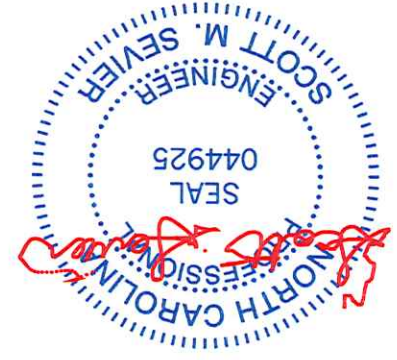
**NOTES-**  
 (1) Unbalanced roof live loads have been considered for this design.  
 (2) Wind: ASCE 7-10; Vult=130mph Vast=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)  
 DOL=1.60  
 (3) All plates are MT20 plates unless otherwise indicated.  
 (4) This truss 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 134 lb uplift at joint 2 and 200 lb uplift at joint 11.

September 3, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MTEK connectors. This design is based 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 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 ANSITP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2870 Crain Highway, Suite 203 Waldorf, MD 20601

818 Soundside Road  
 Edenton, NC 27932

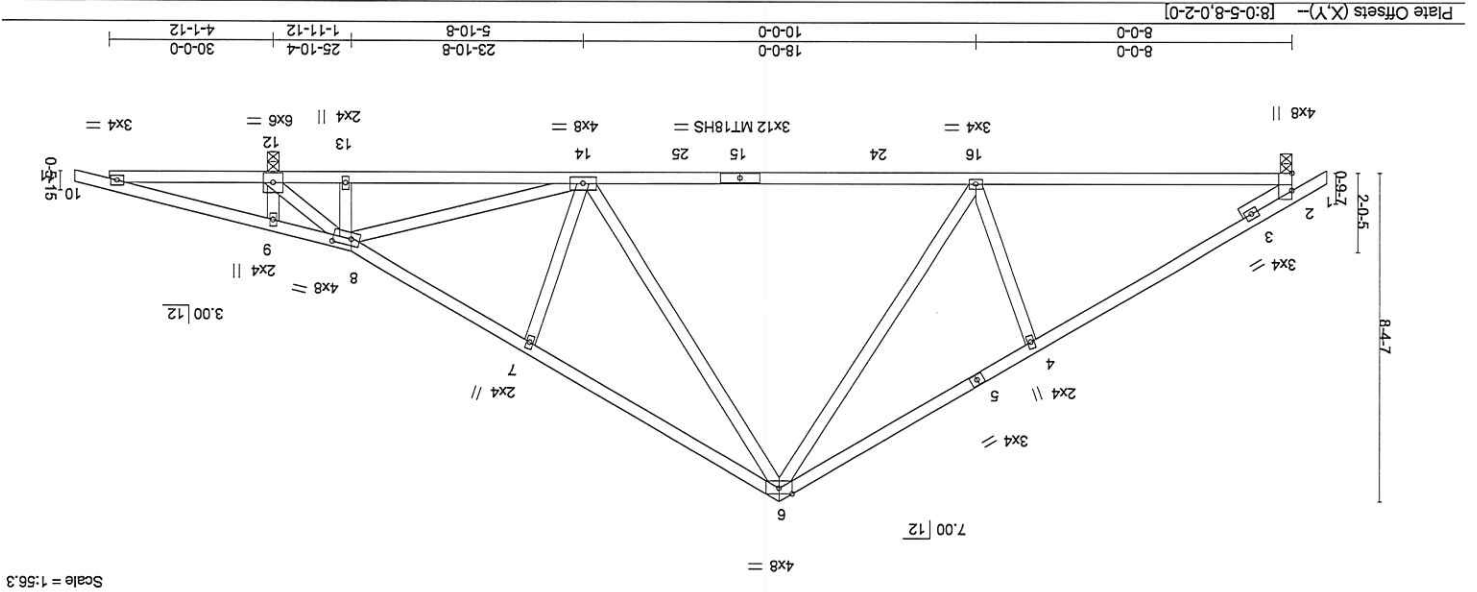
**TRENCO**  
 ENGINEERING BY  
 A MITEK AFFILIATE





Job	28291-28291A
Truss	AE
Truss Type	GABLE
Qty	1
Ply	BIRCH PLAN - JRT
Job Reference (optional)	1

84 Components (Dunn), Dunn, NC - 28334, 8:52 s Aug 27 2021 Mitek Industries, Inc. Thu Sep 2 13:48:14 2021 Page 1  
 ID:19gFtuslsmoRcZD1QEh4syE22-TJ5v2bLW7ddfdzodqod8\_Bm1cBTRgdFddRqLvyh6F  
 0-10-8 6-7-4 13-0-0 6-4-12 6-4-4 19-4-4 23-10-8 4-6-4 25-10-4 30-0-0 30-10-8  
 0-10-8 6-7-4 13-0-0 6-4-12 6-4-4 19-4-4 23-10-8 4-6-4 25-10-4 30-0-0 30-10-8



LOADING (psf)	SPACING-	CSI.	DEFL.	Vert(LL)	Vert(CT)	Horz(CT)	L/D	PLATES	GRIP	MT20	MT18HS	Weight: 157 lb	FT = 20%
20.0	2-0-0	0.74	in (loc)	-0.41	-0.66	0.04	12	240	197/144	197/144	197/144		
TCDL	Plate Grrp DOL	TC						180					
10.0	Lumber DOL	BC						180					
0.0 *	Rep Stress Incr	WB											
10.0	Code IRC2015/TP12014	Matix-MS											
BCLD													

LUMBER-	TOP CHORD	2x4 SPF No.2	2x4 SP No.3	SLIDER	Left 2x4 SP No.3	1-6-0
TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2					
BOT CHORD	2x4 SP No.2 or 2x4 SPF No.2					
WEBS						

REACTIONS.	(size)	2-0-3-8, 12=0-3-8
Max Horiz	2-204(LC 8)	
Max Uplift	2-134(LC 10), 12=201(LC 11)	
Max Grav	2-1057(LC 17), 12=1453(LC 1)	
FORCES.	(lb) - All forces 250 (lb) or less except when shown.	
TOP CHORD	9-10=-265/620	
BOT CHORD	2-16=-185/1334, 14-16=-26/860, 13-14=-40/770, 12-13=-37/765, 10-12=-565/288	
WEBS	4-16=-342/249, 6-16=-152/690, 6-14=-14/609, 7-14=-364/228, 8-14=-132/542, 8-12=-1535/282, 9-12=275/127	

**NOTES-**  
 (1) Unbalanced roof live loads have been considered for this design.  
 (2) Wind: ASCE 7-10; V<sub>ult</sub>=130mph V<sub>asd</sub>=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grp 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 ANSIT/TP1 1.  
 (4) All plates are MT20 plates unless otherwise indicated.  
 (5) Gable studs spaced at 2-0-0 oc.  
 (6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
 (7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.  
 (8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 134 lb uplift at joint 2 and 201 lb uplift at joint 12.

September 3, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7173 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, erection and bracing of trusses and truss systems, see ANSIT/TP1 Quality Criteria, DSB-69 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

818 Soundside Road  
 Edenton, NC 27932

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 ENGINEERING BY  
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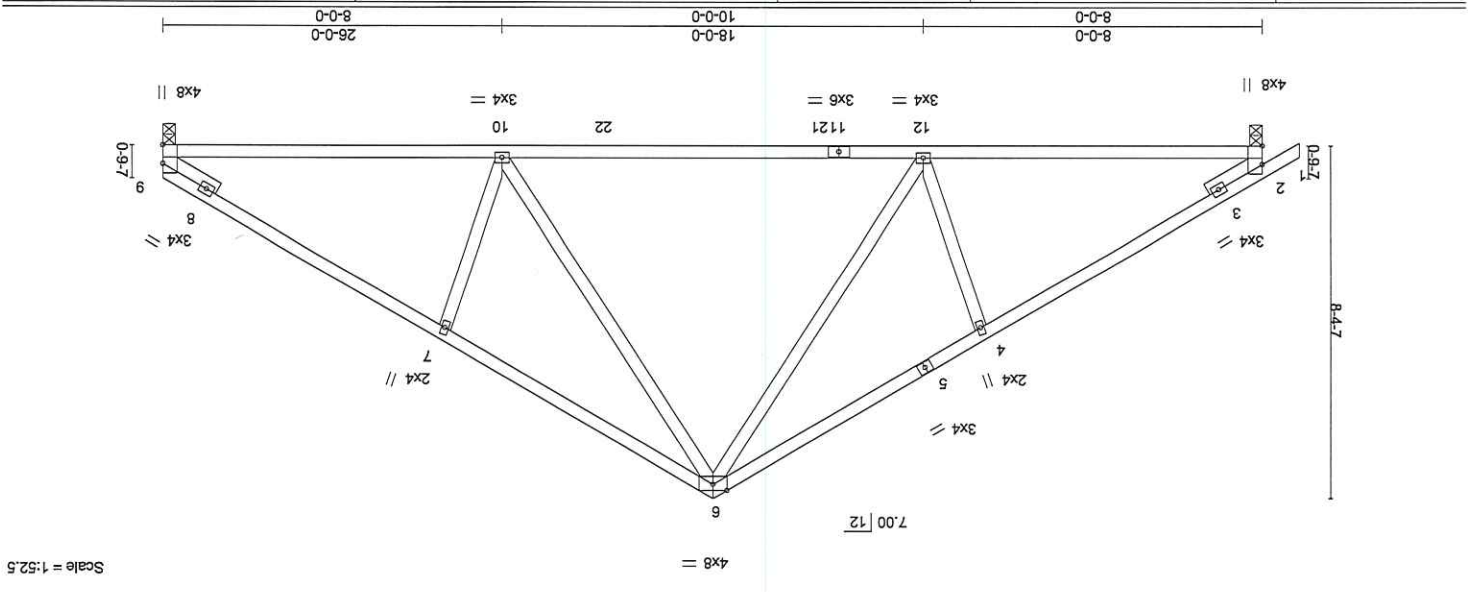






Job	Truss	Truss Type	Common	Qty	1	Ply	BIRCH PLAN - JRT	147752337
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84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MITek Industries, Inc. Thu Sep 2 13:48:52 2021 Page 1  
 ID:19gFrtuslsmoRcZD1QEH4syE22?xnbqu22BzhPDCoId2bU7g?mFTKBnLlNkXergyhF5f  
 0-10-8 6-7-12 13-0-0 6-4-4 6-4-4 19-4-4 6-7-12 26-0-0



LOADING (psf)	TCLL	TCDL	Plate Grp DOL	Lumber DOL	Rep Stress Incr	Code IRC2015/TP12014	SPACING-	CSI,	DEFL.	in (loc)	L/d	L/d	MT20	GRIP	Weight: 130 lb	FT = 20%
10.0	20.0	10.0	1.15	1.15	YES	2.0-0	TC 0.79	0.06	0.06	9	n/a	180	197/144			
BCLL 0.0 *							WB 0.27	-0.68	-0.43	10-12	>460	240				
BCLD 10.0							BC 0.87	10-12	10-12			180				

**LUMBER-**  
 TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2 \*Except\*  
 BOT CHORD 9-11: 2x4 SP No.1  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 1-6-0, Right 2x4 SP No.3 1-6-0

**REACTIONS:**  
 (size) 9-0-3-8, 2-0-3-8  
 Max Horiz 2=196(LC 7)  
 Max Uplift 9=-115(LC 11), 2=-134(LC 10)  
 Max Grav 9=1039(LC 1), 2=1093(LC 1)

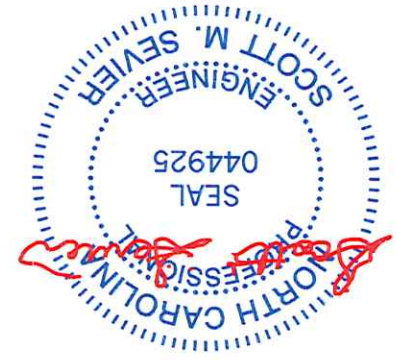
**FORCES:**  
 (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1526/272, 4-6=-1458/357, 6-7=-1465/358, 7-9=-1533/272  
 BOT CHORD 2-12=-194/1371, 10-12=-35/901, 9-10=-148/1237  
 WEBS 6-10=-155/705, 7-10=-341/249, 6-12=-156/694, 4-12=-338/249

**NOTES-**  
 (1) Unbalanced roof live loads have been considered for this design.  
 (2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) 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 15 lb uplift at joint 9 and 134 lb uplift at joint 2.

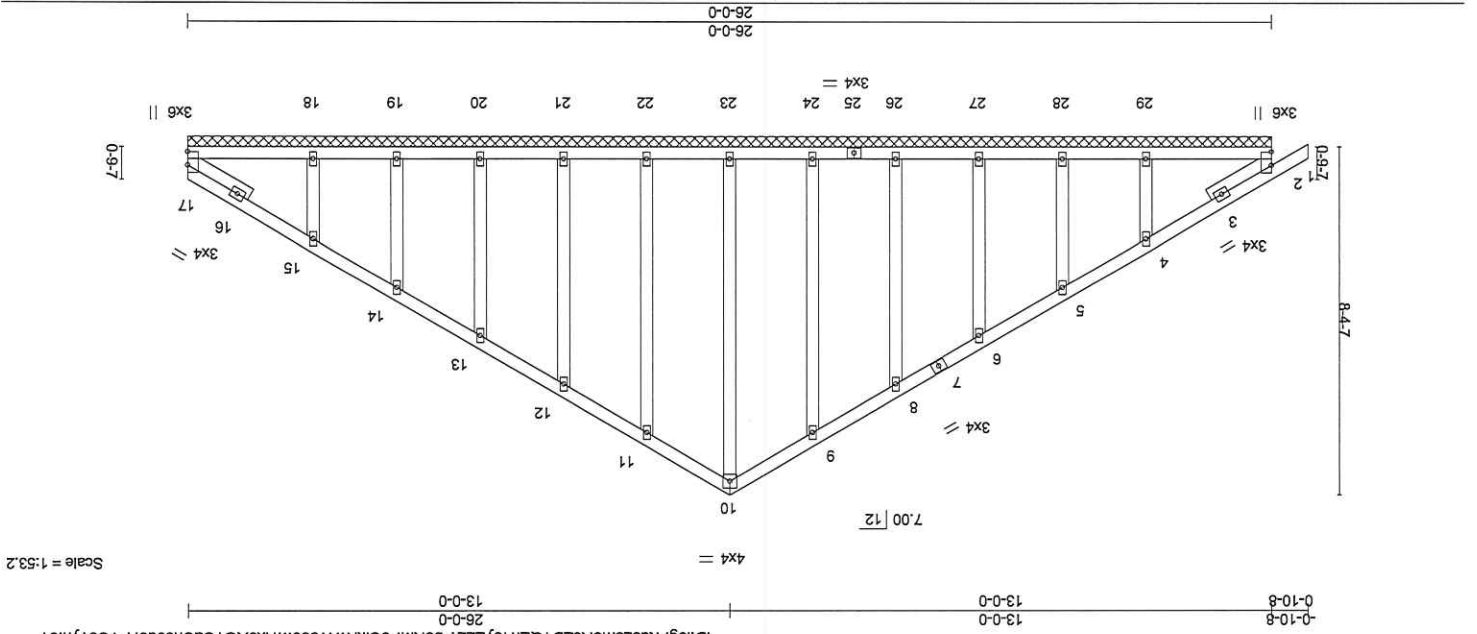
September 3, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MITEK connector. This design is based 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 ANSITP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

818 Soundside Road  
 Edenton, NC 27932  
**MITEK ENGINEERING BY**  
**TRENCO**  
 A MITEK AFFILIATE



Job	Truss	B1E	Dunn, NC - 28334,	84 Components (Dunn), Dunn, NC - 28334,	8.520 s Aug 27 2021 Mitek Industries, Inc. Thu Sep 2 13:49:04 2021 Page 1 ID:19gfrtulsrmoFczD1Qeh4syE227-b5KMP8cIKNwWecwITrx9XGTCaUn9JucrPYU57yh5T 26-0-0 13-0-0 13-0-0 0-10-8
28291-28291A	GABLE	1	Ply	BIRCH PLAN - JRT	147752338
				Job Reference (optional)	



LOADING (psf)	TCLL	20.0	PLATE GRIP DOL	1.15	TC	0.11	CSL	DEFL.	in (loc)	1	l/defl	L/d
TCDL <td>10.0 <td>Lumber DOL <td>1.15 <td>BC <td>0.06 <td>Vert(CT) <td>-0.00 <td>1 <td>n/r <td>120 <td></td> <td></td> </td></td></td></td></td></td></td></td></td></td>	10.0 <td>Lumber DOL <td>1.15 <td>BC <td>0.06 <td>Vert(CT) <td>-0.00 <td>1 <td>n/r <td>120 <td></td> <td></td> </td></td></td></td></td></td></td></td></td>	Lumber DOL <td>1.15 <td>BC <td>0.06 <td>Vert(CT) <td>-0.00 <td>1 <td>n/r <td>120 <td></td> <td></td> </td></td></td></td></td></td></td></td>	1.15 <td>BC <td>0.06 <td>Vert(CT) <td>-0.00 <td>1 <td>n/r <td>120 <td></td> <td></td> </td></td></td></td></td></td></td>	BC <td>0.06 <td>Vert(CT) <td>-0.00 <td>1 <td>n/r <td>120 <td></td> <td></td> </td></td></td></td></td></td>	0.06 <td>Vert(CT) <td>-0.00 <td>1 <td>n/r <td>120 <td></td> <td></td> </td></td></td></td></td>	Vert(CT) <td>-0.00 <td>1 <td>n/r <td>120 <td></td> <td></td> </td></td></td></td>	-0.00 <td>1 <td>n/r <td>120 <td></td> <td></td> </td></td></td>	1 <td>n/r <td>120 <td></td> <td></td> </td></td>	n/r <td>120 <td></td> <td></td> </td>	120 <td></td> <td></td>		
BCLL <td>0.0 * <td>Rep Stress Incr <td>YES <td>WB <td>0.20 <td>Horz(CT) <td>0.01 <td>17 <td>n/a <td>n/a <td></td> <td></td> </td></td></td></td></td></td></td></td></td></td>	0.0 * <td>Rep Stress Incr <td>YES <td>WB <td>0.20 <td>Horz(CT) <td>0.01 <td>17 <td>n/a <td>n/a <td></td> <td></td> </td></td></td></td></td></td></td></td></td>	Rep Stress Incr <td>YES <td>WB <td>0.20 <td>Horz(CT) <td>0.01 <td>17 <td>n/a <td>n/a <td></td> <td></td> </td></td></td></td></td></td></td></td>	YES <td>WB <td>0.20 <td>Horz(CT) <td>0.01 <td>17 <td>n/a <td>n/a <td></td> <td></td> </td></td></td></td></td></td></td>	WB <td>0.20 <td>Horz(CT) <td>0.01 <td>17 <td>n/a <td>n/a <td></td> <td></td> </td></td></td></td></td></td>	0.20 <td>Horz(CT) <td>0.01 <td>17 <td>n/a <td>n/a <td></td> <td></td> </td></td></td></td></td>	Horz(CT) <td>0.01 <td>17 <td>n/a <td>n/a <td></td> <td></td> </td></td></td></td>	0.01 <td>17 <td>n/a <td>n/a <td></td> <td></td> </td></td></td>	17 <td>n/a <td>n/a <td></td> <td></td> </td></td>	n/a <td>n/a <td></td> <td></td> </td>	n/a <td></td> <td></td>		
BCDL <td>10.0 <td>Code IRC2015/TP12014 <td></td> <td>Matrix-S <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </td></td></td>	10.0 <td>Code IRC2015/TP12014 <td></td> <td>Matrix-S <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </td></td>	Code IRC2015/TP12014 <td></td> <td>Matrix-S <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </td>		Matrix-S <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								

LUMBER-	TOP CHORD	2x4 SPF No.2	2x4 SPF No.2	BRACING-	TOP CHORD	Structural wood sheathing directly applied or 6'-0-0 oc purlins.
OTHERS	2x4 SP No.3			BOT CHORD	Rigid ceiling directly applied or 1'-0-0 oc bracing.	
SLIDER	Left 2x4 SP No.3 1-8-12, Right 2x4 SP No.3 1-8-12					

**REACTIONS.** (lb) - Max Horiz = 200(LC 7)  
 All bearings 26-0-0.  
 (lb) - Max Uplift All uplift 100 lb or less at joint(s) 2, 24, 26, 27, 28, 22, 21, 20, 19 except 29=-117(LC 10),  
 18=-111(LC 11)  
 Max Grav All reactions 250 lb or less at joint(s) 17, 2, 23, 24, 26, 27, 28, 22, 21, 20, 19 except 29=257(LC 17), 18=257(LC 18)

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

**NOTES-**  
 (1) Unbalanced roof live loads have been considered for this design.  
 (2) Wind: ASCE 7-10; VuI=103mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
 (3) 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 2'-0-0 oc.  
 (7) This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.  
 (9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 24, 26, 27, 28, 22, 21, 20, 19 except (f=lb) 29=117, 18=111.

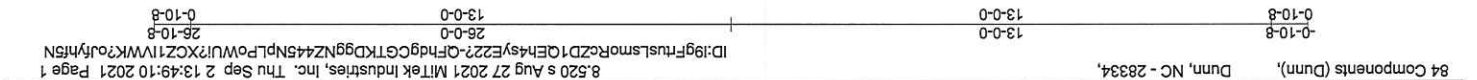
Design valid for use only with Mitek connectors. This design is based upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building 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 ANSITP1 Quality Criteria, DSB-69 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

September 3, 2021



**TRENCO**  
 ENGINEERING BY  
 A Mitek Affiliate  
 818 Soundside Road  
 Eden, NC 27932

Job	28291-28291A	BE	Truss	Common Supported Gable	Qty	1	Ply	BIRCH PLAN - JRT	147752339
84 Components (Dunn), Dunn, NC - 28334, ID:19gFtruslsmoRcZD1QEH4sye22?-qFhdgCGTKRDgNz445NpLPowUjXCZ1VWK7oJfYh5N 8.520 s Aug 27 2021 Mitek Industries, Inc. Thu Sep 2 13:49:10 2021 Page 1									



Scale = 1:5.3

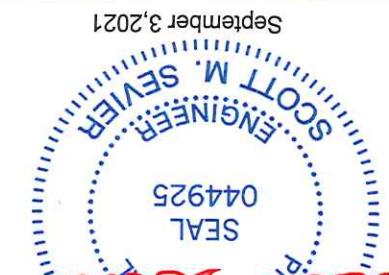
LOADING (psf)	TCLL	TCOL	TDCL	PLATE GRIP DOL	SPACING-	CSI,	DEFLL,	in (loc)	L/d	PLATES	GRIP
20.0	20.0	10.0	1.15	1.15	TC 0.10	0.06	0.00	19	n/r	MT20	197/144
10.0	10.0	0.0	1.15	1.15	BC 0.06	0.20	0.01	18	n/a		
10.0	BCLL	0.0	YES	Code IRC2015/FP12014	Matrix-S						Weight: 167 lb FT = 20%

LUMBER-	TOP CHORD	BOT CHORD	BRACING-
2x4 SP No.2 or 2x4 SPF No.2	2x4 SP No.2 or 2x4 SPF No.2	2x4 SP No.3	Structural wood sheathing directly applied or 6'-0" oc purlins.
OTHERS	2x4 SP No.3		
SLIDER	Left 2x4 SP No.3 1'-6", Right 2x4 SP No.3 1'-6"		

**REACTIONS.** (lb) - Max Horz = 200(LC 8)  
 All bearings 26'-0".  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 26, 28, 29, 30, 24, 23, 22, 21, 18 except 31=118(LC 10), 20=108(LC 11)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 25, 26, 28, 29, 30, 24, 23, 22, 21, 20, 18 except 31=259(LC 17)

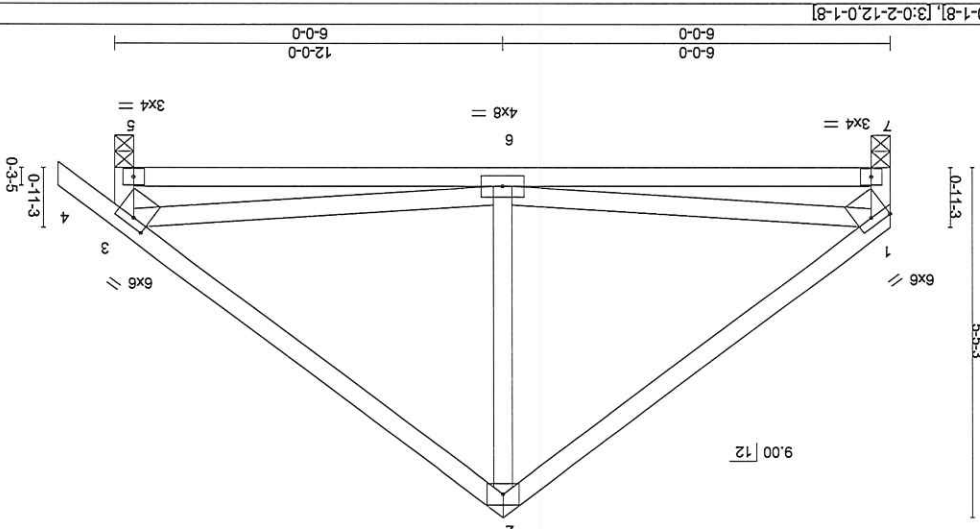
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**  
 (1) Unbalanced roof live loads have been considered for this design.  
 (2) Wind: ASCE 7-10; V<sub>ult</sub>=130mph V<sub>asd</sub>=103mph; TC<sub>DL</sub>=6.0psf; B<sub>CDL</sub>=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip  
 (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 ANSIT/P1.  
 (4) All plates are 2x4 MT20 unless otherwise indicated.  
 (5) Gable requires continuous bottom chord bearing.  
 (6) Gable studs spaced at 2'-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" tall by 2'-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, 26, 28, 29, 30, 24, 23, 22, 21, 18 except (I=lb) 31=118, 20=108.



September 3, 2021

Job	Truss	C	1	Ply	BIRCH PLAN - JRT	147752340
84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MITTEK Industries, Inc. Thu Sep 2 13:49:12 2021 Page 1						
ID:19gFtustslsmoRcZD1qEH4syE227-MepO4tksqwOcdTDpUdbikqom1zwozelVNXyh5L						



LOADING (psf)	SPACING	PLATE GRIP DOL	TC	CSL	DEFL	Vert(LL)	Vert(CT)	Horz(CT)	BRACING-	TOP CHORD	BOT CHORD
20.0	2-0-0	2-0-0	0.58	0.09	0.00	-0.05	-0.05	0.00	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	2x4 SP No.2 or 2x4 SPF No.2	2x4 SP No.3
TCLL	Plate Grip DOL	Lumber DOL	BC	WB	in	in (loc)	in (loc)	L/d			
10.0			0.31	0.09	5	5-6	5-6	n/a			
BCLL	Rep Stress Incr		YES					n/a			
10.0	Code IRC2015/TP12014										
0.0											
10.0											

REACTIONS	(size)	7-0-3-8, 5-0-3-8	Max Horz	7=-12(LC 8)	Max Uplift	7=43(LC 10), 5=65(LC 11)	Max Grav	7=46(LC 1), 5=53(LC 1)
FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	1-2=-480/105, 2-3=-487/111, 1-7=-414/114, 3-5=-480/162	6-7=-156/295, 5-6=-148/315					

**NOTES-**

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

(2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) DOL=1.60

(3) This truss has been designed for a 1.0 psf bottom chord live load nonconcurrent with any other live loads.

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

(5) Bearing at joint(s) 7, 5 considers parallel to grain value using ANSIT/P1 1 angle to grain formula. Building designer should verify capacity of bearing surface.

(6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 5.

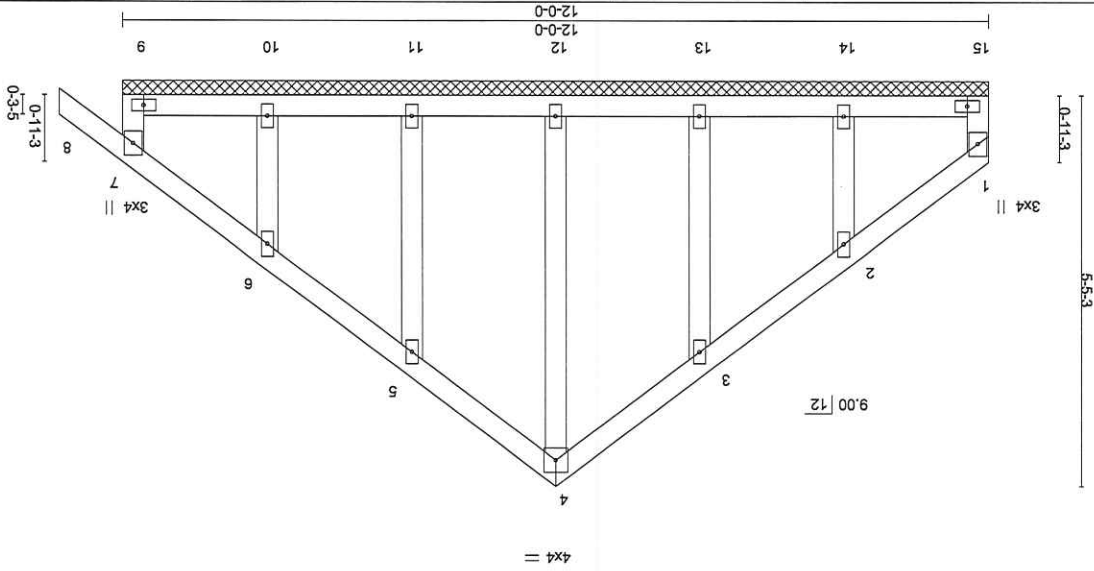
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MITTEK connectors. This design is based upon parameters shown, and is for an individual building component, not a truss system. Before indicating the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bearing indicated is to prevent collapse of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse of trusses and truss systems, see ANSIT/P1 Quality Criteria, DSB-89 and BCSI Building Component 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



Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
28291-28291A	CE	GABLE	1		BIRCH PLAN - JRT
147752341					

84 Components (Dunn), Dunn, NC - 28334, 8520 s Aug 27 2021 Mitek Industries, Inc. Thu Sep 2 13:49:13 2021 Page 1  
 ID:19gFtHuslmsRozCD1QEH4sYvE227-qNMIJdM82FE1ofhWM21Q8\_2CY5mqGXCIESw\_Yh5K  
 12-10-8 6-0-0 6-0-0 6-0-0 12-10-8 0-10-8



LOADING (psf)	SPACING-	CSI,	DEFL.	in (loc)	l/defl	L/D	PLATES	GRIP	Weight: 67 lb	FT = 20%
TCLL 20.0	2-0-0	TC 0.16	Vert(LL) -0.00	7-8	n/r	120	MT20	197/144		
TCDL 10.0		BC 0.11	Vert(CT) -0.01	7-8	n/r	90				
BCLL 0.0		WB 0.12	Horz(CT) -0.00	10	n/a	n/a				
BSDL 10.0	Code IRC2015/TP12014	Matrix-R								

LUMBER-	TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2	BRACING-	TOP CHORD	Structural wood sheathing directly applied or 10-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.	
WEBS	2x4 SP No.3				
OTHERS	2x4 SP No.3				

**REACTIONS.** All bearings 12-0-0.  
 (b) - Max Horiz 15=-121(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 15, 13, 11, 10 except 14=-123(LC 10)  
 Max Grav All reactions 250 lb or less at joint(s) 15, 13, 11 except 12=291(LC 1), 14=261(LC 17), 10=268(LC 1)  
**FORCES.** (b) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**  
 (1) Unbalanced roof live loads have been considered for this design.  
 (2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate gnp 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 ANSIT/P1 1.  
 (4) All plates are 2x4 MT20 unless otherwise indicated.  
 (5) Gable requires continuous bottom chord bearing.  
 (6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).  
 (7) Gable studs spaced at 2-0-0 oc.  
 (8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
 (9) \* 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.  
 (10) Bearing at joint(s) 15 considers parallel to grain value using ANSIT/P1 1 angle to grain formula. Building designer should verify capacity of bearing surface.  
 (11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 13, 11, 10 except (b) 14=123.



September 3, 2021  
**TRENCO**  
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 A Mitek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

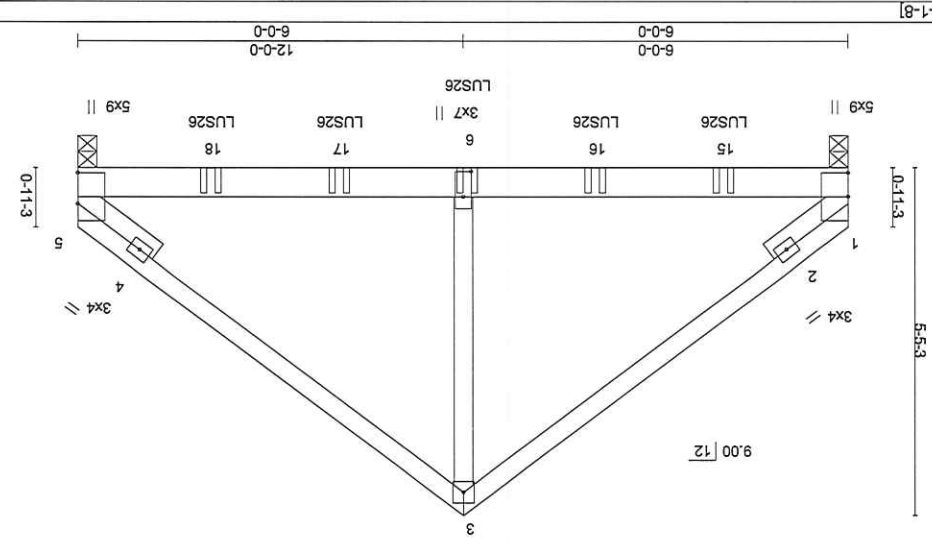
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 REV. 5/19/2020 BEFORE USE.**  
 Design valid for use only with Mitek connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before 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, erection and bracing of trusses and truss systems, see ANSIT/P1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job	Truss	CGR	Dunn, NC - 28334,	84 Components (Dunn),
147752342	Common Girder	1	Qty	Ply
BIRCH PLAN - JRT				
2				
Job Reference (optional)				

8,520 s Aug 27 2021 MITTEK Industries, Inc. Thu Sep 2 13:49:28 2021 Page 1  
 ID:lgFrtuslsmoRcZD1QEh4syE22?ujnRRLUm5bX7XKSX997Z7bFVTFa6n3888f8Mlycyh55

Scale = 1:34.5



LOADING (psf)	SPACING	CSI	DEFL	Vert(LL)	Vert(CT)	Horz(CT)	Mathx-MS	BRACING
20.0	2-0-0	TC 0.34	in (10c)	-0.04	6-13	>999	240	L/D
10.0	Lumber DOL	BC 0.40	in (10c)	-0.08	6-13	>999	180	L/D
10.0	Rep Stress Incr	WB 0.69	in (10c)	0.01	6-13	>999	180	L/D
10.0	Code IRC2015/TP12014	NO	in (10c)	0.01	6-13	>999	180	L/D
								PLATES
								MT20
								GRIP
								197/144
								Weight 125 lb
								FT = 20%

LUMBER-	TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2
TOP CHORD	2x6 SP DSS	
WEBS	2x4 SP No.3	
SLIDER	Left 2x4 SP No.3 1-6-0, Right 2x4 SP No.3 1-6-0	

REACTIONS	(size)	1-0-3-8, 5-0-3-8
Max Horiz	1-11(LC 25)	
Max Uplift	1-367(LC 8), 5-361(LC 9)	
Max Grav	1-3049(LC 1), 5-3007(LC 1)	

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-3=-3029/434, 3-5=-3029/434
BOT CHORD	1-6=-278/2423, 5-6=-278/2423
WEBS	3-6=-382/3326

NOTES-
1) 2-ply truss to be connected together with 16d (0.131" x 3.5") nails as follows: Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc clinched. Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc clinched. Webs connected as follows: 2x4 - 1 row at 0-9-0 oc clinched.
2) All loads are considered equally applied to all plies, except fit 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. Wind: ASCE 7-10; Vult=130mph Vasd=130mph; TCDD=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp. B; Enclosed; MWFRS (envelope)
4) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60 This truss has been designed for a live load of 20.0psf on the 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except fit=lb
8) Use Simpson Strong-Tie LUS26 (4-10d Truss) or equivalent spaced at 2-0-0 oc max, starting at 1-11-4 from the left end to 9-1-4 to connect truss(es) to back face of bottom chord.
9) Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (psf)  
 Vert: 1-3=60, 3-5=60, 7-11=20

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-773 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MITTEK connectors. This design is based 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 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 ANSITP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2870 Crain Highway, Suite 203 Waldorf, MD 20601

818 Soundside Road  
 Edenton, NC 27932

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September 3, 2021

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
28291-28291A	CGR	Common Girder	1		BIRCH PLAN - JRT
			2		

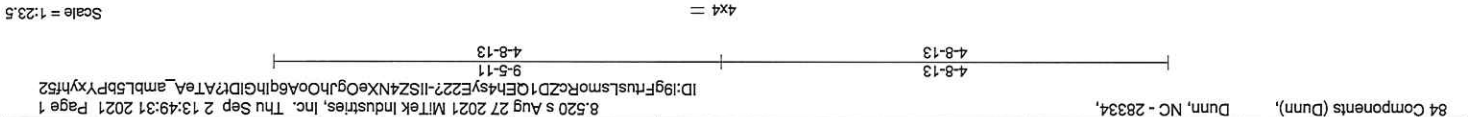
84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MITTEK Industries, Inc. Thu Sep 2 13:49:28 2021 Page 2  
 ID:19gFrtuslsmoRcZD1qEh4syE22?-ujnRRLUmsk7XKSX97Z7bVTFa6n388f8Mlycyht55

LOAD CASE(S) Standard  
 Concentrated Loads (lb)  
 Vert: 6=-1019(B) 15=-1019(B) 16=-1019(B) 17=-1019(B) 18=-1019(B)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MITTEK® 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 to prevent collapse with possible personal injury and property damage. For general guidance regarding the building 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 ANSITP1 Quality Criteria, DSB-49 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
28291-28291A	V1	Valley	1	Ply	BIRCH PLAN - JRT
84 Components (Dunn), Dunn, NC - 28334, 8520 s Aug 27 2021 Mitek Industries, Inc. Thu Sep 2 13:49:31 2021 Page 1					
ID:19gFrtuslsmoRcZD1CEh4syE22?-iISZ4NXeOgjhOa6qihD7A7eA_ambL5bPyxhf52					



Scale = 1:23.5

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	Weight: 34 lb	FT = 20%
TCLL 20.0	2-0-0	0.44	na	-	999	999	MT20	244/190		
TCDL 10.0	Plate Grip DOL 1.15	TC 0.44	na	-	999	999				
BCLL 0.0 *	Lumber DOL 1.15	BC 0.31	na	-	999	999				
BCDL 10.0	Code IRC2015/TP2014	WB 0.06	Horz(CT) 0.00	3	na	na				
	Rep Stress Incr YES	Matrix-S	Vert(CT) na	-	999	999				
			DEFL. in (loc) l/defl L/d							

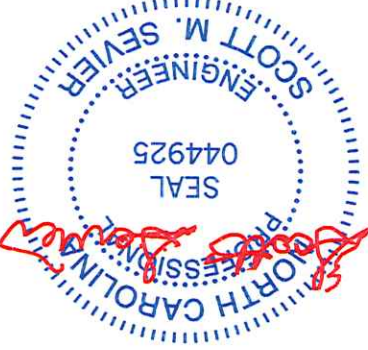
LUMBER-	TOP CHORD	2x4 SP No.3	BRACING-	TOP CHORD	2x4 SP No.3
OTHERS	2x4 SP No.3		Structural wood sheathing directly applied or 6-0-0 oc purlins.	2x4 SP No.3	
			Rigid ceiling directly applied or 10-0-0 oc bracing.		

**REACTIONS.** (size) 1=9-5-0, 3=9-5-0, 4=9-5-0  
 Max Horiz 1=80(LC 7)  
 Max Uplift 1=30(LC 10), 3=41(LC 11), 4=9(LC 10)  
 Max Grav 1=174(LC 1), 3=174(LC 1), 4=340(LC 1)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.



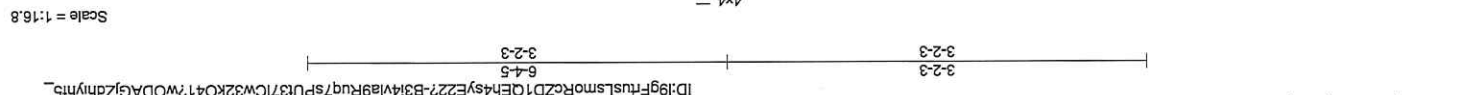
September 3, 2021

**TRENCO**  
 ENGINEERING BY  
 A MITEK AFFILIATE

818 Soundside Road  
 Edenton, NC 27932

**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 ANSITP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

Job	Truss	Truss Type	Qty	Job Reference (optional)
28291-28291A	V2	Valley	1	BIRCH PLAN - JRT
84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MITTEK Industries, Inc. Thu Sep 2 13:49:35 2021 Page 1				
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LOADING (psf)	SPACING-	CSI.	DEFL.	VERT(LL)	VERT(CT)	Horz(CT)	BRACING-	TOP CHORD	2x4 SP No.3	OTHERS	2x4 SP No.3
TCLL 20.0	Plate Grp DOL 1.15	TC 0.23	in (loc)	n/a	n/a	0.00	TOP CHORD	2x4 SP No.3	TOP CHORD	2x4 SP No.3	
TCDL 10.0	Lumber DOL 1.15	BC 0.13	in (loc)	n/a	n/a	3	BOT CHORD	2x4 SP No.3	BOT CHORD	2x4 SP No.3	
BCLL 0.0	Rep Stress Incr YES	WB 0.03	in (loc)	n/a	n/a	n/a	Structural wood sheathing directly applied or 6-0 oc purlins.	2x4 SP No.3	OTHERS	2x4 SP No.3	
BCDL 10.0	Code IRC2015/TPP2014	Mathx-P	in (loc)	n/a	n/a	n/a	Rigid ceiling directly applied or 10-0 oc bracing.	2x4 SP No.3	OTHERS	2x4 SP No.3	

**REACTIONS.** (size) 1=6-3-11, 3=6-3-11, 4=6-3-11  
 Max Horz 1=51(LC 6)  
 Max Uplift 1=26(LC 10), 3=33(LC 11)  
 Max Grav 1=121(LC 1), 3=121(LC 1), 4=197(LC 1)

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

**NOTES-**  
 (1) Unbalanced roof live loads have been considered for this design.  
 (2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope)  
 (3) Gable requires continuous bottom chord bearing.  
 (4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
 (5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.  
 (6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MITTEK connectors. This design is based 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 and to prevent buckling with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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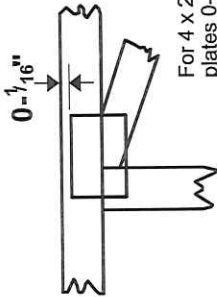
September 3, 2021

**SCOTT M. SEEVER**  
 ENGINEER  
 SEAL  
 044925  
 NORTH CAROLINA PROFESSIONAL ENGINEER

## Symbols

### PLATE LOCATION AND ORIENTATION

Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.



\* Plate location details available in **MITek 20/20** software or upon request.

### PLATE SIZE

**4 X 4**

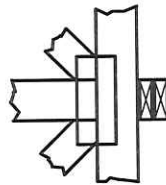
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

### LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

### BEARING

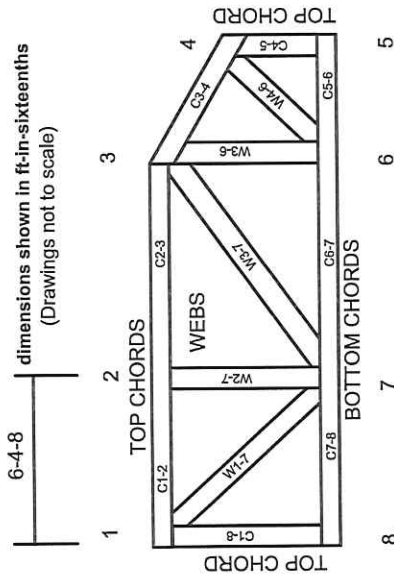


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

**ANSI/TPI1:** National Design Specification for Metal Plate Connected Wood Truss Construction.  
**DSB-89:** Design Standard for Bracing.  
**BCSI:** Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

## Numbering System



**JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.**

**CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.**

### PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988  
 ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: MIL-7473 rev. 5/19/2020

## General Safety Notes

### Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
- Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor 1 bracing should be considered.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other.
- Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
- Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
- Connections not shown are the responsibility of others.
- Do not cut or alter truss member or plate without prior approval of an engineer.
- Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
- The design does not take into account any dynamic or other loads other than those expressly stated.