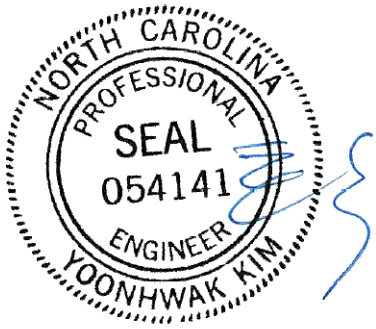


Alpine, an ITW Company
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Phone: (800)755-6001
www.alpineitw.com

11/04/2024
ABCD Engineering, PLLC NC COA 0838

| **Site Information:** | **Page 1:** |
|---|---|
| *Customer:* Structural Building Solutions LLC | *Job Number:* Q2410-340 |
| *Job Description:* The Farm at Neills Creek | |
| *Address:* 515 Winding Creek Dr, Lillington, NC 27546 | |

| **Job Engineering Criteria:** | |
|---|---|
| *Design Code:* IRC 2021 | *IntelliVIEW Version:* 23.02.04A<br>*JRef #:* 1Y4O98360009 |
| *Wind Standard:* ASCE 7-16 *Wind Speed (mph):* 120<br>*Building Type:* Closed | *Design Loading (psf):* 40.00 |

This package contains general notes pages, 35 truss drawing(s) and 7 detail(s).

| Item | Drawing Number | Truss | Item | Drawing Number | Truss |
|---|---|---|---|---|---|
| 1 | 309.24.1104.51343 | G1A | 2 | 309.24.1104.51389 | PB2 |
| 3 | 309.24.1104.51030 | G1 | 4 | 309.24.1104.50857 | G1G |
| 5 | 309.24.1104.50812 | PB2G | 6 | 309.24.1104.51312 | F1 |
| 7 | 309.24.1104.51155 | P1 | 8 | 309.24.1104.50478 | B1 |
| 9 | 309.24.1104.50655 | C1 | 10 | 309.24.1104.51468 | B1G |
| 11 | 309.24.1104.51453 | VC2 | 12 | 309.24.1104.51124 | F1G |
| 13 | 309.24.1104.50905 | VC1 | 14 | 309.24.1104.51499 | C1G |
| 15 | 309.24.1104.51264 | P1G | 16 | 309.24.1104.50794 | C1D |
| 17 | 309.24.1104.50319 | V1 | 18 | 309.24.1104.51249 | V4 |
| 19 | 309.24.1104.50098 | V2 | 20 | 309.24.1104.50936 | V5 |
| 21 | 309.24.1104.50542 | V3 | 22 | 309.24.1312.59467 | A2A |
| 23 | 309.24.1104.50160 | PB3 | 24 | 309.24.1104.51078 | A1A |
| 25 | 309.24.1313.01800 | A2G | 26 | 309.24.1104.51218 | PB3G |
| 27 | 309.24.1104.51015 | A1G | 28 | 309.24.1104.50999 | PB1G |
| 29 | 309.24.1104.50351 | A1T | 30 | 309.24.1312.57137 | A2 |
| 31 | 309.24.1313.15260 | A2T | 32 | 309.24.1312.54203 | A1P |
| 33 | 309.24.1104.50765 | PB1 | 34 | 309.24.1311.03130 | A1 |
| 35 | 309.24.1104.50700 | VA5 | 36 | A12015ENC160118 | |
| 37 | A12030ENC160118 | | 38 | BRCLBSUB0119 | |
| 39 | GABRST160118 | | 40 | GBLLETIN0118 | |
| 41 | PB160160118 | | 42 | VALTN160118 | |

## General Notes

**Truss Design Engineer Scope of Work, Design Assumptions and Design Responsibilities:**
The design responsibilities assumed in the preparation of these design drawings are those specified in ANSI/TPI 1, Chapter 2; and the National Design Standard for Metal Plate Connected Wood Truss Construction, by the Truss Plate Institute. The truss component designs conform to the applicable provisions of ANSI/TPI 1 and NDS, the National Design Specification for Wood Construction by AWC. The truss component designs are based on the specified loading and dimension information furnished by others to the Truss Design Engineer. The Truss Design Engineer has no duty to independently verify the accuracy or completeness of the information provided by others and may rely on that information without liability. The responsibility for verification of that information remains with others neither employed nor controlled by the Truss Design Engineer. The Truss Design Engineer's seal and signature on the attached drawings, or cover page listing these drawings, indicates acceptance of professional engineering responsibility solely for the truss component designs and not for the technical information furnished by others which technical information and consequences thereof remain their sole responsibility.

The suitability and use of these drawings for any particular structure is the responsibility of the Building Designer in accordance with ANSI/TPI 1 Chapter 2. The Building Designer is responsible for determining that the dimensions and loads for each truss component match those required by the plans and by the actual use of the individual component, and for ascertaining that the loads shown on the drawings meet or exceed applicable building code requirements and any additional factors required in the particular application. Truss components using metal connector plates with integral teeth shall not be placed in environments that will cause the moisture content of the wood in which plates are embedded to exceed 19% and/or cause corrosion of connector plates and other metal fasteners.

The Truss Design Engineer shall not be responsible for items beyond the specific scope of the agreed contracted work set forth herein, including but not limited to: verifying the dimensions of the truss component, calculation of any of the truss component design loads, inspection of the truss components before or after installation, the design of temporary or permanent bracing and their attachment required in the roof and/or floor systems, the design of diaphragms or shear walls, the design of load transfer connections to and from diaphragms and shear walls, the design of load transfer to the foundation, the design of connections for truss components to their bearing supports, the design of the bearing supports, installation of the truss components, observation of the truss component installation process, review of truss assembly procedures, sequencing of the truss component installation, construction means and methods, site and/or worker safety in the installation of the truss components and/or its connections.

This document may be a high-quality facsimile of the original engineering document which is a digitally signed electronic file with third party authentication. A wet or embossed seal copy of this engineering document is available upon request.

**Temporary Lateral Restraint and Bracing:**
Temporary lateral restraint and diagonal bracing shall be installed according to the provisions of BCSI chapters B1, B2, B7 and/or B10 (Building Component Safety Information, by TPI and SBCA), or as specified by the Building Designer or other Registered Design Professional. The required locations for lateral restraint and/or bracing depicted on these drawings are only for the permanent lateral support of the truss members to reduce buckling lengths, and do not apply to and may not be relied upon for the temporary stability of the truss components during their installation.

**Permanent Lateral Restraint and Bracing:**
The required locations for lateral restraint or bracing depicted on these drawings are for the permanent lateral support of the truss members to reduce buckling lengths. Permanent lateral support shall be installed according to the provisions of BCSI chapters B3, B7 and/or B10, or as specified by the Building Designer or other Registered Design Professional. These drawings do not depict or specify installation/erection bracing, wind bracing, portal bracing or similar building stability bracing which are parts of the overall building design to be specified, designed, and detailed by the Building Designer.

**Connector Plate Information:**
Alpine connector plates are made of ASTM A653 or ASTM A1063 galvanized steel with the following designations, gauges and grades: W=Wave, 20ga, grade 40; H=High Strength, 20ga, grade 60; S=Super Strength, 18ga, grade 60. Information on model code compliance is contained in the ICC Evaluation Service report ESR-1118, available on-line at www.icc-es.org.

**Bearing Information:**
The bearing area factor, Cb, is considered for the allowable capacity of solid sawn wood bearings supporting trusses that are located a minimum of 3" from the end of the lumber piece.

## General Notes (continued)

**Coated Lumber:**
Coated lumber must be properly re-dried and maintained below 19% or less moisture level through all stages of construction and usage. Coated lumber has no adjustments to lumber properties. Coated lumber may be more brittle than uncoated lumber. Special handling care must be taken to prevent breakage during all handling activities. Refer to manufacturer literature, specifications, and code evaluation reports for restrictions, details, and requirements.

**Fire Retardant Treated Lumber:**
Fire retardant treated lumber must be properly re-dried and maintained below 19% or less moisture level through all stages of construction and usage. Fire retardant treated lumber may be more brittle than untreated lumber. Special handling care must be taken to prevent breakage during all handling activities.

**Key to Terms:**
Information provided on drawings reflects a summary of the pertinent information required for the truss design. Detailed information on load cases, reactions, member lengths, forces and members requiring permanent lateral support may be found in calculation sheets available upon written request.

BCDL = Bottom Chord standard design Dead Load in pounds per square foot.
BCLL = Bottom Chord standard design Live Load in pounds per square foot.
C = Coated lumber.
C-AT = AtTEK coated lumber.
C-FX = FX Lumber Guard coated lumber.
C -TE = TechWood 4400 coated lumber.
CL = Certified lumber.
Des Ld = total of TCLL, TCDL, BCLL and BCDL Design Load in pounds per square foot.
FRT = Fire Retardant Treated lumber.
FRT-BF = Boraflame Fire Retardant Treated lumber
FRT-DB = D-Blaze Fire Retardant Treated lumber.
FRT-DC = Dricon Fire Retardant Treated lumber.
FRT-FP = FirePRO Fire Retardant Treated lumber.
FRT-FL = FlamePRO Fire Retardant Treated lumber.
FRT-FT = FlameTech Fire Retardant Treated lumber.
FRT-ON = OnWood Fire Retardant Treated lumber.
FRT-PG = PYRO-GUARD Fire Retardant Treated lumber.
FRT-PR = ProWood Fire Retardant Treated lumber.
g = green lumber.
HORZ(LL) = maximum Horizontal panel point deflection due to Live Load, in inches.
HORZ(TL) = maximum Horizontal panel point long term deflection in inches, due to Total Load, including creep adjustment.
HPL = additional Horizontal Load added to a truss Piece in pounds per linear foot or pounds.
Ic = Incised lumber.
FJ = Finger Jointed lumber.
L/# = user specified divisor for limiting span/deflection ratio for evaluation of actual L/defl value.
L/defl = ratio of Length between bearings, in inches, divided by the vertical Deflection due to creep, in inches, at the referenced panel point. Reported as 999 if greater than or equal to 999.
Loc = Location, starting location of left end of bearing or panel point (joint) location of deflection.
Max BC CSI = Maximum bending and axial Combined Stress Index for Bottom Chords for all load cases.
Max TC CSI = Maximum bending and axial Combined Stress Index for Top Chords for all load cases.
Max Web CSI= Maximum bending and axial Combined Stress Index for Webs for all load cases.
NCBCLL = Non-Concurrent Bottom Chord design Live Load in pounds per square foot.
PL = additional Load applied at a user specified angle on a truss Piece in pounds per linear foot or pounds.
PLB = additional vertical load added to a Bottom chord Piece of a truss in pounds per linear foot or pounds
PLT = additional vertical load added to a Top chord Piece of a truss in pounds per linear foot or pounds.
PP = Panel Point.
R = maximum downward design Reaction, in pounds, from all specified gravity load cases, at the indicated location (Loc).
-R = maximum upward design Reaction, in pounds, from all specified gravity load cases, at the identified location (Loc).
Rh = maximum horizontal design Reaction in either direction, in pounds, from all specified gravity load cases, at the indicated location (Loc).
RL = maximum horizontal design Reaction in either direction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the indicated location (Loc).

## **General Notes** (continued)

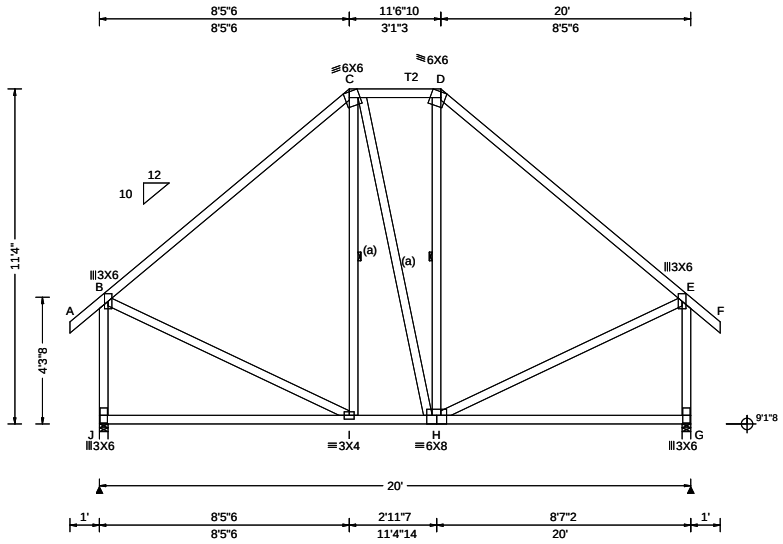
**Key to Terms** (continued):
Rw = maximum downward design Reaction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the identified location (Loc).
TCDL = Top Chord standard design Dead Load in pounds per square foot.
TCLL = Top Chord standard design Live Load in pounds per square foot.
U = maximum Upward design reaction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the indicated location (Loc).
VERT(CL) = maximum Vertical panel point deflection in inches due to Live Load and Creep Component of Dead Load in inches.
VERT(CTL) = maximum Vertical panel point deflection ratios due to Live Load and Creep Component of Dead Load, and maximum long term Vertical panel point deflection in inches due to Total load, including creep adjustment.
VERT(LL) = maximum Vertical panel point deflection in inches due to Live Load.
VERT(TL) = maximum Vertical panel point long term deflection in inches due to Total load, including creep adjustment.
W = Width of non-hanger bearing, in inches.

Refer to ASCE-7 for Wind and Seismic abbreviations.
Uppercase Acronyms not explained above are as defined in TPI 1.

**References:**

1. AWC: American Wood Council; 222 Catoctin Circle SE, Suite 201; Leesburg, VA 20175; www.awc.org.
2. ICC: International Code Council; www.iccsafe.org.
3. Alpine, a division of ITW Building Components Group Inc.: 155 Harlem Ave, North Building, 4th Floor, Glenview, IL 60025; www.alpineitw.com.
4. TPI: Truss Plate Institute, 2670 Crain Highway, Suite 203, Waldorf, MD 20601; www.tpinst.org.
5. SBCA: Wood Truss Council of America, 6300 Enterprise Lane, Madison, WI 53719; www. sbcacomponents.com

| | | | |
|---|---|---|---|
| SEQN: 7222 / COMN<br>FROM: | Ply: 1<br>Qty: 1 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** G1A | Cust: R 9836 JRef:1Y4O98360009 T5 /<br>DrwNo: 309.24.1104.51343<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 17.17 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: varies
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.010 | D | 999 | 240 |
| VERT(CL): 0.022 | D | 999 | 240 |
| HORZ(LL): 0.007 | C | - | - |
| HORZ(TL): 0.010 | C | - | - |

Creep Factor: 2.0
Max TC CSI: 0.781
Max BC CSI: 0.598
Max Web CSI: 0.541

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs)**

| | | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | | / Rw | / U | / RL |
| J | 931 | /- | /- | | /517 | /57 | /379 |
| G | 931 | /- | /- | | /517 | /57 | /- |

Wind reactions based on MWFRS
J Brg Wid = 3.5 Min Req = 1.5 (Truss)
G Brg Wid = 3.5 Min Req = 1.5 (Truss)
Bearings J & G are a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 211 | - 706 | D - E | 210 | - 707 |
| C - D | 295 | - 416 | | | |

**Maximum Bot Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. |
|---|---|---|
| I - H | 430 | - 143 |

**Maximum Web Forces Per Ply (lbs)**

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| B - J | 269 | - 856 | H - E | 425 | - 50 |
| B - I | 426 | - 49 | E - G | 270 | - 854 |

**Lumber**

Top chord: 2x4 SP SS; T2 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Loading**

Design Dead Loads based on material weight adjusted for slope: BC: 7.00 PSF

Bottom chord checked for 10.00 psf non-concurrent live load.

**Purlins**

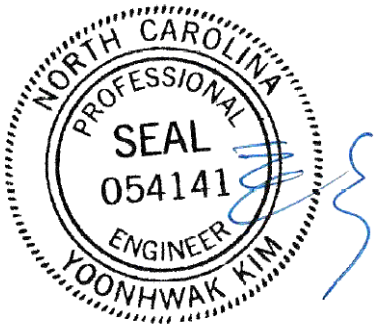
In lieu of rigid ceiling use purlins to brace BC @ 24" oc.

**Wind**

Wind loads based on MWFRS with additional C&C member design.

End verticals exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

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****WARNING**** READ AND FOLLOW ALL NOTES ON THIS DRAWING!
****IMPORTANT**** FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have continuous lateral restraint (CLR), installed with diagonal bracing installed on the CLR per BCSI sections B3, B7, or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions. Refer to job's General Notes page for additional information.

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.

For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbcacomponents.com; ICC: iccsafe.org; AWC: awc.org

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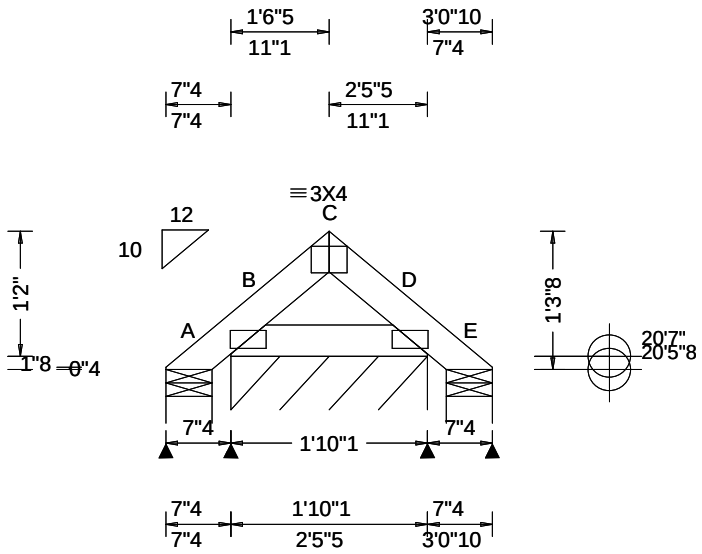
Glenview, IL 60025

| | | | |
|---|---|---|---|
| SEQN: 7260 / COMN<br>FROM: | Ply: 1<br>Qty: 10 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** PB2 | Cust: R 9836 JRef:1Y4O98360009 T10 /<br>DrwNo: 309.24.1104.51389<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 17.17 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 0.93
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): | 0.000 C | 999 | 240 |
| VERT(CL): | 0.000 C | 999 | 240 |
| HORZ(LL): | 0.000 D | - | - |
| HORZ(TL): | 0.000 D | - | - |

Creep Factor: 2.0
Max TC CSI: 0.010
Max BC CSI: 0.011
Max Web CSI: 0.000

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| A | 20 | /- | /- | /27 | /14 | /29 |
| B* | 94 | /- | /- | /67 | /16 | /- |
| E | 20 | /- | /- | /16 | /6 | /- |

Wind reactions based on MWFRS
A Brg Wid = 5.2 Min Req = 1.5 (Truss)
B Brg Wid = 22.1 Min Req = -
E Brg Wid = 5.2 Min Req = 1.5 (Truss)
Bearings A, B, & E are a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;

**Plating Notes**

All plates are 2X4(A1) except as noted.

**Loading**

Design Dead Loads based on material weight adjusted for slope: BC: 7.00 PSF

Bottom chord checked for 10.00 psf non-concurrent live load.

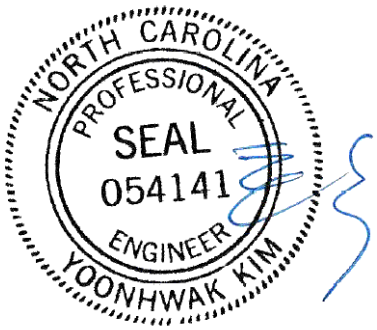
**Wind**

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

**Additional Notes**

Refer to DWG PB160160118 for piggyback details.

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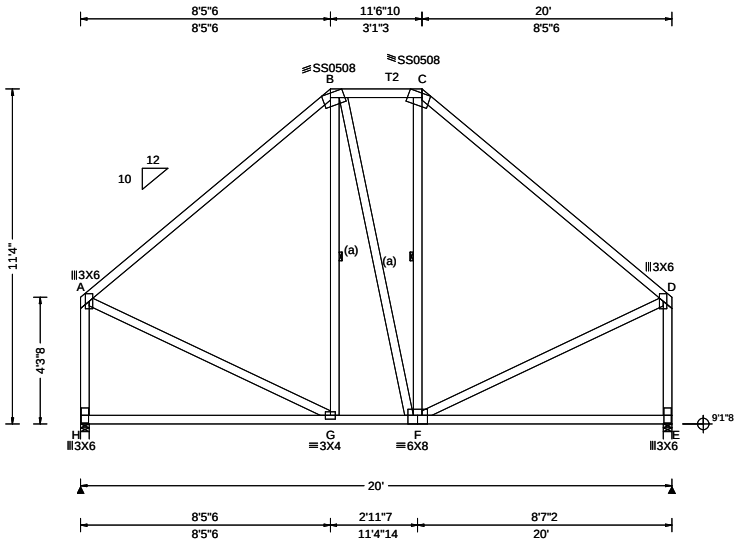
Glenview, IL 60025

| | | | |
|---|---|---|---|
| SEQN: 7223 / COMN<br>FROM: | Ply: 1<br>Qty: 9 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** G1 | Cust: R 9836 JRef:1Y4O98360009 T24<br>DrwNo: 309.24.1104.51030<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 17.58 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: varies
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE, 18SS

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): | 0.010 C | 999 | 240 |
| VERT(CL): | 0.021 C | 999 | 240 |
| HORZ(LL): | 0.006 C | - | - |
| HORZ(TL): | 0.009 C | - | - |

Creep Factor: 2.0
Max TC CSI: 0.804
Max BC CSI: 0.598
Max Web CSI: 0.545

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| H | 860 | /- | /- | /499 | /47 | /330 |
| E | 859 | /- | /- | /499 | /47 | /- |

Wind reactions based on MWFRS
H Brg Wid = 3.5 Min Req = 1.5 (Truss)
E Brg Wid = 3.5 Min Req = 1.5 (Truss)
Bearings H & E are a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| A - B | 194 | - 709 | C - D | 194 | - 710 |
| B - C | 285 | - 420 | | | |

**Maximum Bot Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. |
|---|---|---|
| G - F | 420 | - 111 |

**Maximum Web Forces Per Ply (lbs)**

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| A - H | 218 | - 784 | F - D | 427 | - 18 |
| A - G | 428 | - 16 | D - E | 219 | - 782 |

**Lumber**

Top chord: 2x4 SP SS; T2 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Loading**

Design Dead Loads based on material weight adjusted for slope: BC: 7.00 PSF

Bottom chord checked for 10.00 psf non-concurrent live load.

**Purlins**

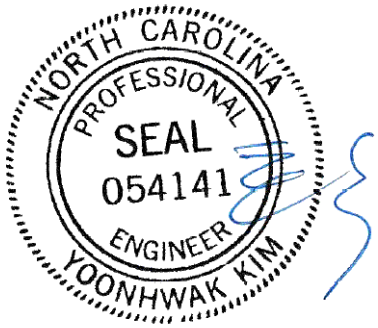
In lieu of rigid ceiling use purlins to brace BC @ 24" oc.

**Wind**

Wind loads based on MWFRS with additional C&C member design.

End verticals exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.




11/04/2024
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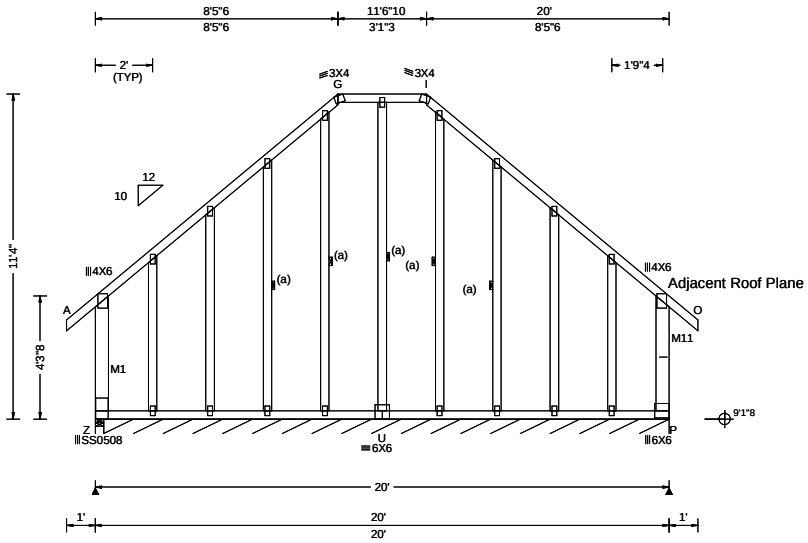
Glenview, IL 60025

| | | | |
|---|---|---|---|
| SEQN: 7221 / GABL<br>FROM: | Ply: 1<br>Qty: 1 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** G1G | Cust: R 9836 JRef:1Y4O98360009 T8 /<br>DrwNo: 309.24.1104.50857<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 17.17 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: varies
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
18SS, WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.013 | B | 999 | 240 |
| VERT(CL): 0.025 | B | 950 | 240 |
| HORZ(LL): 0.404 | N | - | - |
| HORZ(TL): 0.591 | N | - | - |

Creep Factor: 2.0
Max TC CSI: 0.433
Max BC CSI: 0.445
Max Web CSI: 0.275

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| Z | 174 | /- | /- | /517 | /364 | /379 |
| P* | 86 | /- | /- | /67 | /5 | /- |

Wind reactions based on MWFRS
Z Brg Wid = 3.5 Min Req = 1.5 (Truss)
P Brg Wid = 236 Min Req = -
Bearings Z & Z are a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| A - G | 453 | -299 | I - O | 452 | -296 |
| G - I | 383 | -46 | | | |

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3; M1,M11 2x6 SP #2;

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

Fasten rated sheathing to one face of this frame.

**Plating Notes**

All plates are 2X4 except as noted.

**Loading**

Design Dead Loads based on material weight adjusted for slope: BC: 7.00 PSF

Bottom chord checked for 10.00 psf non-concurrent live load.

**Purlins**

In lieu of rigid ceiling use purlins to brace BC @ 24" oc.

**Wind**

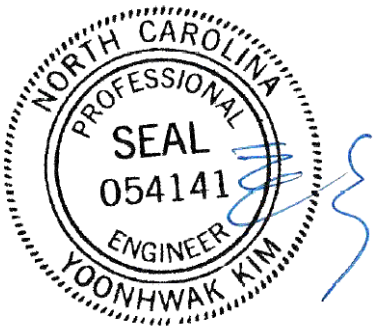
Wind loads based on MWFRS with additional C&C member design.

End verticals exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWGS A12030ENC160118, GBLLETIN0118, & GABRST160118 for gable wind bracing and other requirements.

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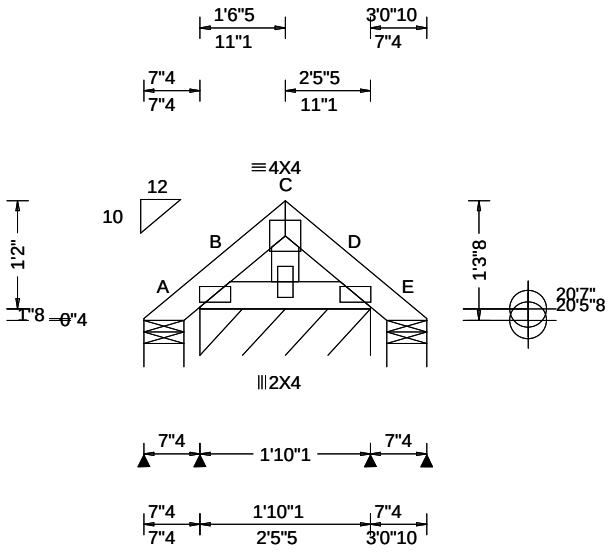
Glenview, IL 60025

| | | | |
|---|---|---|---|
| SEQN: 7215 / GABL<br>FROM: | Ply: 1<br>Qty: 1 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** PB2G | Cust: R 9836 JRef:1Y4O98360009 T7 /<br>DrwNo: 309.24.1104.50812<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 17.17 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 0.93
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): | 0.000 B | 999 | 240 |
| VERT(CL): | 0.000 B | 999 | 240 |
| HORZ(LL): | 0.000 B | - | - |
| HORZ(TL): | 0.000 D | - | - |

Creep Factor: 2.0
Max TC CSI: 0.010
Max BC CSI: 0.005
Max Web CSI: 0.006

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| A | 19 | /- | /- | /28 | /15 | /29 |
| B* | 94 | /- | /- | /67 | /15 | /- |
| E | 19 | /- | /- | /16 | /6 | /- |

Wind reactions based on MWFRS
A Brg Wid = 5.2 Min Req = 1.5 (Truss)
B Brg Wid = 22.1 Min Req = -
E Brg Wid = 5.2 Min Req = 1.5 (Truss)
Bearings A, B, & E are a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

**Plating Notes**

All plates are 2X4(A1) except as noted.

**Loading**

Design Dead Loads based on material weight adjusted for slope: BC: 7.00 PSF

Gable end supports 8" max rake overhang. Top chord must not be cut or notched.

Bottom chord checked for 10.00 psf non-concurrent live load.

**Purlins**

In lieu of rigid ceiling use purlins to brace BC @ 24" oc.

**Wind**

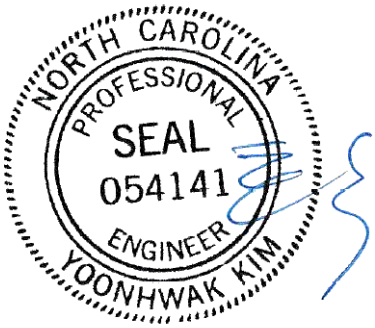
Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWGS A12030ENC160118, GBLLETIN0118, & GABRST160118 for gable wind bracing and other requirements.

Refer to DWG PB160160118 for piggyback details.

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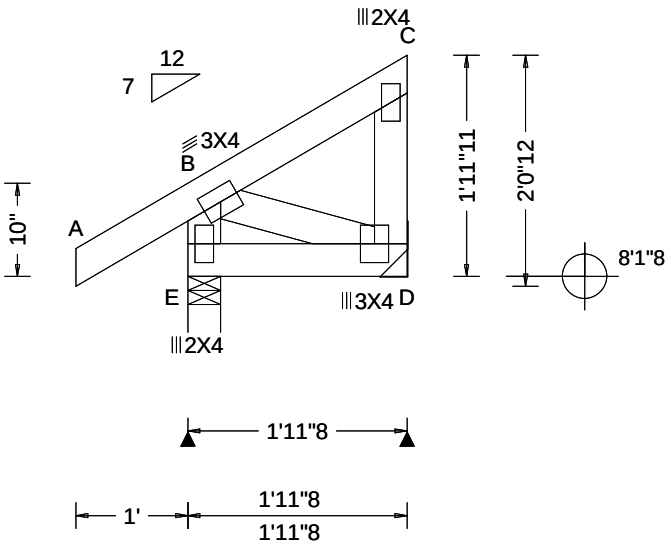
| | | | |
|---|---|---|---|
| SEQN: 7225 / MONO<br>FROM: | Ply: 1<br>Qty: 2 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** F1 | Cust: R 9836 JRef:1Y4O98360009 T29 /<br>DrwNo: 309.24.1104.51312<br>/ YK 11/04/2024 |




| **Loading Criteria** (psf) | **Wind Criteria** | **Snow Criteria** (Pg,Pf in PSF) | **Defl/CSI Criteria** |
|---|---|---|---|
| TCLL: 20.00<br>TCDL: 10.00<br>BCLL: 0.00<br>BCDL: 10.00<br>Des Ld: 40.00<br>NCBCLL: 10.00<br>Soffit: 2.00<br>Load Duration: 1.15<br>Spacing: 24.0 " | Wind Std: ASCE 7-16<br>Speed: 120 mph<br>Enclosure: Closed<br>Risk Category: II<br>EXP: C Kzt: NA<br>Mean Height: 15.00 ft<br>TCDL: 5.0 psf<br>BCDL: 5.0 psf<br>MWFRS Parallel Dist: 0 to h/2<br>C&C Dist a: 3.00 ft<br>Loc. from endwall: Any<br>GCpi: 0.18<br>Wind Duration: 1.60 | Pg: 20.0 Ct: 1.1 CAT: II<br>Pf: 15.4 Ce: 1.0<br>Lu: - Cs: 1.00<br>Snow Duration: 1.15<br><br>Building Code:<br>IRC 2021<br>TPI Std: 2014<br>Rep Fac: Yes<br>FT/RT:20(0)/10(0)<br>Plate Type(s):<br>WAVE | PP Deflection in loc L/defl L/#<br>VERT(LL): 0.000 B 999 240<br>VERT(CL): 0.000 B 999 240<br>HORZ(LL): -0.000 C - -<br>HORZ(TL): 0.000 C - -<br>Creep Factor: 2.0<br>Max TC CSI: 0.078<br>Max BC CSI: 0.037<br>Max Web CSI: 0.043<br><br>VIEW Ver: 23.02.04A.0207.13 |

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| E | 167 | /- | /- | /104 | /- | /66 |
| D | 64 | /- | /- | /52 | /28 | /- |

Wind reactions based on MWFRS
E Brg Wid = 3.5 Min Req = 1.5 (Truss)
D Brg Wid = - Min Req = -
Bearing E is a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

**Hangers / Ties**

(J) Hanger Support Required, by others

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

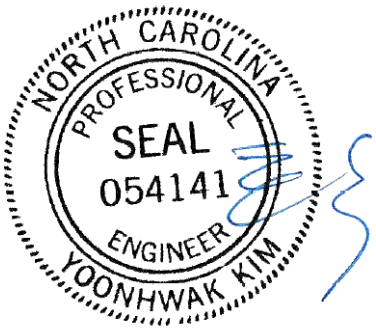
**Wind**

Wind loads based on MWFRS with additional C&C member design.

Left end vertical exposed to wind pressure. Deflection meets L/180.

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

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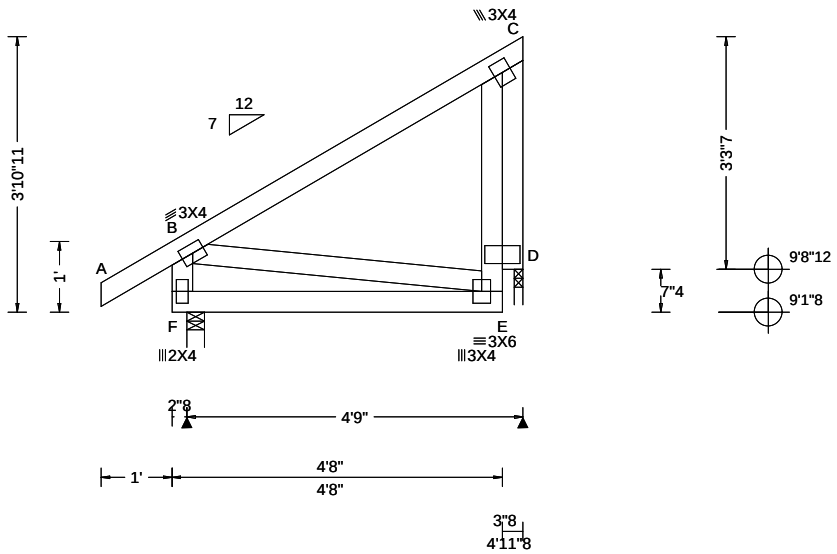
| | | | |
|---|---|---|---|
| SEQN: 7258 / MONO<br>FROM: | Ply: 1<br>Qty: 3 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** P1 | Cust: R 9836 JRef:1Y4O98360009 T14 /<br>DrwNo: 309.24.1104.51155<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): | 0.003 B | 999 | 240 |
| VERT(CL): | 0.006 B | 615 | 240 |
| HORZ(LL): | -0.003 C | - | - |
| HORZ(TL): | 0.006 C | - | - |

Creep Factor: 2.0
Max TC CSI: 0.301
Max BC CSI: 0.166
Max Web CSI: 0.184

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| F | 298 | /- | /- | /176 | /25 | /140 |
| D | 176 | /- | /- | /141 | /57 | /- |

Wind reactions based on MWFRS
F Brg Wid = 3.0 Min Req = 1.5 (Truss)
D Brg Wid = 1.5 Min Req = 1.5 (Support)
Bearings F & D are a rigid surface.
Members not listed have forces less than 375#

**Maximum Bot Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. |
|---|---|---|
| F - E | 115 | -413 |

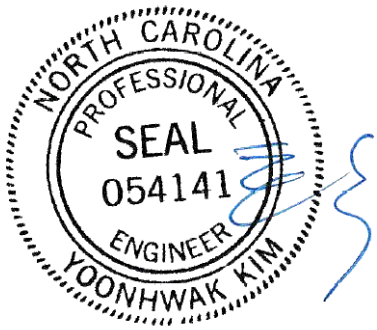
**Maximum Web Forces Per Ply (lbs)**

| Webs | Tens. | Comp. |
|---|---|---|
| C - D | 801 | -487 |

**Lumber**
Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;
Rt Bearing Leg: 2x4 SP #3;

**Loading**
Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**
Wind loads based on MWFRS with additional C&C member design.
End verticals exposed to wind pressure. Deflection meets L/180.
Left cantilever is exposed to wind
Wind loading based on both gable and hip roof types.

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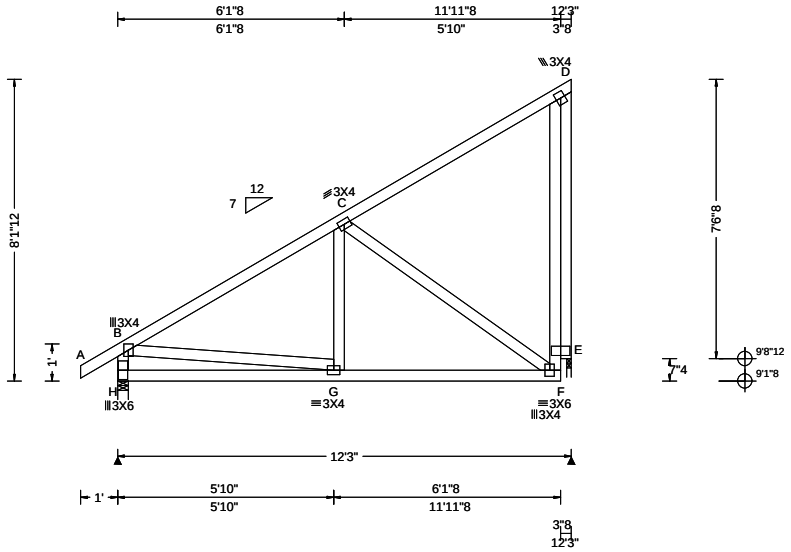
Glenview, IL 60025

| | | | |
|---|---|---|---|
| SEQN: 7230 / MONO<br>FROM: | Ply: 1<br>Qty: 6 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** B1 | Cust: R 9836 JRef:1Y4O98360009 T12 /<br>DrwNo: 309.24.1104.50478<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.012 | G | 999 | 240 |
| VERT(CL): 0.024 | G | 999 | 240 |
| HORZ(LL): -0.006 | D | - | - |
| HORZ(TL): 0.010 | D | - | - |

Creep Factor: 2.0
Max TC CSI: 0.505
Max BC CSI: 0.386
Max Web CSI: 0.493

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| H | 577 | /- | /- | /334 | /49 | /304 |
| E | 503 | /- | /- | /377 | /102 | /- |

Wind reactions based on MWFRS
H Brg Wid = 3.5 Min Req = 1.5 (Truss)
E Brg Wid = 1.5 Min Req = 1.5 (Support)
Bearings H & E are a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. |
|---|---|---|
| B - C | 209 | -590 |

**Maximum Bot Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| H - G | 202 | -648 | G - F | 434 | -395 |

**Maximum Web Forces Per Ply (lbs)**

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| B - H | 285 | -530 | C - F | 353 | -503 |
| B - G | 386 | -34 | D - E | 981 | -915 |

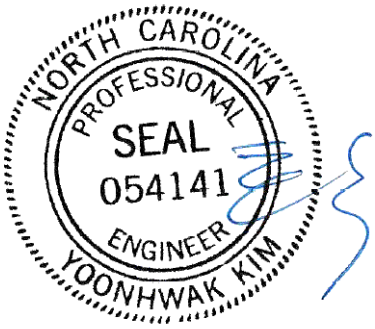
**Lumber**
Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;
Rt Bearing Leg: 2x4 SP #2;

**Loading**
Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**
Wind loads based on MWFRS with additional C&C member design.

End verticals exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

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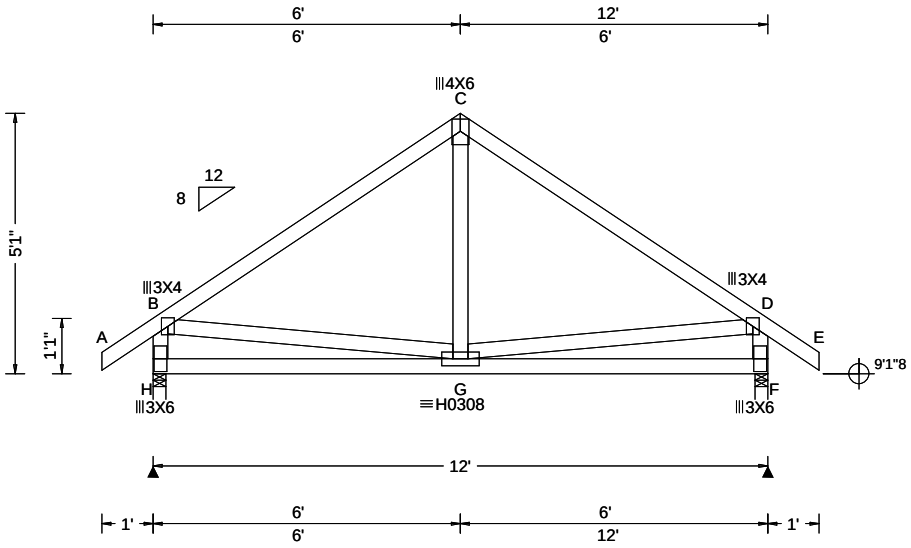
| | | | |
|---|---|---|---|
| SEQN: 7228 / COMN<br>FROM: | Ply: 1<br>Qty: 4 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** C1 | Cust: R 9836 JRef:1Y4O98360009 T2 /<br>DrwNo: 309.24.1104.50655<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE, HS

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): | 0.006 G | 999 | 240 |
| VERT(CL): | 0.013 G | 999 | 240 |
| HORZ(LL): | 0.001 D | - | - |
| HORZ(TL): | 0.002 D | - | - |

Creep Factor: 2.0
Max TC CSI: 0.476
Max BC CSI: 0.323
Max Web CSI: 0.182

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| H | 573 | /- | /- | /337 | /59 | /162 |
| F | 573 | /- | /- | /337 | /59 | /- |

Wind reactions based on MWFRS
H Brg Wid = 3.0 Min Req = 1.5 (Truss)
F Brg Wid = 3.0 Min Req = 1.5 (Truss)
Bearings H & F are a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 218 | -541 | C - D | 218 | -541 |

**Maximum Web Forces Per Ply (lbs)**

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| B - H | 295 | -525 | D - F | 295 | -525 |

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

**Loading**

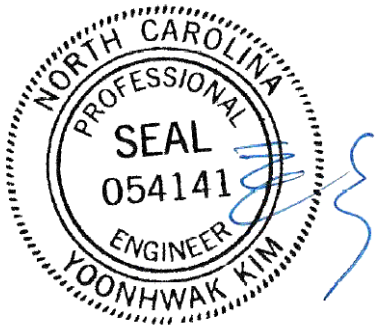
Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**

Wind loads based on MWFRS with additional C&C member design.

End verticals exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

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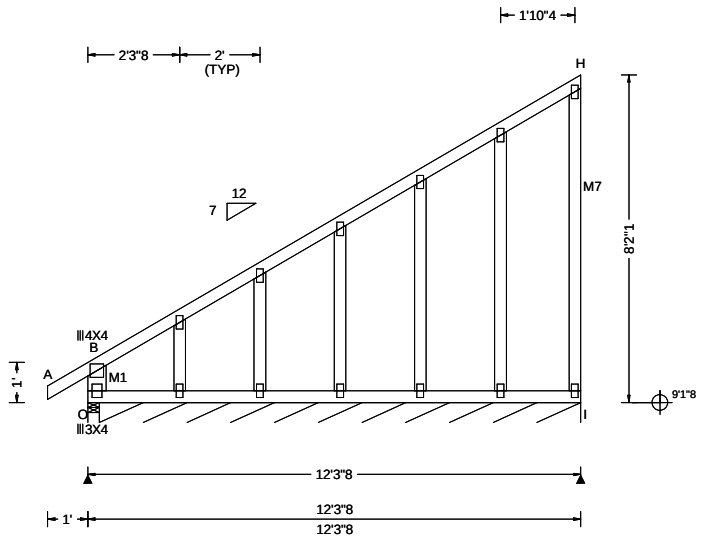
Glenview, IL 60025

| | | | |
|---|---|---|---|
| SEQN: 7249 / GABL<br>FROM: | Ply: 1<br>Qty: 1 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** B1G | Cust: R 9836 JRef:1Y4O98360009 T27 /<br>DrwNo: 309.24.1104.51468<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): | -0.005 B | 999 | 240 |
| VERT(CL): | -0.008 B | 999 | 240 |
| HORZ(LL): | -0.027 B | - | - |
| HORZ(TL): | 0.035 B | - | - |

Creep Factor: 2.0
Max TC CSI: 0.223
Max BC CSI: 0.257
Max Web CSI: 0.722

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| O | 174 | /- | /- | /204 | /29 | /312 |
| I* | 76 | /- | /- | /59 | /18 | /- |

Wind reactions based on MWFRS
O Brg Wid = 3.5 Min Req = 1.5 (Truss)
I Brg Wid = 143 Min Req = -
Bearings O & O are a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. |
|---|---|---|
| B - H | 177 | -565 |

**Maximum Gable Forces Per Ply (lbs)**

| Gables | Tens. | Comp. |
|---|---|---|
| O - B | 66 | -383 |

**Lumber**
Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3; M1 2x6 SP #2; M7 2x4 SP #2;

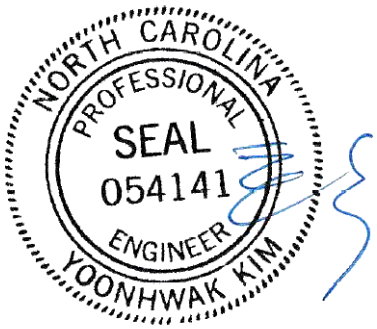
**Bracing**
Fasten rated sheathing to one face of this frame.

**Plating Notes**
All plates are 2X4 except as noted.

**Loading**
Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**
Wind loads based on MWFRS with additional C&C member design.
End verticals exposed to wind pressure. Deflection meets L/180.
Wind loading based on both gable and hip roof types.

**Additional Notes**
See DWGS A12015ENC160118, GBLLETIN0118, & GABRST160118 for gable wind bracing and other requirements.

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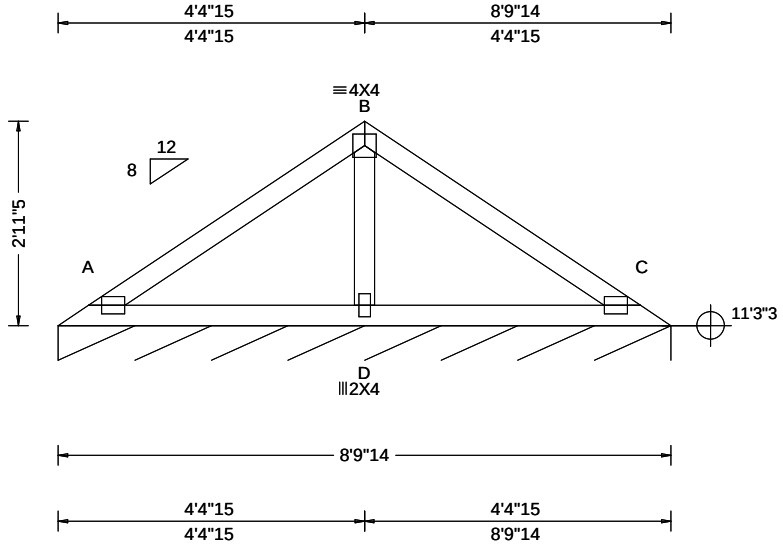
Glenview, IL 60025

| | | | |
|---|---|---|---|
| SEQN: 7205 / GABL<br>FROM: | Ply: 1<br>Qty: 1 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** VC2 | Cust: R 9836 JRef:1Y4O98360009 T1 /<br>DrwNo: 309.24.1104.51453<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): | 0.008 C | 999 | 240 |
| VERT(CL): | 0.017 C | 999 | 240 |
| HORZ(LL): | -0.004 C | - | - |
| HORZ(TL): | 0.009 C | - | - |

Creep Factor: 2.0
Max TC CSI: 0.280
Max BC CSI: 0.217
Max Web CSI: 0.106

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| C* | 84 | /- | /- | /43 | /5 | /7 |

Wind reactions based on MWFRS
C Brg Wid = 105 Min Req = -
Bearing A is a rigid surface.
Members not listed have forces less than 375#

**Maximum Gable Forces Per Ply (lbs)**

| Gables | Tens. | Comp. |
|---|---|---|
| B - D | 329 | -462 |

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

**Plating Notes**

All plates are 3X4(D1) except as noted.

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

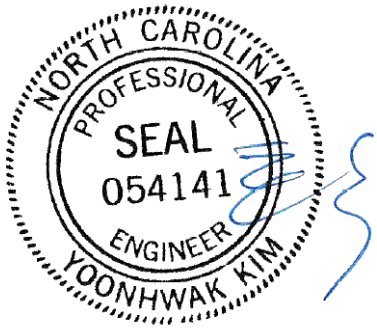
**Wind**

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWGS A12015ENC160118, GBLLETIN0118, & GABRST160118 for gable wind bracing and other requirements.

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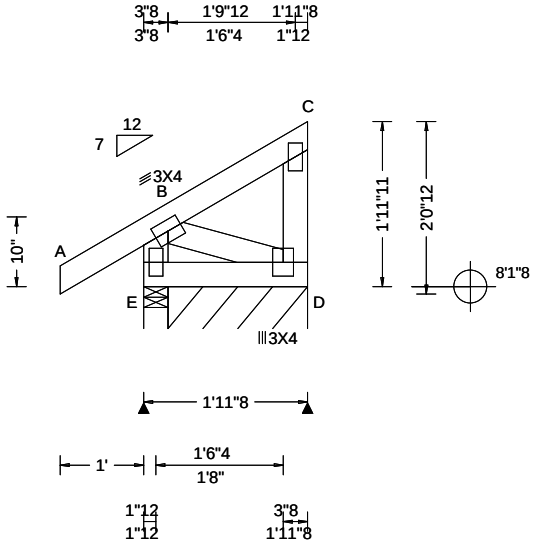
| | | | |
|---|---|---|---|
| SEQN: 7224 / GABL<br>FROM: | Ply: 1<br>Qty: 2 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** F1G | Cust: R 9836 JRef:1Y4O98360009 T28 /<br>DrwNo: 309.24.1104.51124<br>/ YK 11/04/2024 |




| Loading Criteria (psf) | Wind Criteria | Snow Criteria (Pg,Pf in PSF) | Defl/CSI Criteria |
|---|---|---|---|
| TCLL: 20.00<br>TCDL: 10.00<br>BCLL: 0.00<br>BCDL: 10.00<br>Des Ld: 40.00<br>NCBCLL: 10.00<br>Soffit: 2.00<br>Load Duration: 1.15<br>Spacing: 24.0 " | Wind Std: ASCE 7-16<br>Speed: 120 mph<br>Enclosure: Closed<br>Risk Category: II<br>EXP: C Kzt: NA<br>Mean Height: 15.00 ft<br>TCDL: 5.0 psf<br>BCDL: 5.0 psf<br>MWFRS Parallel Dist: 0 to h/2<br>C&C Dist a: 3.00 ft<br>Loc. from endwall: Any<br>GCpi: 0.18<br>Wind Duration: 1.60 | Pg: 20.0 Ct: 1.1 CAT: II<br>Pf: 15.4 Ce: 1.0<br>Lu: - Cs: 1.00<br>Snow Duration: 1.15<br><br>Building Code:<br>IRC 2021<br>TPI Std: 2014<br>Rep Fac: Yes<br>FT/RT:20(0)/10(0)<br>Plate Type(s):<br>WAVE | PP Deflection in loc L/defl L/#<br>VERT(LL): 0.000 B 999 240<br>VERT(CL): 0.000 B 999 240<br>HORZ(LL): -0.000 C - -<br>HORZ(TL): 0.000 C - -<br>Creep Factor: 2.0<br>Max TC CSI: 0.114<br>Max BC CSI: 0.041<br>Max Web CSI: 0.058<br><br>VIEW Ver: 23.02.04A.0207.13 |

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| E | 167 | /- | /- | /98 | /17 | /76 |
| D* | 38 | /- | /- | /35 | /16 | /- |

Wind reactions based on MWFRS
E Brg Wid = 3.5 Min Req = 1.5 (Truss)
D Brg Wid = 20.0 Min Req = -
Bearings E & E are a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

**Plating Notes**

All plates are 2X4 except as noted.

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**

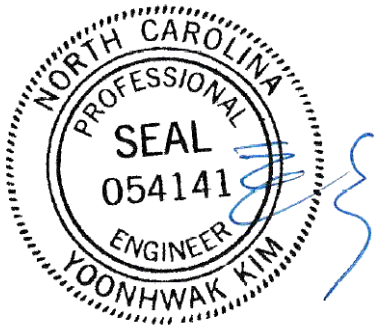
Wind loads based on MWFRS with additional C&C member design.

End verticals exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWGS A12015ENC160118, GBLLETIN0118, & GABRST160118 for gable wind bracing and other requirements.

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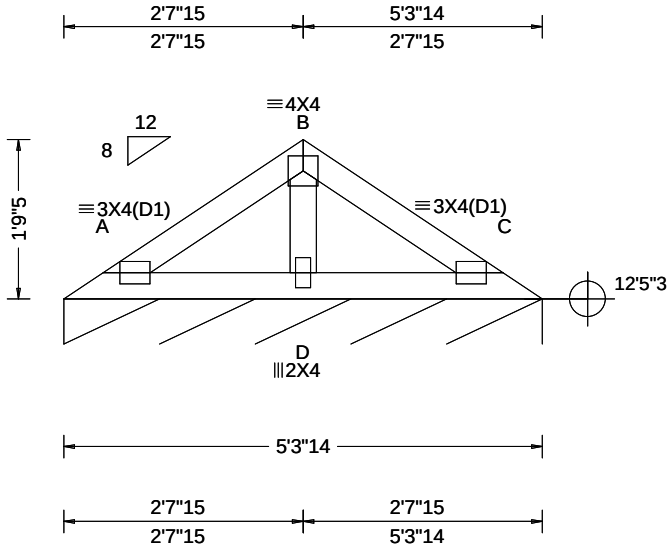
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

| | | | |
|---|---|---|---|
| SEQN: 7206 / VAL<br>FROM: | Ply: 1<br>Qty: 1 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** VC1 | Cust: R 9836 JRef:1Y4O98360009 T15 /<br>DrwNo: 309.24.1104.50905<br>/ YK 11/04/2024 |




| **Loading Criteria** (psf) | **Wind Criteria** | **Snow Criteria** (Pg,Pf in PSF) | **Defl/CSI Criteria** |
|---|---|---|---|
| TCLL: 20.00 | Wind Std: ASCE 7-16 | Pg: 20.0 Ct: 1.1 CAT: II | PP Deflection in loc L/defl L/# |
| TCDL: 10.00 | Speed: 120 mph | Pf: 15.4 Ce: 1.0 | VERT(LL): 0.002 A 999 240 |
| BCLL: 0.00 | Enclosure: Closed | Lu: - Cs: 1.00 | VERT(CL): 0.004 A 999 240 |
| BCDL: 10.00 | Risk Category: II | Snow Duration: 1.15 | HORZ(LL): -0.001 C - - |
| Des Ld: 40.00 | EXP: C Kzt: NA | | HORZ(TL): 0.002 C - - |
| NCBCLL: 10.00 | Mean Height: 15.00 ft | Building Code: | Creep Factor: 2.0 |
| Soffit: 2.00 | TCDL: 5.0 psf | IRC 2021 | Max TC CSI: 0.082 |
| Load Duration: 1.15 | BCDL: 5.0 psf | TPI Std: 2014 | Max BC CSI: 0.066 |
| Spacing: 24.0 " | MWFRS Parallel Dist: 0 to h/2 | Rep Fac: Yes | Max Web CSI: 0.049 |
| | C&C Dist a: 3.00 ft | FT/RT:20(0)/10(0) | |
| | Loc. from endwall: Any | Plate Type(s): | |
| | GCpi: 0.18 | WAVE | VIEW Ver: 23.02.04A.0207.13 |
| | Wind Duration: 1.60 | | |

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| C* | 83 | /- | /- | /41 | /4 | /6 |

Wind reactions based on MWFRS
C Brg Wid = 63.9 Min Req = -
Bearing A is a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

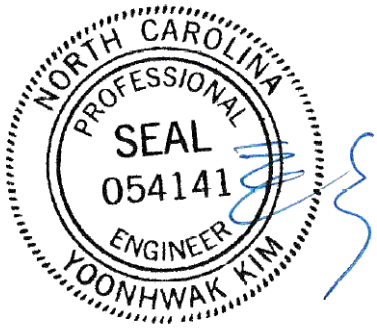
**Wind**

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWG VALTN160118 for valley details.

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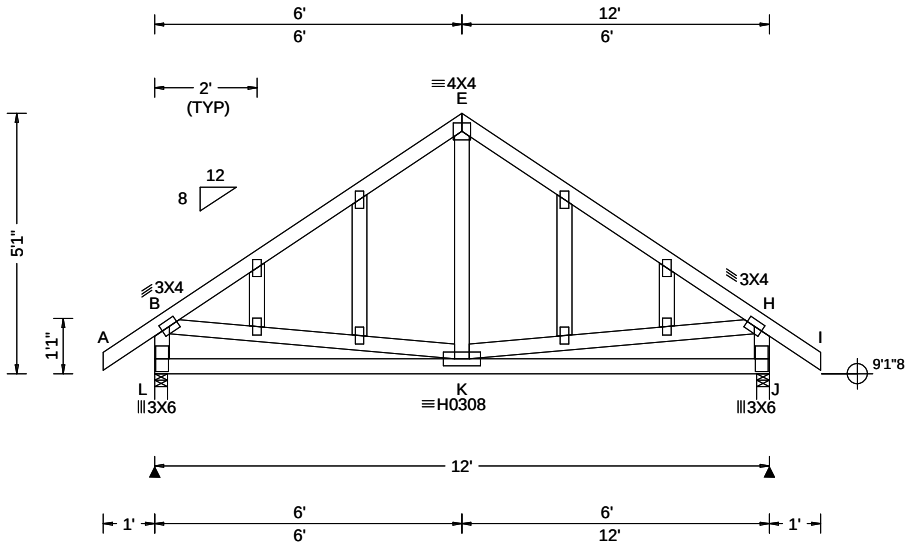
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

| | | | |
|---|---|---|---|
| SEQN: 7226 / GABL<br>FROM: | Ply: 1<br>Qty: 1 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** C1G | Cust: R 9836 JRef:1Y4O98360009 T4 /<br>DrwNo: 309.24.1104.51499<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE, HS

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.038 | D | 999 | 240 |
| VERT(CL): 0.078 | D | 999 | 240 |
| HORZ(LL): 0.023 | C | - | - |
| HORZ(TL): 0.047 | C | - | - |

Creep Factor: 2.0
Max TC CSI: 0.325
Max BC CSI: 0.322
Max Web CSI: 0.627

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| L | 573 | /- | /- | /337 | /59 | /162 |
| J | 573 | /- | /- | /337 | /59 | /- |

Wind reactions based on MWFRS
L Brg Wid = 3.0 Min Req = 1.5 (Truss)
J Brg Wid = 3.0 Min Req = 1.5 (Truss)
Bearings L & J are a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - E | 225 | -505 | E - H | 225 | -505 |

**Maximum Web Forces Per Ply (lbs)**

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| B - L | 295 | -525 | H - J | 295 | -525 |

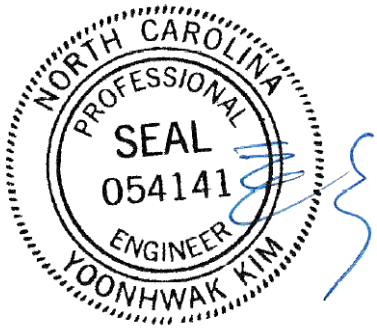
**Lumber**
Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

**Plating Notes**
All plates are 2X4 except as noted.

**Loading**
Gable end supports 8" max rake overhang. Top chord must not be cut or notched.
Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**
Wind loads based on MWFRS with additional C&C member design.
End verticals exposed to wind pressure. Deflection meets L/180.
Wind loading based on both gable and hip roof types.

**Additional Notes**
See DWGS A12015ENC160118, GBLLETIN0118, & GABRST160118 for gable wind bracing and other requirements.

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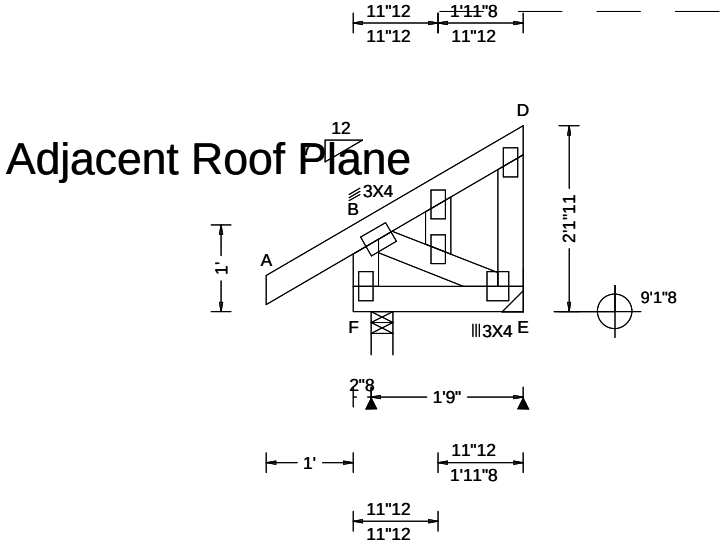
| | | | |
|---|---|---|---|
| SEQN: 7219 / GABL<br>FROM: | Ply: 1<br>Qty: 1 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** P1G | Cust: R 9836 JRef:1Y4O98360009 T6 /<br>DrwNo: 309.24.1104.51264<br>/ YK 11/04/2024 |




| **Loading Criteria** (psf) | **Wind Criteria** | **Snow Criteria** (Pg,Pf in PSF) | **Defl/CSI Criteria** |
|---|---|---|---|
| TCLL: 20.00 | Wind Std: ASCE 7-16 | Pg: 20.0 Ct: 1.1 CAT: II | PP Deflection in loc L/defl L/# |
| TCDL: 10.00 | Speed: 120 mph | Pf: 15.4 Ce: 1.0 | VERT(LL): 0.002 B 999 240 |
| BCLL: 0.00 | Enclosure: Closed | Lu: - Cs: 1.00 | VERT(CL): 0.004 B 946 240 |
| BCDL: 10.00 | Risk Category: II | Snow Duration: 1.15 | HORZ(LL): -0.002 D - - |
| Des Ld: 40.00 | EXP: C Kzt: NA | | HORZ(TL): 0.004 D - - |
| NCBCLL: 10.00 | Mean Height: 15.00 ft | Building Code: | Creep Factor: 2.0 |
| Soffit: 2.00 | TCDL: 5.0 psf | IRC 2021 | Max TC CSI: 0.078 |
| Load Duration: 1.15 | BCDL: 5.0 psf | TPI Std: 2014 | Max BC CSI: 0.099 |
| Spacing: 24.0 " | MWFRS Parallel Dist: 0 to h/2 | Rep Fac: Yes | Max Web CSI: 0.086 |
| | C&C Dist a: 3.00 ft | FT/RT:20(0)/10(0) | |
| | Loc. from endwall: Any | Plate Type(s): | |
| | GCpi: 0.18 | WAVE | VIEW Ver: 23.02.04A.0207.13 |
| | Wind Duration: 1.60 | | |

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| F | 201 | /- | /- | /126 | /4 | /70 |
| E | 35 | /- | /- | /36 | /36 | /- |

Wind reactions based on MWFRS
F Brg Wid = 3.0 Min Req = 1.5 (Truss)
E Brg Wid = - Min Req = -
Bearing F is a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

**Plating Notes**

All plates are 2X4 except as noted.

**Hangers / Ties**

(J) Hanger Support Required, by others

**Loading**

Gable end supports 8" max rake overhang. Top chord must not be cut or notched.

Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**

Wind loads based on MWFRS with additional C&C member design.

Left end vertical exposed to wind pressure. Deflection meets L/180.

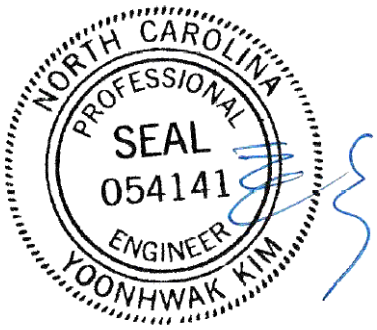
Right end vertical not exposed to wind pressure.

Left cantilever is exposed to wind

Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWGS A12015ENC160118, GBLLETIN0118, & GABRST160118 for gable wind bracing and other requirements.

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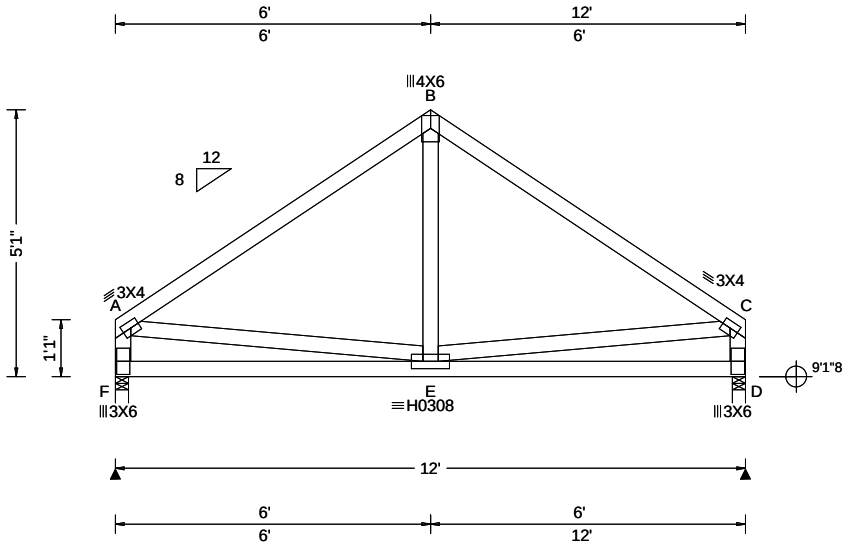
Glenview, IL 60025

| | | | |
|---|---|---|---|
| SEQN: 7227 / COMN<br>FROM: | Ply: 1<br>Qty: 1 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** C1D | Cust: R 9836 JRef:1Y4O98360009 T3 /<br>DrwNo: 309.24.1104.50794<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE, HS

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.006 | E | 999 | 240 |
| VERT(CL): 0.013 | E | 999 | 240 |
| HORZ(LL): 0.001 | C | - | - |
| HORZ(TL): 0.002 | C | - | - |

Creep Factor: 2.0
Max TC CSI: 0.505
Max BC CSI: 0.324
Max Web CSI: 0.190

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| F | 504 | /- | /- | /304 | /46 | /127 |
| D | 504 | /- | /- | /304 | /46 | /- |

Wind reactions based on MWFRS
F Brg Wid = 3.0 Min Req = 1.5 (Truss)
D Brg Wid = 3.0 Min Req = 1.5 (Truss)
Bearings F & D are a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| A - B | 224 | -549 | B - C | 224 | -549 |

**Maximum Web Forces Per Ply (lbs)**

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| A - F | 231 | -456 | C - D | 231 | -456 |

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

**Loading**

Truss transfers a maximum horizontal load of
100 # ( 8.34 plf ) along top chord, from either direction, to supports where indicated. Diaphragm and connections are to be designed by Engineer of Record.
Drag Loads: Force(#) (PLF) Mbr Start End
Case 1: 100 8.34 TC 0.00 12.00
100 8.33 BC 0.00 12.00

Bottom chord checked for 10.00 psf non-concurrent live load.

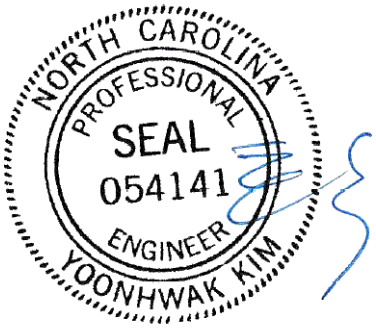
**Wind**

Wind loads based on MWFRS with additional C&C member design.

End verticals exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

It is the responsibility of the Building Designer and Truss Fabricator to review this drawing prior to cutting lumber to verify that all data, including dimensions and loads, conform to the architectural plans/specifications and fabricators truss layout.

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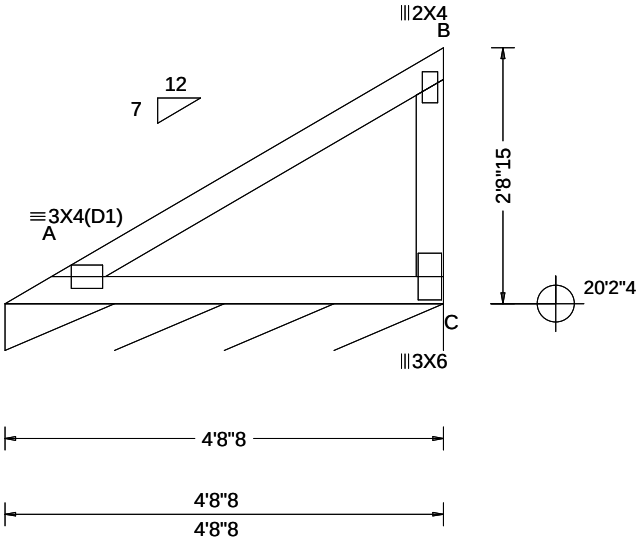
| | | | |
|---|---|---|---|
| SEQN: 7212 / VAL<br>FROM: | Ply: 1<br>Qty: 2 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** V1 | Cust: R 9836 JRef:1Y4O98360009 T34 /<br>DrwNo: 309.24.1104.50319<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 21.71 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**
PP Deflection in loc L/defl L/#
VERT(LL): NA
VERT(CL): NA
HORZ(LL): 0.005 A - -
HORZ(TL): 0.010 A - -
Creep Factor: 2.0
Max TC CSI: 0.292
Max BC CSI: 0.272
Max Web CSI: 0.170

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| C* | 83 | /- | /- | /51 | /12 | /22 |

Wind reactions based on MWFRS
C Brg Wid = 56.5 Min Req = -
Bearing A is a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**

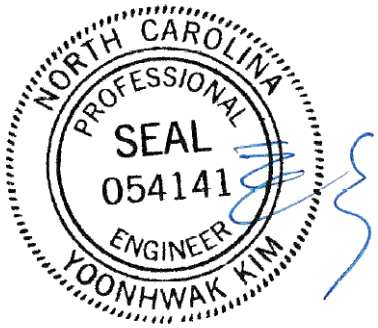
Wind loads based on MWFRS with additional C&C member design.

Right end vertical exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWG VALTN160118 for valley details.

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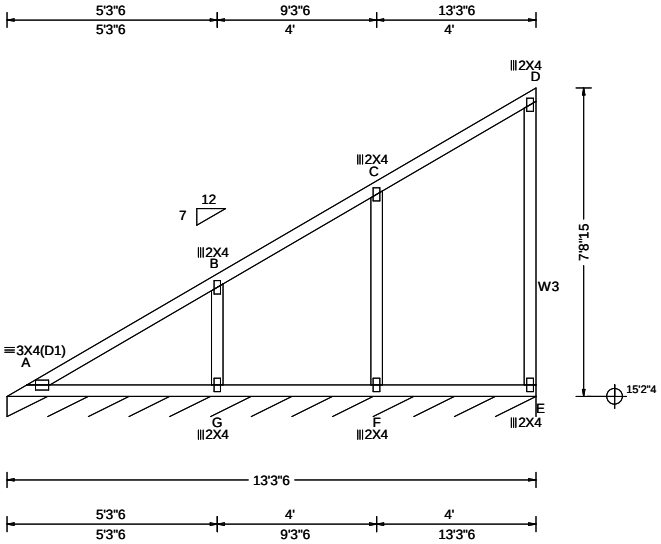
| | | | |
|---|---|---|---|
| SEQN: 7209 / VAL<br>FROM: | Ply: 1<br>Qty: 2 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** V4 | Cust: R 9836 JRef:1Y4O98360009 T31 /<br>DrwNo: 309.24.1104.51249<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 19.21 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.016 | A | 999 | 240 |
| VERT(CL): 0.033 | A | 999 | 240 |
| HORZ(LL): -0.007 | D | - | - |
| HORZ(TL): 0.010 | A | - | - |

Creep Factor: 2.0
Max TC CSI: 0.322
Max BC CSI: 0.251
Max Web CSI: 0.860

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| E* | 83 | /- | /- | /54 | /12 | /23 |

Wind reactions based on MWFRS
E Brg Wid = 159 Min Req = -
Bearing A is a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. |
|---|---|---|
| A - B | 144 | - 502 |

**Maximum Bot Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| A - G | 501 | - 114 | F - E | 511 | - 119 |
| G - F | 507 | - 118 | | | |

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3; W3 2x4 SP #2;

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**

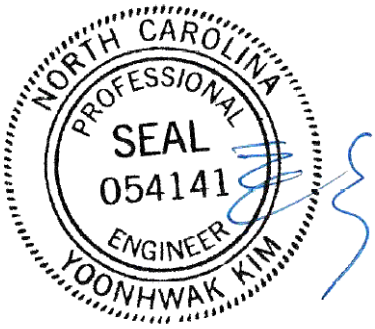
Wind loads based on MWFRS with additional C&C member design.

Right end vertical exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWG VALTN160118 for valley details.

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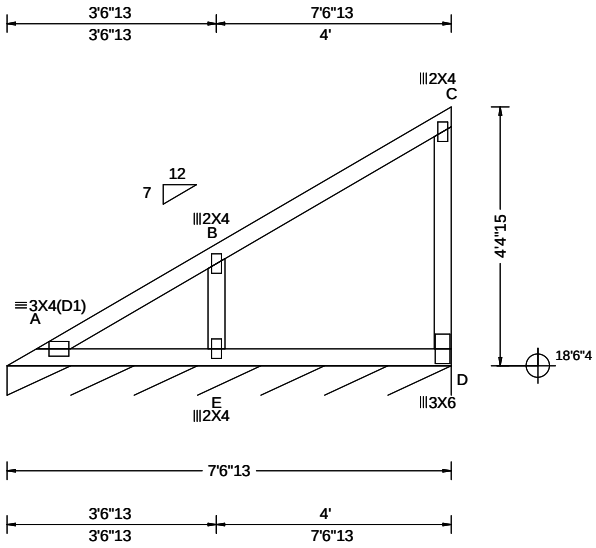
| | | | |
|---|---|---|---|
| SEQN: 7211 / VAL<br>FROM: | Ply: 1<br>Qty: 2 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** V2 | Cust: R 9836 JRef:1Y4O98360009 T33 /<br>DrwNo: 309.24.1104.50098<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 20.87 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.003 | A | 999 | 240 |
| VERT(CL): 0.006 | A | 999 | 240 |
| HORZ(LL): -0.002 | C | - | - |
| HORZ(TL): 0.003 | C | - | - |

Creep Factor: 2.0
Max TC CSI: 0.282
Max BC CSI: 0.163
Max Web CSI: 0.409

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs), or *=PLF**

| Loc | Gravity R+ | / R- | / Rh | Non-Gravity / Rw | / U | / RL |
|---|---|---|---|---|---|---|
| D* | 83 | /- | /- | /53 | /13 | /23 |

Wind reactions based on MWFRS
D Brg Wid = 90.8 Min Req = -
Bearing A is a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**

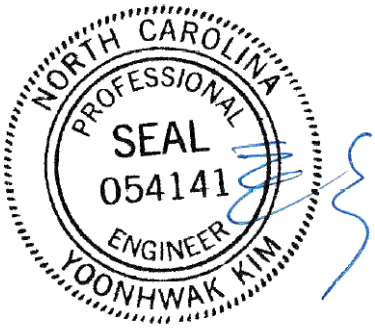
Wind loads based on MWFRS with additional C&C member design.

Right end vertical exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWG VALTN160118 for valley details.

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****WARNING**** READ AND FOLLOW ALL NOTES ON THIS DRAWING!
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Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have continuous lateral restraint (CLR), installed with diagonal bracing installed on the CLR per BCSI sections B3, B7, or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions. Refer to job's General Notes page for additional information.

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.

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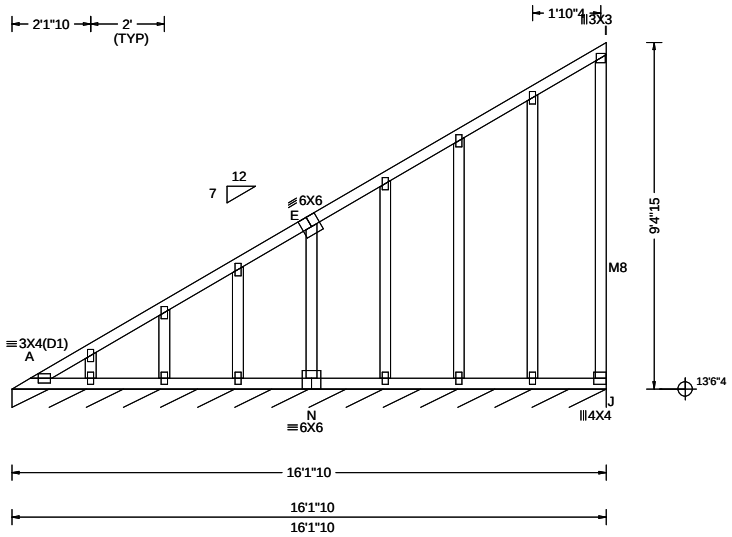
| | | | |
|---|---|---|---|
| SEQN: 7208 / GABL<br>FROM: | Ply: 1<br>Qty: 1 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** V5 | Cust: R 9836 JRef:1Y4O98360009 T30 /<br>DrwNo: 309.24.1104.50936<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 18.37 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.001 | A | 999 | 240 |
| VERT(CL): 0.002 | H | 999 | 240 |
| HORZ(LL): -0.007 | I | - | - |
| HORZ(TL): 0.010 | I | - | - |

Creep Factor: 2.0
Max TC CSI: 0.161
Max BC CSI: 0.160
Max Web CSI: 0.315

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs), or *=PLF**

| Loc | Gravity R+ | Gravity / R- | Gravity / Rh | Non-Gravity / Rw | Non-Gravity / U | Non-Gravity / RL |
|---|---|---|---|---|---|---|
| J* | 83 | /- | /- | /54 | /11 | /23 |

Wind reactions based on MWFRS
J Brg Wid = 193 Min Req = -
Bearing A is a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| A - E | 154 | - 599 | E - I | 203 | - 387 |

**Maximum Bot Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. |
|---|---|---|
| A - N | 563 | - 142 |

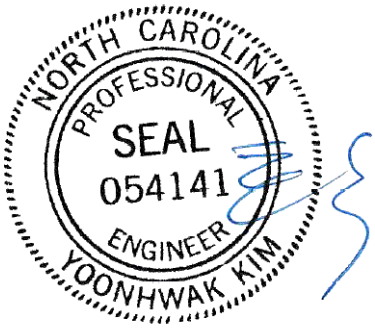
**Lumber**
Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3; M8 2x4 SP SS;

**Plating Notes**
All plates are 2X4 except as noted.

**Loading**
Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**
Wind loads based on MWFRS with additional C&C member design.
Right end vertical exposed to wind pressure. Deflection meets L/180.
Wind loading based on both gable and hip roof types.

**Additional Notes**
See DWGS A12030ENC160118, GBLLETIN0118, & GABRST160118 for gable wind bracing and other requirements.

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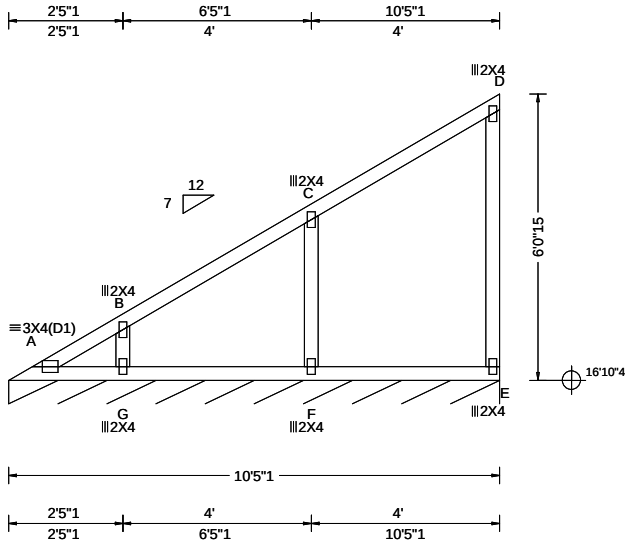
| | | | |
|---|---|---|---|
| SEQN: 7210 / VAL<br>FROM: | Ply: 1<br>Qty: 2 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** V3 | Cust: R 9836 JRef:1Y4O98360009 T32 /<br>DrwNo: 309.24.1104.50542<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 20.04 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.001 | A | 999 | 240 |
| VERT(CL): 0.002 | C | 999 | 240 |
| HORZ(LL): -0.004 | D | - | - |
| HORZ(TL): 0.006 | D | - | - |

Creep Factor: 2.0
Max TC CSI: 0.288
Max BC CSI: 0.159
Max Web CSI: 0.826

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| E* | 83 | /- | /- | /53 | /13 | /23 |

Wind reactions based on MWFRS
E Brg Wid = 125 Min Req = -
Bearing A is a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. |
|---|---|---|
| A - B | 105 | -457 |

**Maximum Bot Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| A - G | 423 | -85 | F - E | 442 | -94 |
| G - F | 435 | -91 | | | |

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**

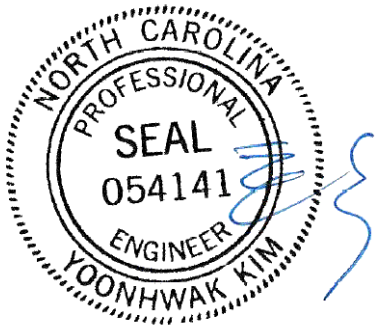
Wind loads based on MWFRS with additional C&C member design.

Right end vertical exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWG VALTN160118 for valley details.

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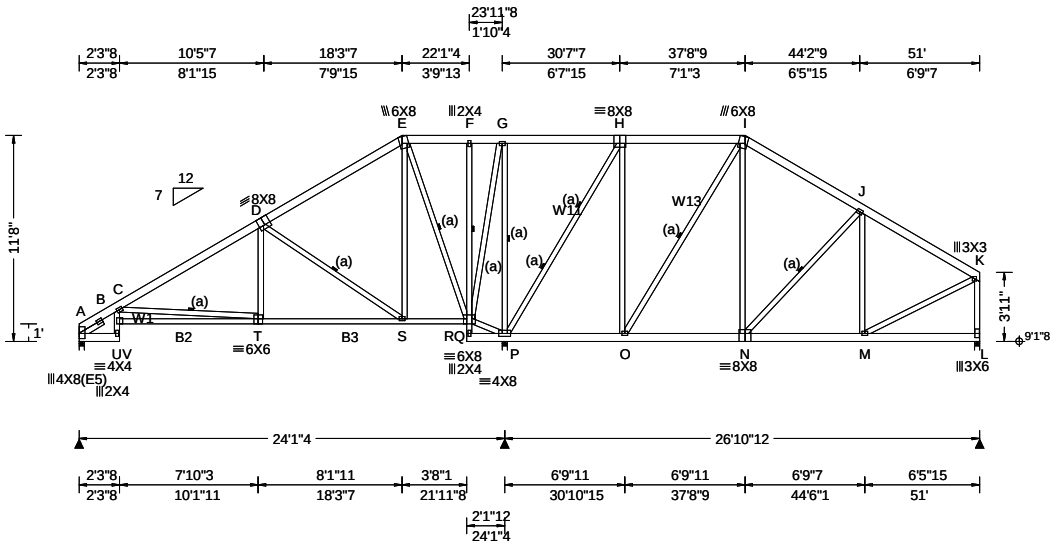
| | | | | |
|---|---|---|---|---|
| SEQN: 7266 COMN<br>FROM: | Ply: 1<br>Qty: 1 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** A2A | Cust: R 9836 JRef:1Y4O98360009 T16<br>DrwNo: 309.24.1312.59467<br>/ YK 11/04/2024 | |




| Loading Criteria (psf) | | Wind Criteria | Snow Criteria (Pg,Pf in PSF) | Defl/CSI Criteria |
|---|---|---|---|---|
| TCLL: | 20.00 | Wind Std: ASCE 7-16 | Pg: 20.0 Ct: 1.1 CAT: II | PP Deflection in loc L/defl L/# |
| TCDL: | 10.00 | Speed: 120 mph | Pf: 15.4 Ce: 1.0 | VERT(LL): 0.067 C 999 240 |
| BCLL: | 0.00 | Enclosure: Closed | Lu: - Cs: 1.00 | VERT(CL): 0.139 C 999 240 |
| BCDL: | 10.00 | Risk Category: II | Snow Duration: 1.15 | HORZ(LL): 0.049 L - - |
| Des Ld: | 40.00 | EXP: C Kzt: NA | | HORZ(TL): 0.103 L - - |
| NCBCLL: | 10.00 | Mean Height: 18.29 ft | Building Code: | Creep Factor: 2.0 |
| Soffit: | 2.00 | TCDL: 5.0 psf | IRC 2021 | Max TC CSI: 0.538 |
| Load Duration: | 1.15 | BCDL: 5.0 psf | TPI Std: 2014 | Max BC CSI: 0.710 |
| Spacing: | 24.0 " | MWFRS Parallel Dist: h to 2h | Rep Fac: Yes | Max Web CSI: 0.831 |
| | | C&C Dist a: 5.10 ft | FT/RT:20(0)/10(0) | |
| | | Loc. from endwall: not in 13.00 ft | Plate Type(s): | VIEW Ver: 23.02.04A.0207.13 |
| | | GCpi: 0.18 | WAVE | |
| | | Wind Duration: 1.60 | | |

**▲Maximum Reactions (lbs)**

| Loc | Gravity R+ | Gravity / R- | Gravity / Rh | Non-Gravity / Rw | Non-Gravity / U | Non-Gravity / RL |
|---|---|---|---|---|---|---|
| A | 503 | /- | /- | /333 | /- | /319 |
| P | 3063 | /- | /- | /1875 | /209 | /- |
| L | 753 | /- | /- | /590 | /125 | /- |

Wind reactions based on MWFRS
A Brg Wid = 3.5 Min Req = 1.5 (Truss)
P Brg Wid = 3.5 Min Req = 3.2 (Truss)
L Brg Wid = 3.5 Min Req = 1.5 (Truss)
Bearings A, P, & L are a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| A - B | 157 | - 661 | F - G | 904 | - 147 |
| B - C | 160 | - 617 | G - H | 1037 | - 167 |
| C - D | 122 | - 386 | H - I | 427 | - 237 |
| D - E | 611 | - 193 | I - J | 287 | - 481 |
| E - F | 903 | - 146 | J - K | 195 | - 653 |

**Maximum Bot Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| A - V | 503 | - 145 | S - Q | 275 | - 435 |
| U - T | 1005 | - 271 | N - M | 503 | - 100 |

**Maximum Web Forces Per Ply (lbs)**

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| C - T | 278 | - 762 | G - P | 271 | - 1024 |
| T - D | 423 | 0 | P - H | 450 | - 1481 |
| D - S | 224 | - 821 | H - O | 825 | - 97 |
| E - S | 633 | - 69 | O - I | 206 | - 838 |
| E - Q | 303 | - 1333 | I - N | 462 | - 44 |
| Q - G | 665 | - 115 | M - K | 559 | - 84 |
| Q - P | 408 | - 1171 | K - L | 151 | - 699 |

**Lumber**

Top chord: 2x6 SP #2;
Bot chord: 2x6 SP #2; B2,B3 2x4 SP #2;
Webs: 2x4 SP #3; W1 2x4 SP SS; W11,
W13 2x4 SP #2;
Lt Slider: 2x4 SP #3; block length = 1.500'

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Plating Notes**

All plates are 3X4 except as noted.

**Loading**

Design Dead Loads based on material weight adjusted for slope: BC: 7.00 PSF

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

**Wind**

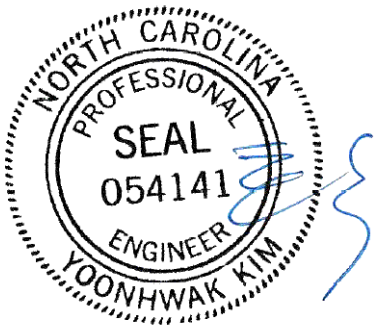
Wind loads based on MWFRS with additional C&C member design.

Right end vertical exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

**Additional Notes**

WARNING: Furnish a copy of this DWG to the installation contractor. Special care must be taken during handling, shipping and installation of trusses. See "WARNING" note below.




11/04/2024
ABCD Engineering, PLLC NC COA 0838

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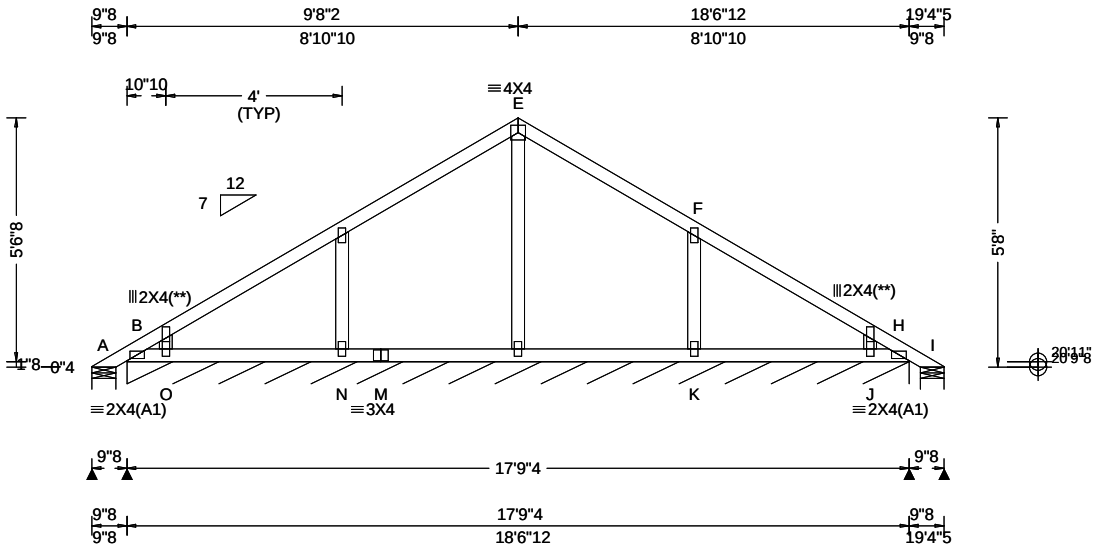
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

| | | | |
|---|---|---|---|
| SEQN: 7214 / COMN<br>FROM: | Ply: 1<br>Qty: 9 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** PB3 | Cust: R 9836 JRef:1Y4O98360009 T23 /<br>DrwNo: 309.24.1104.50160<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)

TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**

Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 18.29 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.69 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)

Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.001 | F | 999 | 240 |
| VERT(CL): 0.002 | F | 999 | 240 |
| HORZ(LL): 0.002 | F | - | - |
| HORZ(TL): 0.002 | F | - | - |

Creep Factor: 2.0
Max TC CSI: 0.329
Max BC CSI: 0.056
Max Web CSI: 0.098

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| A | 19 | /- | /- | /78 | /65 | /134 |
| B* | 80 | /- | /- | /50 | /17 | /- |
| I | 19 | /- | /- | /13 | /2 | /- |
| O | | /-122 | | | | |
| N | | /-176 | | | | |
| K | | /-172 | | | | |
| J | | /-124 | | | | |

Wind reactions based on MWFRS
A Brg Wid = 6.5 Min Req = 1.5 (Truss)
B Brg Wid = 213 Min Req = -
I Brg Wid = 6.5 Min Req = 1.5 (Truss)
Bearings A, B, & I are a rigid surface.
Members not listed have forces less than 375#

**Maximum Gable Forces Per Ply (lbs)**

| Gables | Tens. | Comp. |
|---|---|---|
| K - F | 190 | -400 |

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

**Plating Notes**

All plates are 2X4 except as noted.

(**) 2 plate(s) require special positioning. Refer to scaled plate plot details for special positioning requirements.

**Loading**

Design Dead Loads based on material weight adjusted for slope: BC: 7.00 PSF

Gable end supports 8" max rake overhang. Top chord must not be cut or notched.

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

**Purlins**

In lieu of rigid ceiling use purlins to brace BC @ 24" oc.

**Wind**

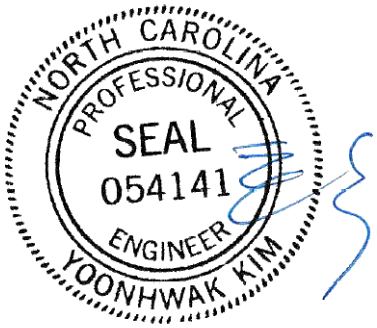
Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWGS A12030ENC160118, GBLLETIN0118, & GABRST160118 for gable wind bracing and other requirements.

Refer to DWG PB160160118 for piggyback details.

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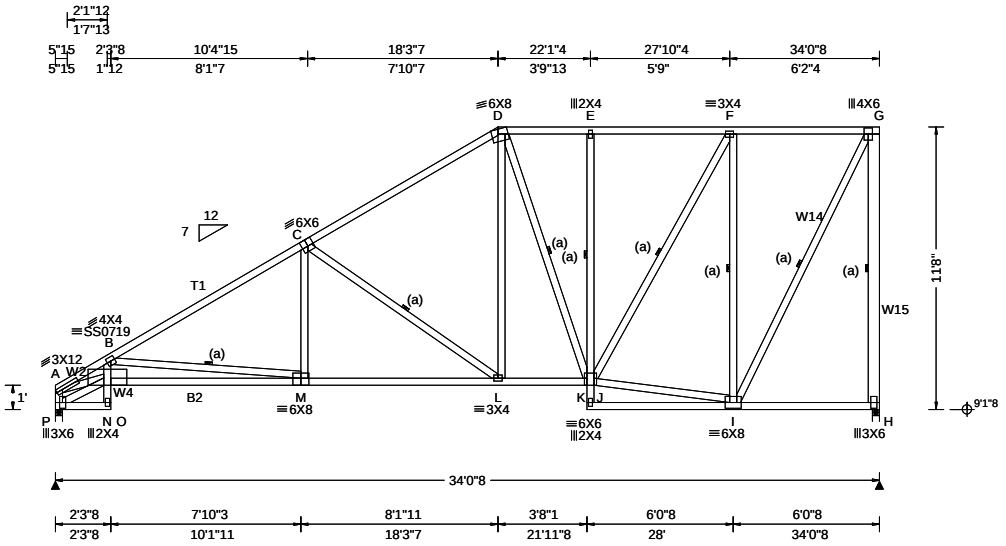
ALPINE AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

| | | | |
|---|---|---|---|
| SEQN: 7238 / COMN<br>FROM: | Ply: 1<br>Qty: 1 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** A1A | Cust: R 9836 JRef:1Y4O98360009 T9 /<br>DrwNo: 309.24.1104.51078<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.46 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.40 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE, 18SS

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.139 | M | 999 | 240 |
| VERT(CL): 0.289 | M | 999 | 240 |
| HORZ(LL): 0.110 | I | - | - |
| HORZ(TL): 0.229 | I | - | - |

Creep Factor: 2.0
Max TC CSI: 0.932
Max BC CSI: 0.819
Max Web CSI: 0.970

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| P | 1412 | /- | /- | /847 | /143 | /442 |
| H | 1414 | /- | /- | /803 | /203 | /- |

Wind reactions based on MWFRS
P Brg Wid = 3.5 Min Req = 1.7 (Truss)
H Brg Wid = 3.5 Min Req = 1.7 (Truss)
Bearings P & H are a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| A - B | 1720 | - 4085 | D - E | 551 | - 1079 |
| B - C | 619 | - 2287 | E - F | 550 | - 1077 |
| C - D | 574 | - 1507 | F - G | 456 | - 644 |

**Maximum Bot Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| N - M | 3676 | - 2188 | L - J | 1181 | - 661 |
| M - L | 1867 | - 949 | | | |

**Maximum Web Forces Per Ply (lbs)**

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| A - P | 550 | - 1316 | D - L | 607 | - 116 |
| A - N | 3576 | - 1478 | D - J | 126 | - 397 |
| P - N | 211 | - 702 | J - F | 853 | - 411 |
| N - B | 839 | - 627 | J - I | 647 | - 414 |
| B - M | 1246 | - 1808 | F - I | 673 | - 1191 |
| M - C | 469 | - 23 | I - G | 1373 | - 589 |
| C - L | 357 | - 849 | G - H | 629 | - 1367 |

**Lumber**

Top chord: 2x4 SP #2; T1 2x4 SP SS;
Bot chord: 2x4 SP #2; B2 2x4 SP SS;
Webs: 2x4 SP #3; W2,W4,W14 2x4 SP #2;
W15 2x6 SP #2;

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

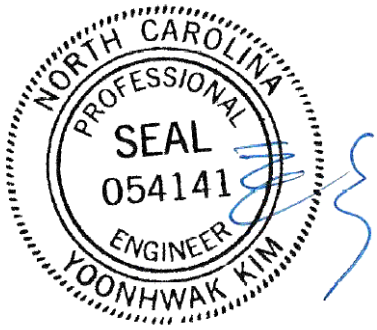
Truss designed for unbalanced snow loads.

**Wind**

Wind loads based on MWFRS with additional C&C member design.

End verticals exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

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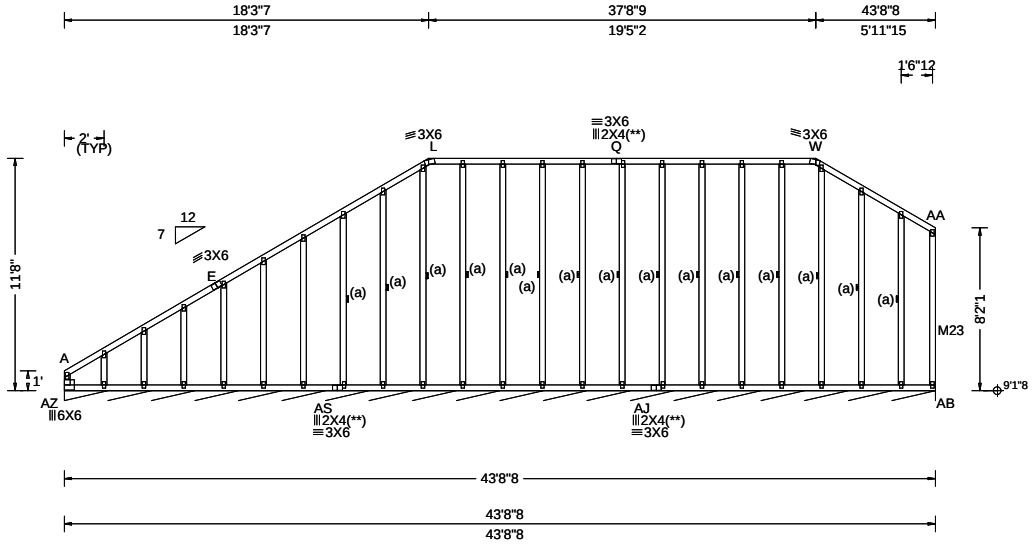
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

| | | | | |
|---|---|---|---|---|
| SEQN: 7262 GABL<br>FROM: | Ply: 1<br>Qty: 1 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** A2G | | Cust: R 9836 JRef:1Y4O98360009 T17<br>DrwNo: 309.24.1313.01800<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 18.33 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 4.37 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): | 0.003 B | 999 | 240 |
| VERT(CL): | 0.007 B | 999 | 240 |
| HORZ(LL): | -0.093 AA | - | - |
| HORZ(TL): | 0.140 AA | - | - |

Creep Factor: 2.0
Max TC CSI: 0.199
Max BC CSI: 0.213
Max Web CSI: 0.595

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| AB | *83 | /- | /- | /46 | /9 | /9 |

Wind reactions based on MWFRS
AB Brg Wid = 524 Min Req = -
Bearing AZ is a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. |
|---|---|---|
| A - E | 255 | -464 |

**Maximum Bot Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. |
|---|---|---|
| AZ-AS | 418 | -229 |

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3; M23 2x4 SP #2;

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

Fasten rated sheathing to one face of this frame.

**Plating Notes**

All plates are 2X4 except as noted.

(**) 3 plate(s) require special positioning. Refer to scaled plate plot details for special positioning requirements.

**Loading**

Design Dead Loads based on material weight adjusted for slope: BC: 7.00 PSF

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

**Wind**

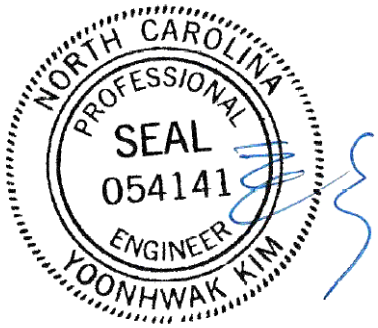
Wind loads based on MWFRS with additional C&C member design.

End verticals exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWGS A12030ENC160118, GBLLETIN0118, & GABRST160118 for gable wind bracing and other requirements.

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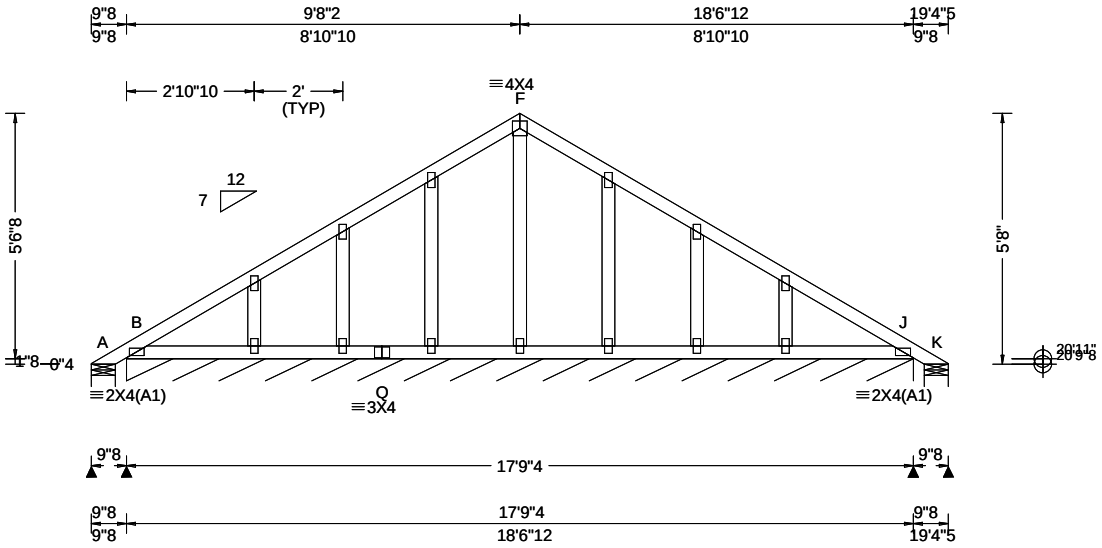
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

| | | | |
|---|---|---|---|
| SEQN: 7213 / GABL<br>FROM: | Ply: 1<br>Qty: 1 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** PB3G | Cust: R 9836 JRef:1Y4O98360009 T11 /<br>DrwNo: 309.24.1104.51218<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 18.33 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.69 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): | 0.001 G | 999 | 240 |
| VERT(CL): | 0.001 G | 999 | 240 |
| HORZ(LL): | 0.002 J | - | - |
| HORZ(TL): | 0.002 J | - | - |

Creep Factor: 2.0
Max TC CSI: 0.079
Max BC CSI: 0.038
Max Web CSI: 0.071

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs), or *=PLF**

| | | Gravity | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| A | - | /-7 | /- | /73 | /73 | /130 |
| B* | 83 | /- | /- | /51 | /18 | /- |
| K | - | /-8 | /- | /10 | /9 | /- |

Wind reactions based on MWFRS
A Brg Wid = 6.5 Min Req = 1.5 (Truss)
B Brg Wid = 213 Min Req = -
K Brg Wid = 6.5 Min Req = 1.5 (Truss)
Bearings A, B, & K are a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

**Plating Notes**

All plates are 2X4 except as noted.

**Loading**

Design Dead Loads based on material weight adjusted for slope: BC: 7.00 PSF

Gable end supports 8" max rake overhang. Top chord must not be cut or notched.

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

**Purlins**

In lieu of rigid ceiling use purlins to brace BC @ 24" oc.

**Wind**

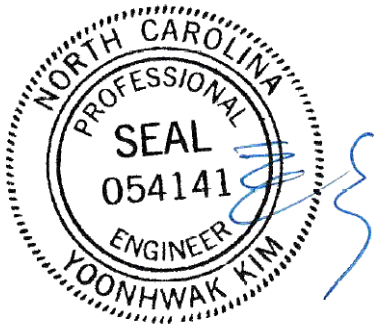
Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWGS A12030ENC160118, GBLLETIN0118, & GABRST160118 for gable wind bracing and other requirements.

Refer to DWG PB160160118 for piggyback details.

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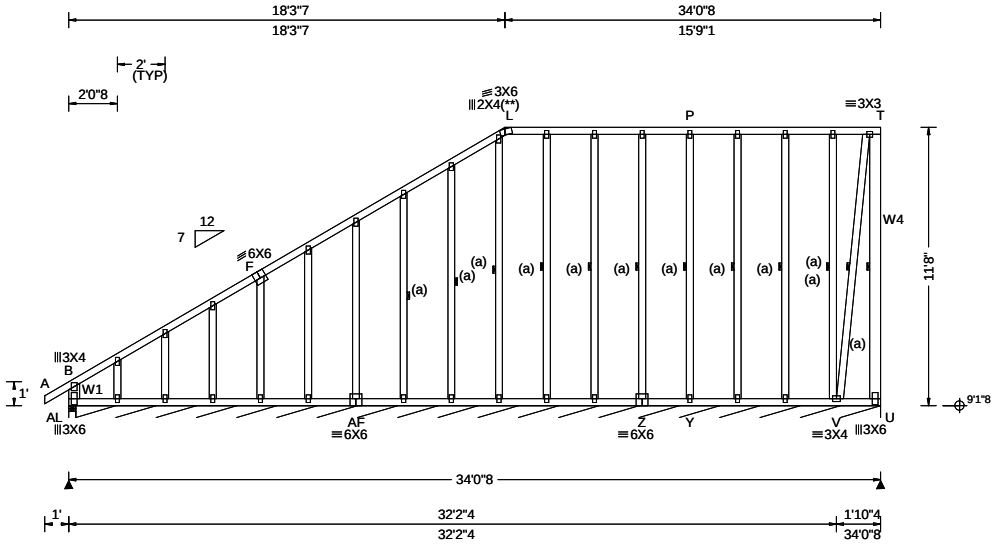
ALPINE AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

| | | | |
|---|---|---|---|
| SEQN: 7251 / GABL<br>FROM: | Ply: 1<br>Qty: 1 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** A1G | Cust: R 9836 JRef:1Y4O98360009 T19 /<br>DrwNo: 309.24.1104.51015<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 18.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.40 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.005 | L | 999 | 240 |
| VERT(CL): 0.004 | S | 999 | 240 |
| HORZ(LL): -0.056 | T | - | - |
| HORZ(TL): 0.074 | T | - | - |

Creep Factor: 2.0
Max TC CSI: 0.287
Max BC CSI: 0.313
Max Web CSI: 0.908

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| AL | 169 | /- | /- | /415 | /129 | /782 |
| U* | 81 | /- | /- | /53 | /1 | /- |

Wind reactions based on MWFRS
AL Brg Wid = 3.5 Min Req = 1.5 (Truss)
U Brg Wid = 404 Min Req = -
Bearings AL & AL are a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - F | 304 | - 713 | L - P | 479 | - 304 |
| F - L | 534 | - 515 | P - T | 479 | - 304 |

**Maximum Bot Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| AL-AF | 506 | - 500 | Y - V | 507 | - 487 |
| AF- Z | 508 | - 489 | V - U | 486 | - 388 |
| Z - Y | 507 | - 487 | | | |

**Maximum Web Forces Per Ply (lbs)**

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| B -AL | 184 | - 421 | T - U | 591 | - 217 |
| V - T | 212 | - 614 | | | |

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3; W1 2x6 SP #2;
W4 2x6 SP SS Dense;

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Plating Notes**

All plates are 2X4 except as noted.

(**) 1 plate(s) require special positioning. Refer to scaled plate plot details for special positioning requirements.

**Loading**

Design Dead Loads based on material weight adjusted for slope: BC: 7.00 PSF

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

**Wind**

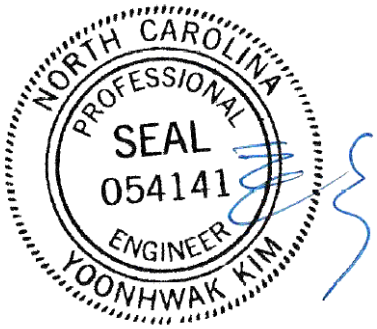
Wind loads based on MWFRS with additional C&C member design.

End verticals exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWGS A12030ENC160118, GBLLETIN0118, & GABRST160118 for gable wind bracing and other requirements.




11/04/2024
ABCD Engineering, PLLC NC COA 0838

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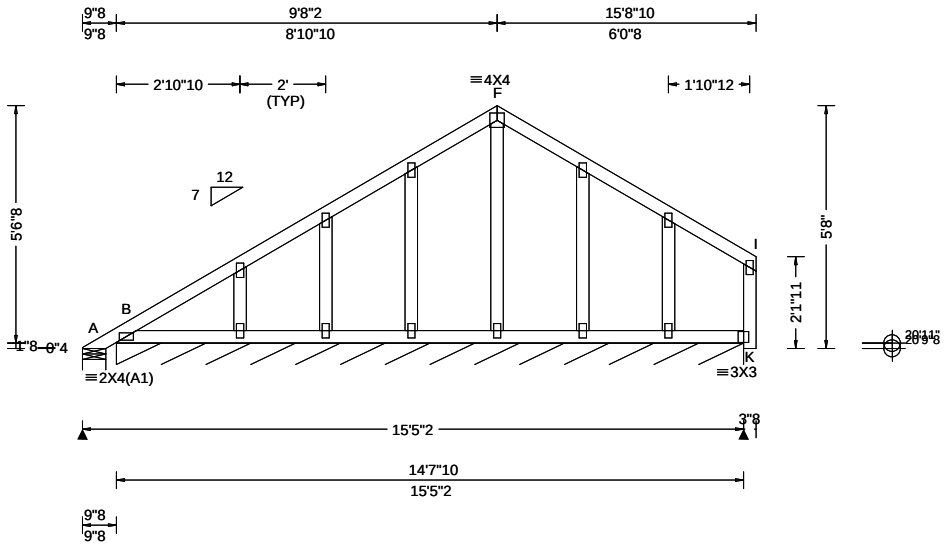
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

| | | | |
|---|---|---|---|
| SEQN: 7217 / GABL<br>FROM: | Ply: 1<br>Qty: 1 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** PB1G | Cust: R 9836 JRef:1Y4O98360009 T36 /<br>DrwNo: 309.24.1104.50999<br>/ YK 11/04/2024 |




| Loading Criteria (psf) | Wind Criteria | Snow Criteria (Pg,Pf in PSF) | Defl/CSI Criteria |
|---|---|---|---|
| TCLL: 20.00 | Wind Std: ASCE 7-16 | Pg: 20.0 Ct: 1.1 CAT: II | PP Deflection in loc L/defl L/# |
| TCDL: 10.00 | Speed: 120 mph | Pf: 15.4 Ce: 1.0 | VERT(LL): 0.001 G 999 240 |
| BCLL: 0.00 | Enclosure: Closed | Lu: - Cs: 1.00 | VERT(CL): 0.002 G 999 240 |
| BCDL: 10.00 | Risk Category: II | Snow Duration: 1.15 | HORZ(LL): 0.001 H - - |
| Des Ld: 40.00 | EXP: C Kzt: NA | | HORZ(TL): 0.002 H - - |
| NCBCLL: 10.00 | Mean Height: 18.00 ft | Building Code: | Creep Factor: 2.0 |
| Soffit: 2.00 | TCDL: 5.0 psf | IRC 2021 | Max TC CSI: 0.079 |
| Load Duration: 1.15 | BCDL: 5.0 psf | TPI Std: 2014 | Max BC CSI: 0.034 |
| Spacing: 24.0 " | MWFRS Parallel Dist: 0 to h/2 | Rep Fac: Yes | Max Web CSI: 0.063 |
| | C&C Dist a: 3.40 ft | FT/RT:20(0)/10(0) | |
| | Loc. from endwall: Any | Plate Type(s): | |
| | GCpi: 0.18 | WAVE | VIEW Ver: 23.02.04A.0207.13 |
| | Wind Duration: 1.60 | | |

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| A | - | /-9 | /- | /72 | /62 | /126 |
| B* | 82 | /- | /- | /53 | /20 | /- |

Wind reactions based on MWFRS
A Brg Wid = 6.5 Min Req = 1.5 (Truss)
B Brg Wid = 175 Min Req = -
Bearings A & B are a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

**Plating Notes**

All plates are 2X4 except as noted.

**Loading**

Design Dead Loads based on material weight adjusted for slope: BC: 7.00 PSF

Gable end supports 8" max rake overhang. Top chord must not be cut or notched.

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

**Purlins**

In lieu of rigid ceiling use purlins to brace BC @ 24" oc.

**Wind**

Wind loads based on MWFRS with additional C&C member design.

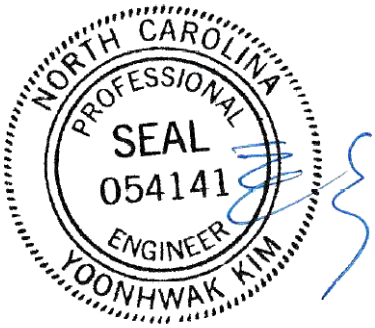
Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWGS A12030ENC160118, GBLLETIN0118, & GABRST160118 for gable wind bracing and other requirements.

Refer to DWG PB160160118 for piggyback details.

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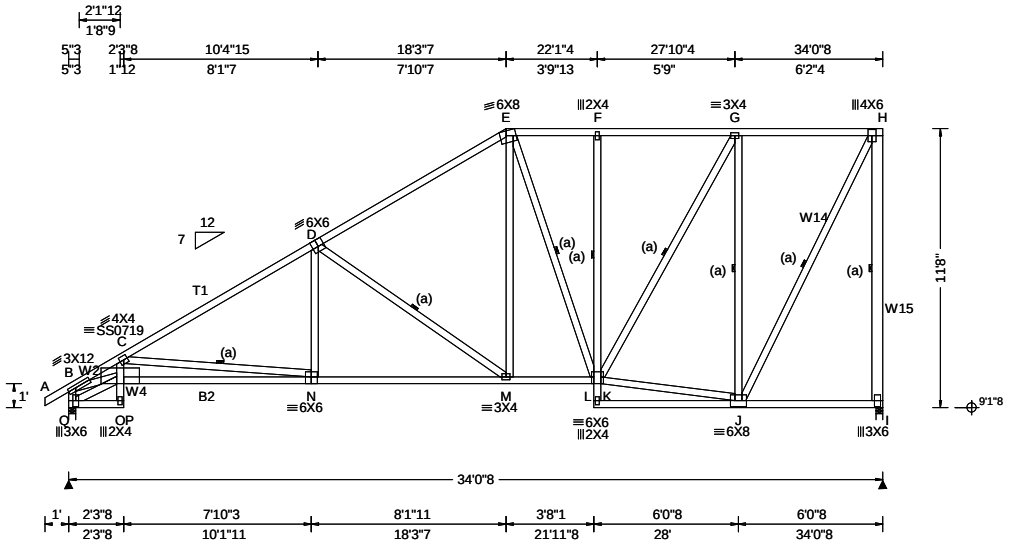
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

| | | | |
|---|---|---|---|
| SEQN: 7235 / COMN<br>FROM: | Ply: 1<br>Qty: 1 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** A1T | Cust: R 9836 JRef:1Y4O98360009 T20 /<br>DrwNo: 309.24.1104.50351<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.17 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.40 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE, 18SS

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.139 | N | 999 | 240 |
| VERT(CL): 0.287 | N | 999 | 240 |
| HORZ(LL): 0.110 | J | - | - |
| HORZ(TL): 0.227 | J | - | - |

Creep Factor: 2.0
Max TC CSI: 0.933
Max BC CSI: 0.818
Max Web CSI: 0.963

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| Q | 1481 | /- | /- | /899 | /154 | /452 |
| I | 1413 | /- | /- | /803 | /201 | /- |

Wind reactions based on MWFRS
Q Brg Wid = 3.5 Min Req = 1.8 (Truss)
I Brg Wid = 3.5 Min Req = 1.7 (Truss)
Bearings Q & I are a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 1704 | - 4048 | E - F | 548 | - 1078 |
| C - D | 614 | - 2282 | F - G | 547 | - 1076 |
| D - E | 570 | - 1505 | G - H | 454 | - 644 |

**Maximum Bot Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| O - N | 3637 | - 2167 | M - K | 1180 | - 657 |
| N - M | 1863 | - 943 | | | |

**Maximum Web Forces Per Ply (lbs)**

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| B - Q | 586 | - 1384 | E - M | 606 | - 114 |
| B - O | 3541 | - 1435 | E - K | 125 | - 396 |
| Q - O | 228 | - 719 | K - G | 852 | - 409 |
| O - C | 829 | - 629 | K - J | 646 | - 411 |
| C - N | 1231 | - 1773 | G - J | 669 | - 1190 |
| N - D | 468 | - 21 | J - H | 1372 | - 585 |
| D - M | 354 | - 845 | H - I | 625 | - 1366 |

**Lumber**

Top chord: 2x4 SP #2; T1 2x4 SP SS;
Bot chord: 2x4 SP #2; B2 2x4 SP SS;
Webs: 2x4 SP #3; W2,W4,W14 2x4 SP #2;
W15 2x6 SP #2;

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

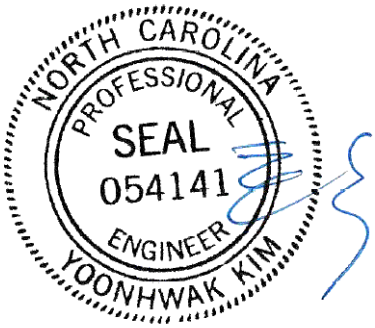
Truss designed for unbalanced snow loads.

**Wind**

Wind loads based on MWFRS with additional C&C member design.

End verticals exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

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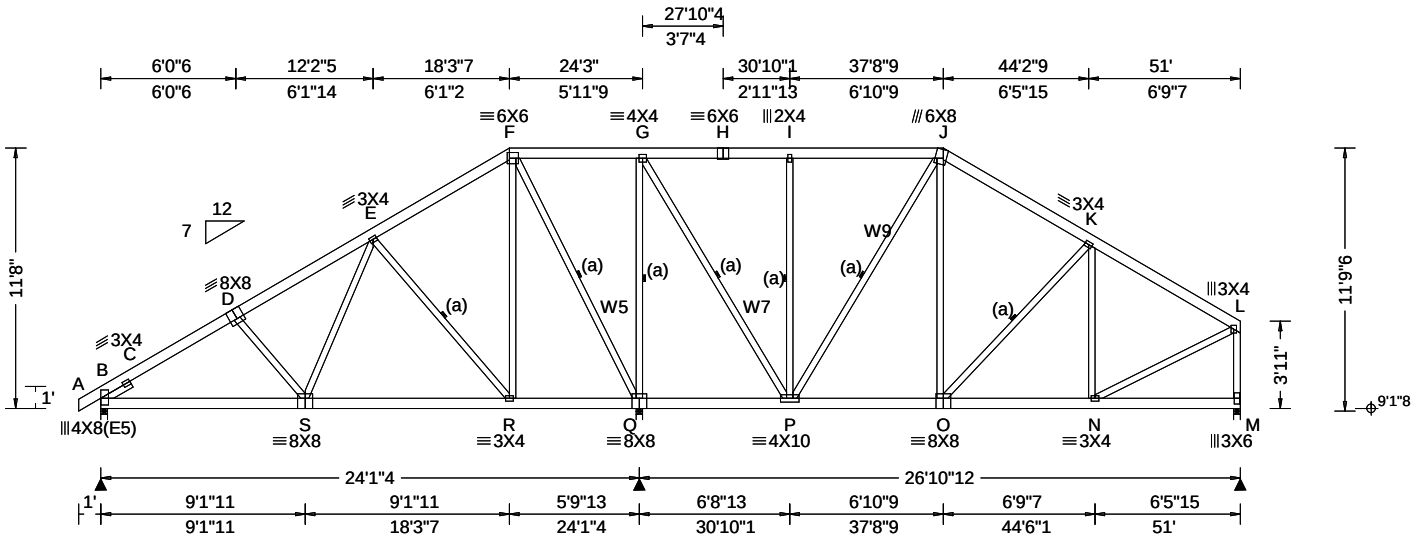
ALPINE AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

| | | | |
|---|---|---|---|
| SEQN: 7268 COMN<br>FROM: | Ply: 1<br>Qty: 1 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** A2 | Cust: R 9836 JRef:1Y4O98360009 T21<br>DrwNo: 309.24.1312.57137<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 18.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: h/2 to h
C&C Dist a: 5.10 ft
Loc. from endwall: not in 13.00 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): | 0.028 O | 999 | 240 |
| VERT(CL): | 0.059 I | 999 | 240 |
| HORZ(LL): | 0.011 C | - | - |
| HORZ(TL): | 0.022 C | - | - |

Creep Factor: 2.0
Max TC CSI: 0.301
Max BC CSI: 0.392
Max Web CSI: 0.884

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| B | 916 | /- | /- | /569 | /95 | /330 |
| Q | 2399 | /- | /- | /1358 | /282 | /- |
| M | 991 | /- | /- | /656 | /102 | /- |

Wind reactions based on MWFRS
B Brg Wid = 3.5 Min Req = 1.5 (Truss)
Q Brg Wid = 3.5 Min Req = 2.8
M Brg Wid = 3.5 Min Req = 1.5 (Truss)
Bearings B, Q, & M are a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 304 | - 1317 | H - I | 288 | - 401 |
| C - D | 235 | - 1148 | I - J | 288 | - 401 |
| D - E | 250 | - 952 | J - K | 304 | - 765 |
| G - H | 288 | - 401 | K - L | 238 | - 887 |

**Maximum Bot Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - S | 936 | - 235 | P - O | 580 | - 127 |
| S - R | 574 | - 132 | O - N | 697 | - 182 |

**Maximum Web Forces Per Ply (lbs)**

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| S - E | 518 | - 32 | I - P | 279 | - 540 |
| E - R | 213 | - 672 | P - J | 97 | - 468 |
| F - R | 646 | - 86 | J - O | 391 | - 28 |
| F - Q | 175 | - 965 | N - L | 775 | - 147 |
| Q - G | 480 | - 1392 | L - M | 196 | - 937 |
| G - P | 1110 | - 321 | | | |

**Lumber**

Top chord: 2x6 SP #2;
Bot chord: 2x6 SP #2;
Webs: 2x4 SP #3; W5,W7,W9 2x4 SP #2;
Lt Slider: 2x4 SP #3; block length = 1.500'

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Loading**

Design Dead Loads based on material weight adjusted for slope: BC: 7.00 PSF

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

**Wind**

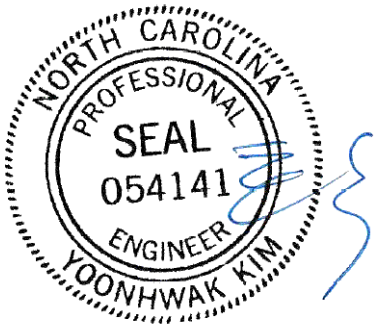
Wind loads based on MWFRS with additional C&C member design.

Right end vertical exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

**Additional Notes**

WARNING: Furnish a copy of this DWG to the installation contractor. Special care must be taken during handling, shipping and installation of trusses. See "WARNING" note below.

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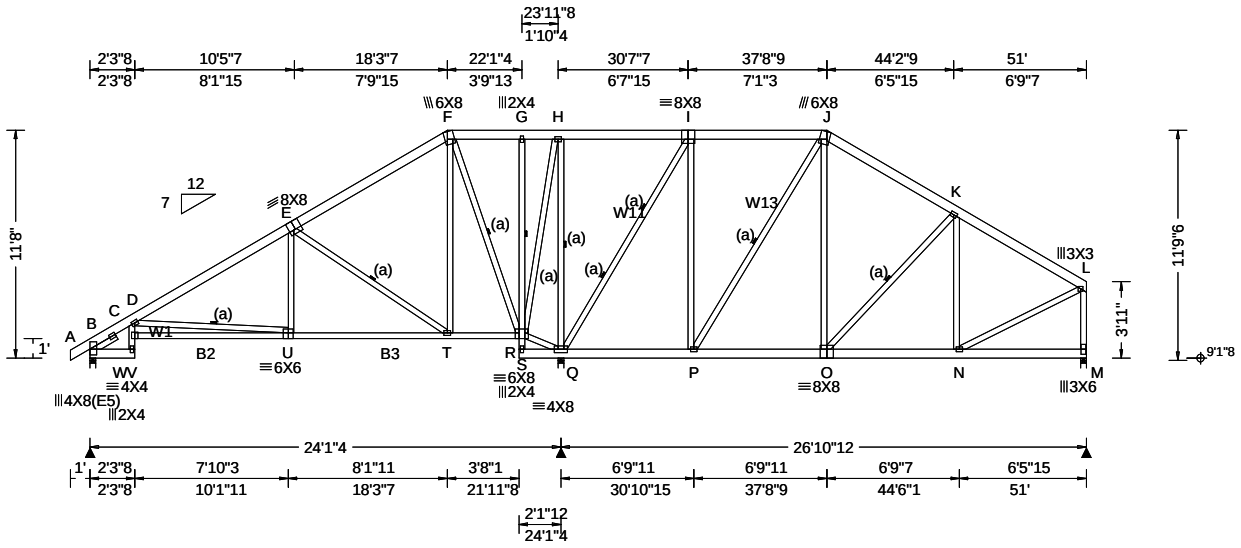
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

| | | | |
|---|---|---|---|
| SEQN: 7264 COMN<br>FROM: | Ply: 1<br>Qty: 1 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** A2T | Cust: R 9836 JRef:1Y4O98360009 T22<br>DrwNo: 309.24.1313.15260<br>/ YK 11/04/2024 |




| **Loading Criteria** (psf) | **Wind Criteria** | **Snow Criteria** (Pg,Pf in PSF) | **Defl/CSI Criteria** |
|---|---|---|---|
| TCLL: 20.00 | Wind Std: ASCE 7-16 | Pg: 20.0 Ct: 1.1 CAT: II | PP Deflection in loc L/defl L/# |
| TCDL: 10.00 | Speed: 120 mph | Pf: 15.4 Ce: 1.0 | VERT(LL): 0.066 D 999 240 |
| BCLL: 0.00 | Enclosure: Closed | Lu: - Cs: 1.00 | VERT(CL): 0.137 D 999 240 |
| BCDL: 10.00 | Risk Category: II | Snow Duration: 1.15 | HORZ(LL): 0.049 M - - |
| Des Ld: 40.00 | EXP: C Kzt: NA | | HORZ(TL): 0.101 M - - |
| NCBCLL: 10.00 | Mean Height: 18.00 ft | Building Code: | Creep Factor: 2.0 |
| Soffit: 2.00 | TCDL: 5.0 psf | IRC 2021 | Max TC CSI: 0.537 |
| Load Duration: 1.15 | BCDL: 5.0 psf | TPI Std: 2014 | Max BC CSI: 0.708 |
| Spacing: 24.0 " | MWFRS Parallel Dist: h/2 to h | Rep Fac: Yes | Max Web CSI: 0.828 |
| | C&C Dist a: 5.10 ft | FT/RT:20(0)/10(0) | |
| | Loc. from endwall: not in 13.00 ft | Plate Type(s): | VIEW Ver: 23.02.04A.0207.13 |
| | GCpi: 0.18 | WAVE | |
| | Wind Duration: 1.60 | | |

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| B | 578 | /- | /- | /341 | /- | /330 |
| Q | 3051 | /- | /- | /1867 | /205 | /- |
| M | 759 | /- | /- | /590 | /121 | /- |

Wind reactions based on MWFRS
B Brg Wid = 3.5 Min Req = 1.5 (Truss)
Q Brg Wid = 3.5 Min Req = 3.2 (Truss)
M Brg Wid = 3.5 Min Req = 1.5 (Truss)
Bearings B, Q, & M are a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 156 | - 658 | G - H | 892 | - 146 |
| C - D | 158 | - 614 | H - I | 1025 | - 163 |
| D - E | 118 | - 394 | I - J | 420 | - 236 |
| E - F | 600 | - 193 | J - K | 282 | - 489 |
| F - G | 891 | - 145 | K - L | 202 | - 659 |

**Maximum Bot Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - W | 494 | - 143 | T - R | 271 | - 426 |
| V - U | 988 | - 266 | O - N | 508 | - 99 |

**Maximum Web Forces Per Ply (lbs)**

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| D - U | 272 | - 738 | H - Q | 269 | - 1024 |
| U - E | 422 | 0 | Q - I | 445 | - 1476 |
| E - T | 222 | - 818 | I - P | 820 | - 95 |
| F - T | 632 | - 67 | P - J | 204 | - 832 |
| F - R | 299 | - 1326 | J - O | 461 | - 43 |
| R - H | 665 | - 115 | N - L | 565 | - 81 |
| R - Q | 401 | - 1157 | L - M | 147 | - 705 |

**Lumber**

Top chord: 2x6 SP #2;
Bot chord: 2x6 SP #2; B2,B3 2x4 SP #2;
Webs: 2x4 SP #3; W1 2x4 SP SS; W11,
W13 2x4 SP #2;
Lt Slider: 2x4 SP #3; block length = 1.500'

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Plating Notes**

All plates are 3X4 except as noted.

**Loading**

Design Dead Loads based on material weight adjusted for slope: BC: 7.00 PSF

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

**Wind**

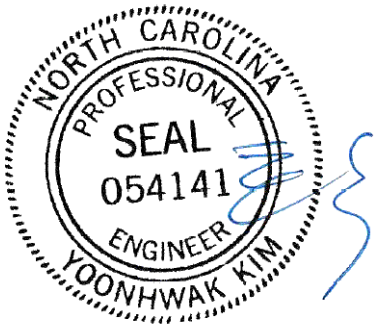
Wind loads based on MWFRS with additional C&C member design.

Right end vertical exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

**Additional Notes**

WARNING: Furnish a copy of this DWG to the installation contractor. Special care must be taken during handling, shipping and installation of trusses. See "WARNING" note below.




11/04/2024
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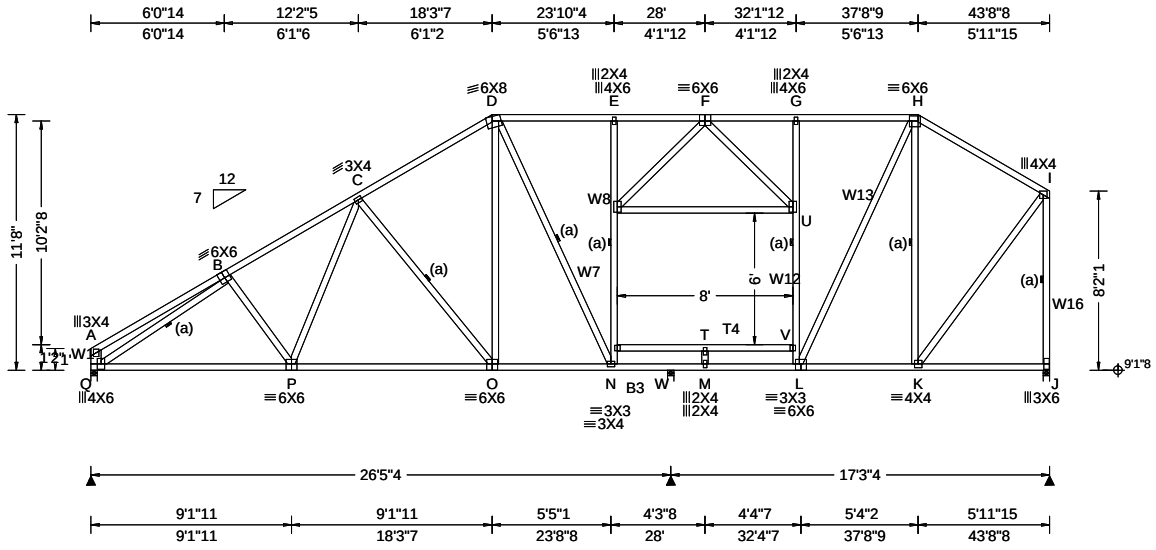
Glenview, IL 60025

| | | | | |
|---|---|---|---|---|
| SEQN: 7270 COMN<br>FROM: | Ply: 1<br>Qty: 6 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** A1P | Cust: R 9836 JRef:1Y4O98360009 T37<br>DrwNo: 309.24.1312.54203<br>/ YK 11/04/2024 | |




**Loading Criteria** (psf)

TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**

Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 18.29 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 4.37 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)

Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.371 | R | 854 | 240 |
| VERT(CL): 0.765 | R | 414 | 240 |
| HORZ(LL): 0.367 | U | - | - |
| HORZ(TL): 0.801 | U | - | - |

Creep Factor: 2.0
Max TC CSI: 0.733
Max BC CSI: 0.994
Max Web CSI: 0.775

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| Q | 1505 | /- | /- | /833 | /164 | /389 |
| W | 1156 | /- | /- | /616 | /85 | /- |
| J | 1374 | /- | /- | /688 | /161 | /- |

Wind reactions based on MWFRS
Q Brg Wid = 3.5 Min Req = 1.8 (Truss)
W Brg Wid = 3.5 Min Req = 1.5 (Truss)
J Brg Wid = 3.5 Min Req = 1.6 (Truss)
Bearings Q, W, & J are a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| A - B | 176 | - 485 | E - F | 601 | - 1083 |
| B - C | 678 | - 2076 | F - G | 522 | - 883 |
| C - D | 646 | - 1529 | G - H | 545 | - 932 |
| D - E | 574 | - 1013 | H - I | 431 | - 793 |

**Maximum Bot Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| Q - P | 1826 | - 849 | N - M | 1920 | - 889 |
| P - O | 1585 | - 713 | M - L | 960 | - 444 |
| O - N | 1235 | - 555 | L - K | 615 | - 316 |

**Maximum Web Forces Per Ply (lbs)**

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| A - Q | 152 | - 378 | G - U | 243 | - 392 |
| Q - B | 519 | - 1811 | U - V | 373 | - 602 |
| P - C | 430 | - 53 | V - L | 328 | - 585 |
| C - O | 254 | - 562 | L - H | 736 | - 264 |
| D - O | 774 | - 199 | H - K | 346 | - 677 |
| D - N | 200 | - 569 | K - I | 1013 | - 357 |
| T - M | 89 | - 436 | I - J | 450 | - 1326 |

**Lumber**

Top chord: 2x4 SP #2; T4 2x4 SP SS;
Bot chord: 2x4 SP #2; B3 2x4 SP SS Dense;
Webs: 2x4 SP #3; W1 2x6 SP #2; W7,W13, W16 2x4 SP #2; W8,W12 2x4 SP SS;

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Loading**

Design Dead Loads based on material weight adjusted for slope: BC: 7.00 PSF

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Truss supports 250# mech unit; unit centered at 28-0-0; supported by TC; unit width 4-0-0; supported by 6 trusses.

**Wind**

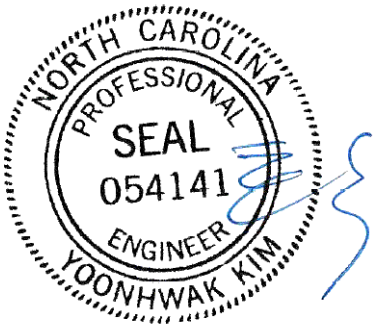
Wind loads based on MWFRS with additional C&C member design.

End verticals exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

NOTE: THE ATTIC SPACE IS DESIGNED ONLY UNINHABITABLE LOADS. (20PLF)

It is the responsibility of the Building Designer and Truss Fabricator to review this drawing prior to cutting lumber to verify that all data, including dimensions and loads, conform to the architectural plans/specifications and fabricators truss layout.

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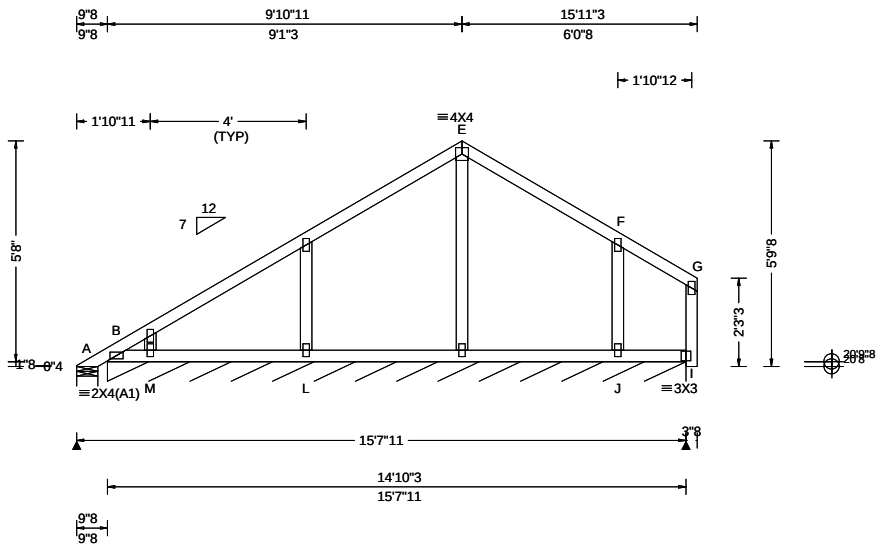
North Building, 4th Floor
Glenview, IL 60025

| | | | |
|---|---|---|---|
| SEQN: 7218 / GABL<br>FROM: | Ply: 1<br>Qty: 10 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** PB1 | Cust: R 9836 JRef:1Y4O98360009 T26 /<br>DrwNo: 309.24.1104.50765<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.40 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.001 | E | 999 | 240 |
| VERT(CL): 0.002 | E | 999 | 240 |
| HORZ(LL): 0.001 | F | - | - |
| HORZ(TL): 0.002 | G | - | - |

Creep Factor: 2.0
Max TC CSI: 0.335
Max BC CSI: 0.043
Max Web CSI: 0.122

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| A | 23 | /- | /- | /65 | /47 | /129 |
| B* | 80 | /- | /- | /51 | /19 | /- |
| M | | /-102 | | | | |
| L | | /-139 | | | | |
| J | | /-131 | | | | |

Wind reactions based on MWFRS
A Brg Wid = 6.5 Min Req = 1.5 (Truss)
B Brg Wid = 178 Min Req = -
Bearings A & B are a rigid surface.
Members not listed have forces less than 375#

**Maximum Gable Forces Per Ply (lbs)**

| Gables | Tens. | Comp. |
|---|---|---|
| J - F | 158 | -382 |

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

**Plating Notes**

All plates are 2X4 except as noted.

**Loading**

Design Dead Loads based on material weight adjusted for slope: BC: 7.00 PSF

Gable end supports 8" max rake overhang. Top chord must not be cut or notched.

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

**Purlins**

In lieu of rigid ceiling use purlins to brace BC @ 24" oc.

**Wind**

Wind loads based on MWFRS with additional C&C member design.

Right end vertical not exposed to wind pressure.

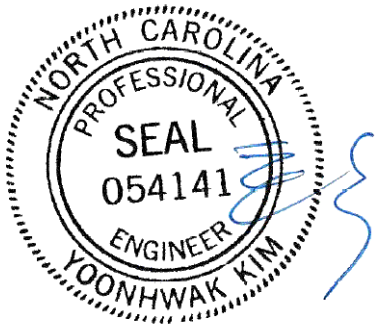
Right cantilever is exposed to wind

Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWGS A12030ENC160118, GBLLETIN0118, & GABRST160118 for gable wind bracing and other requirements.

Refer to DWG PB160160118 for piggyback details.

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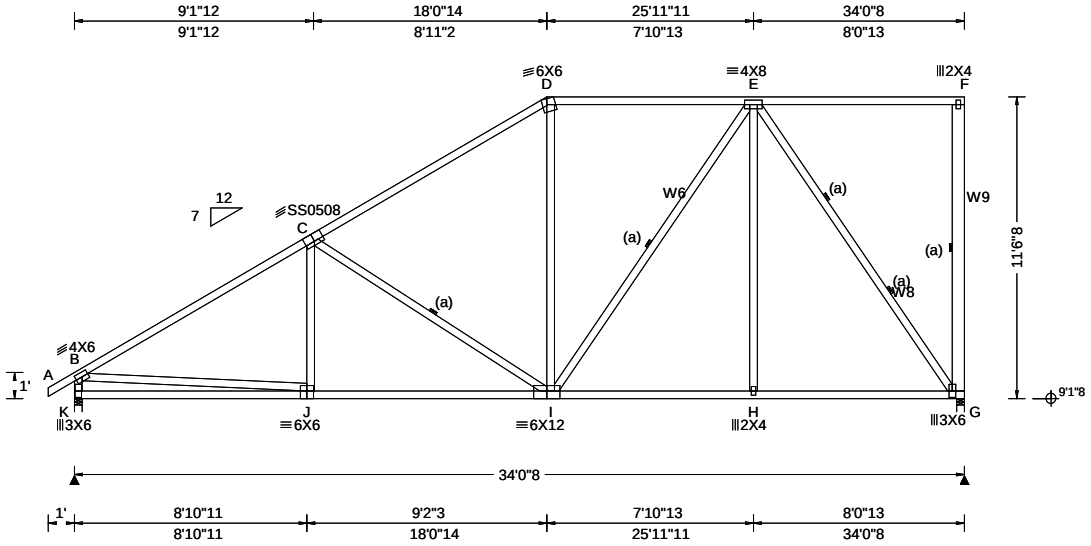
| | | | | | |
|---|---|---|---|---|---|
| SEQN: 7272 COMN<br>FROM: | Ply: 1<br>Qty: 8 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** A1 | | Cust: R 9836 JRef:1Y4O98360009 T35<br>DrwNo: 309.24.1311.03130<br>/ YK 11/04/2024 | |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.40 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE, 18SS

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): | 0.063 C | 999 | 240 |
| VERT(CL): | 0.131 C | 999 | 240 |
| HORZ(LL): | 0.024 G | - | - |
| HORZ(TL): | 0.050 G | - | - |

Creep Factor: 2.0
Max TC CSI: 0.829
Max BC CSI: 0.925
Max Web CSI: 0.885

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| K | 1481 | /- | /- | /896 | /152 | /446 |
| G | 1411 | /- | /- | /800 | /200 | /- |

Wind reactions based on MWFRS
K Brg Wid = 3.5 Min Req = 1.7 (Truss)
G Brg Wid = 3.5 Min Req = 1.7 (Truss)
Bearings K & G are a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 535 | - 2064 | D - E | 534 | - 1097 |
| C - D | 538 | - 1424 | | | |

**Maximum Bot Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| K - J | 366 | - 734 | I - H | 821 | - 478 |
| J - I | 1673 | - 836 | H - G | 821 | - 478 |

**Maximum Web Forces Per Ply (lbs)**

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| B - K | 415 | - 1405 | I - E | 486 | - 220 |
| B - J | 1490 | - 280 | E - G | 602 | - 1409 |
| C - I | 278 | - 692 | | | |

**Lumber**

Top chord: 2x4 SP SS;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3; W6,W8 2x4 SP #2; W9 2x6 SP #2;

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Loading**

Design Dead Loads based on material weight adjusted for slope: BC: 7.00 PSF

Bottom chord checked for 10.00 psf non-concurrent live load.

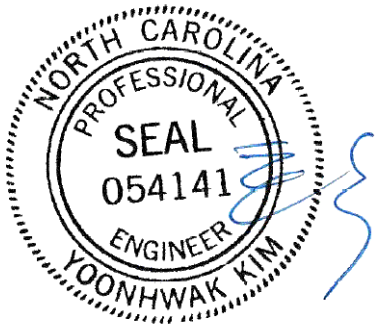
Truss designed for unbalanced snow loads.

**Wind**

Wind loads based on MWFRS with additional C&C member design.

End verticals exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.




11/04/2024
ABCD Engineering, PLLC NC COA 0838

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For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbcacomponents.com; ICC: iccsafe.org; AWC: awc.org

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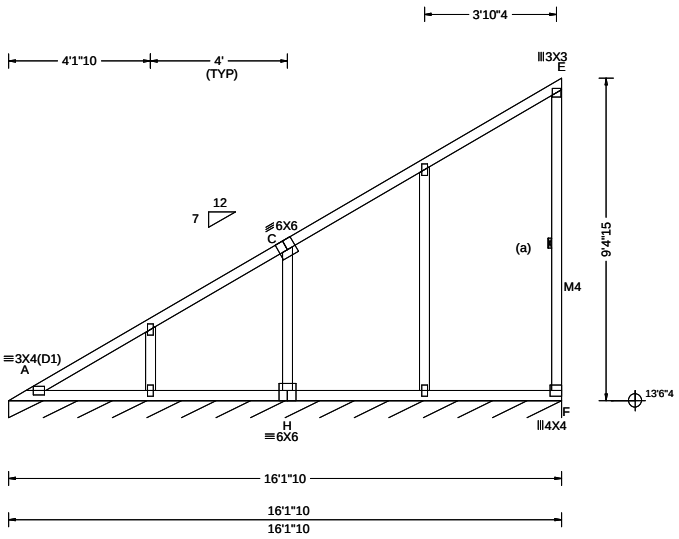
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

| | | | |
|---|---|---|---|
| SEQN: 7207 / GABL<br>FROM: | Ply: 1<br>Qty: 1 | **Job Number:** Q2410-340<br>The Farm at Neills Creek<br>**Truss Label:** VA5 | Cust: R 9836 JRef:1Y4O98360009 T13 /<br>DrwNo: 309.24.1104.50700<br>/ YK 11/04/2024 |




**Loading Criteria** (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 18.37 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: 20.0 Ct: 1.1 CAT: II
Pf: 15.4 Ce: 1.0
Lu: - Cs: 1.00
Snow Duration: 1.15

Building Code:
IRC 2021
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.007 | A | 999 | 240 |
| VERT(CL): 0.014 | A | 999 | 240 |
| HORZ(LL): -0.008 | E | - | - |
| HORZ(TL): 0.010 | E | - | - |

Creep Factor: 2.0
Max TC CSI: 0.248
Max BC CSI: 0.161
Max Web CSI: 0.466

VIEW Ver: 23.02.04A.0207.13

**▲Maximum Reactions (lbs), or *=PLF**

| Loc | Gravity R+ | / R- | / Rh | Non-Gravity / Rw | / U | / RL |
|---|---|---|---|---|---|---|
| F* | 83 | /- | /- | /54 | /11 | /23 |

Wind reactions based on MWFRS
F Brg Wid = 193 Min Req = -
Bearing A is a rigid surface.
Members not listed have forces less than 375#

**Maximum Top Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. |
|---|---|---|
| A - C | 167 | -588 |

**Maximum Bot Chord Forces Per Ply (lbs)**

| Chords | Tens. | Comp. |
|---|---|---|
| A - H | 562 | -141 |

**Lumber**

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3; M4 2x4 SP SS;

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Plating Notes**

All plates are 2X4 except as noted.

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**

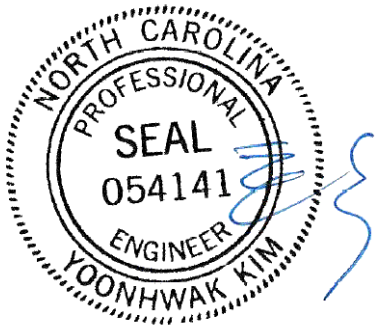
Wind loads based on MWFRS with additional C&C member design.

Right end vertical exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWGS A12030ENC160118, GBLLETIN0118, & GABRST160118 for gable wind bracing and other requirements.

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ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

# Gable Stud Reinforcement Detail

## ASCE 7-16: 120 mph Wind Speed, 15' Mean Height, Enclosed, Exposure C, Kzt = 1.00

Or: 100 mph Wind Speed, 15' Mean Height, Partially Enclosed, Exposure C, Kzt = 1.00
Or: 100 mph Wind Speed, 15' Mean Height, Enclosed, Exposure D, Kzt = 1.00

Max Gable Vertical Length

| 2x4 Gable Vertical Spacing | Species | Brace Grade | No Braces | (1) 1x4 'L' Brace * | | (1) 2x4 'L' Brace * | | (2) 2x4 'L' Brace ** | | (1) 2x6 'L' Brace * | | (2) 2x6 'L' Brace ** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Group A | Group B | Group A | Group B | Group A | Group B | Group A | Group B | Group A | Group B |
| 24" o.c. | SPF HF | #1 / #2 | 4' 10" | 8' 2" | 8' 6" | 9' 8" | 10' 1" | 11' 6" | 12' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | #3 | 4' 7" | 7' 9" | 8' 3" | 9' 7" | 9' 11" | 11' 5" | 11' 10" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | Stud | 4' 7" | 7' 8" | 8' 2" | 9' 7" | 9' 11" | 11' 5" | 11' 10" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | Standard | 4' 7" | 6' 7" | 7' 0" | 8' 10" | 9' 5" | 11' 5" | 11' 10" | 13' 10" | 14' 0" | 14' 0" | 14' 0" |
| | SP DFL | #1 | 5' 0" | 8' 4" | 8' 7" | 9' 10" | 10' 2" | 11' 8" | 12' 1" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | #2 | 4' 10" | 8' 2" | 8' 6" | 9' 8" | 10' 1" | 11' 6" | 12' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | #3 | 4' 8" | 7' 0" | 7' 5" | 9' 3" | 9' 11" | 11' 5" | 11' 11" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | Stud | 4' 8" | 7' 0" | 7' 5" | 9' 3" | 9' 11" | 11' 5" | 11' 11" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | Standard | 4' 7" | 6' 2" | 6' 7" | 8' 2" | 8' 9" | 11' 1" | 11' 10" | 12' 10" | 13' 9" | 14' 0" | 14' 0" |
| 16" o.c. | SPF HF | #1 / #2 | 5' 6" | 9' 5" | 9' 9" | 11' 1" | 11' 6" | 13' 2" | 13' 9" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | #3 | 5' 3" | 9' 3" | 9' 9" | 10' 11" | 11' 4" | 13' 0" | 13' 7" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | Stud | 5' 3" | 9' 3" | 9' 7" | 10' 11" | 11' 4" | 13' 0" | 13' 7" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | Standard | 5' 3" | 8' 1" | 8' 7" | 10' 10" | 11' 4" | 13' 0" | 13' 7" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | SP DFL | #1 | 5' 9" | 9' 6" | 9' 10" | 11' 3" | 11' 8" | 13' 4" | 13' 10" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | #2 | 5' 6" | 9' 5" | 9' 9" | 11' 1" | 11' 6" | 13' 2" | 13' 9" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | #3 | 5' 5" | 8' 6" | 9' 1" | 11' 0" | 11' 5" | 13' 1" | 13' 8" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | Stud | 5' 5" | 8' 6" | 9' 1" | 11' 0" | 11' 5" | 13' 1" | 13' 8" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | Standard | 5' 3" | 7' 6" | 8' 0" | 10' 0" | 10' 9" | 13' 0" | 13' 7" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| 12" o.c. | SPF HF | #1 / #2 | 6' 1" | 10' 4" | 10' 8" | 12' 2" | 12' 8" | 13' 2" | 14' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | #3 | 5' 9" | 10' 2" | 10' 7" | 12' 0" | 12' 6" | 14' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | Stud | 5' 9" | 10' 2" | 10' 7" | 12' 0" | 12' 6" | 14' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | Standard | 5' 9" | 9' 4" | 9' 11" | 12' 0" | 12' 6" | 14' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | SP DFL | #1 | 6' 4" | 10' 6" | 10' 10" | 12' 4" | 12' 10" | 14' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | #2 | 6' 1" | 10' 4" | 10' 8" | 12' 2" | 12' 8" | 14' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | #3 | 5' 11" | 9' 10" | 10' 6" | 12' 1" | 12' 7" | 14' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
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| | | Standard | 5' 9" | 8' 8" | 9' 3" | 11' 7" | 12' 5" | 14' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |

### Bracing Group Species and Grades:

**Group A:**

| Spruce-Pine-Fir | |
|---|---|
| #1 / #2 | Standard |
| #3 | Stud |

| Hem-Fir | |
|---|---|
| #2 | Stud |
| #3 | Standard |

| Douglas Fir-Larch |
|---|
| #3 |
| Stud |
| Standard |

| Southern Pine*** |
|---|
| #3 |
| Stud |
| Standard |

**Group B:**

| Hem-Fir |
|---|
| #1 & Btr |
| #1 |

| Douglas Fir-Larch |
|---|
| #1 |
| #2 |

| Southern Pine*** |
|---|
| #1 |
| #2 |

1x4 Braces shall be SRB (Stress-Rated Board).

***For 1x4 So. Pine use only Industrial 55 or Industrial 45 Stress-Rated Boards. Group B values may be used with these grades.

### Gable Truss Detail Notes:

Wind Load deflection criterion is L/240.

Provide uplift connections for 35 plf over continuous bearing (5 psf TC Dead Load).

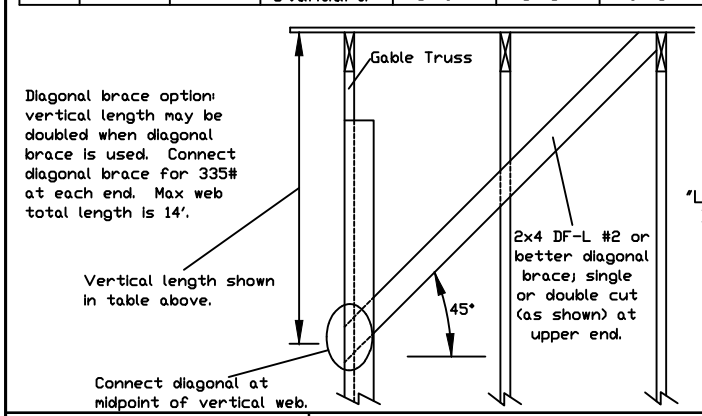
Gable end supports load from 4' 0" outlookers with 2' 0" overhang, or 12" plywood overhang.

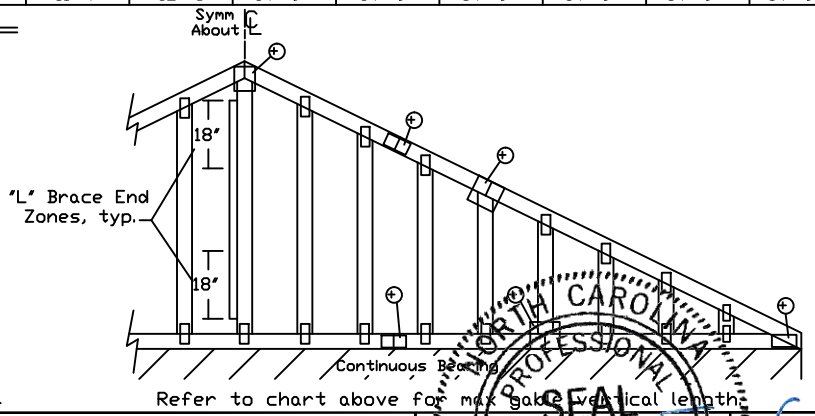
Attach 'L' braces with 10d (0.128"x3.0" min) nails.

* For (1) 'L' brace: space nails at 2" o.c. in 18" end zones and 4" o.c. between zones.

** For (2) 'L' braces: space nails at 3" o.c. in 18" end zones and 6" o.c. between zones.

'L' bracing must be a minimum of 80% of web member length.




| Gable Vertical Plate Sizes | |
|---|---|
| Vertical Length | No Splice |
| Less than 4' 0" | 1X4 or 2X3 |
| Greater than 4' 0", but less than 11' 6" | 2X4 |
| Greater than 11' 6" | 3X4 |

+ Refer to common truss design for peak, splice, and heel plates.

Refer to the Building Designer for conditions not addressed by this detail.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Glenview, IL 60025


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For more information see this job's general notes page and these web sites:
ALPINE: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcacomponents.com; ICC: www.iccsafe.org

NORTH CAROLINA PROFESSIONAL SEAL 054141 ENGINEER YOONHWAK KIM

ABCD Engineering, PLLC NC COA 0838

11/04/2024

MAX. TOT. LD. 60 PSF

MAX. SPACING 24.0"

| | |
|---|---|
| REF | ASCE7-16-GAB12015 |
| DATE | 01/26/2018 |
| DRWG | A12015ENC160118 |

# Gable Stud Reinforcement Detail

## ASCE 7-16: 120 mph Wind Speed, 30' Mean Height, Enclosed, Exposure C, Kzt = 1.00

Or: 100 Mph Wind Speed, 30' Mean Height, Partially Enclosed, Exposure C, Kzt = 1.00
Or: 100 mph Wind Speed, 30' Mean Height, Enclosed, Exposure D, Kzt = 1.00

Max Gable Vertical Length

| 2x4 Gable Vertical Spacing | Species | Brace Grade | No Braces | (1) 1x4 'L' Brace * | | (1) 2x4 'L' Brace * | | (2) 2x4 'L' Brace ** | | (1) 2x6 'L' Brace * | | (2) 2x6 'L' Brace ** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Group A | Group B | Group A | Group B | Group A | Group B | Group A | Group B | Group A | Group B |
| 24" o.c. | SPF HF | #1 / #2 | 4' 7" | 7' 10" | 8' 1" | 9' 3" | 9' 7" | 11' 0" | 11' 5" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | #3 | 4' 4" | 7' 2" | 7' 8" | 9' 1" | 9' 5" | 10' 10" | 11' 4" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | Stud | 4' 4" | 7' 2" | 7' 7" | 9' 1" | 9' 5" | 10' 10" | 11' 4" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | Standard | 4' 4" | 6' 2" | 6' 7" | 8' 2" | 8' 9" | 10' 10" | 11' 4" | 12' 10" | 13' 9" | 14' 0" | 14' 0" |
| | SP DFL | #1 | 4' 10" | 7' 11" | 8' 2" | 9' 4" | 9' 8" | 11' 1" | 11' 6" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | | #2 | 4' 7" | 7' 10" | 8' 1" | 9' 3" | 9' 7" | 11' 0" | 11' 5" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
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| | | Standard | 5' 0" | 7' 0" | 7' 5" | 9' 4" | 10' 0" | 12' 5" | 12' 11" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| 12" o.c. | SPF HF | #1 / #2 | 5' 9" | 9' 10" | 10' 2" | 11' 7" | 12' 1" | 12' 7" | 14' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
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| | | Standard | 5' 6" | 8' 8" | 9' 3" | 11' 6" | 11' 11" | 13' 8" | 14' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
| | SP DFL | #1 | 6' 0" | 10' 0" | 10' 4" | 11' 9" | 12' 2" | 14' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |
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| | | Standard | 5' 6" | 8' 1" | 8' 7" | 10' 9" | 11' 6" | 13' 8" | 14' 0" | 14' 0" | 14' 0" | 14' 0" | 14' 0" |

### Bracing Group Species and Grades:

**Group A:**

| Spruce-Pine-Fir | |
|---|---|
| #1 / #2 | Standard |
| #3 | Stud |

| Hem-Fir | |
|---|---|
| #2 | Stud |
| #3 | Standard |

| Douglas Fir-Larch |
|---|
| #3 |
| Stud |
| Standard |

| Southern Pine*** |
|---|
| #3 |
| Stud |
| Standard |

**Group B:**

| Hem-Fir |
|---|
| #1 & Btr |
| #1 |

| Douglas Fir-Larch |
|---|
| #1 |
| #2 |

| Southern Pine*** |
|---|
| #1 |
| #2 |

1x4 Braces shall be SRB (Stress-Rated Board).

***For 1x4 So. Pine use only Industrial 55 or Industrial 45 Stress-Rated Boards. Group B values may be used with these grades.

### Gable Truss Detail Notes:

Wind Load deflection criterion is L/240.

Provide uplift connections for 70 plf over continuous bearing (5 psf TC Dead Load).

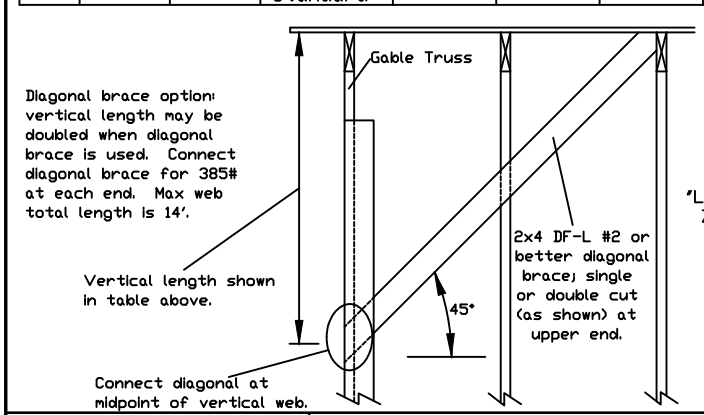
Gable end supports load from 4' 0" outlookers with 2' 0" overhang, or 12" plywood overhang.

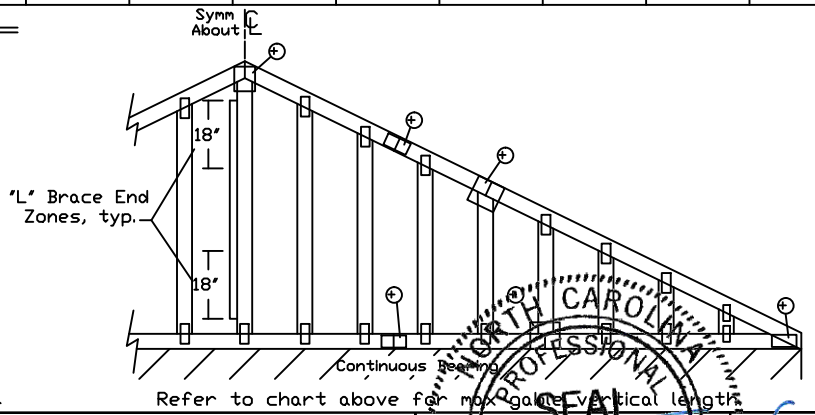
Attach 'L' braces with 10d (0.128"x3.0" min) nails.

* For (1) 'L' brace: space nails at 2" o.c. in 18" end zones and 4" o.c. between zones.

** For (2) 'L' braces: space nails at 3" o.c. in 18" end zones and 6" o.c. between zones.

'L' bracing must be a minimum of 80% of web member length.




| Gable Vertical Plate Sizes | |
|---|---|
| Vertical Length | No Splice |
| Less than 4' 0" | 1X4 or 2X3 |
| Greater than 4' 0", but less than 11' 6" | 2X4 |
| Greater than 11' 6" | 3X4 |

+ Refer to common truss design for peak, splice, and heel plates.

Refer to the Building Designer for conditions not addressed by this detail.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North Building, 4th Floor
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NORTH CAROLINA PROFESSIONAL SEAL 054141 ENGINEER YOONHWAK KIM

ABCD Engineering, PLLC NC COA 0838

11/04/2024

MAX. TOT. LD. 60 PSF

MAX. SPACING 24.0"

| | |
|---|---|
| REF | ASCE7-16-GAB12030 |
| DATE | 01/26/2018 |
| DRWG | A12030ENC160118 |

# CLR Reinforcing Member Substitution

This detail is to be used when a Continuous Lateral Restraint (CLR) is specified on a truss design but an alternative web reinforcement method is desired.

## Notes:

This detail is only applicable for changing the specified CLR shown on single ply sealed designs to T-reinforcement or L-reinforecement or scab reinforcement.

Alternative reinforcement specified in chart below may be conservative. For minimum alternative reinforcement, re-run design with appropriate reinforcement type.

Use scabs instead of L- or T- reinforcement on webs with intersecting truss joints, such as K-web joints, that may interfere with proper application along the narrow face of the web.

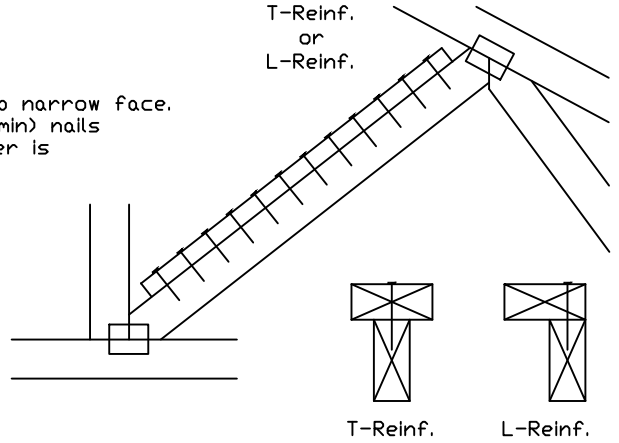
| Web Member Size | Specified CLR Restraint | Alternative Reinforecement T- or L- Reinf. | Alternative Reinforecement Scab Reinf. |
|---|---|---|---|
| 2x3 or 2x4 | 1 row | 2x4 | 1-2x4 |
| 2x3 or 2x4 | 2 rows | 2x6 | 2-2x4 |
| 2x6 | 1 row | 2x4 | 1-2x6 |
| 2x6 | 2 rows | 2x6 | 2-2x4(*) |
| 2x8 | 1 row | 2x6 | 1-2x8 |
| 2x8 | 2 rows | 2x6 | 2-2x6(*) |

T-reinforcement, L-reinforcement, or scab reinforcement to be same species and grade or better than web member unless specified otherwise on Engineer's sealed design.

(*) Center scab on wide face of web. Apply (1) scab to each face of web.

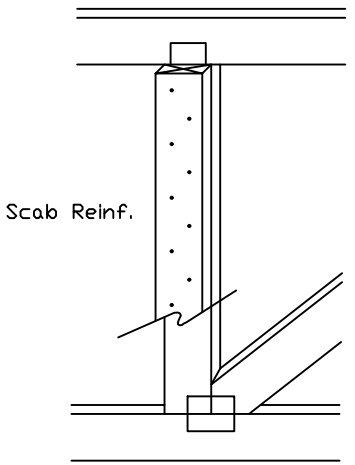
## T-Reinforcement or L-Reinforcement:

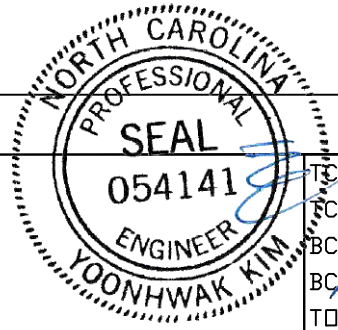
Apply to either side of web narrow face. Attach with 10d (0.128"x3.0",min) nails at 6" o.c. Reinforcing member is a minimum 80% of web member length.




## Scab Reinforcement:

Apply scab(s) to wide face of web. No more than (1) scab per face. Attach with 10d (0.128"x3.0",min) nails at 6" o.c. Reinforcing member is a minimum 80% of web member length.

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ABCD Engineering, PLLC NC COA 0838

11/04/2024

| | | |
|---|---|---|
| TC LL | PSF | REF CLR Subst. |
| TC DL | PSF | DATE 01/02/19 |
| BC DL | PSF | DRWG BRCLBSUB0119 |
| BC LL | PSF | |
| TOT. LD. | PSF | |
| DUR. FAC. | | |
| SPACING | | |

# ASCE 7-16: 120 mph, 30' Mean Height, Closed, Exposure C
# Common Residential Gable End Wind Bracing Requirements - Stiffeners

120 mph, 30ft. Mean Hgt, ASCE 7-16, Enclosed, Exp C, or
100 mph, 30ft. Mean Hgt, ASCE 7-16, Enclosed, Exp D, or
100 mph, 30ft. Mean Hgt, ASCE 7-16, Part. Enclosed, Exp C,
Kzt = 1.00, Wind TC DL=5.0 psf, Wind BC DL=5.0 psf.

Lateral chord bracing requirements
Top: Continuous roof sheathing
Bot: Continuous ceiling diaphragm

See Engineer's sealed design referencing this detail for lumber, plates, and other information not shown on this detail.

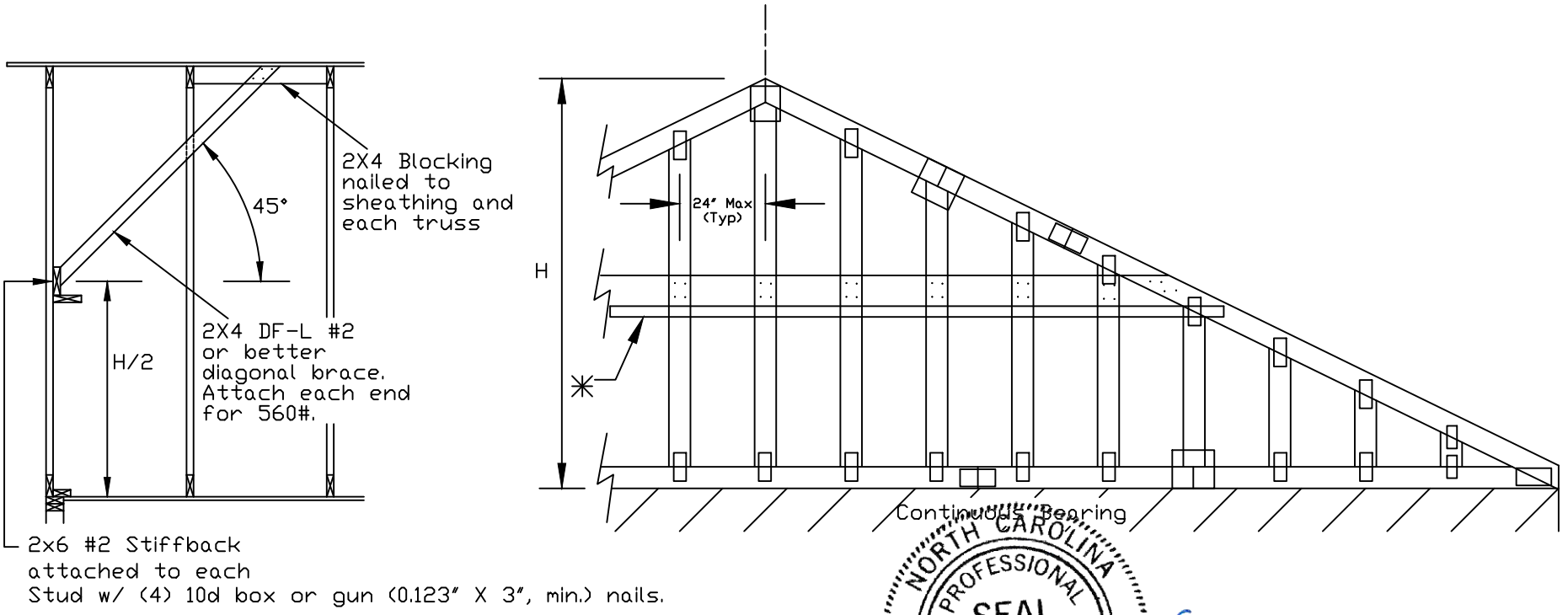
Nails: 10d box or gun (0.128"x3",min) nails.

H Less than 4'6" - no stud bracing required

H Greater than 4'6" to 7'6" in length
provide a 2x6 stiffback at mid-height and brace stiffback to roof diaphragm every 6'0" (see detail below or refer to DRWG A12030ENC160118).

H Greater than 7'6" to 12'0" max:
provide a 2x6 stiffback at mid-height and brace to roof diaphragm every 4'0" (see detail below or refer to DRWG A12030ENC160118).

✳ Optional 2x L-reinforcement attached to stiffback with 10d box or gun (0.128" x 3", min.) nails @ 6" o.c.






NORTH CAROLINA PROFESSIONAL SEAL 054141 ENGINEER YOONHWAK KIM

ABCD Engineering, PLLC NC COA 0838

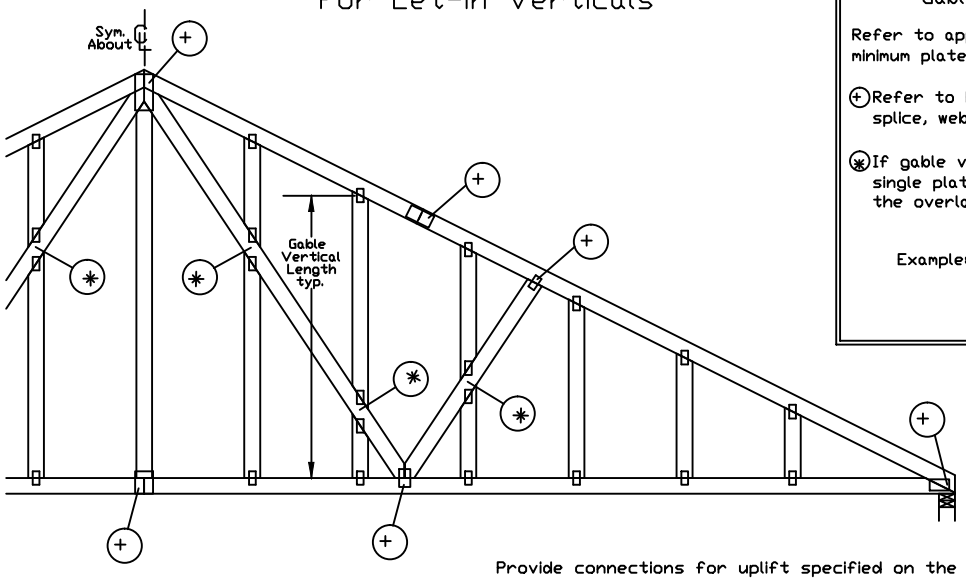
11/04/2024

MAX. TOT. LD. 60 PSF

MAX. SPACING

| | |
|---|---|
| REF | GE WHALER |
| DATE | 01/02/2018 |
| DRWG | GABRST160118 |

# Gable Detail
## For Let-in Verticals



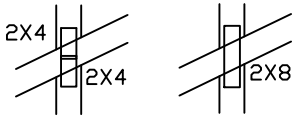

### Gable Truss Plate Sizes

Refer to appropriate Alpine gable detail for minimum plate sizes for vertical studs.

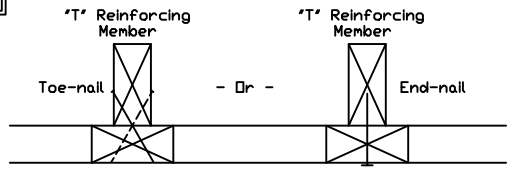
⊕ Refer to Engineered truss design for peak, splice, web, and heel plates.

⊛ If gable vertical plates overlap, use a single plate that covers the total area of the overlapped plates to span the web.

Example:




### "T" Reinforcement Attachment Detail




Provide connections for uplift specified on the engineered truss design.

Attach each "T" reinforcing member with

End Driven Nails:
10d Common (0.148"x 3.",min) Nails at 4" o.c. plus
(4) nails in the top and bottom chords.

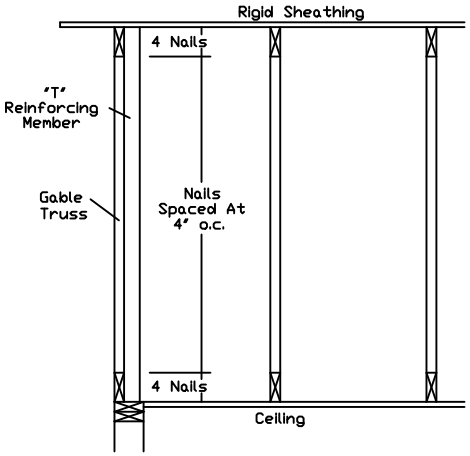
Toenailed Nails:
10d Common (0.148"x3",min) Toenails at 4" o.c. plus
(4) toenails in the top and bottom chords.

This detail to be used with the appropriate Alpine gable detail for ASCE wind load.

ASCE 7-05 Gable Detail Drawings
A13015051014, A12015051014, A11015051014, A10015051014, A14015051014, A13030051014, A12030051014, A11030051014, A10030051014, A14030051014

ASCE 7-10 & ASCE 7-16 Gable Detail Drawings
A11515ENC100118, A12015ENC100118, A14015ENC100118, A16015ENC100118, A18015ENC100118, A20015ENC100118, A20015END100118, A20015PED100118, A11530ENC100118, A12030ENC100118, A14030ENC100118, A16030ENC100118, A18030ENC100118, A20030ENC100118, A20030END100118, A20030PED100118, S11515ENC100118, S12015ENC100118, S14015ENC100118, S16015ENC100118, S18015ENC100118, S20015ENC100118, S20015END100118, S20015PED100118, S11530ENC100118, S12030ENC100118, S14030ENC100118, S16030ENC100118, S18030ENC100118, S20030ENC100118, S20030END100118, S20030PED100118

See appropriate Alpine gable detail for maximum unreinforced gable vertical length.




To convert from "L" to "T" reinforcing members, multiply "T" increase by length (based on appropriate Alpine gable detail).

Maximum allowable "T" reinforced gable vertical length is 14' from top to bottom chord.

"T" reinforcing member material must match size, specie, and grade of the "L" reinforcing member.

### Web Length Increase w/ "T" Brace

| "T" Reinf. Mbr. Size | "T" Increase |
|---|---|
| 2x4 | 30 % |
| 2x6 | 20 % |

Example:
ASCE 7-10 Wind Speed = 120 mph
Mean Roof Height = 30 ft, Kzt = 1.00
Gable Vertical = 24"o.c. SP #3
"T" Reinforcing Member Size = 2x4
"T" Brace Increase (From Above) = 30% = 1.30
(1) 2x4 "L" Brace Length = 8' 7"
Maximum "T" Reinforced Gable Vertical Length
1.30 x 8' 7" = 11' 2"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ABCD Engineering, PLLC NC COA 0838

11/04/2024

MAX. TOT. LD. 60 PSF
DUR. FAC. ANY
MAX. SPACING 24.0"

| | |
|---|---|
| REF | LET-IN VERT |
| DATE | 01/02/2018 |
| DRWG | GBLLETIN0118 |

# Piggyback Detail - ASCE 7-16: 160 mph, 30' Mean Height, Enclosed, Exposure C, Kzt=1.00

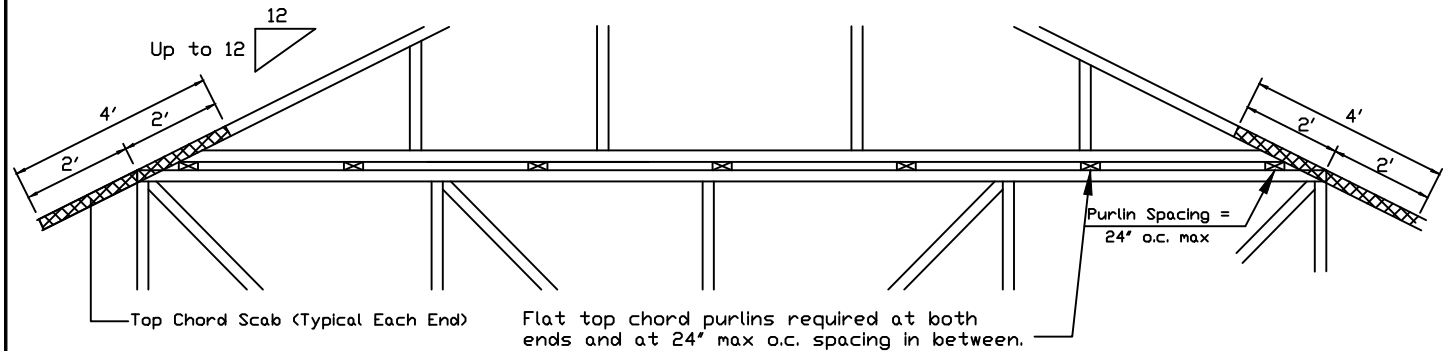
160 mph Wind, 30.00 ft Mean Hgt, ASCE 7-16, Enclosed Bldg. located anywhere in roof, Exp C, Wind DL= 5.0 psf (min), Kzt=1.0.
Or 140 mph wind, 30.00 ft Mean Hgt, ASCE 7-16, Enclosed Bldg. located anywhere in roof, Exp D, wind DL= 5.0 psf (min), Kzt=1.0.

Note: Top chords of trusses supporting piggyback cap trusses must be adequately braced by sheathing or purlins. The building Engineer of Record shall provide diagonal bracing or any other suitable anchorage to permanently restrain purlins, and lateral bracing for out of plane loads over gable ends.

Maximum truss spacing is 24" o.c. detail is not applicable if cap supports additional loads such as cupola, steeple, chimney or drag strut loads.

** Refer to Engineer's sealed truss design drawing for piggyback and base truss specifications.

## Detail A : Purlin Spacing = 24" o.c. or less




Piggyback cap truss slant nailed to all top chord purlin bracing with (2) 16d box nails (0.135"x3.5") and secure top chord with 2x4 #3 grade scab (1 side only at each end) attached with 2 rows of 10d box nails (0.128"x3") at 4' o.c.

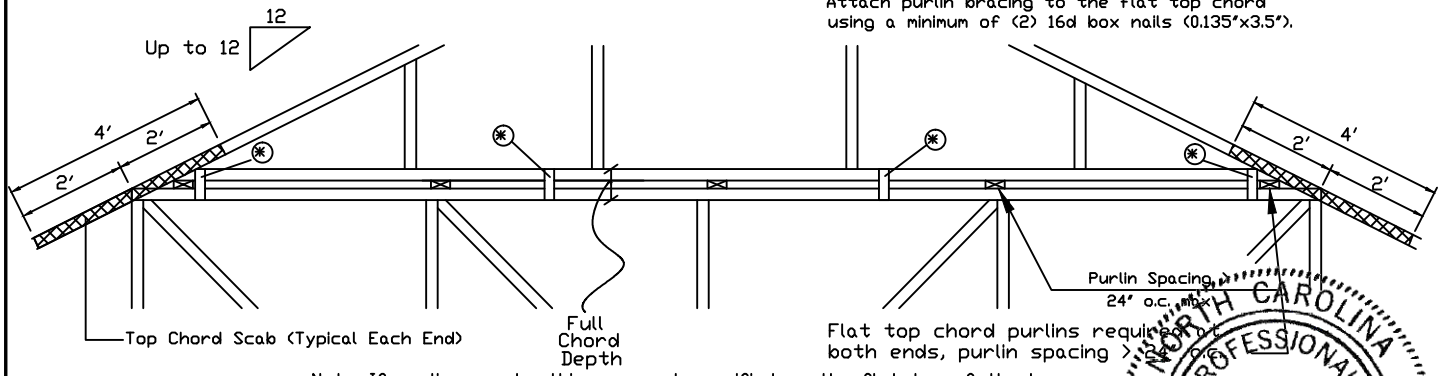
Attach purlin bracing to the flat top chord using (2) 16d box nails (0.135"x3.5").

The top chord #3 grade 2x4 scab may be replaced with either of the following: (1) 3X8 Trulox plate attached with (8) 0.120"x1.375" nails, (4) into cap TC & (4) into base truss TC or (1) 28PB wave piggyback plate plated to the piggyback truss TC and attached to the base truss TC with (4) 0.120"x1.375" nails. Note: Nailing thru holes of wave plate is acceptable.

## Detail B : Purlin Spacing > 24" o.c.

Piggyback cap truss slant nailed to all top chord purlin bracing with (2) 16d box nails (0.135"x3.5") and secure top chord with 2x4 #3 grade scab (1 side only at each end) attached with 2 rows of 10d box nails (0.128"x3") at 4' o.c.

Attach purlin bracing to the flat top chord using a minimum of (2) 16d box nails (0.135"x3.5").




Note: If purlins or sheathing are not specified on the flat top of the base truss, purlins must be installed at 24" o.c. max. and use Detail A.

* In addition, provide connection with one of the following methods:

**Trulox**
Use 3X8 Trulox plates for 2x4 chord member, and 3X10 Trulox plates for 2x6 and larger chord members. Attach to each face @ 8' o.c. with (4) 0.120"x1.375" nails into cap bottom chord and (4) in base truss top chord. Trulox plates may be staggered 4' o.c. front to back faces.

**APA Rated Gusset**
8"x8"x7/16" (min) APA rated sheathing gussets (each face). Attach @ 8' o.c. with (8) 6d common (0.113"x2") nails per gusset, (4) in cap bottom chord and (4) in base truss top chord. Gussets may be staggered 4' o.c. front to back faces.

**2x4 Vertical Scabs**
2x4 SPF #2, full chord depth scabs (each face). Attach @ 8' o.c. with (6) 10d box nails (0.128"x3") per scab, (3) in cap bottom chord and (3) in base truss top chord. Scabs may be staggered 4' o.c. front to back faces.

**28PB Wave Piggyback Plate**
One 28PB wave piggyback plate to each face @ 8' o.c. Attach teeth to piggyback at time of fabrication. Attach to supporting truss with (4) 0.120"x1.375" nails per face per ply. Piggyback plates may be staggered 4' o.c. front to back faces.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NORTH CAROLINA PROFESSIONAL SEAL 054141 ENGINEER YOONHWAK KIM

ABCD Engineering, PLLC NC COA 0838

11/04/2024

| | |
|---|---|
| REF | PIGGYBACK |
| DATE | 01/02/2018 |
| DRWG | PB160160118 |
| SPACING | 24.0" |

# Valley Detail - ASCE 7-16: 30' Mean Height, Enclosed, Exp. C, Kzt=1.00

Top Chord 2x4 SP #2N, SPF #1/#2, DF-L #2 or better.
Bot Chord 2x4 SP #2N or SPF #1/#2 or better.
Webs 2x4 SP #3, SPF #1/#2, DF-L #2 or better.

** Attach each valley to every supporting truss with:
(2) 16d box (0.135" x 3.5") nails toe-nailed for
ASCE 7-16, 30' Mean Height, Enclosed Building, Exp. C,
Wind TC DL=5 psf, Kzt = 1.00, Max. Wind Speed based on
supporting truss material at connection location:
170 mph for SP (G = 0.55, min.),
155 mph for DF-L (G = 0.50, min.), or
120 mph for HF & SPF (G = 0.42, min.).

Maximum top chord pitch is 10/12 for supporting trusses below valley trusses.

Bottom chord of valley trusses may be square or pitched cut as shown.

Valleys short enough to be cut as solid triangular members from a single 2x6, or larger as required, shall be permitted in lieu of fabricating from separate 2x4 members.

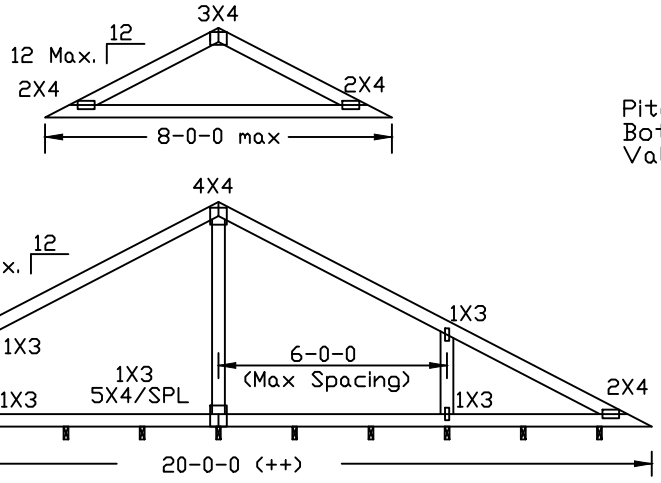
All plates shown are Alpine Wave Plates.

Unless specified otherwise on engineer's sealed design, for vertical valley webs taller than 7-9" apply 2x4 "T" reinforcement, 80% length of web, same species and grade or better, attached with 10d box (0.128" x 3.0") nails at 6" o.c. In lieu of "T" reinforcement, 2x4 Continuous Lateral Restraint applied at mid-length of web is permitted with diagonal bracing as shown in DRWG BRCLBANC1014.

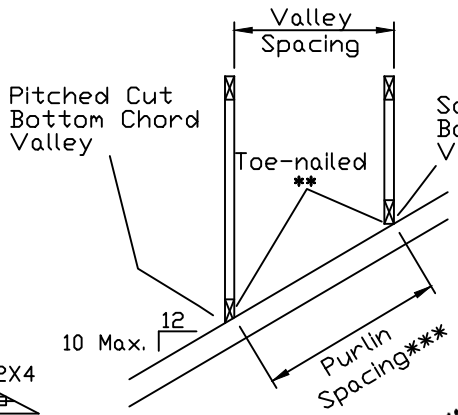
Top chord of truss beneath valley set must be braced with:
properly attached, rated sheathing applied prior to valley truss installation.
Or
Purlins at 24" o.c. or as otherwise specified on engineer's sealed design
Or
By valley trusses used in lieu of purlin spacing as specified on Engineer's sealed design.

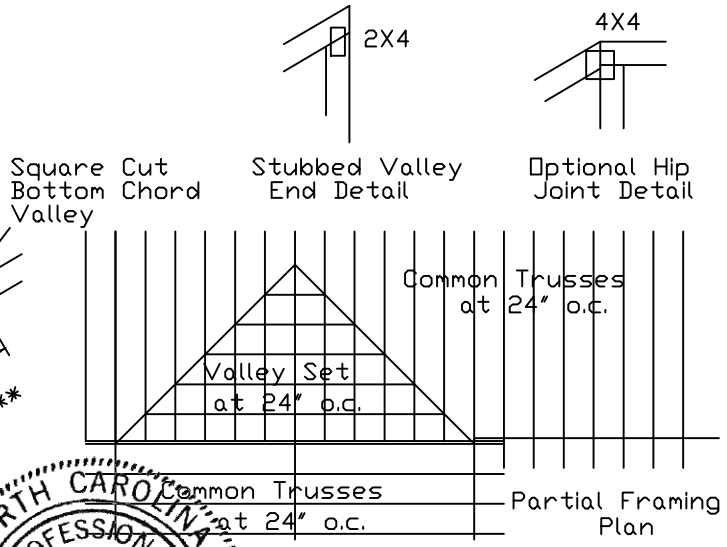
*** Note that the purlin spacing for bracing the top chord of the truss beneath the valley is measured along the slope of the top chord.

++ Larger spans may be built as long as the vertical height does not exceed 14'-0".




Supporting trusses at 24" o.c. maximum spacing.




NORTH CAROLINA PROFESSIONAL SEAL 054141 ENGINEER YOONHWAK KIM

ABCD Engineering, PLLC NC COA 0838

11/04/2024

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**WARNING** READ AND FOLLOW ALL NOTES ON THIS DRAWING!
**IMPORTANT** FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3, B7 or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions.

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.

**A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.**

For more information see this job's general notes page and these web sites:
ALPINE: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcacomponents.com; ICC: www.iccsafe.org

| | | | | |
|---|---|---|---|---|
| TC LL | 30 | 30 | 40 | PSF |
| TC DL | 20 | 15 | 7 | PSF |
| BC DL | 10 | 10 | 10 | PSF |
| BC LL | 0 | 0 | 0 | PSF |
| TOT. LD. | 60 | 55 | 57 | PSF |
| DUR.FAC. | 1.25/1.33 | 1.15 | 1.15 | |
| SPACING | | 24.0" | | |

| | |
|---|---|
| REF | VALLEY DETAIL |
| DATE | 01/26/2018 |
| DRWG | VALTN160118 |