City of Dublin
OHIO, USA

CERTIFICATE OF PLAN APPROVAL

This is not a Building Permit. It is a record of our review of documents submitted with your application for a Building Permit.

---

26 October 2020

Ms. Brenda Kinser
O'Neil Tents
895 W. Walnut Street
Canal Winchester, OH 43110
(614) 837-6352 bjk@oneiltents.com

Re: Tucci's Patio Winter Tent
Address: 35 N. High Street (43017)
Application No.: TSTR-20-01723(1)

Dear Ms. Kinser:

The construction documents dated 25 September 2020 have been reviewed for compliance with the provisions of the 2017 Ohio Building Code (August 2018 Edition). The review was based upon the following criteria:

Primary Use Group: A-2
Area/Occupant Load: 1,849 SF / Chairs @ Tables shown = 62 Seats*
*Reference all current Governor of Ohio's "Responsible RestartOhio" regulations and guidance for social distancing requirements
Construction Type: IIB
Special Stipulations: 1. Set up 1 November 2020; Take down by 29 April 2021(<180 days) or until the end of the Executive Order, whichever is first.
2. This approval is for the 43'x43' main tent only.
3. No cooking allowed.
Project Description: Temporary structure to create additional eating area for Tucci's restaurant as allowed by City of Dublin "Executive Order for Portable Structures and Temporary Uses" related to COVID-19 State of Emergency (March 17, 2020). Tent consists of a clear span 43'-0"X43'-0" enclosed, heated structure anchored to new concrete piers with two illuminated exit signs/egress lights w battery back-up and 2 fire extinguishers.
Previous Occ Cert: TSTR-20-00999 (summer tent): 12-200470 (building)

The construction documents were prepared by Robert V. Nangia, Ohio registered engineer #E-73309 and Jeffery R. Bolchalk, Ohio registered engineer #E-70796 to comply with t

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requirements of the OBC Section 107.4.3 and have been reviewed, therefore, in accord with that Section.

OBC 107.5.1 Approval of construction documents. . . . *When the construction documents have been determined to conform to the applicable provisions of the rules of the Board, the building official shall endorse or stamp such plans as approved and issue the certificate of plan approval in accordance with section 105.5.*

Item 1 **THE CONSTRUCTION DOCUMENTS ARE APPROVED**

Item 2 **The qualification of Geotechnical Consultants, Inc. as the Special Inspection company for all foundation and structural work has been reviewed and accepted by the building official.**
1704.2.4 Report requirement. *Special inspectors* shall keep records of inspections. The *special inspectors* shall submit reports of special inspections and tests to the building official and to the registered design professional in responsible charge. Reports shall indicate that work inspected or tested was or was not completed in conformance to approved construction documents. Discrepancies shall be brought to the immediate attention of the contractor for correction. If they are not corrected, the discrepancies shall be brought to the attention of the building official and to the registered design professional in responsible charge prior to the completion of that phase of the work. A final report documenting required special inspections and tests, and correction of any discrepancies noted in the inspections or tests, shall be submitted at a point in time agreed upon prior to the start of work by the owner or the owner's representative to the building official prior to the *issuance of a certificate of occupancy*.

This APPROVAL is for the issuance of a general building permit only. Separate permits and fees for plumbing, mechanical, sprinkler, electric and low-voltage must be obtained from the Dublin Building Standards Division prior to the start of any work in these generally subcontracted areas.

The following items are required for code compliance, but are not necessarily covered in detail in the construction documents. This list is a reminder to the design professional and contractors of issues, which are to be satisfactorily dealt with in the field:

Item A Review and Approval of Plumbing Drawings and inspection of Plumbing installations are performed by the Franklin County Board of Health

Item B **OBC 106.3 Amended construction documents.** If substantive changes to the building are contemplated after first document submission, or during construction, those changes must be submitted to the building official for review and approval prior to those changes being executed. The building official may waive this requirement in the instance of an emergency repair, or similar instance.

Item C **OBC 107.5.2 Posting.** The certificate of plan approval shall be posted in a conspicuous location on the site. The owner and the contractor shall preserve and keep the certificate posted until the final inspections are complete.

Item D **OBC 107.7 Approved construction document sets.** One set of construction documents shall be kept by the building official. The other set(s) shall be returned to the applicant, kept at the work site along with manufacturers' installation instructions and product information, and shall be available for use by the inspector.

Item E **OBC 108.1 General.** *. . . Construction or work for which an approval is required shall be subject to inspection by the building official. It shall be the duty of the owner or the owner's duly authorized representative to notify the building department when work is ready for inspection. Access to and means for inspection of such work shall be provided for any inspections that are required by this code.*
It shall be the duty of the owner or the owner's authorized representative to cause the work to remain accessible and exposed for inspection purposes . . . until the work has been inspected to verify compliance with the approved construction documents. . .
This includes firestopping and draftstopping, mechanical work; piping, ducts and systems, structural members and connections, and electrical work (Chapter 27 OBC). All systems and elements covered by code are to be inspected and approved before being covered.
Subsequent work is allowed to proceed only to the point of the next required inspection.

Item F **OBC 804.3 Testing and Identification** Interior floor finish and floor covering materials shall be tested by an approved agency in accordance with NFPA 253 and identified by a hang tag or other suitable method so as to identify the manufacturer or supplier and style, and shall indicate the interior floor finish or floor covering classification according to Section 804.2. Carpet-type floor coverings shall be tested as proposed for use, including underlayment. Test reports confirming the information provided in the manufacturer's product identification shall be furnished to the building official upon request.

Item G **OBC 1101.2 Design.** Buildings and facilities shall be designed and constructed to be accessible in accordance with this code and ICC 117.1 as amended in Section 1112 of this chapter.

Item H All electrical will comply with the requirements of Article 27 OBC and the National Electrical Code, NFPA 70, OBC approved.

Reviewed and Signed,

J.E. Rusanowsky

Janet E. Rusanowsky, Architect
Commercial Plans Examiner
(614) 410 4612 jrusanowsky@dublin.oh.us

Brad Fagrell

Brad Fagrell, P.E.
Director of Building Standards/CBO

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Owner or Owner's Representative Date

Print Name and Title as Signed

EXECUTIVE ORDER

TEMPORARY OUTDOOR PATIO EXPANSION

Pursuant to Chapter 36 of the Dublin Codified Ordinances and the City Manager's Declaration of a State of Emergency issued on March 17, 2020, the enforcement of certain provisions of Chapter 153 regarding the City's Outdoor Dining and Seating regulations are temporarily amended as follows:

1. A business may temporarily expand their outdoor dining and eating area outside of the currently designated/approved location to allow for increased social distancing related to COVID-19. This will be permitted with the following stipulations:
    a. The expansion will be permitted in conjunction with an existing and permitted restaurant use;
    b. A Certificate of Zoning Plan Approval will be required at no cost;
    c. Relief from specific zoning site requirements, design details, and parking requirements will be applied on a case-by-case basis.
    d. Outdoor speakers and music will not be permitted in the expanded areas.
    e. Outdoor dining and seating area materials should complement the existing materials.
    f. Expanded areas will be located to be sensitive to and take into consideration surrounding properties, including residential areas.
    g. Alcohol may only be served in the expanded area when permitted by the Ohio Division of Liquor Control.
    h. Staff will review the request for the expansion in conjunction with the direction and guidance of FCPH.

2. A Certificate of Zoning Plan Approval shall be required in order to permit Outdoor Dining and Seating expansion. The following information will be required to be submitted with the CZPA form at no charge:

    - Detailed, dimensioned site plan showing the location on the site with adherence to ensuring safe access and be served by adequate parking;
    - Sensitively located and to show adherence to the standards of the community and minimizing impact on nearby residential uses to the maximum extent possible;
    - Design specifications associated with the proposed outdoor dining and seating expansion shall be provided: chairs and tables, umbrellas, etc.
    - Detailed narrative noting the specific use proposed and the scope of the intended use, particularly highlighting the required need as a result of COVID-19;
    - Signed acknowledgment that the time period of validity is limited to the City's designation of a State of Emergency, or any other time limitation otherwise mandated by the City Manager.

The intent of this Order is to support and promote increased social distancing and support local businesses during this difficult economic time. These temporary amendments will immediately cease upon termination of the State of Emergency or as otherwise mandated by the City Manager and the expanded outdoor dining and seating will be required to be removed and the site restored.

EXECUTIVE ORDER

PORTABLE STRUCTURES AND TEMPORARY USES

Pursuant to Chapter 36 of the Dublin Codified Ordinances and the City Manager's Declaration of a State of Emergency issued on March 17, 2020, the enforcement of certain provisions of Chapter 153 regarding the City's Portable Structures and Temporary Uses are temporarily amended as below:

1. Section 153.097(B)(3) – Portable Nonresidential Structures. A business may temporarily erect a building(s) or similar structure(s) designed for occupation which is not placed on a permanent foundation to allow for testing, waiting or staging related to COVID-19. The definition shall include construction trailers, portable classrooms, tents, trailers and other similar structures.

2. Section 153.097(C) – Permit process. A Certificate of Zoning Plan Approval shall be required to permit these designated portable structures and temporary uses. The following information will be required to be submitted with the CZPA form at no charge:

    - Detailed, dimensioned site plan showing location on the site with consideration of the required setbacks and ensuring safe access and be served by adequate parking;
    - Sensitively located to show adherence to the standards of the community and minimizing impact on nearby residential uses to the maximum extent possible;
    - Detailed and dimensioned elevations or design specifications of the proposed temporary structure;
    - Detailed in a narrative noting the specific use proposed and the scope of the intended use, particularly highlighting the required need as a result of COVID-19;
    - Signed acknowledgment that the time period of validity is limited to the City's designation of a State of Emergency, or any other time limitation otherwise mandated by the City Manager.

The intent of this Order is to support and promote healthy practices during this difficult economic time. These temporary amendments will immediately cease upon termination of the State of Emergency or as otherwise mandated by the City Manager and the portable structures and temporary uses will be required to be removed and the site restored.

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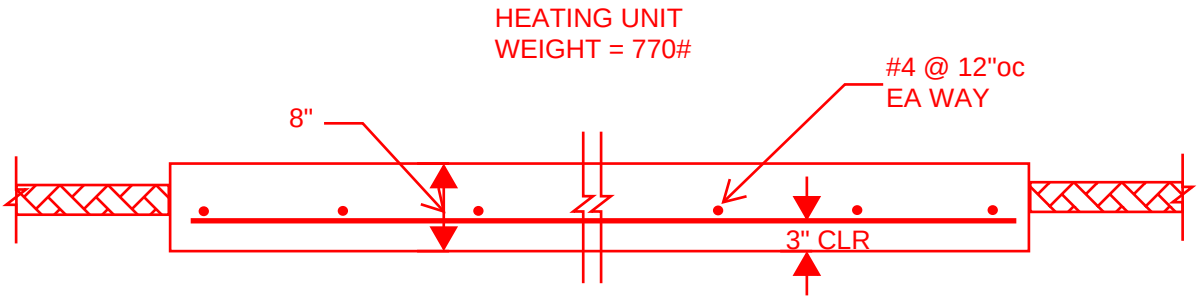
ATTACHMENTS TO HEATING UNIT SHALL BE MADE WITH FLEXIBLE CONNECTIONS TO ALLOW FOR SETTLEMENT AND EXTERIOR SLAB MOVEMENT.



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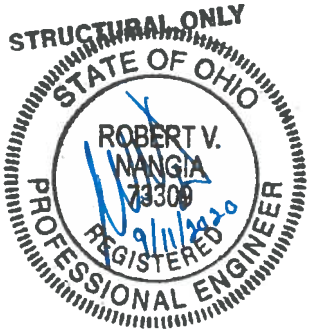
Gable Style Single-level Structure

13m x 13m - 3.2m Eave

Structural evaluation of the gable style structure
in accordance with IBC 2015, and ASCE7-10

Designed for wind velocity 115 mph basic wind speed, 3-second gust, Exposure B
with factors applied per ASCE37-02 for nominal wind design pressures
Risk Category = 'II'
Ground snow = 20 psf
Enclosed Structure



ROBERT V. NANGIA P.E.
7423 HOLLOW RIDGE DR.
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Table of Contents

Revision Log

Rev	Rev. Date	Description
0	31 Aug 20	- Original Issue

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1. Summary and Recommendations

This document, based on technical background information as provided by HTS tentIQ, covers the structural evaluation of the aluminum frame style structure in accordance with U.S. Building Code requirements. The specifications outlined in the Structural Engineering Institute / American Society of Civil Engineers (SEI/ASCE 7) "Minimum Design Loads for Buildings and Other Structures" were followed in determining the integrity of the structure. This document is intended to serve as a basis for the acceptability of this temporary, stand-alone, enclosed structure under standard design wind loads at varying levels of exposure (terrain and wind velocities).

Lightweight Design Inc. compiled this document based on the existing frame tent system with reference to the applicable building codes in the U.S. This report includes the load cases and combinations used in the analysis and gives an indication as to the wind exposure for which the structure is suitable. Certification of this document only shows that the Professional Engineer of that particular state is in agreement with the report's contents. It does not, however, imply that the structure is generally suitable for use within that state, or that every installation is covered by this report.

Computer-aided structural frame analysis were involved in the course of the investigation. Different load combinations were considered to identify the critical aspects of the design. Member and detail checks were established to derive the conclusions for the entire report.

As such, we have arrived at the following conclusions and recommendations:

1.1 Wind Speed Rating

- Wind Speed — 115 mph, 3-second gust
- Exposure — Category B
- Construction Period — Period = "More than 5 years"
- Velocity Pressure — $q_h = 20.16\,psf$ at mean roof height, $h = 14.19\,ft$

Exposure Categories (IBC)

1609.4.3 Exposure categories. An exposure category shall be determined in accordance with the following:

Exposure B. Exposure B shall apply where the ground surface roughness condition, as defined by Surface Roughness B, prevails in the upwind direction for a distance of at least 2,600 feet (792 m) or 20 times the height of the building, whichever is greater.

Exception: For buildings whose mean roof height is less than or equal to 30 feet (9144 mm), the upwind distance is permitted to be reduced to 1,500 feet (457 m).

Exposure C. Exposure C shall apply for all cases where Exposures B or D do not apply.

Exposure D. Exposure D shall apply where the ground surface roughness, as defined by Surface Roughness D, prevails in the upwind direction for a distance of at least 5,000 feet (1524 m) or 20 times the height of the building, whichever is greater. Exposure D shall extend inland from the shoreline for a distance of 600 feet (183 m) or 20 times the height of the building, whichever is greater.

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Surface Roughness Categories (IBC)

1609.4.2 Surface roughness categories. A ground surface roughness within each 45-degree (0.79 rad) sector shall be determined for a distance upwind of the site as defined in Section 1609.4.3 from the categories defined below, for the purpose of assigning an exposure category as defined in Section 1609.4.3.

Surface Roughness B. Urban and suburban areas, wooded areas or other terrain with numerous closely spaced obstructions having the size of single-family dwellings or larger.

Surface Roughness C. Open terrain with scattered obstructions having heights generally less than 30 feet (9144 mm). This category includes flat open country, grasslands, and all water surfaces in hurricane-prone regions.

Surface Roughness D. Flat, unobstructed areas and water surfaces outside hurricane-prone regions. This category includes smooth mud flats, salt flats and unbroken ice.

1.2 Hanging Dead Loads

The electrical and mechanical fixtures (lighting, HVAC, suspended items, etc.) totaling 500 lbs per frame and suspended symmetrically on the structure are accounted for. These hanging loads have been assumed to be 125 lbf at the center of each rafter and 250 lbf at the ridge of each rafter for this analysis.

1.3 Live Loads (Snow, Floor, Roof)

Ground snow loading for the area is 20 psf.

Live loads loads produced by the use and occupancy of the building are found on Table 1607.1. n the case of this structure, there are no additional live loads.

Based on performance and function of this building style, only short duration of the roof live load is expected on the fabric roof of the structure. If repairs are needed, usually one worker with a light equipment would suffice. Roof Live Load is not considered for this evaluation.

1.4 Base Reactions

The maximum reactions at the foundations/supports due to service and combined loads reactions and exposure category are given in the Appendix C

NOTE: Foundations, by others, are required to support column loads. A foundations engineer must verify ground conditions on a site-by-site basis and provide appropriate bearing plate sizes to accommodate column loads:

1.5 Installation Requirements

It is understood that the responsibility of proper installation according to the plans rests upon the installation contractor. This includes, but is not limited to, ensuring the following:

- that the cables are always held taut,
- that the fabric is stretched tight enough to prevent the development of pockets and to maintain the prescribed roof gradient,
- that purlins are installed securely against rafters to resist calculated loads,
- that base plates are secured to their foundations using anchors. The manufacturer provides a base plate and anchoring plan for the structure as a base starting point for average soil conditions. It is the installers responsibility to ensure that the anchorage provided will resist the reaction loads as indicated in the tables found in this document.

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2a. Determination of Loads

Dead Load :

The structure dead loads consist of the self weight of the structure's components with addition of uniform distributed loads for fabric roofing, side wall materials, and minor components. Various calculated weights are shown below for reference and use in the static computer model analysis.

The structure is designed to support the loads shown in this calculations. It may, or may not, be capable of supporting additional collateral loads. The owner of the structure shall not hand, or otherwise affix, additional loads to this structure without a review by an engineer qualified to make said review. Additionally, prior to adding load to this structure, the owner shall get a written confirmation by the qualified engineer as to the magnitude and location of the load, or loads, being applied.

The electrical and mechanical fixtures (lighting, HVAC, suspended items, etc.) totaling 500 lbs per frame and suspended symmetrically on the structure are accounted for. These hanging loads have been assumed to be 250 lbf at the peak of the structure and 125 midway up each rafter for this analysis.

Load hanging at peak : $P_{peak} = 250 \cdot lbf$

Rafter load hanging midway between peak and eave : $P_{rafter} = 125 \cdot lbf$

Live Load :

Live loads loads produced by the use and occupancy of the building are found on Table 1607.1. In the case of this structure, there are no additional live loads.

Roof Live Load :

Live loads loads produced by the use and occupancy of the building are found on Table 1607.1. In the case of this structure, the mezzanine can be described as having a uniformly distributed load for walkways and elevated platforms. The minimum floor live load used in this evaluation is 0 psf.

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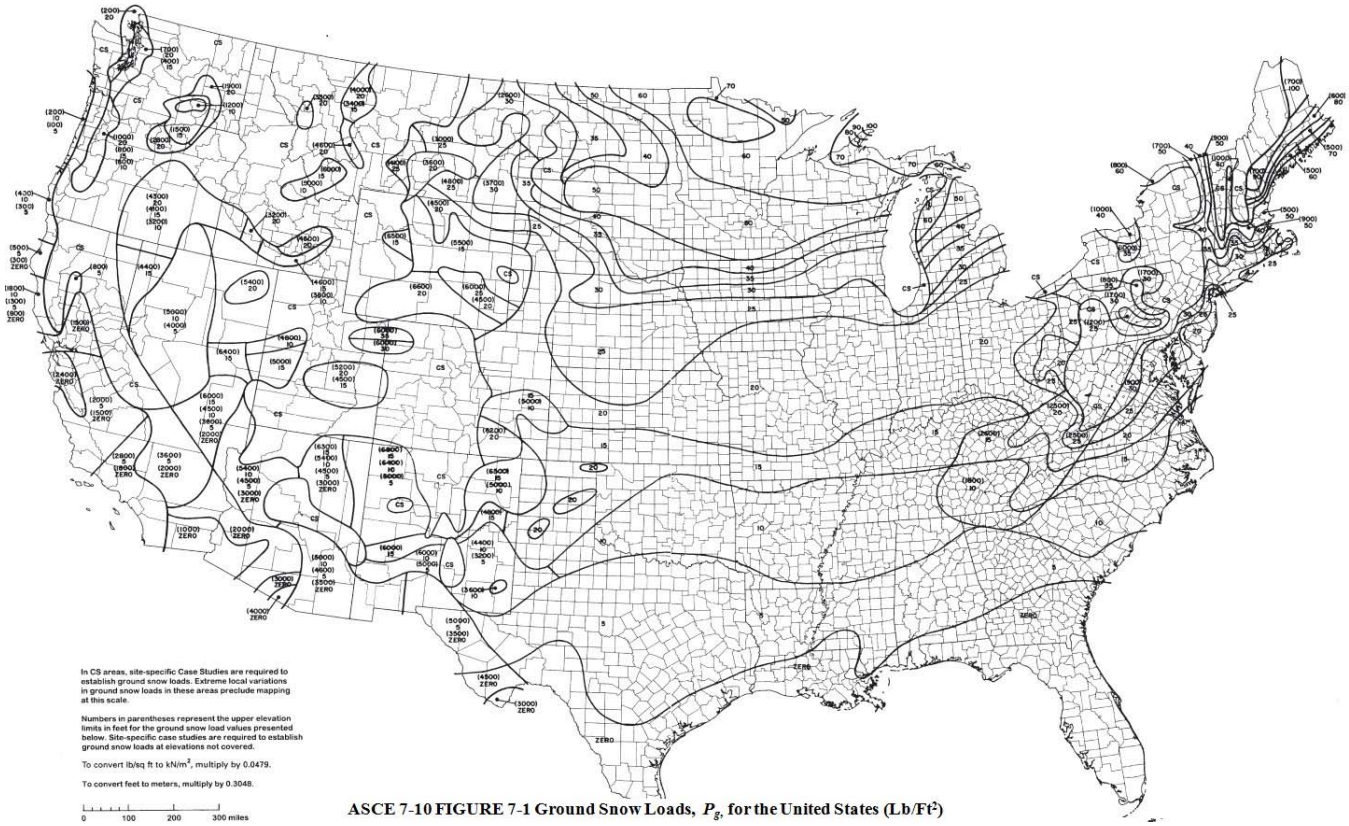
02b. Determination of Loads-Snow Loads

Design Parameters



ASCE 7-10 FIGURE 7-1 Ground Snow Loads, P_g, for the United States (Lb/Ft²)

Ground Snow Load :	$p_g = 20 \cdot psf$	*[Fig. 7-1, Table 7-1]*
Terrain Category:	Exposure = "B"	*[Section 26.7]*
Exposure Factor :	$C_e = 0.9$	*[Table 7-2]*

Description of exposure type = "Roof exposure condition = Fully Exposed"

Thermal Factor :	$C_t = 1$	*[Table 7-3]*

Description of thermal condition = "Thermal Condition = All structures except those as indicated in Table 7-3"

Building Risk Category:	Cat = "II"	*[Table 1.5-1]*

Occupancy of Building = "All building and other structure except those listed in Risk Categories I, III, and IV"

Importance Factor :	$I_s = 1.0$	*[Table 1.5-2]*

Flat Roof Snow Load :

$p_f = 0.7 \cdot C_e \cdot C_t \cdot I_s \cdot p_g$	$p_f = 12.6 \cdot psf$	*[Eq. 7.3-1]*

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Minimum Snow Load for Low-Slope Roofs :

Per ASCE 7-10 Section 7.3.4, minimum roof snow load, p_m, shall only apply to monoslope, hip and gable roofs with slopes less than 15°, and to curved roofs where the vertical angle from the eaves to the crown is less than 10°. This minimum roof snow load is a separate uniform load case. It need not be used in determining or in combination with drift, sliding, unbalanced, or partial loads.

Check for Minimum Snow Load = "minimum values for low-slope roof need not to be considered "

Sloped Roof Snow Load

Roof Slope Factor : $C_s = 0.80$ *[Figure 7-2a]*

Sloped Roof Load : $p_s = C_s \cdot p_f$ *[Eq. 7.4-1]*

$p_s = 10.11 \cdot psf$

Rain-on-Snow Surcharge Load:

Per ASCE 7-10 Section 7.10, for locations where p_g is 20 psf or less, but not zero, all roofs with slopes (in degrees) less than W/50 with W in feet shall include a 5 psf rain-on-snow surcharge load. This additional load applies only to the sloped roof (balanced) load case and need not be used in combination with drift, sliding, unbalanced, minimum, or partial loads.

Rain-on-Snow Surcharge Load = "surchage load need not be applied" *[Section 7.10]*

Design Balanced Snow Load :

$p_s = 10.11 \cdot psf$ $S_0 = p_s \cdot L_{bay}$

$S_0 = 37.05 \cdot pli$

Design Unbalanced Snow Load Design Check:

Per ASCE 7-10 Section 7.6.1, for hip and gable roofs with a slope exceeding 7 on 12 (30.2°) or with a slope less than 2.38° ($^1/_2$ on 12) unbalanced snow loads are not required to be applied.

$\theta_{roof} = 17.86 \cdot deg$ *[Section 7.6.1]*

Check unbalanced load requirement = "all criteria met; must consider unbalanced loads"

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Design Unbalanced Snow Load :

$S = 3.1$ *[Section 7.1]*

$\gamma_{snow} = 16.6 \cdot pcf$ *[Eq. 7.7-1]*

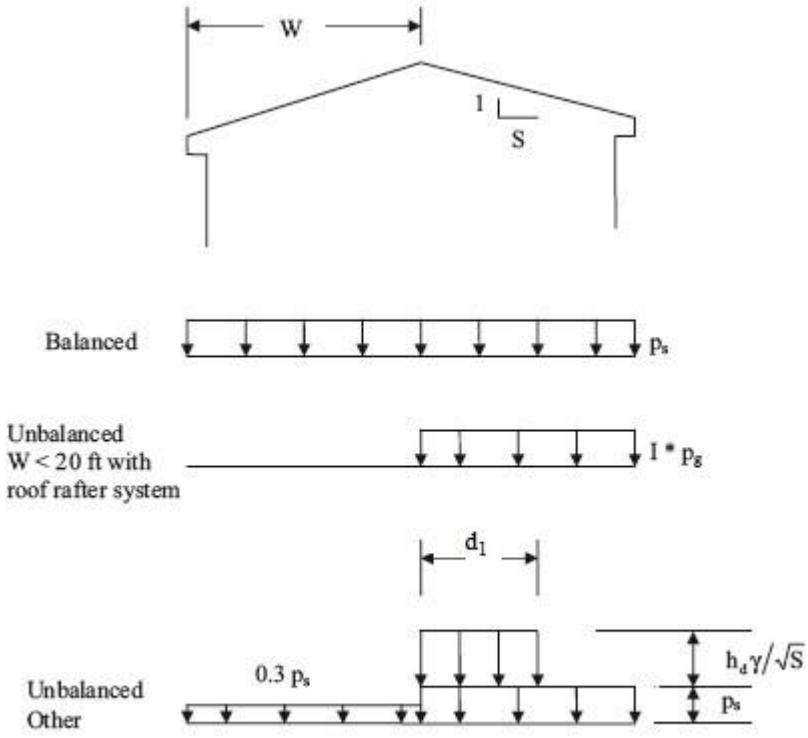
$h_d = 1.3 \cdot ft$ *[Figure 7-9]*

$W = 21.5 \cdot ft$ *[Figure 7-5]*

$S_{2.windward} = 3.03 \cdot psf$

$d_1 = 6.1 \cdot ft$

$S_{2.leeward} = \begin{pmatrix} 22.34 \\ 10.11 \end{pmatrix} \cdot psf$



ASCE 7-10 FIGURE 7-10 Balanced and Unbalanced Snow Loads for Hip and Gable Roofs.

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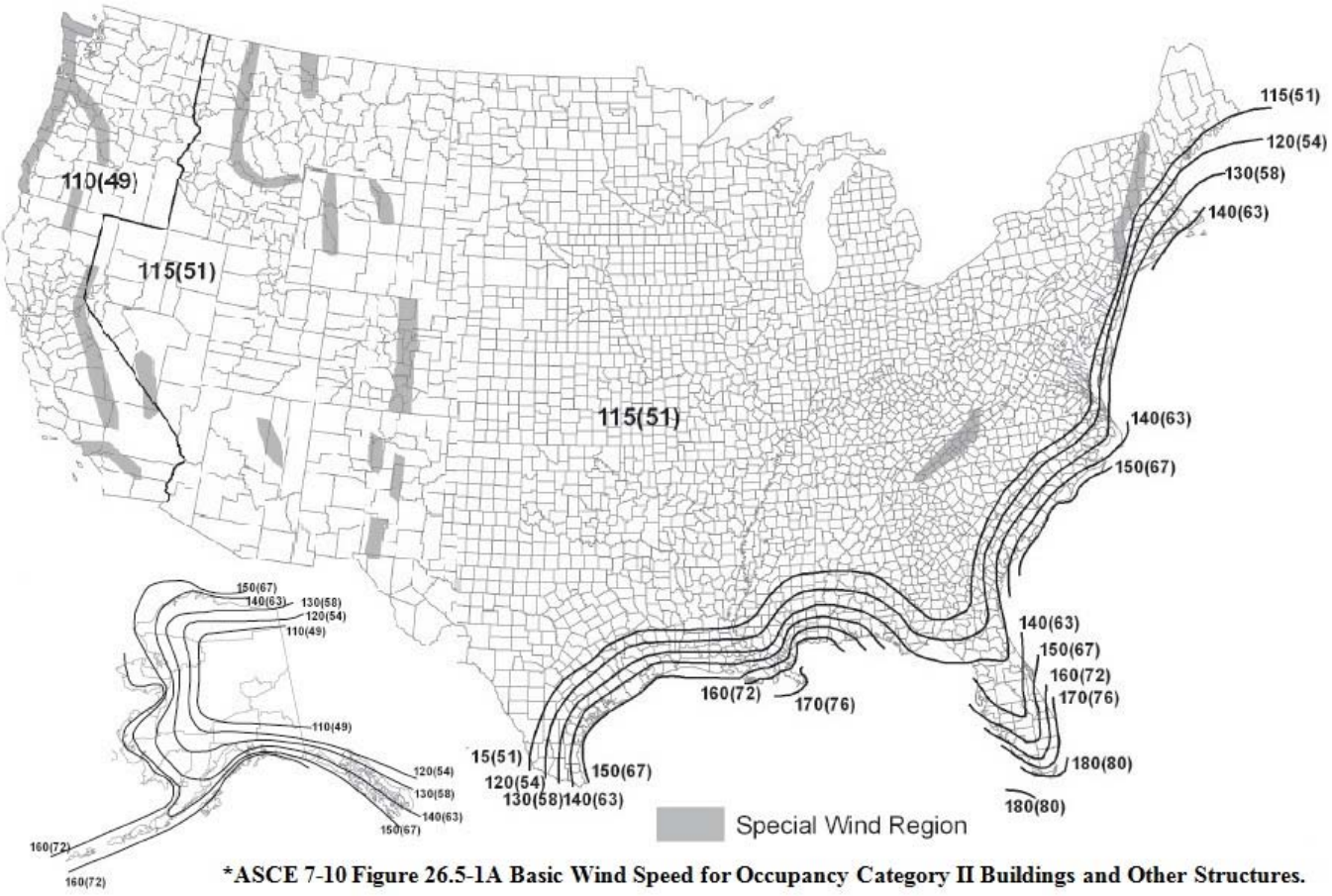
2c - Wind Loads - Low Rise Buildings

Design Parameters



***ASCE 7-10 Figure 26.5-1A Basic Wind Speed for Occupancy Category II Buildings and Other Structures.**

Risk Category:	Cat = "II"	*[Table 1.5-1]*
Occupancy of Building = "All building and other structure except those listed in Risk Categories I, III, and IV"		
Basic Wind Speed:	V = 115·mph	*[Section 26.5.1]*
Wind Directionality Factor:	K_d = 0.85	*[Table 26.6-1]*
Exposure Category:	Exposure = "B"	*[Section 26.7]*
Topographic Factor:	K_{zt} = 1	*[Section 26.8.2]*
Gust Effect Factor:	G = 0.85	*[Section 26.9.1]*
Enclosure Classification:	Enclosure = "Enclosed"	*[Section 26.12]*

Wind Velocity Reduction for Temporary Structure per ASCE37-02

Reduction Factor:	R_n = 1	*[ASCE 37-02 Section 6.2.1]*
Construction Period:	Period = "More than 5 years"	
Effective Wind Speed:	V_r = 115·mph	

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Envelope Procedure for Low Rise Buildings - ASCE 7-10 Chapter 28

Per ASCE 7-10 Section 26.2, buildings with mean roof height *h* less than or equal to 60 ft, and with mean roof height *h* dose not exceed least horizontal dimension are considered as low-rise building.

Check Low Rise Criteria = "both low-rise conditions are satisfied"

Per ASCE 7-10 Section 28.1.4, no reduction to the velocity pressure is taken due to apparent shielding.

Velocity Pressure :

$q_z = 0.00256 \cdot K_z \cdot K_{zt} \cdot K_d \cdot V_r^2$ velocity pressure evaluated at peak height

$q_h = 0.00256 \cdot K_h \cdot K_{zt} \cdot K_d \cdot V_r^2$ velocity pressure evaluated at mean roof height

[Section 28.3.2; Equation 28.3-1]

where :

for $15\,ft \le z \le z_g$

$$K_z = 2.01 \cdot \left(\frac{z}{z_g}\right)^{\frac{2}{\alpha}}$$

for $z \le 15\,ft$

$$K_z = 2.01 \cdot \left(\frac{15\,ft}{z_g}\right)^{\frac{2}{\alpha}}$$

[Table 28.3-1]

*Note: z shall not be taken less than 30 feet in exposure B.

$z_g = 1200 \cdot ft$ *[Table 26.9.1]*

$K_z = 0.7$ velocity pressure exposure coefficient evaluated at peak height ($z = 17.66\,ft$)

$K_h = 0.7$ velocity pressure exposure coefficient evaluated at mean roof height ($h = 14.19\,ft$)

$q_z = 20.16 \cdot psf$ velocity pressure evaluated at building height, z

$q_h = 20.16 \cdot psf$ velocity pressure evaluated at mean roof height, h

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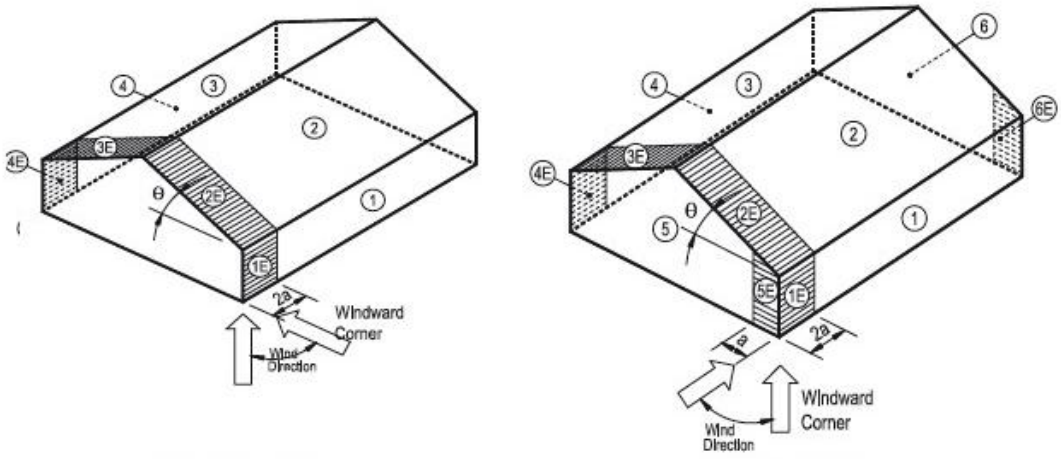
Design Wind Pressure

$$p = q_h \cdot \left[\left(GC_{pf} \right) - \left(GC_{pi} \right) \right]$$ *[Equation 28.4-1]*

External Pressure Coefficients (GC_{pf})



Load Case A **Load Case B**

ASCE 7-10 FIGURE 28.4-1 External Pressure Coefficients (GC_{pf})

Transverse Direction (Load Case A)

$GC_{pf.A}$ =

"1"	"2"	"3"	"4"	"1E"	"2E"	"3E"	"4E"
0.51	-0.69	-0.46	-0.41	0.77	-1.07	-0.67	-0.61

$a = 4.3 \cdot ft$

$2 \cdot a = 8.60 \cdot ft$

(interpolated to the roof slope at: $\theta_{roof} = 17.86\,deg$)

Longitudinal Direction (Load Case B)

$GC_{pf.B}$ =

"1"	"2"	"3"	"4"	"5"	"6"	"1E"	"2E"	"3E"	"4E"	"5E"	"6E"
-0.45	-0.69	-0.37	-0.45	0.4	-0.29	-0.48	-1.07	-0.53	-0.48	0.61	-0.43

Application of Pressures on Building Surfaces 2 and 3

Per note 8 in ASCE 7-10 Fig. 28.4-1, the roof pressure coefficient (GCpf), when negative in Zone 2 and 2E, shall be applied in Zone 2/2E for a distance from the edge of the roof equal to 0.5*horizontal dimension of the building parallel to the direction of the MWFRS being designed or 2.5* the eave height at the windward wall, whichever is less; the remainder of Zone 2/2E extending to the ridge line shall use the pressure coefficient (GCpf) for Zone 3/3E.

$\text{Zone 2/2E Distance}_{CaseA} = 21.5 \cdot ft$

$\text{Zone 2/2E Distance}_{CaseB} = 22 \cdot ft$

Internal Pressure Coefficients (GC_{pi})

GC_{pi} =

"Overpressure"	0.18
"Underpressure"	-0.18

[Table 26.11-1]

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Wind at Transverse Direction (Load Case A)

p_A =

"1"	"2"	"3"	"4"	"1E"	"2E"	"3E"	"4E"
6.68	-17.54	-12.99	-11.90	11.95	-25.20	-17.08	-15.93
13.94	-10.28	-5.73	-4.64	19.21	-17.94	-9.82	-8.67

·psf

*top line = overpressure, bottom line = underpressure

Wind at Longitudinal Direction (Load Case B)

p_B =

"1"	"2"	"3"	"4"	"5"	"6"	"1E"	"2E"	"3E"	"4E"	"5E"	"6E"
-12.7	-17.54	-11.09	-12.7	4.44	-9.48	-13.31	-25.2	-14.31	-13.31	8.67	-12.3
-5.44	-10.28	-3.83	-5.44	11.69	-2.22	-6.05	-17.94	-7.06	-6.05	15.93	-5.04

·psf

*top line = overpressure, bottom line = underpressure

Design Wind Pressure on Gable

p_g =

"5"	"6"	"5E"	"6E"
4.44	-9.48	8.67	-12.3
11.69	-2.22	15.93	-5.04

·psf

Minimum Design Wind Loads

Per ASCE 7-10 Section 28.4.4, the wind load to be used in the design of the MWFRS for an enclosed or partially enclosed building shall not be less than 16 psf multiplied by the wall area of the building and 8 psf multiplied by the roof area of the building projected onto a vertical plane normal to the assumed wind direction.

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3. LRFD Load Combinations :

ASCE 7 -10 Section 2.2 : SYMBOLS AND NOTATION

D = dead load
Di = weight of ice
E = earthquake load
F = load due to fluids with well-defined pressures and maximum heights
Fa = flood load
H = load due to lateral earth pressure, ground water pressure, or pressure of bulk materials
L = live load
Lr = roof live load
R = rain load
S = snow load
T = self-straining force
W = wind load
Wi = wind-on-ice determined in accordance with Chapter 10

ASCE Section 2.3 : COMBINING FACTORED LOADS USING STRENGTH DESIGN

Section 2.3.2 : Basic Combinations. Structures, components, and foundations shall be designed so that their design strength equals or exceeds the effects of the factored loads in the following combinations:

1. 1.4D
2. 1.2D + 1.6L + 0.5(Lr or S or R)
3. 1.2D + 1.6(Lr or S or R) + (L or 0.5W)
4. 1.2D + 1.0W + L + 0.5(Lr or S or R)
5. 1.2D + 1.0E + L + 0.2S
6. 0.9D + 1.0W
7. 0.9D + 1.0E

NOTE:
1. As it is unlikely that this structure will experience service loads F and H, they are not shown in the combinations here for clarity.

Exceptions :

1. The load factor on L in combinations 3, 4, and 5 is permitted to equal 0.5 for all occupancies in which L_o in Table 4-1 is less than or equal to 100 psf, with the exception of areas occupied as places of public assembly.
2. In combinations 2, 4, and 5, the companion load S shall be taken as either the flat roof snow load (p_f) or the sloped roof snow load (p_s)
3. In IBC 1605.2, S in combination 5 shall be 0.7 for roof configurations (such as saw tooth) that do not shed snow off the structure.

Section 2.3.3 : Load Combinations Including Flood Load. When a structure is located in a flood zone (Section 5.3.1), the following load combinations shall be considered in addition to the basic combinations in Section 2.3.2:

1. In V-Zones or Coastal A-Zones, 1.0W in combinations 4 and 6 shall be replaced by 1.0W + 2.0Fa.
2. In noncoastal A-Zones, 1.0W in combinations 4 and 6 shall be replaced by 0.5W + 1.0Fa.

Section 2.3.4 : Load Combinations Including Atmospheric Ice Loads. When a structure is subjected to atmospheric ice and wind-on-ice loads, the following load combinations shall be considered:

1. 0.5(Lr or S or R) in combinatoin 2 shall be replaced by 0.2Di + 0.5S.
2. 1.0W + 0.5(Lr or S or R) in combination 4 shall be replaced by Di + Wi + 0.5S.
3. 1.0W in combination 6 shall be replaced by Di + Wi.

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Symbols as used in calculations

D_1	= dead load;	W_1	= lateral wind +x (perpendicular to ridge line with overpressure)
L_f	= live load;	W_2	= lateral wind +x (perpendicular to ridge line with overpressure)
L_r	= roof live load;	W_3	= longitudinal wind +z (parallel to ridge line with underrpressure)
S_1	= balanced snow	W_4	= longitudinal wind +z (parallel to ridge line with underpressure)
S_2	= unbalanced snow	W_5	= lateral wind -x (perpendicular to ridge line with overpressure)
		W_6	= lateral wind -x (perpendicular to ridge line with overpressure)
		W_7	= longitudinal wind -z (parallel to ridge line with underrpressure)
		W_8	= longitudinal wind -z (parallel to ridge line with underpressure)
		W_m	= minimum design wind load

Combinations as applied in calculations :

1.01	$1.4D_1$
2.01	$1.2D_1 + 1.6L_f + 0.5L_r$
.02	$1.2D_1 + 1.6L_f + 0.5S_1$
.03	$1.2D_1 + 1.6L_f + 0.5S_2$
3.01	$1.2D_1 + 1.6L_r + 1.0L_f$
.02	$1.2D_1 + 1.6L_r + 0.5W_1$
.03	$1.2D_1 + 1.6L_r + 0.5W_2$
.04	$1.2D_1 + 1.6L_r + 0.5W_3$
.05	$1.2D_1 + 1.6L_r + 0.5W_4$
.06	$1.2D_1 + 1.6L_r + 0.5W_5$
.07	$1.2D_1 + 1.6L_r + 0.5W_6$
.08	$1.2D_1 + 1.6L_r + 0.5W_7$
.09	$1.2D_1 + 1.6L_r + 0.5W_8$
.10	$1.2D_1 + 1.6L_r + 0.5W_m$
.11	$1.2D_1 + 1.6S_1 + 1.0L_f$
.12	$1.2D_1 + 1.6S_1 + 0.5W_1$
.13	$1.2D_1 + 1.6S_1 + 0.5W_2$
.14	$1.2D_1 + 1.6S_1 + 0.5W_3$
.15	$1.2D_1 + 1.6S_1 + 0.5W_4$
.16	$1.2D_1 + 1.6S_1 + 0.5W_5$
.17	$1.2D_1 + 1.6S_1 + 0.5W_6$
.18	$1.2D_1 + 1.6S_1 + 0.5W_7$
.19	$1.2D_1 + 1.6S_1 + 0.5W_8$
.20	$1.2D_1 + 1.6S_1 + 0.5W_m$
.21	$1.2D_1 + 1.6S_2 + 1.0L_f$
.22	$1.2D_1 + 1.6S_2 + 0.5W_1$
.23	$1.2D_1 + 1.6S_2 + 0.5W_2$
.24	$1.2D_1 + 1.6S_2 + 0.5W_3$
.25	$1.2D_1 + 1.6S_2 + 0.5W_4$
.26	$1.2D_1 + 1.6S_2 + 0.5W_5$
.27	$1.2D_1 + 1.6S_2 + 0.5W_6$
.28	$1.2D_1 + 1.6S_2 + 0.5W_7$
.29	$1.2D_1 + 1.6S_2 + 0.5W_8$
.30	$1.2D_1 + 1.6S_2 + 0.5W_m$
5.01	$1.2D_1 + 1.0L_f + 0.2S_1$
.02	$1.2D_1 + 1.0L_f + 0.2S_2$
4.01	$1.2D_1 + 1.0L_f + 0.5L_r + 1.0W_1$
.02	$1.2D_1 + 1.0L_f + 0.5L_r + 1.0W_2$
.03	$1.2D_1 + 1.0L_f + 0.5L_r + 1.0W_3$
.04	$1.2D_1 + 1.0L_f + 0.5L_r + 1.0W_4$
.05	$1.2D_1 + 1.0L_f + 0.5L_r + 1.0W_5$
.06	$1.2D_1 + 1.0L_f + 0.5L_r + 1.0W_6$
.07	$1.2D_1 + 1.0L_f + 0.5L_r + 1.0W_7$
.08	$1.2D_1 + 1.0L_f + 0.5L_r + 1.0W_8$
.09	$1.2D_1 + 1.0L_f + 0.5L_r + 1.0W_m$
.10	$1.2D_1 + 1.0L_f + 0.5S_1 + 1.0W_1$
.11	$1.2D_1 + 1.0L_f + 0.5S_1 + 1.0W_2$
.12	$1.2D_1 + 1.0L_f + 0.5S_1 + 1.0W_3$
.13	$1.2D_1 + 1.0L_f + 0.5S_1 + 1.0W_4$
.14	$1.2D_1 + 1.0L_f + 0.5S_1 + 1.0W_5$
.15	$1.2D_1 + 1.0L_f + 0.5S_1 + 1.0W_6$
.16	$1.2D_1 + 1.0L_f + 0.5S_1 + 1.0W_7$
.17	$1.2D_1 + 1.0L_f + 0.5S_1 + 1.0W_8$
.18	$1.2D_1 + 1.0L_f + 0.5S_1 + 1.0W_m$
.19	$1.2D_1 + 1.0L_f + 0.5S_2 + 1.0W_1$
.20	$1.2D_1 + 1.0L_f + 0.5S_2 + 1.0W_2$
.21	$1.2D_1 + 1.0L_f + 0.5S_2 + 1.0W_3$
.22	$1.2D_1 + 1.0L_f + 0.5S_2 + 1.0W_4$
.23	$1.2D_1 + 1.0L_f + 0.5S_2 + 1.0W_5$
.24	$1.2D_1 + 1.0L_f + 0.5S_2 + 1.0W_6$
.25	$1.2D_1 + 1.0L_f + 0.5S_2 + 1.0W_7$
.26	$1.2D_1 + 1.0L_f + 0.5S_2 + 1.0W_8$
.27	$1.2D_1 + 1.0L_f + 0.5S_2 + 1.0W_M$
6.01	$0.9D_1 + 1.0W_1$
.02	$0.9D_1 + 1.0W_2$
.03	$0.9D_1 + 1.0W_3$
.04	$0.9D_1 + 1.0W_4$
.05	$0.9D_1 + 1.0W_5$
.06	$0.9D_1 + 1.0W_6$
.07	$0.9D_1 + 1.0W_7$
.08	$0.9D_1 + 1.0W_8$
.09	$0.9D_1 + 1.0W_m$

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04a. Profile Design-Main Frame

Section Properties :

$E = 10100 \cdot ksi$ Table 3.3-1

$n_u = 1.95$ Table 3.4-1

$d = 9.921 \cdot in$	$b = 4.803 \cdot in$	Shape dimensions
$b_w = 3.071 \cdot in$	$t_w = 0.157 \cdot in$	
$b_f = 2.677 \cdot in$	$t_f = 0.16 \cdot in$	
$A_g = 5.521 \cdot in^2$		Cross-sectional area of Shape
$I_x = 68.35 \cdot in^4$	$I_y = 22.21 \cdot in^4$	Moment of inertia
$S_x = 13.78 \cdot in^3$	$S_y = 9.25 \cdot in^3$	Section Modulus
$r_x = 3.52 \cdot in$	$r_y = 2.01 \cdot in$	Radius of Gyration
$J = 43.27 \cdot in^4$		Torsional constant
$K_x := 1.0$	$K_y := 0.7$	Factor for buckling
$L_x = 129 \cdot in$	$L_y = 129 \cdot in$	Length for buckling
$L_b := L_y$		Length between Bracing Points

Selected Ratios :

$\frac{b_w}{t_w} = 19.5$ $\frac{b_f}{t_f} = 17$ $\frac{K_x \cdot L_x}{r_x} = 36.7$ $\frac{K_y \cdot L_y}{r_y} = 45$ $\frac{L_b \cdot S_x}{0.5\sqrt{I_y \cdot J}} = 114.7$

The following allowable stresses are based on values from the "2005 Aluminum Design Manual"

Allowable Axial Stress:

Specification 3.4.1 - Tension, axial:
Any tension member. $F_{3.4.1} = 32.3 \cdot ksi$

Specification 3.4.7 - Compression in Columns:
All columns. $F_{3.4.7x} = 25.98 \cdot ksi$ $F_{3.4.7y} = 32.22 \cdot ksi$

Specification 3.4.9 - Compression in Column Elements:
Flat elements supported on both edges. $F_{3.4.9} = 30.31 \cdot ksi$

Allowable Axial Stress:

$F_a = 25.98 \cdot ksi$ Use in Eq. 4.1.1-1

$F_{ao} = 30.31 \cdot ksi$ Use in Eq. 4.1.1-2

$F_{ex} = 63.46 \cdot ksi$ $F_{ey} = 40.47 \cdot ksi$

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Allowable Bending Stress:

Specification 3.4.2 - Tension in Beams, extreme fibre, net section:
Flat elements in uniform tension (flanges). $F_{3.4.2} = 32.3 \cdot ksi$

Specification 3.4.14 - Compression in Beams, gross section.:
Tubular shapes. $F_{3.4.14} = 29.88 \cdot ksi$

Specification 3.4.16 - Compression in Beams, gross section:
Flat elements supported on both edges. $F_{3.4.16} = 31.33 \cdot ksi$

Specification 3.4.19 - Compression in Beams, elements:
Flat elements supported on both edges with longitudinal stiffening. $F_{3.4.19} = 43.22 \cdot ksi$

Allowable Bending Stress:

$F_{bx} = 29.88 \cdot ksi$ Use in Eq. 4.1.1-1 & Eq. 4.1.1-2

$F_{by} = 29.88 \cdot ksi$

Allowable Shear Stress:

Specification 3.4.20 - Shear in Elements, gross section:
Unstiffened flat elements supported on both edges. $F_{3.4.20} = 19.2 \cdot ksi$

Actual Stress:

Member ID = "ms23" Load Case = "3.17-1.2D1+1.6S0+0.5W6"

$Cmx := 0.85$ $Cmy := 0.85$ $M_x = -63.57 \cdot kip \cdot in$ $M_y = 0.07 \cdot kip \cdot in$ $C = -8.76 \cdot kip$

$f_{bx} := \left| \frac{M_x}{S_x} \right| = 4.61 \cdot ksi$ $f_{by} := \left| \frac{M_y}{S_y} \right| = 0.01 \cdot ksi$ $f_{ac} := \left| \frac{C}{A_g} \right| = 1.59 \cdot ksi$

Eq. 4.1.1-1 : $Eq1 := \frac{f_{ac}}{F_a} + \frac{Cmx \cdot f_{bx}}{\left(1 - \frac{f_{ac}}{F_{ex}}\right) \cdot F_{bx}} + \frac{Cmy \cdot f_{by}}{\left(1 - \frac{f_{ac}}{F_{ey}}\right) \cdot F_{by}} = 0.2$ Eq1 is less than or equal to 1.0 = "OK"

Eq. 4.1.1-2 : $Eq2 := \frac{f_{ac}}{F_{ao}} + \frac{f_{bx}}{F_{bx}} + \frac{f_{by}}{F_{by}} = 0.21$ Eq2 is less than or equal to 1.0 = "OK"

Member ID = "ms25" Load Case = "6.05-0.9D1+1.0W5"

$M_x = -140.86 \cdot kip \cdot in$ $M_y = 0.03 \cdot kip \cdot in$ $T = 6.65 \cdot kip$

$f_{bx} := \left| \frac{M_x}{S_x} \right| = 10.22 \cdot ksi$ $f_{by} := \left| \frac{M_y}{S_y} \right| = 0 \cdot ksi$ $f_{at} := \frac{T}{A_g} = 1.2 \cdot ksi$

Eq. 4.1.2-1 : $Eq3 := \frac{f_{at}}{F_{3.4.1}} + \frac{f_{bx}}{F_{bx}} + \frac{f_{by}}{F_{by}} = 0.38$ Eq3 is less than or equal to 1.0 = "OK"

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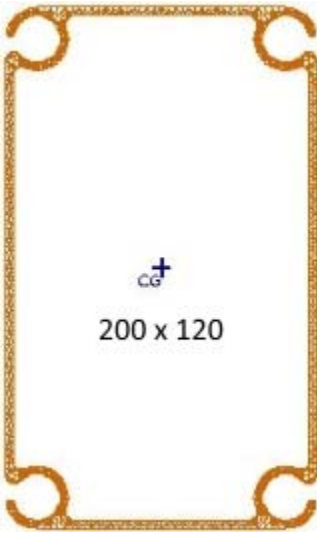
04b-Profile Design-Gable Uprights

Section Properties :

$E = 10100 \cdot ksi$ Table 3.3-1

$n_u = 1.95$ Table 3.4-1

$d = 7.874 \cdot in$	$b = 4.724 \cdot in$	Shape dimensions
$b_w = 5.846 \cdot in$	$t_w = 0.118 \cdot in$	
$b_f = 2.638 \cdot in$	$t_f = 0.12 \cdot in$	
$A_g = 3.495 \cdot in^2$		Cross-sectional area of Shape
$I_x = 31.56 \cdot in^4$	$I_y = 12.91 \cdot in^4$	Moment of inertia
$S_x = 8.02 \cdot in^3$	$S_y = 5.46 \cdot in^3$	Section Modulus
$r_x = 3.01 \cdot in$	$r_y = 1.92 \cdot in$	Radius of Gyration
$J = 22.65 \cdot in^4$		Torsional constant
$K_x := 1.0$	$K_y := 0.7$	Factor for buckling
$L_x = 272 \cdot in$	$L_y = 208 \cdot in$	Length for buckling
$L_b := L_y$		Length between Bracing Points



Selected Ratios :

$\frac{b_w}{t_w} = 49.5$ $\frac{b_f}{t_f} = 22.3$ $\frac{K_x \cdot L_x}{r_x} = 90.5$ $\frac{K_y \cdot L_y}{r_y} = 75.8$ $\frac{L_b \cdot S_x}{0.5\sqrt{I_y \cdot J}} = 195$

The following allowable stresses are based on values from the "2005 Aluminum Design Manual"

Allowable Axial Stress:

Specification 3.4.1 - Tension, axial:
Any tension member.

$F_{3.4.1} = 32.3 \cdot ksi$

Specification 3.4.7 - Compression in Columns:
All columns.

$F_{3.4.7x} = 9.95 \cdot ksi$

$F_{3.4.7y} = 13.53 \cdot ksi$

Specification 3.4.9 - Compression in Column Elements:
Flat elements supported on both edges.

$F_{3.4.9} = 16.43 \cdot ksi$

Allowable Axial Stress:

$F_a = 9.95 \cdot ksi$ Use in Eq. 4.1.1-1

$F_{ao} = 16.43 \cdot ksi$ Use in Eq. 4.1.1-2

$F_{ex} = 9.95 \cdot ksi$ $F_{ey} = 13.53 \cdot ksi$

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Allowable Bending Stress:

Specification 3.4.2 - Tension in Beams, extreme fibre, net section:
Flat elements in uniform tension (flanges). $F_{3.4.2} = 32.3 \cdot ksi$

Specification 3.4.14 - Compression in Beams, gross section.:
Tubular shapes. $F_{3.4.14} = 28.79 \cdot ksi$

Specification 3.4.16 - Compression in Beams, gross section:
Flat elements supported on both edges. $F_{3.4.16} = 29.15 \cdot ksi$

Specification 3.4.19 - Compression in Beams, elements:
Flat elements supported on both edges with longitudinal stiffening. $F_{3.4.19} = 43.22 \cdot ksi$

Allowable Bending Stress:

$F_{bx} = 28.79 \cdot ksi$ Use in Eq. 4.1.1-1 & Eq. 4.1.1-2

$F_{by} = 28.79 \cdot ksi$

Allowable Shear Stress:

Specification 3.4.20 - Shear in Elements, gross section:
Unstiffened flat elements supported on both edges. $F_{3.4.20} = 16.11 \cdot ksi$

Actual Stress:

Member ID = "gv001" Load Case = "3.15-1.2D1+1.6S0+0.5W4"

$Cmx := 0.85$ $Cmy := 0.85$ $M_x = -37.61 \cdot kip \cdot in$ $M_y = 3.09 \cdot kip \cdot in$ $C = -1.22 \cdot kip$

$f_{bx} := \left| \frac{M_x}{S_x} \right| = 4.69 \cdot ksi$ $f_{by} := \left| \frac{M_y}{S_y} \right| = 0.57 \cdot ksi$ $f_{ac} := \left| \frac{C}{A_g} \right| = 0.35 \cdot ksi$

Eq. 4.1.1-1 : $Eq1 := \frac{f_{ac}}{F_a} + \frac{Cmx \cdot f_{bx}}{\left(1 - \frac{f_{ac}}{F_{ex}}\right) \cdot F_{bx}} + \frac{Cmy \cdot f_{by}}{\left(1 - \frac{f_{ac}}{F_{ey}}\right) \cdot F_{by}} = 0.2$

Eq1 is less than or equal to 1.0 = "OK"

Eq. 4.1.1-2 : $Eq2 := \frac{f_{ac}}{F_{ao}} + \frac{f_{bx}}{F_{bx}} + \frac{f_{by}}{F_{by}} = 0.2$

Eq2 is less than or equal to 1.0 = "OK"

Member ID = "gv001" Load Case = "6.04-0.9D1+1.0W4"

$M_x = -75.22 \cdot kip \cdot in$ $M_y = 6.68 \cdot kip \cdot in$ $T = 0.16 \cdot kip$

$f_{bx} := \left| \frac{M_x}{S_x} \right| = 9.38 \cdot ksi$ $f_{by} := \left| \frac{M_y}{S_y} \right| = 1.22 \cdot ksi$ $f_{at} := \frac{T}{A_g} = 0.05 \cdot ksi$

Eq. 4.1.2-1 : $Eq3 := \frac{f_{at}}{F_{3.4.1}} + \frac{f_{bx}}{F_{bx}} + \frac{f_{by}}{F_{by}} = 0.37$

Eq3 is less than or equal to 1.0 = "OK"

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05. Splice Design

Eave Splice Design :

Section Properties :

Materials of construction :	S235 Steel	
Modulus of elasticity	$E = 29000 \cdot ksi$	
Cross-sectional area	$A_g = 6.467 \cdot in^2$	
Shape dimensions	$b_w = 9.528 \cdot in$	$b_f = 2.953 \cdot in$
	$t_w = 0.472 \cdot in$	$t_f = 0.295 \cdot in$
Moment of inertia, strong/weak axis	$I_x = 74.54 \cdot in^4$	$I_y = 14.74 \cdot in^4$
Section Modulus, strong/weak axis	$S_x = 15.65 \cdot in^3$	$S_y = 6.72 \cdot in^3$
Radius of Gyration, strong/weak axis	$r_x = 3.4 \cdot in$	$r_y = 1.51 \cdot in$

Chapter D - Design of Members for Tension

$\phi_t \cdot P_n$ design compressive strength for LRFD design

where :

P_n nominal tensile strength as determined according to Sections D2-D6

$\phi_{t.gross} = 0.9$ $\phi_{t.net} = 0.75$ for LRFD design

Tensile yielding in the gross section

$$P_{ny} = F_y \cdot A_g \qquad (D2\text{-}1)$$

$P_{ny} := F_y \cdot A_g = 220.42 \cdot kip$

Tensile rupture in the net section

$$P_{nr} = F_y \cdot A_e \qquad (D2\text{-}2)$$

$P_{nr} := F_u \cdot A_e = 337.67 \cdot kip$

Design tensile strength / Allowable tensile strength

$\phi P_{nt} = 198.38 \cdot kip$ for LRFD design tensile strength

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Chapter E - Design of Members for Compression

$\phi_c \cdot P_n$ design compressive strength for LRFD design

where :

P_n	nominal compressive strength as determined according to Sections E3-E7
$\phi_c = 0.9$	for LRFD design
L	laterally unbraced length of the member, in (mm)
r	governing radius of gyration, in (mm)
K	effective length factor determined in accordance with Section C2

E3 - Compressive strength for flexural buckling of members without slender elements

$P_n = F_{cr} \cdot A_g$ *(E3-1)*

$$F_e := \frac{\pi^2 \cdot E}{\left(\frac{K \cdot L}{r_y}\right)^2} = 59.17 \cdot ksi$$ *(E3-4)*

$$F_{cr} := \text{if}\left[\frac{K \cdot L}{r_y} \le 4.71 \cdot \sqrt{\frac{E}{F_y}}, \left(0.688^{\frac{F_y}{F_e}}\right) \cdot F_y, 0.877 \cdot F_e\right] = 27.48 \cdot ksi$$ *(E3-2), (E3-3)*

$P_n := F_{cr} \cdot A_g = 177.71 \cdot kip$

Design compressive strength / Allowable compressive strength

$\phi P_{nc} = 159.93 \cdot kip$ for LRFD design compressive strength

Chapter F - Design of Members for Flexure

F1. General Provisions

$\phi_b \cdot M_n$ design flexural strength for LRFD design

where:

M_n	nominal flexural strength as determined according to Sections F2-F10
$\phi_b = 0.90$	for LRFD design

F7. Rectangular HSS members

Yielding

$M_{ny} := F_y \cdot Z_x = 682.36 \cdot kip \cdot in$ *(F7-1)*

$M_p := F_y \cdot Z_x$

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Flange Local Buckling

For compact section, the limit state of flange local buckling does not apply

For noncompact sections

$$M_n := \min\left[M_p - (M_p - F_y \cdot S_x)\cdot\left(3.57\cdot\frac{b}{t_d}\cdot\sqrt{\frac{F_y}{E}} - 4.0\right), M_p\right] = 682.36\cdot kip\cdot in \qquad \textit{(F7-2)}$$

For sections with slender walls

$$b_e := 1.92\cdot t_d\cdot\sqrt{\frac{E}{F_y}}\cdot\left(1 - \frac{0.38}{\frac{b}{t_d}}\cdot\sqrt{\frac{E}{F_y}}\right) = -15.98\cdot in$$

$$S_{eff} := \text{if}\left[b_e < b, \frac{b_e\cdot h^3 - (b_e - 2\cdot t_d)\cdot(h - 2\cdot t_d)^3}{6\cdot h}, S_x\right]$$

$$M_n := F_y\cdot S_{eff} = -1737.01\cdot kip\cdot in$$

Flange Section Status = "The flange section of the rectangular HSS is compact since b/t = 3.72"

$M_{nfb} = 999999999\cdot kip\cdot in$

Web Local Buckling

For compact section, the limit state of web local buckling does not apply

For noncompact sections

$$M_n := \min\left[M_p - (M_p - F_y \cdot S_x)\cdot\left(3.05\cdot\frac{h}{t_d}\cdot\sqrt{\frac{F_y}{E}} - 0.738\right), M_p\right] = 454.56\cdot kip\cdot in$$

Web Section Status = "The web section of the rectangular HSS is compact since h/t = 18.68"

Design Flexural Strength

$\phi M_n = 614.12\cdot kip\cdot in$ for LRFD design compressive strength

Stresses in Splice :

The connection splice is considered to carry the entire moment where the roof and column profiles meet.

Member ID = "mr20" Load Case = "3.17-1.2D1+1.6S0+0.5W6" $M_x = -96.15\cdot kip\cdot in$ $V = 1.86\cdot kip$ $C = -8.88\cdot kip$

Stress interaction on the splice :

$$IE := \text{if}\left[\frac{|C|}{\phi P_{nc}} \geq 0.2, \frac{|C|}{\phi P_{nc}} + \frac{8}{9}\cdot\left(\frac{|M_x|}{\phi M_n} + \frac{|M_y|}{\phi M_n}\right), \frac{|C|}{2\cdot\phi P_{nc}} + \left(\frac{|M_x|}{\phi M_n} + \frac{|M_y|}{\phi M_n}\right)\right] = 0.18$$

IE is less than or equal to 1.0 = "OK"

Member ID = "mr20" Load Case = "3.17-1.2D1+1.6S0+0.5W6" $M_x = -96.15\cdot kip\cdot in$ $V = 1.86\cdot kip$

Stress interaction on the splice :

$$IE := \text{if}\left[\frac{T}{\phi P_{nt}} \geq 0.2, \frac{T}{\phi P_{nt}} + \frac{8}{9}\cdot\left(\frac{|M_x|}{\phi M_n} + \frac{|M_y|}{\phi M_n}\right), \frac{T}{2\cdot\phi P_{nt}} + \left(\frac{|M_x|}{\phi M_n} + \frac{|M_y|}{\phi M_n}\right)\right] = 0.35$$

IE is less than or equal to 1.0 = "OK"

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Peak Splice Design :

Section Properties :

Materials of construction :	S355 Steel	
Modulus of elasticity	$E = 29000 \cdot ksi$	
Cross-sectional area	$A_g = 6.467 \cdot in^2$	
Shape dimensions	$b_w = 9.528 \cdot in$	$b_f = 2.953 \cdot in$
	$t_w = 0.472 \cdot in$	$t_f = 0.295 \cdot in$
Moment of inertia, strong/weak axis	$I_x = 74.54 \cdot in^4$	$I_y = 14.74 \cdot in^4$
Section Modulus, strong/weak axis	$S_x = 15.65 \cdot in^3$	$S_y = 6.72 \cdot in^3$
Radius of Gyration, strong/weak axis	$r_x = 3.4 \cdot in$	$r_y = 1.51 \cdot in$

Stresses in Splice :

The connection splice is considered to carry the entire moment where the main profiles meet.

Member ID = "mr3" Load Case = "3.26-1.2D1+1.6S6+0.5W6"

$M_x = 12.28 \cdot kip \cdot in$ $V = -0.46 \cdot kip$ $C = -0.97 \cdot kip$

Stress interaction on the splice :

$$IE := \text{if}\left[\frac{|C|}{\phi P_{nc}} \geq 0.2, \frac{|C|}{\phi P_{nc}} + \frac{8}{9}\cdot\left(\frac{|M_x|}{\phi M_n} + \frac{|M_y|}{\phi M_n}\right), \frac{|C|}{2\cdot\phi P_{nc}} + \left(\frac{|M_x|}{\phi M_n} + \frac{|M_y|}{\phi M_n}\right)\right] = 0.02$$

IE is less than or equal to 1.0 = "OK"

Member ID = "mr3" Load Case = "3.26-1.2D1+1.6S6+0.5W6"

$M_x = 30.03 \cdot kip \cdot in$ $V = -0.6 \cdot kip$ $T = 1.24 \cdot kip$

Stress interaction on the splice :

$$IE := \text{if}\left[\frac{T}{\phi P_{nt}} \geq 0.2, \frac{T}{\phi P_{nt}} + \frac{8}{9}\cdot\left(\frac{|M_x|}{\phi M_n} + \frac{|M_y|}{\phi M_n}\right), \frac{T}{2\cdot\phi P_{nt}} + \left(\frac{|M_x|}{\phi M_n} + \frac{|M_y|}{\phi M_n}\right)\right] = 0.05$$

IE is less than or equal to 1.0 = "OK"

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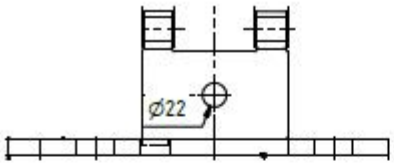
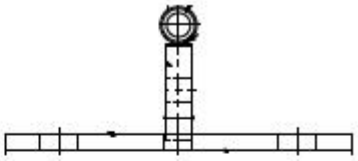
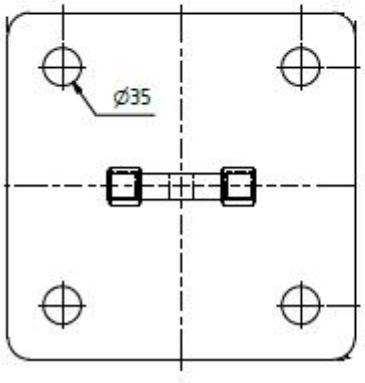
06. Base plate Design







Material : S235

$Fy_{AE235} = 34.08 \cdot ksi$

$Fut_{AE235} = 49.31 \cdot ksi$

$E_{AE235} = 30457.92 \cdot ksi$

Vert. Plate :

$b_v = 135 \cdot mm$ $d_v = 115 \cdot mm$

$t_v = 25 \cdot mm$

Base Plate :

$b_b = 320 \cdot mm$ $d_b = 320 \cdot mm$

$t_b = 15 \cdot mm$

Vertical plates :

Section Properties (single vertical plate) :

$A_v := b_v \cdot t_v = 5.23 \cdot in^2$ $S_{vx} := \frac{t_v \cdot b_v^2}{6} = 4.63 \cdot in^3$ $S_{vy} := \frac{b_v \cdot t_v^2}{6} = 0.86 \cdot in^3$

Allowable Stress :

$\sigma_{allowable} := \phi_b \cdot Fy_{AE235} = 30.68 \cdot ksi$

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Actual Stress :

Moment arm above Section : $d_B = 9.45 \cdot in$

$LoadCase_0 = "6.02\text{-}0.9D1+1.0W2"$ $H_0 = -2.09 \cdot kip$ $V_0 = -2.99 \cdot kip$

$$\sigma := \left| \frac{V_0}{2 \cdot A_v} + \frac{0.5 \cdot H_0 \cdot d_B}{2 \cdot S_{vy}} \right| = 6.04 \cdot ksi$$

σ is less than or equal to $\sigma_{allowable}$ = "OK"

$LoadCase_1 = "6.06\text{-}0.9D1+1.0W6"$ $H_1 = 2.56 \cdot kip$ $V_1 = -4.18 \cdot kip$

$$\sigma := \left| \frac{V_1}{(2) \cdot A_v} - \frac{0.5 \cdot H_1 \cdot d_B}{2 \cdot S_{vy}} \right| = 7.45 \cdot ksi$$

σ is less than or equal to $\sigma_{allowable}$ = "OK"

Bending of Base Plate :

Allowable Stress :

$\sigma_{allowable} := \phi_b \cdot Fy_{AE355} = 46.34 \cdot ksi$

Surface area of base plate : $A := L \cdot W = 158.72 \cdot in^2$

The reaction forces act on a distance "d" above the bottom side of plate: $d = 225 \cdot mm$

$LoadCase_0 = "3.17\text{-}1.2D1+1.6S0+0.5W6"$ $H_0 = 1.04 \cdot kip$ $V_0 = 4.45 \cdot kip$

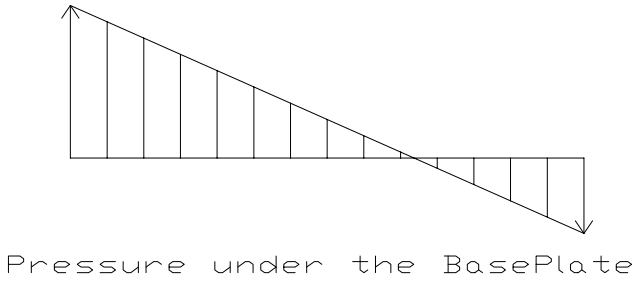
These forces result in the following pressure under the baseplate:

$$f_{max} := \frac{V_0}{A} + \frac{H_0 \cdot d \cdot (6)}{L \cdot W^2} \qquad f_{max} = 383.78 \cdot \frac{kN}{m^2}$$

$f_{max} = 0.056 \cdot ksi$

$$f_{min} := \frac{V_0}{A} - \frac{H_0 \cdot d \cdot (6)}{L \cdot W^2} \qquad f_{min} = 2.7 \cdot \frac{kN}{m^2}$$

$f_{min} = 0 \cdot ksi$



Section A-A :

The pressure f_A equals: $f_A := f_{max} - \left(\left| f_{max} \right| + \left| f_{min} \right| \right) \cdot \frac{153 \cdot mm}{300 \cdot mm}$ $f_A = 186.7 \cdot \frac{kN}{m^2}$ $f_A = 0.03 \cdot ksi$

The moment resulting from the pressure under the plate equals :

$$M_A := \left(\frac{f_{max} + f_A}{2} \right) \cdot 153 \cdot mm \cdot \left(\frac{153 \cdot mm}{2} \cdot 300 \cdot mm \right)$$

$M_A = 1 \cdot kN \cdot m$ $M_A = 8.9 \cdot kip \cdot in$

The actual stress equals : $\sigma_A := \frac{M_A \cdot 6}{L \cdot T^2}$ $\sigma_A = 83.5 \cdot \frac{N}{mm^2}$ $\sigma_A = 12.1 \cdot ksi$

σ_A is less than or equal to $\sigma_{allowable}$ = "OK"

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7.Purlin-120x80x3

Section Properties :

Table 3.3-1

Yield/Ultimate stresses $F_y = 50\cdot ksi$ $F_u = 65\cdot ksi$

Shape dimensions $h = 4.72\cdot in$ $b = 3.15\cdot in$ $t = 0.12\cdot in$

Cross-sectional area $A_g = 1.77\cdot in^2$

Moment of inertia $I_x = 5.53\cdot in^4$ $I_y = 2.97\cdot in^4$

Section modulus $S_x = 2.34\cdot in^3$ $S_y = 1.88\cdot in^3$

Radius of gyration $r_x = 1.79\cdot in$ $r_y = 1.3\cdot in$

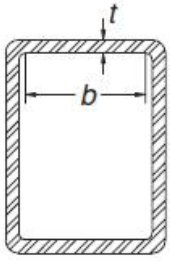
Torsional constant $J = 6.16\cdot in^4$

Table B4.1 Limiting Width-Thickness Ratios for Compression Elements

Case 12 Uniform compression in flanges of rectangular box and hollow structural sections of uniform thickness subject to bending or compression.

$b = 2.82\cdot in$ $t = 0.12\cdot in$ $b / t_d = 25.67$ $\lambda_p := 1.12\cdot\sqrt{\frac{E}{F_y}} = 26.97$ $\lambda_r := 1.40\cdot\sqrt{\frac{E}{F_y}} = 33.72$

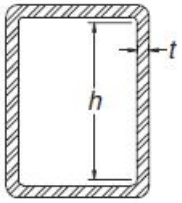
Section is = "compact"



Case 13 Flexure in webs of rectangular HSS

$h = 4.39\cdot in$ $t = 0.12\cdot in$ $h / t_d = 40.01$ $\lambda_p := 2.42\cdot\sqrt{\frac{E}{F_y}} = 58.28$ $\lambda_r := 5.70\cdot\sqrt{\frac{E}{F_y}} = 137.27$

Section is = "compact"



Allowable Strength:

Chapter D - Design of Members for Tension $P_c = 79.61\cdot kip$

Chapter E - Design of Members for Compression $P_c = 17.27\cdot kip$

Chapter F - Design of Members for Flexure $M_{cx} = 126.9\cdot kip\cdot in$

$M_{cy} = 96.21\cdot kip\cdot in$

Actual Required Strength:

(worst case shown) Member ID = "pl3" Load Case = "6.04-0.9D1+1.0W4"

$M_{rx} = 0\cdot kip\cdot in$ $M_{ry} = 0\cdot kip\cdot in$ $P_r = -4.31\cdot kip$

For $\frac{P_r}{P_c} \geq 0.2$ $\frac{P_r}{P_c} + \frac{8}{9}\cdot\left(\frac{M_{rx}}{M_{cx}} + \frac{M_{ry}}{M_{cy}}\right) \leq 1.0$ *(H1-1a)*

For $\frac{P_r}{P_c} < 0.2$ $\frac{P_r}{2\cdot P_c} + \left(\frac{M_{rx}}{M_{cx}} + \frac{M_{ry}}{M_{cy}}\right) \leq 1.0$ *(H1-1b)*

$IE := \text{if}\left[\frac{|P_r|}{P_c} \geq 0.2, \frac{|P_r|}{P_c} + \frac{8}{9}\cdot\left(\frac{|M_{rx}|}{M_{cx}} + \frac{|M_{ry}|}{M_{cy}}\right), \frac{|P_r|}{2\cdot P_c} + \left(\frac{|M_{rx}|}{M_{cx}} + \frac{|M_{ry}|}{M_{cy}}\right)\right] = 0.25$

IE is less than or equal to 1.0 = "OK"

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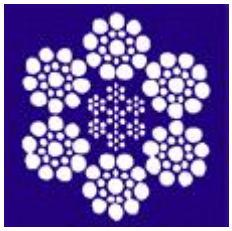
8. Bracing Cables

The roof bracing cables are constructed of 6x19 Galvanized EIPS Wire Rope.



Rope Diameter	Nominal Strength*,Tons (Bright & Drawn Galvanized) EIPS		Approximate Wt./Ft. (Lbs.)	
(In.)	IWRC	Fiber Core	IWRC	Fiber Core
1/4	3.40	3.01	0.116	0.105
5/16	5.27	4.69	0.18	0.164
3/8	7.55	6.71	0.26	0.236
7/16	10.2	9.09	0.35	0.32
1/2	13.3	11.8	0.46	0.42
9/16	16.8	14.9	0.59	0.53
5/8	20.6	18.3	0.72	0.66
3/4	29.4	26.2	1.04	0.95
7/8	39.8	35.4	1.42	1.29
1	51.7	46.0	1.85	1.68
1 1/8	65.0	57.9	2.34	2.13
1 1/4	79.9	71.0	2.89	2.63
1 3/8	96.0	85.4	3.50	3.18
1 1/2	114.0	101.0	4.16	3.78

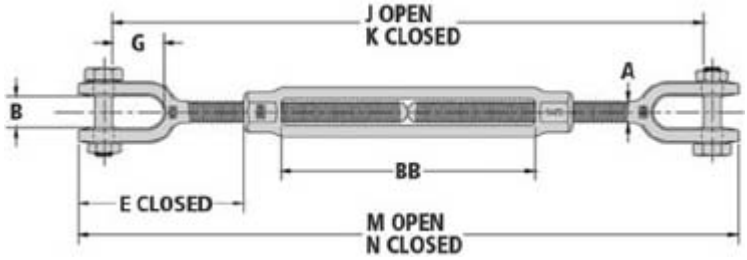
The max factored load in a roof wind brace is $T_{max} = 2900\,lbf.$

The nominal strength of $\phi = 0.400\,in$ wire rope is $T_{allow} = 17220\,lbf.$

$$\text{Safety Factor} := \frac{T_{allow} \cdot 90\%}{T_{max}} = 5.34$$

USE a 6x19 Galvanized EIPS wire rope with a minimum diameter of $\phi = 0.4000\,in$.

Adjustment of the roof bracing cables is through turnbuckles.



Thread Diameter & Take Up (Inches)	Work Load Limit (Lbs.)*	Unit Weight (Lbs.)
† 1/4 x 4	500	.37
† 5/16 x 4-1/2	800	.56
† 3/8 x 6	1200	.85
1/2 x 6	2200	1.82
1/2 x 9	2200	2.29
1/2 x 12	2200	2.71
5/8 x 6	3500	3.21
5/8 x 9	3500	3.95
5/8 x 12	3500	4.58
3/4 x 6	5200	4.80
3/4 x 9	5200	5.85
3/4 x 12	5200	6.72
3/4 x 18	5200	8.45
7/8 x 12	7200	9.37
7/8 x 18	7200	11.30
1 x 6	10000	10.[illegible]

* Proof Load is 2.5 Times Work Load Limit.

The max factored load in a roof wind brace is $T_{max} = 2900\,lbf.$

The working strength of $\phi = 0.750\,in$ turnbuckle is $T_{work} = 5200\,lbf.$

The nominal strength of $\phi = 0.750\,in$ turnbuckle is $T_{allow} = 26000\,lbf.$

$$\text{Safety Factor} := \frac{T_{allow}}{T_{max}} = 8.97$$

USE a turnbuckle with a minimum thread diameter of $\phi = 0.7500\,in$.

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APPENDIX A

FIGURES AND SKETCHES

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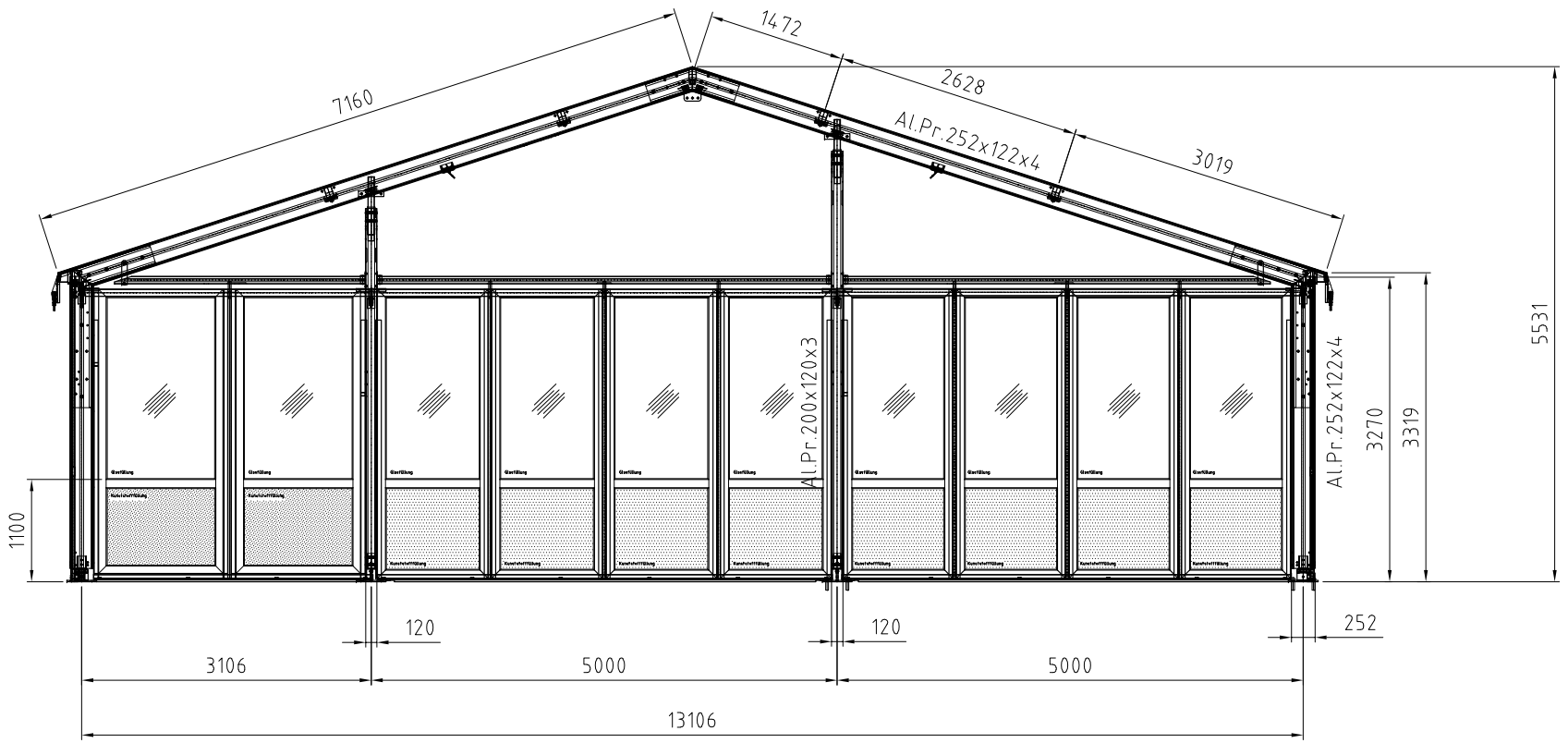

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Alle Maße sind rechnerisch ermittelte Werte
Die tatsächlichen Maße sind direkt am Objekt zu nehmen!

Verwendungszweck	Allgemeintoleranzen nach DIN7168 -m-	Maßstab 1:50	Gewicht
O'Neil Tents and Party Supplies LX13,106x13m, SH=3,2m		–	–
		–	–

	Datum	Name
Bearb.	27.08.2020	pkalis
Gepr.		
Ers.f.		

Zust.	Änderungen	Datum	Name

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Gableview
Axis 1

LX.1310.320.E.100.001_A

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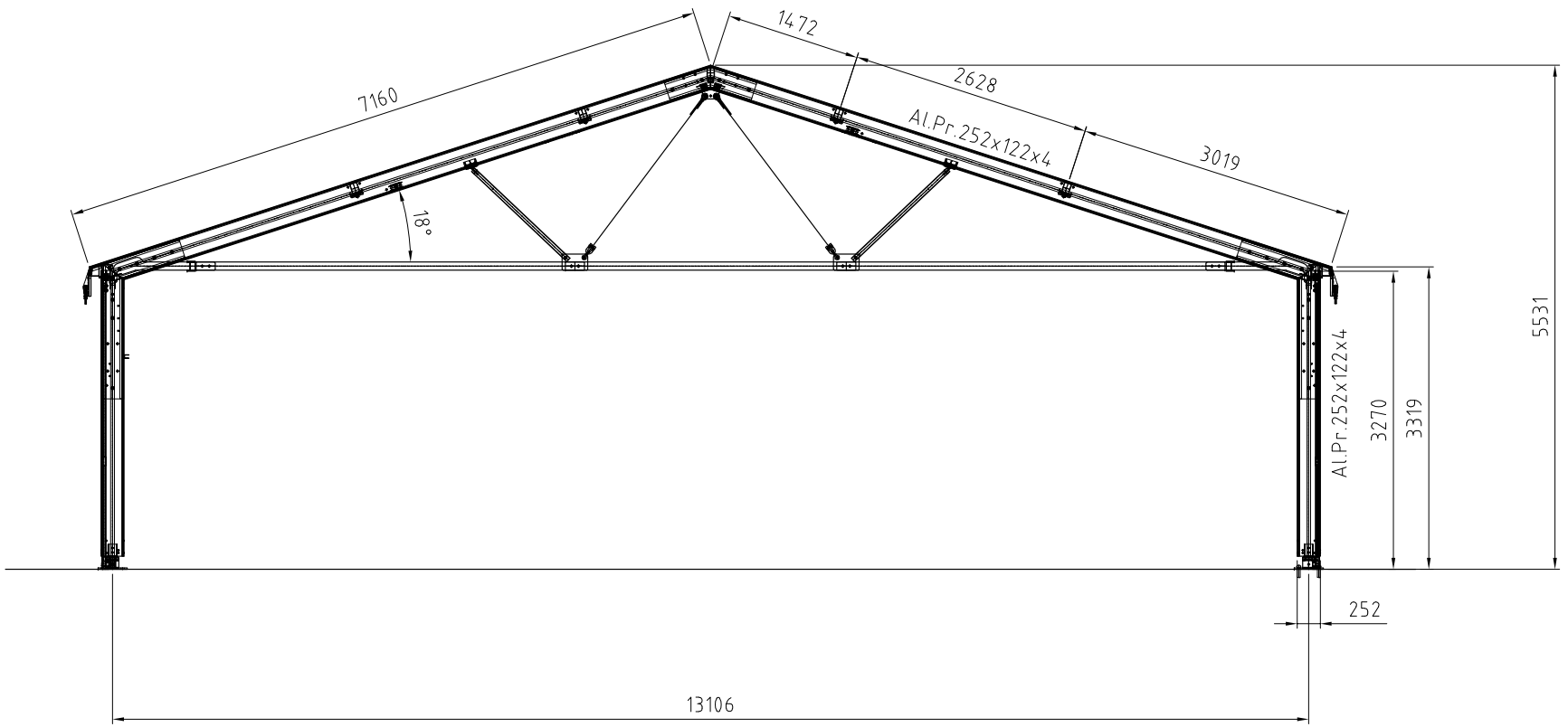
Dateiname



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Verwendungszweck	Allgemeintoleranzen	Maßstab	Gewicht
O'Neil Tents and Party Supplies LX13,106x13m, SH=3,2m	nach DIN7168 -m-	1:50	–

	Datum	Name
Bearb.	27.08.2020	pkalis
Gepr.		
Ers.f.		

Zust.	Änderungen	Datum	Name

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Middleview
Axis 2+3

LX.1310.320.E.100.001_B

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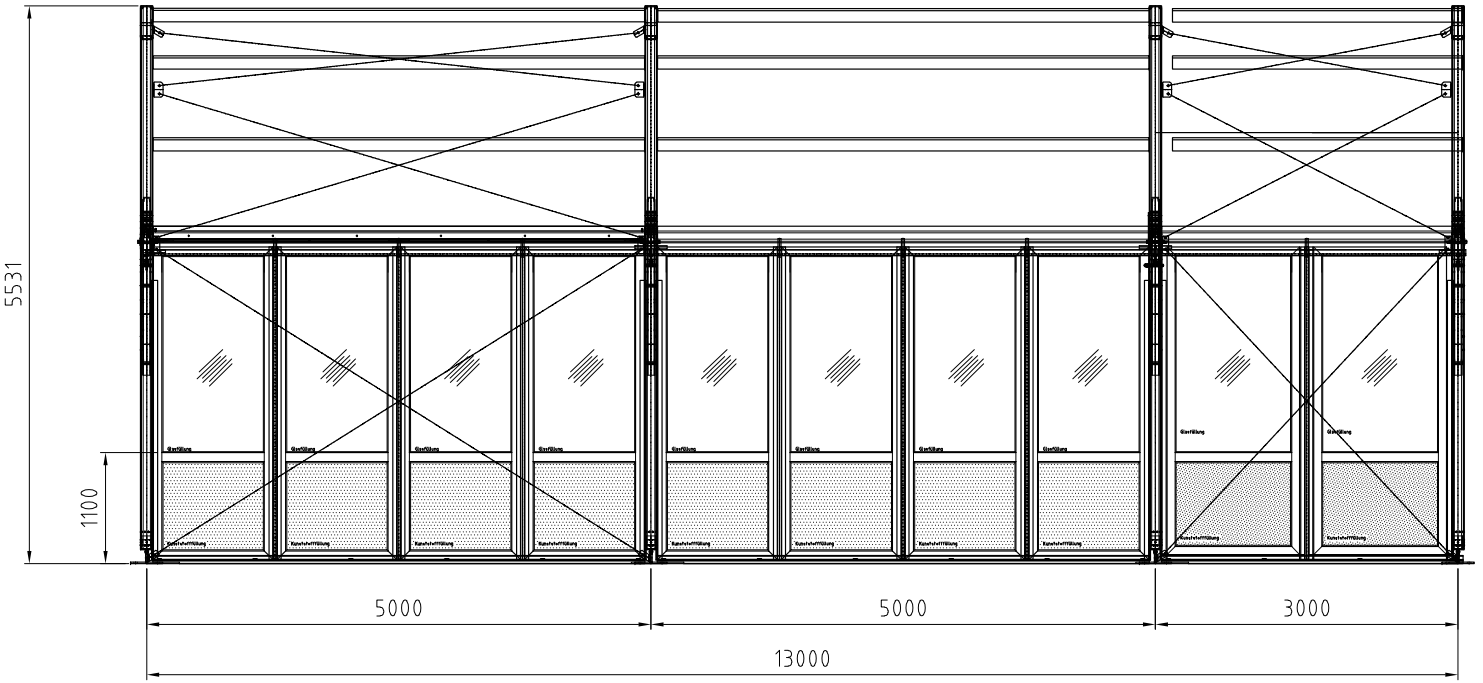
Dateiname



Die Maße sind rechnerisch ermittelte Werte
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Verwendungszweck: O'Neil Tents and Party Supplies LX13,106x13m, SH=3,2m				Allgemeintoleranzen nach DIN7168 -m-			Maßstab 1:50 / – / –	Gewicht / – / –
					Datum	Name	Sideview	
				Bearb.	27.08.2020	pkalis		
				Gepr.				
				Ers.f.				
Zust.	Änderungen	Datum	Name	HTS | tentiq			LX.1310.320.E.100.001_C	Blatt A3
							Dateiname: Z:\Schneider-TECHNIK\Angebote\ANGEBOTE 2020\Z200811_001 LX15 O Neil Tents\Z200811_004.dwg	

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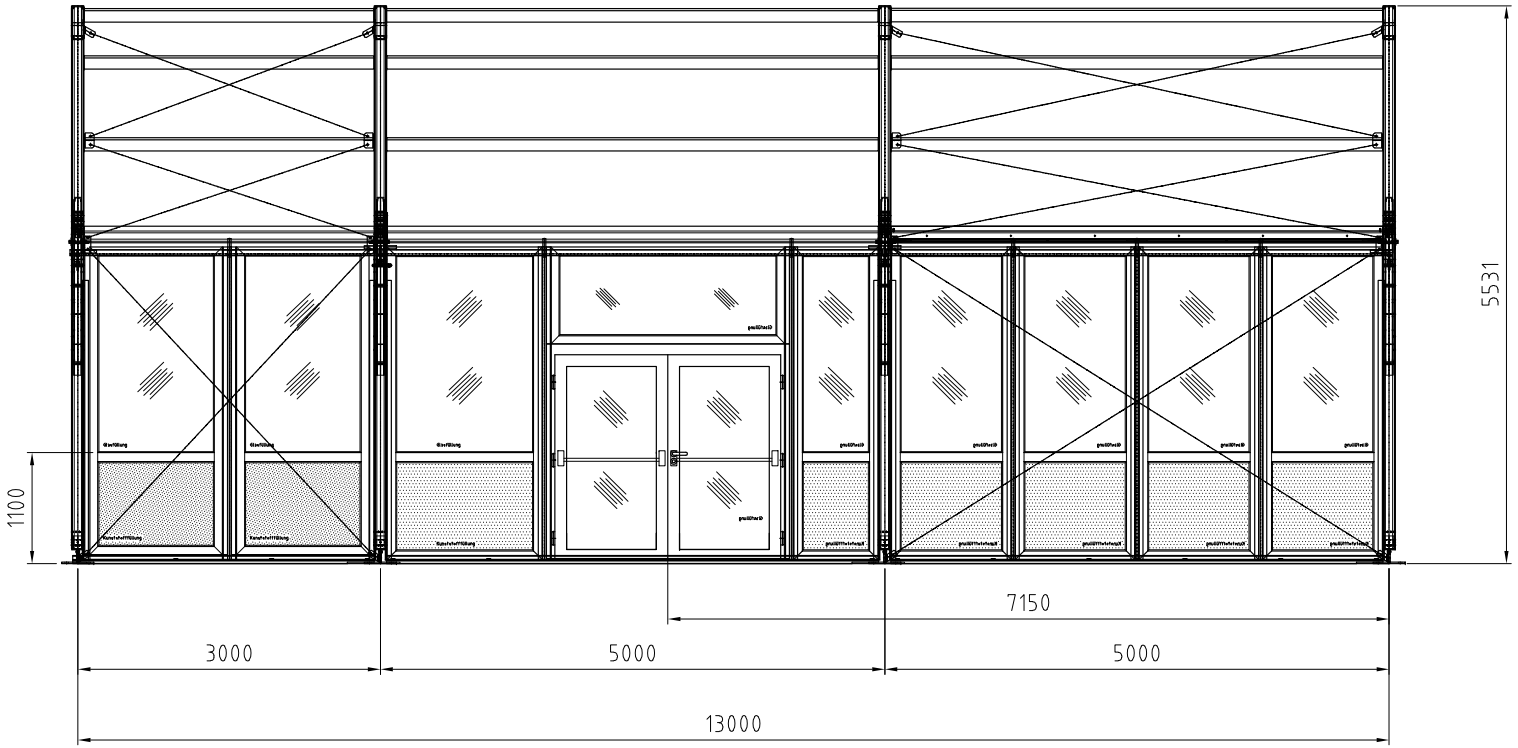

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Verwendungszweck	Allgemeintoleranzen nach DIN7168 -m-	Maßstab 1:50	Gewicht
O'Neil Tents and Party Supplies LX13,106x13m, SH=3,2m		–	–

	Datum	Name
Bearb.	27.08.2020	pkalis
Gepr.		
Ers.f.		

Zust.	Änderungen	Datum	Name

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Sideview
with door

LX.1310.320.E.100.001_D

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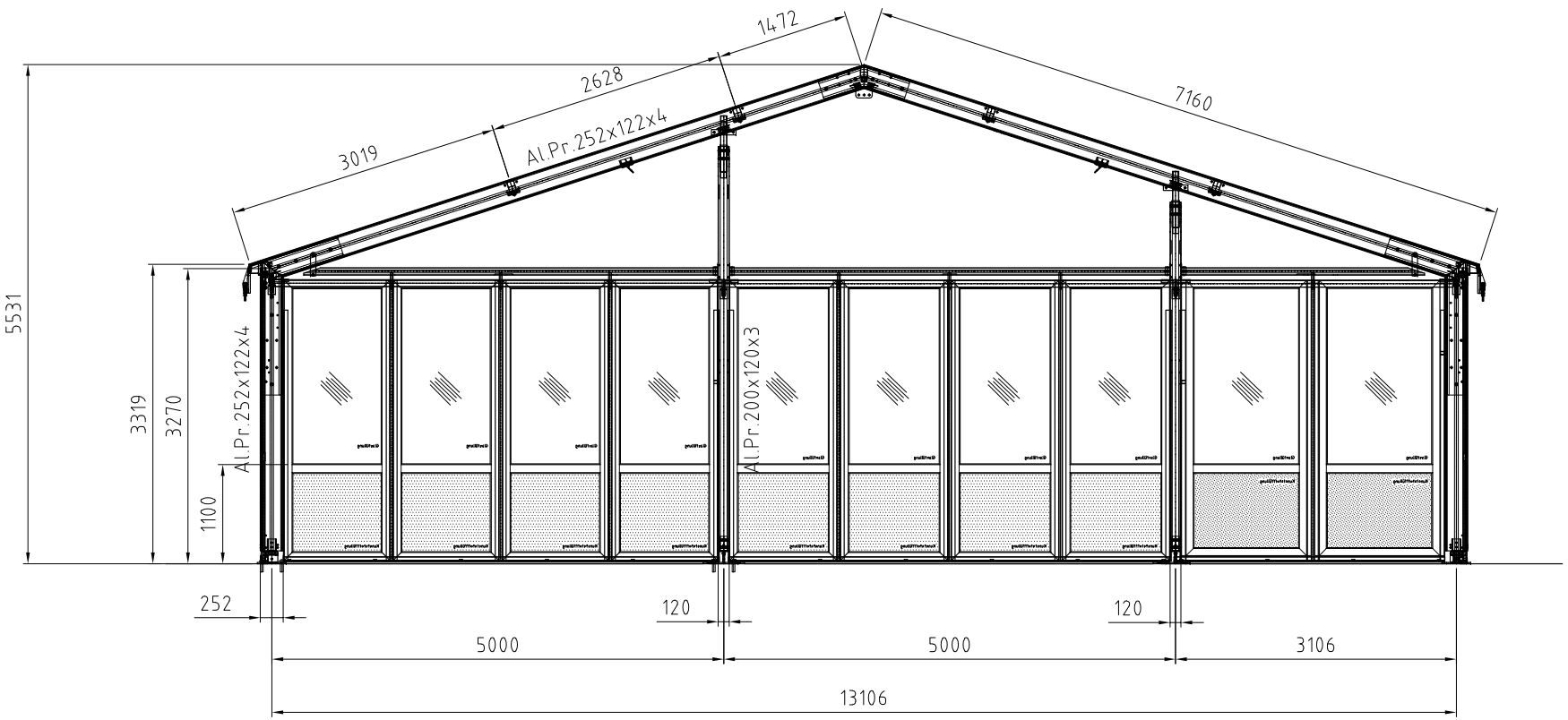


City of Dublin
OHIO, USA
Approved for Construction
TSTR-20-01223

Alle Maße sind rechnerisch ermittelte Werte
Die tatsächlichen Maße sind direkt am Objekt zu nehmen!

Verwendungszweck	Allgemeintoleranzen nach DIN7168 -m-	Maßstab 1:50	Gewicht
O'Neil Tents and Party Supplies LX13,106x13m, SH=3,2m		–	–

	Datum	Name
Bearb.	27.08.2020	pkalis
Gepr.		
Ers.f.		

Zust.	Änderungen	Datum	Name

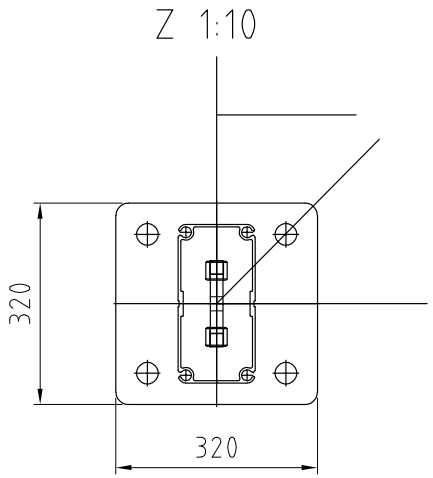
HTS | tentiq

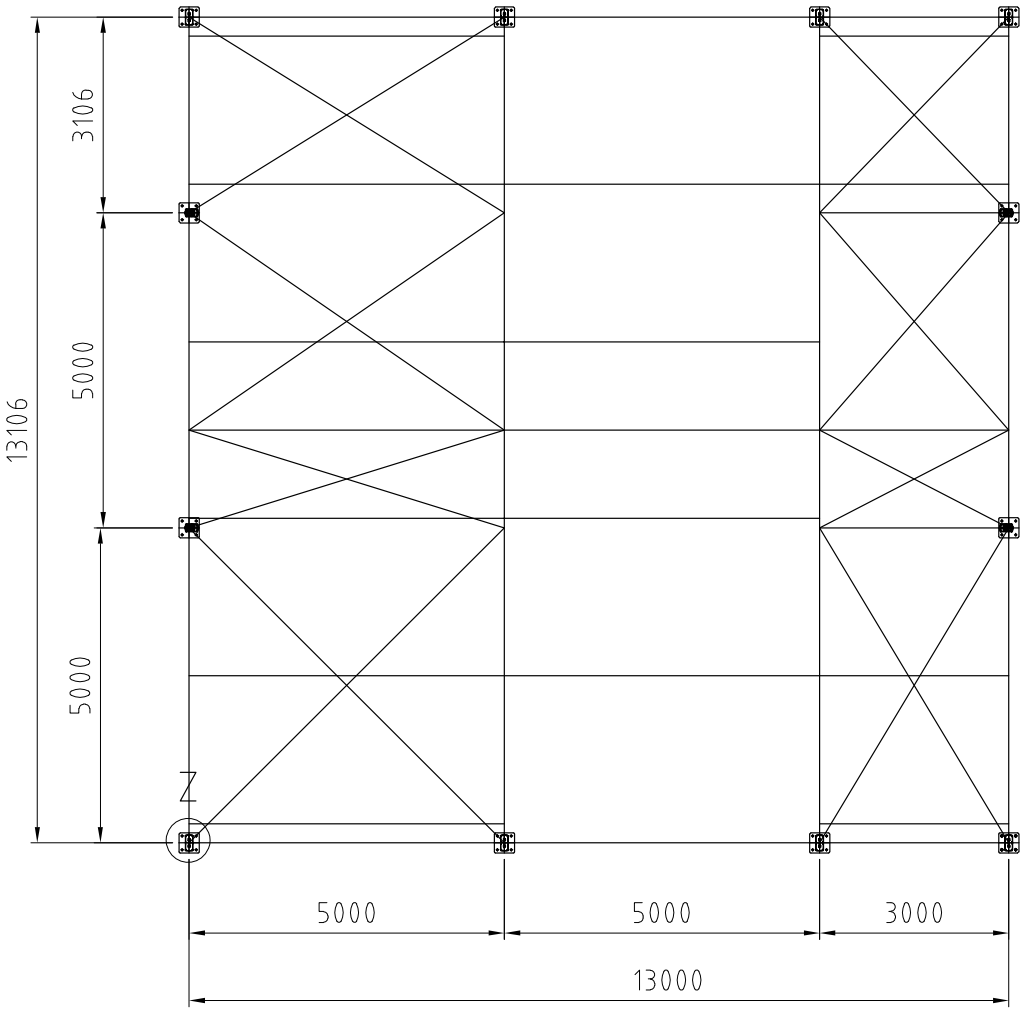
Gableview
Axis 4

LX.1310.320.E.100.001_E

Blatt A3

Dateiname





Alle Maße sind rechnerisch ermittelte Werte
Die tatsächlichen Maße sind direkt am Objekt zu nehmen!

Verwendungszweck: O'Neil Tents and Party Supplies LX13,106x13m, SH=3,2m				Allgemeintoleranzen nach DIN7168 -m-		Maßstab 1:80 / Gewicht
					Datum	Name
				Bearb.	27.08.2020	pkalis
				Gepr.		
				Ers.f.		
Zust.	Änderungen	Datum	Name	HTS | tentiq		

Baseplates

LX.1310.320.E.100.001_F

Blatt A3

Dateiname: Zeichnung1

HTS tentiQ GmbH
Hinter der SchlagmÃ¼hle 1
63699 Kefenrod
Germany

APPENDIX B

COMPUTER MODEL INPUT

HTS tentiQ GmbH
Hinter der SchlagmÃ¼hle 1
63699 Kefenrod
Germany

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Table of Contents

Nodes

Name	X in	Y in	Z in	Fix DX	Fix DY	Fix DZ	Fix RX	Fix RY	Fix RZ
A1	-257.87	0.00	0.00	Yes	Yes	Yes	No	No	No
A2	-158.66	0.00	0.00	Yes	Yes	Yes	No	No	No
A3	61.15	0.00	0.00	Yes	Yes	Yes	No	No	No
A4	257.87	0.00	0.00	Yes	Yes	Yes	No	No	No
B1	-257.87	0.00	118.11	Yes	Yes	Yes	No	No	No
B4	257.87	0.00	118.11	Yes	Yes	Yes	No	No	No
C1	-257.87	0.00	314.96	Yes	Yes	Yes	No	No	No
C4	257.87	0.00	314.96	Yes	Yes	Yes	No	No	No
D1	-257.87	0.00	511.81	Yes	Yes	Yes	No	No	No
D2	-158.66	0.00	511.81	Yes	Yes	Yes	No	No	No
D3	61.15	0.00	511.81	Yes	Yes	Yes	No	No	No
D4	257.87	0.00	511.81	Yes	Yes	Yes	No	No	No
N005	-73.20	188.85	0.00	No	No	No	No	No	No
N006	73.20	188.85	0.00	No	No	No	No	No	No
N007	-158.55	161.07	0.00	No	No	No	No	No	No
N008	-61.00	192.82	0.00	No	No	No	No	No	No
N009	0.00	212.68	0.00	No	No	No	No	No	No
N010	-73.20	188.85	511.81	No	No	No	No	No	No
N011	-257.87	128.74	0.00	No	No	No	No	No	No
N012	-257.87	74.41	0.00	No	No	No	No	No	No
N013	-239.81	134.62	0.00	No	No	No	No	No	No
N014	-19.88	206.21	0.00	No	No	No	No	No	No
N015	158.55	161.07	0.00	No	No	No	No	No	No
N016	61.00	192.82	0.00	No	No	No	No	No	No
N017	73.20	188.85	511.81	No	No	No	No	No	No
N018	257.87	74.41	0.00	No	No	No	No	No	No
N019	257.87	128.74	0.00	No	No	No	No	No	No
N020	239.81	134.62	0.00	No	No	No	No	No	No
N021	19.88	206.21	0.00	No	No	No	No	No	No
N022	0.00	212.68	118.11	No	No	No	No	No	No
N023	-73.20	188.85	118.11	No	No	No	No	No	No
N024	-257.87	128.74	118.11	No	No	No	No	No	No
N025	-158.55	161.07	118.11	No	No	No	No	No	No
N026	-61.00	192.82	118.11	No	No	No	No	No	No
N027	-257.87	74.41	118.11	No	No	No	No	No	No
N028	-239.81	134.62	118.11	No	No	No	No	No	No
N029	-19.88	206.21	118.11	No	No	No	No	No	No
N030	158.55	161.07	118.11	No	No	No	No	No	No
N031	61.00	192.82	118.11	No	No	No	No	No	No
N032	73.20	188.85	118.11	No	No	No	No	No	No
N033	257.87	74.41	118.11	No	No	No	No	No	No
N034	257.87	128.74	118.11	No	No	No	No	No	No
N035	239.81	134.62	118.11	No	No	No	No	No	No
N036	19.88	206.21	118.11	No	No	No	No	No	No
N037	-73.20	188.85	314.96	No	No	No	No	No	No
N038	73.20	188.85	314.96	No	No	No	No	No	No
N039	61.15	128.74	0.00	No	No	No	No	No	No
N040	-158.66	128.74	0.00	No	No	No	No	No	No
N041	61.15	128.74	118.11	No	No	No	No	No	No
N042	-61.15	128.74	118.11	No	No	No	No	No	No
N043	-108.88	177.24	118.11	No	No	No	No	No	No
N044	108.88	177.24	118.11	No	No	No	No	No	No
N064	0.00	212.68	314.96	No	No	No	No	No	No
N066	-257.87	128.74	314.96	No	No	No	No	No	No
N067	-158.55	161.07	314.96	No	No	No	No	No	No
N068	-61.00	192.82	314.96	No	No	No	No	No	No
N069	-257.87	74.41	314.96	No	No	No	No	No	No
N070	-239.81	134.62	314.96	No	No	No	No	No	No
N071	-19.88	206.21	314.96	No	No	No	No	No	No
N072	158.55	161.07	314.96	No	No	No	No	No	No

Nodes

Name	X in	Y in	Z in	Fix DX	Fix DY	Fix DZ	Fix RX	Fix RY	Fix RZ
N073	61.00	192.82	314.96	No	No	No	No	No	No
N075	257.87	74.41	314.96	No	No	No	No	No	No
N076	257.87	128.74	314.96	No	No	No	No	No	No
N077	239.81	134.62	314.96	No	No	No	No	No	No
N078	19.88	206.21	314.96	No	No	No	No	No	No
N079	61.15	128.74	314.96	No	No	No	No	No	No
N080	-61.15	128.74	314.96	No	No	No	No	No	No
N081	-108.88	177.24	314.96	No	No	No	No	No	No
N082	108.88	177.24	314.96	No	No	No	No	No	No
N083	0.00	212.68	511.81	No	No	No	No	No	No
N085	-257.87	128.74	511.81	No	No	No	No	No	No
N086	-158.55	161.07	511.81	No	No	No	No	No	No
N087	-61.00	192.82	511.81	No	No	No	No	No	No
N088	-257.87	74.41	511.81	No	No	No	No	No	No
N089	-239.81	134.62	511.81	No	No	No	No	No	No
N090	-19.88	206.21	511.81	No	No	No	No	No	No
N091	158.55	161.07	511.81	No	No	No	No	No	No
N092	61.00	192.82	511.81	No	No	No	No	No	No
N094	257.87	74.41	511.81	No	No	No	No	No	No
N095	257.87	128.74	511.81	No	No	No	No	No	No
N096	239.81	134.62	511.81	No	No	No	No	No	No
N097	19.88	206.21	511.81	No	No	No	No	No	No
N100	61.15	128.74	511.81	No	No	No	No	No	No
N101	-158.66	128.74	511.81	No	No	No	No	No	No

Nodal Supports

Name	Fix DX	Fix DY	Fix DZ	Fix RX	Fix RY	Fix RZ
A1	Yes	Yes	Yes	No	No	No
A2	Yes	Yes	Yes	No	No	No
A3	Yes	Yes	Yes	No	No	No
A4	Yes	Yes	Yes	No	No	No
B1	Yes	Yes	Yes	No	No	No
B4	Yes	Yes	Yes	No	No	No
C1	Yes	Yes	Yes	No	No	No
C4	Yes	Yes	Yes	No	No	No
D1	Yes	Yes	Yes	No	No	No
D2	Yes	Yes	Yes	No	No	No
D3	Yes	Yes	Yes	No	No	No
D4	Yes	Yes	Yes	No	No	No

Materials

Name	Elasticity, E psi	Poisson, ν	Density, γ lb/in^3	Thermal, α in/in/deg-F	Shear Modulus, G psi
6061-T6-E-All	10100000.00	0.33	0.10	1.30E-005	3796992.48
ASTM A36	29000000.00	0.29	0.28	6.39E-006	11240310.08
Weightless Steel (Fy = 50ksi)	29000000.00	0.29	0.00	6.39E-006	11240310.08

Service Load Cases

Name	Source	SelfWeight
D1	Other Loads	Exclude
S0	Other Loads	Exclude
S1	Other Loads	Exclude
S2	Other Loads	Exclude
S5	Other Loads	Exclude
S6	Other Loads	Exclude
W1	Other Loads	Exclude
W2	Other Loads	Exclude
W3	Other Loads	Exclude
W4	Other Loads	Exclude
W5	Other Loads	Exclude
W6	Other Loads	Exclude
W7	Other Loads	Exclude
W8	Other Loads	Exclude

Result Cases

Name	ID
1.01-1.4D1	15
3.12-1.2D1+1.6S0+0.5W1	16

Result Cases

Name	ID
3.13-1.2D1+1.6S0+0.5W2	17
3.14-1.2D1+1.6S0+0.5W3	18
3.15-1.2D1+1.6S0+0.5W4	19
3.16-1.2D1+1.6S0+0.5W5	20
3.17-1.2D1+1.6S0+0.5W6	21
3.18-1.2D1+1.6S0+0.5W7	22
3.19-1.2D1+1.6S0+0.5W8	23
3.21-1.2D1+1.6S1+0.5W1	24
3.22-1.2D1+1.6S2+0.5W2	25
3.23-1.2D1+1.6S3+0.5W3	26
3.24-1.2D1+1.6S4+0.5W4	27
3.25-1.2D1+1.6S5+0.5W5	28
3.26-1.2D1+1.6S6+0.5W6	29
3.27-1.2D1+1.6S7+0.5W7	30
3.28-1.2D1+1.6S8+0.5W8	31
6.01-0.9D1+1.0W1	32
6.02-0.9D1+1.0W2	33
6.03-0.9D1+1.0W3	34
6.04-0.9D1+1.0W4	35
6.05-0.9D1+1.0W5	36
6.06-0.9D1+1.0W6	37
6.07-0.9D1+1.0W7	38
6.08-0.9D1+1.0W8	39

HTS tentiQ GmbH
Hinter der SchlagmÃ¼hle 1
63699 Kefenrod
Germany

APPENDIX C

COMPUTER MODEL OUTPUT

HTS tentiQ GmbH
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63699 Kefenrod
Germany

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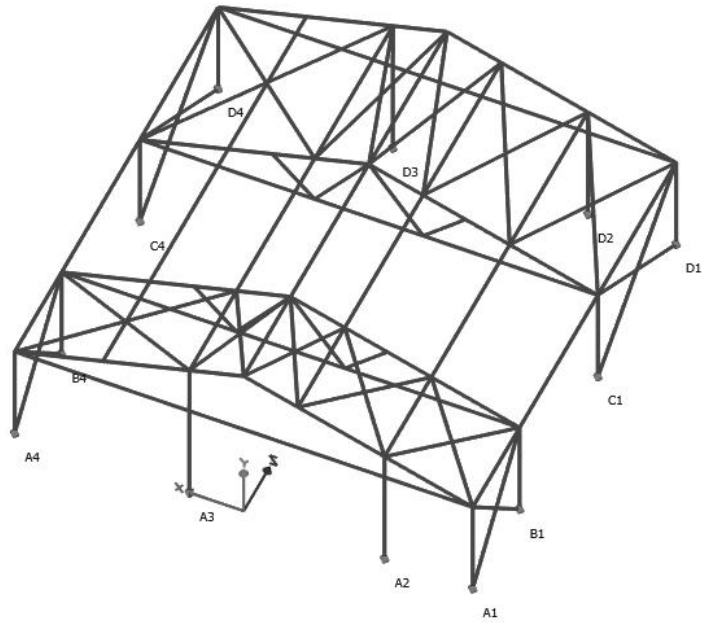


D1 - Dead Load
W1/W5- Wind, +X/-X with over-pressure
W2/W6- Wind, +X/-X with under-pressure
W3/W7- Wind, +Z/-Z with over-pressure
W4/W8- Wind, +Z/-Z with under-pressure
S0- Balanced Snow Load
S1,S2,S3,S4,S5,S6,S7,S8- Unbalanced Snow Load

Node Reactions-Service Loads

Node	Result Case	FX lb	FY lb	FZ lb	MX lb-in	MY lb-in	MZ lb-in
A1	D1	0.07	12.15	0.24	0.00	0.00	0.00
A1	S0	17.82	305.08	1.46	0.00	0.00	0.00
A1	S1	50.18	239.88	1.32	0.00	0.00	0.00
A1	S2	50.18	239.88	1.32	0.00	0.00	0.00
A1	S5	-33.09	278.38	1.29	0.00	0.00	0.00
A1	S6	-33.09	278.38	1.29	0.00	0.00	0.00
A1	W1	-666.43	-1309.80	-55.43	0.00	0.00	0.00
A1	W2	-811.21	-983.88	-29.87	0.00	0.00	0.00
A1	W3	671.56	-422.59	-514.15	0.00	0.00	0.00
A1	W4	494.31	-861.12	-1214.03	0.00	0.00	0.00
A1	W5	519.72	-31.43	-69.84	0.00	0.00	0.00
A1	W6	374.92	294.53	-41.97	0.00	0.00	0.00
A1	W7	-69.94	-289.64	206.96	0.00	0.00	0.00
A1	W8	-182.33	-577.53	48.41	0.00	0.00	0.00
A2	D1	-0.03	18.76	0.01	0.00	0.00	0.00
A2	S0	2.56	686.81	0.07	0.00	0.00	0.00
A2	S1	10.82	155.01	0.07	0.00	0.00	0.00
A2	S2	10.82	155.01	0.07	0.00	0.00	0.00
A2	S5	-8.60	940.55	0.05	0.00	0.00	0.00

Node Reactions-Service Loads

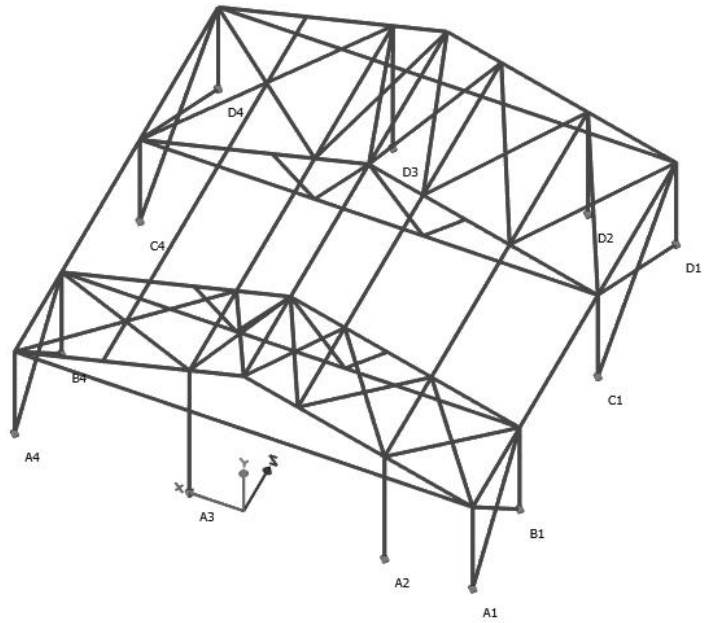
Node	Result Case	FX lb	FY lb	FZ lb	MX lb-in	MY lb-in	MZ lb-in
A2	S6	-8.60	940.55	0.05	0.00	0.00	0.00
A2	W1	-88.54	-1132.67	-0.08	0.00	0.00	0.00
A2	W2	-85.89	-688.20	-0.05	0.00	0.00	0.00
A2	W3	90.07	-2567.26	-393.74	0.00	0.00	0.00
A2	W4	85.46	-2081.72	-1036.66	0.00	0.00	0.00
A2	W5	60.70	-1426.34	-0.08	0.00	0.00	0.00
A2	W6	63.35	-981.50	-0.04	0.00	0.00	0.00
A2	W7	-79.01	88.30	840.60	0.00	0.00	0.00
A2	W8	-68.95	414.64	196.82	0.00	0.00	0.00
A3	D1	0.13	27.42	0.00	0.00	0.00	0.00
A3	S0	3.91	847.49	0.02	0.00	0.00	0.00
A3	S1	10.38	1143.03	0.02	0.00	0.00	0.00
A3	S2	10.38	1143.03	0.02	0.00	0.00	0.00
A3	S5	-3.81	316.05	0.01	0.00	0.00	0.00
A3	S6	-3.81	316.05	0.01	0.00	0.00	0.00
A3	W1	-77.20	-1764.43	-0.02	0.00	0.00	0.00
A3	W2	-74.38	-1221.55	0.00	0.00	0.00	0.00
A3	W3	73.40	-626.14	-605.87	0.00	0.00	0.00
A3	W4	69.71	-178.72	-1595.13	0.00	0.00	0.00
A3	W5	50.28	-1170.50	-0.07	0.00	0.00	0.00
A3	W6	53.10	-626.95	-0.05	0.00	0.00	0.00
A3	W7	-65.92	-1581.17	1293.49	0.00	0.00	0.00
A3	W8	-57.86	-1098.37	302.88	0.00	0.00	0.00
A4	D1	-0.60	17.23	0.25	0.00	0.00	0.00
A4	S0	-55.68	542.96	1.35	0.00	0.00	0.00
A4	S1	-30.16	459.31	1.40	0.00	0.00	0.00
A4	S2	-30.16	459.31	1.40	0.00	0.00	0.00
A4	S5	-33.61	401.10	-0.53	0.00	0.00	0.00
A4	S6	-33.61	401.10	-0.53	0.00	0.00	0.00
A4	W1	-528.77	-859.23	-61.46	0.00	0.00	0.00
A4	W2	-406.50	-381.72	-39.63	0.00	0.00	0.00
A4	W3	80.80	-1889.46	-530.37	0.00	0.00	0.00
A4	W4	178.10	-2091.42	-1411.66	0.00	0.00	0.00
A4	W5	484.35	-1218.53	-47.08	0.00	0.00	0.00
A4	W6	606.62	-742.35	-24.56	0.00	0.00	0.00
A4	W7	-404.65	202.76	407.74	0.00	0.00	0.00
A4	W8	-263.76	-36.88	95.21	0.00	0.00	0.00
B1	D1	25.91	281.56	0.61	0.00	0.00	0.00
B1	S0	321.15	2737.34	10.33	0.00	0.00	0.00
B1	S1	196.41	1637.82	1.15	0.00	0.00	0.00
B1	S2	196.41	1637.82	1.15	0.00	0.00	0.00
B1	S5	260.34	2844.08	17.71	0.00	0.00	0.00
B1	S6	260.34	2844.08	17.71	0.00	0.00	0.00
B1	W1	-1848.62	-5194.35	12.39	0.00	0.00	0.00
B1	W2	-1988.31	-3271.08	16.03	0.00	0.00	0.00
B1	W3	175.27	-4458.41	-1.15	0.00	0.00	0.00
B1	W4	45.86	-1765.93	0.23	0.00	0.00	0.00
B1	W5	423.24	-3589.24	-1.23	0.00	0.00	0.00
B1	W6	283.49	-1666.58	-0.62	0.00	0.00	0.00
B1	W7	53.70	-4374.05	716.35	0.00	0.00	0.00
B1	W8	-140.39	-1718.67	184.51	0.00	0.00	0.00
B4	D1	-25.48	281.52	0.31	0.00	0.00	0.00
B4	S0	-289.76	2721.03	1.13	0.00	0.00	0.00
B4	S1	-237.63	2806.44	3.23	0.00	0.00	0.00
B4	S2	-237.63	2806.44	3.23	0.00	0.00	0.00
B4	S5	-181.23	1661.32	0.95	0.00	0.00	0.00
B4	S6	-181.23	1661.32	0.95	0.00	0.00	0.00
B4	W1	-549.27	-4063.38	-1.84	0.00	0.00	0.00
B4	W2	-392.53	-2147.01	-1.24	0.00	0.00	0.00
B4	W3	26.61	-3445.57	-1.35	0.00	0.00	0.00
B4	W4	245.65	-795.87	-1.47	0.00	0.00	0.00
B4	W5	1484.30	-4402.57	8.84	0.00	0.00	0.00
B4	W6	1641.12	-2485.35	6.68	0.00	0.00	0.00
B4	W7	-248.28	-5148.06	653.66	0.00	0.00	0.00
B4	W8	-100.81	-2454.64	120.52	0.00	0.00	0.00
C1	D1	27.94	302.09	-0.65	0.00	0.00	0.00

Node Reactions-Service Loads

Node	Result Case	FX lb	FY lb	FZ lb	MX lb-in	MY lb-in	MZ lb-in
C1	S0	411.47	3516.35	0.32	0.00	0.00	0.00
C1	S1	255.15	2127.49	-6.99	0.00	0.00	0.00
C1	S2	255.15	2127.49	-6.99	0.00	0.00	0.00
C1	S5	327.74	3632.11	0.40	0.00	0.00	0.00
C1	S6	327.74	3632.11	0.40	0.00	0.00	0.00
C1	W1	-1957.68	-5754.26	-0.41	0.00	0.00	0.00
C1	W2	-2125.48	-3257.51	-0.31	0.00	0.00	0.00
C1	W3	284.49	-5833.35	-382.21	0.00	0.00	0.00
C1	W4	118.95	-3820.29	-978.69	0.00	0.00	0.00
C1	W5	663.37	-5545.89	0.08	0.00	0.00	0.00
C1	W6	495.26	-3049.91	-1.71	0.00	0.00	0.00
C1	W7	-232.41	-4497.76	-1.38	0.00	0.00	0.00
C1	W8	-483.13	-2572.65	0.12	0.00	0.00	0.00
C4	D1	-27.11	301.31	-0.79	0.00	0.00	0.00
C4	S0	-361.11	3465.18	-14.24	0.00	0.00	0.00
C4	S1	-292.28	3584.12	0.26	0.00	0.00	0.00
C4	S2	-292.28	3584.12	0.26	0.00	0.00	0.00
C4	S5	-229.28	2116.19	-19.67	0.00	0.00	0.00
C4	S6	-229.28	2116.19	-19.67	0.00	0.00	0.00
C4	W1	-613.92	-4651.23	-0.59	0.00	0.00	0.00
C4	W2	-417.78	-2182.55	-2.34	0.00	0.00	0.00
C4	W3	-100.11	-4666.79	-288.42	0.00	0.00	0.00
C4	W4	190.82	-2776.71	-916.42	0.00	0.00	0.00
C4	W5	2401.57	-6916.67	0.40	0.00	0.00	0.00
C4	W6	2597.41	-4447.07	0.47	0.00	0.00	0.00
C4	W7	-299.61	-5815.14	-0.15	0.00	0.00	0.00
C4	W8	-101.00	-3836.33	0.07	0.00	0.00	0.00
D1	D1	0.43	12.14	0.00	0.00	0.00	0.00
D1	S0	32.69	446.81	-0.16	0.00	0.00	0.00
D1	S1	71.19	322.78	-0.29	0.00	0.00	0.00
D1	S2	71.19	322.78	-0.29	0.00	0.00	0.00
D1	S5	-38.17	435.55	0.01	0.00	0.00	0.00
D1	S6	-38.17	435.55	0.01	0.00	0.00	0.00
D1	W1	-720.76	-1487.75	72.26	0.00	0.00	0.00
D1	W2	-961.08	-1034.29	49.81	0.00	0.00	0.00
D1	W3	835.79	221.33	1.15	0.00	0.00	0.00
D1	W4	546.87	1006.09	3.61	0.00	0.00	0.00
D1	W5	999.18	-33.85	24.60	0.00	0.00	0.00
D1	W6	759.12	419.99	4.51	0.00	0.00	0.00
D1	W7	-163.26	-2721.43	889.94	0.00	0.00	0.00
D1	W8	-366.68	-1703.38	247.46	0.00	0.00	0.00
D2	D1	0.04	23.21	0.01	0.00	0.00	0.00
D2	S0	5.18	1094.66	0.03	0.00	0.00	0.00
D2	S1	15.38	239.69	0.03	0.00	0.00	0.00
D2	S2	15.38	239.69	0.03	0.00	0.00	0.00
D2	S5	-10.28	1500.96	0.01	0.00	0.00	0.00
D2	S6	-10.28	1500.96	0.01	0.00	0.00	0.00
D2	W1	-104.81	-1230.30	-0.09	0.00	0.00	0.00
D2	W2	-99.99	-522.71	-0.06	0.00	0.00	0.00
D2	W3	87.76	-2688.86	-0.57	0.00	0.00	0.00
D2	W4	81.26	-1821.79	-1.54	0.00	0.00	0.00
D2	W5	97.82	-2683.21	-0.07	0.00	0.00	0.00
D2	W6	102.70	-1975.70	-0.03	0.00	0.00	0.00
D2	W7	-147.12	-144.56	1.09	0.00	0.00	0.00
D2	W8	-134.03	516.35	0.21	0.00	0.00	0.00
D3	D1	0.15	30.51	0.00	0.00	0.00	0.00
D3	S0	6.33	1318.41	0.01	0.00	0.00	0.00
D3	S1	14.10	1790.87	0.01	0.00	0.00	0.00
D3	S2	14.10	1790.87	0.01	0.00	0.00	0.00
D3	S5	-3.60	478.33	0.00	0.00	0.00	0.00
D3	S6	-3.60	478.33	0.00	0.00	0.00	0.00
D3	W1	-90.45	-2090.48	0.00	0.00	0.00	0.00
D3	W2	-85.93	-1251.05	0.01	0.00	0.00	0.00
D3	W3	72.65	-728.70	0.02	0.00	0.00	0.00
D3	W4	68.97	172.56	0.09	0.00	0.00	0.00
D3	W5	82.76	-2790.35	-0.05	0.00	0.00	0.00

Node Reactions-Service Loads

Node	Result Case	FX lb	FY lb	FZ lb	MX lb-in	MY lb-in	MZ lb-in
D3	W6	87.33	-1949.70	-0.04	0.00	0.00	0.00
D3	W7	-123.91	-3798.28	-0.13	0.00	0.00	0.00
D3	W8	-111.90	-2847.38	-0.04	0.00	0.00	0.00
D4	D1	-1.45	19.91	0.01	0.00	0.00	0.00
D4	S0	-94.56	855.57	-0.31	0.00	0.00	0.00
D4	S1	-63.55	720.41	-0.20	0.00	0.00	0.00
D4	S2	-63.55	720.41	-0.20	0.00	0.00	0.00
D4	S5	-46.40	625.81	-0.23	0.00	0.00	0.00
D4	S6	-46.40	625.81	-0.23	0.00	0.00	0.00
D4	W1	-635.41	-938.40	35.26	0.00	0.00	0.00
D4	W2	-431.39	-222.81	7.64	0.00	0.00	0.00
D4	W3	-72.02	-1451.36	0.82	0.00	0.00	0.00
D4	W4	103.04	-226.09	1.15	0.00	0.00	0.00
D4	W5	1111.09	-2324.31	84.49	0.00	0.00	0.00
D4	W6	1315.35	-1610.38	57.37	0.00	0.00	0.00
D4	W7	-655.62	-2004.35	790.54	0.00	0.00	0.00
D4	W8	-422.67	-860.13	161.74	0.00	0.00	0.00



D1 - Dead Load
W1/W5- Wind, +X/-X with over-pressure
W2/W6- Wind, +X/-X with under-pressure
W3/W7- Wind, +Z/-Z with over-pressure
W4/W8- Wind, +Z/-Z with under-pressure
S0- Balanced Snow Load
S1,S2,S3,S4,S5,S6,S7,S8- Unbalanced Snow Load

Node Reactions-Combined Loads

Node	Result Case	FX lb	FY lb	FZ lb	MX lb-in	MY lb-in	MZ lb-in
A1	1.01-1.4D1	0.10	17.01	0.34	0.00	0.00	0.00
A1	3.12-1.2D1+1.6S0+0.5W1	-301.89	-89.06	1.42	0.00	0.00	0.00
A1	3.13-1.2D1+1.6S0+0.5W2	-375.68	48.24	1.90	0.00	0.00	0.00
A1	3.14-1.2D1+1.6S0+0.5W3	305.68	218.75	-208.14	0.00	0.00	0.00
A1	3.15-1.2D1+1.6S0+0.5W4	230.66	26.29	-563.48	0.00	0.00	0.00
A1	3.16-1.2D1+1.6S0+0.5W5	291.28	539.49	1.58	0.00	0.00	0.00
A1	3.17-1.2D1+1.6S0+0.5W6	217.53	673.36	2.05	0.00	0.00	0.00
A1	3.18-1.2D1+1.6S0+0.5W7	45.23	485.26	105.64	0.00	0.00	0.00
A1	3.19-1.2D1+1.6S0+0.5W8	-26.52	296.90	26.69	0.00	0.00	0.00
A1	3.21-1.2D1+1.6S1+0.5W1	-214.99	-118.70	1.33	0.00	0.00	0.00
A1	3.22-1.2D1+1.6S2+0.5W2	-304.35	-18.11	1.77	0.00	0.00	0.00
A1	3.23-1.2D1+1.6S3+0.5W3	331.76	-195.12	-253.10	0.00	0.00	0.00
A1	3.24-1.2D1+1.6S4+0.5W4	243.11	-417.06	-603.25	0.00	0.00	0.00
A1	3.25-1.2D1+1.6S5+0.5W5	177.62	447.65	1.54	0.00	0.00	0.00
A1	3.26-1.2D1+1.6S6+0.5W6	120.29	608.64	1.92	0.00	0.00	0.00
A1	3.27-1.2D1+1.6S7+0.5W7	-30.06	-112.68	103.78	0.00	0.00	0.00
A1	3.28-1.2D1+1.6S8+0.5W8	-86.46	-256.91	24.47	0.00	0.00	0.00
A1	6.01-0.9D1+1.0W1	-666.24	-1290.00	-52.49	0.00	0.00	0.00
A1	6.02-0.9D1+1.0W2	-811.01	-964.04	-26.92	0.00	0.00	0.00

LIGHTWEIGHT DESIGN, INC

Node Reactions-Combined Loads

Node	Result Case	FX lb	FY lb	FZ lb	MX lb-in	MY lb-in	MZ lb-in
A1	6.03-0.9D1+1.0W3	668.52	-410.86	-511.21	0.00	0.00	0.00
A1	6.04-0.9D1+1.0W4	491.27	-851.05	-1211.20	0.00	0.00	0.00
A1	6.05-0.9D1+1.0W5	519.90	-11.59	-66.05	0.00	0.00	0.00
A1	6.06-0.9D1+1.0W6	375.09	315.97	-37.01	0.00	0.00	0.00
A1	6.07-0.9D1+1.0W7	-66.26	-265.53	207.18	0.00	0.00	0.00
A1	6.08-0.9D1+1.0W8	-178.83	-553.31	48.57	0.00	0.00	0.00
A2	1.01-1.4D1	-0.05	26.27	0.02	0.00	0.00	0.00
A2	3.12-1.2D1+1.6S0+0.5W1	-39.61	554.25	0.06	0.00	0.00	0.00
A2	3.13-1.2D1+1.6S0+0.5W2	-38.58	777.10	0.08	0.00	0.00	0.00
A2	3.14-1.2D1+1.6S0+0.5W3	35.57	-36.75	-196.79	0.00	0.00	0.00
A2	3.15-1.2D1+1.6S0+0.5W4	36.41	171.18	-518.24	0.00	0.00	0.00
A2	3.16-1.2D1+1.6S0+0.5W5	34.95	405.97	0.07	0.00	0.00	0.00
A2	3.17-1.2D1+1.6S0+0.5W6	35.99	628.72	0.09	0.00	0.00	0.00
A2	3.18-1.2D1+1.6S0+0.5W7	-23.73	1067.83	420.48	0.00	0.00	0.00
A2	3.19-1.2D1+1.6S0+0.5W8	-22.14	1251.52	98.53	0.00	0.00	0.00
A2	3.21-1.2D1+1.6S1+0.5W1	-18.40	-370.10	0.07	0.00	0.00	0.00
A2	3.22-1.2D1+1.6S2+0.5W2	-20.91	-114.89	0.09	0.00	0.00	0.00
A2	3.23-1.2D1+1.6S3+0.5W3	44.04	-1251.13	-196.86	0.00	0.00	0.00
A2	3.24-1.2D1+1.6S4+0.5W4	41.74	-1009.37	-518.32	0.00	0.00	0.00
A2	3.25-1.2D1+1.6S5+0.5W5	9.72	884.46	0.05	0.00	0.00	0.00
A2	3.26-1.2D1+1.6S6+0.5W6	14.52	1070.42	0.07	0.00	0.00	0.00
A2	3.27-1.2D1+1.6S7+0.5W7	-38.44	58.43	420.31	0.00	0.00	0.00
A2	3.28-1.2D1+1.6S8+0.5W8	-33.44	221.38	98.42	0.00	0.00	0.00
A2	6.01-0.9D1+1.0W1	-88.55	-1115.42	-0.08	0.00	0.00	0.00
A2	6.02-0.9D1+1.0W2	-85.90	-670.97	-0.04	0.00	0.00	0.00
A2	6.03-0.9D1+1.0W3	89.32	-2543.06	-393.73	0.00	0.00	0.00
A2	6.04-0.9D1+1.0W4	84.72	-2058.15	-1036.65	0.00	0.00	0.00
A2	6.05-0.9D1+1.0W5	60.69	-1408.98	-0.07	0.00	0.00	0.00
A2	6.06-0.9D1+1.0W6	63.33	-963.95	-0.03	0.00	0.00	0.00
A2	6.07-0.9D1+1.0W7	-78.21	99.01	840.61	0.00	0.00	0.00
A2	6.08-0.9D1+1.0W8	-68.18	425.34	196.83	0.00	0.00	0.00
A3	1.01-1.4D1	0.18	38.39	0.00	0.00	0.00	0.00
A3	3.12-1.2D1+1.6S0+0.5W1	-31.77	514.95	0.02	0.00	0.00	0.00
A3	3.13-1.2D1+1.6S0+0.5W2	-30.58	782.03	0.03	0.00	0.00	0.00
A3	3.14-1.2D1+1.6S0+0.5W3	31.41	994.09	-302.90	0.00	0.00	0.00
A3	3.15-1.2D1+1.6S0+0.5W4	32.05	1224.16	-797.57	0.00	0.00	0.00
A3	3.16-1.2D1+1.6S0+0.5W5	31.88	809.38	0.00	0.00	0.00	0.00
A3	3.17-1.2D1+1.6S0+0.5W6	33.08	1076.44	0.01	0.00	0.00	0.00
A3	3.18-1.2D1+1.6S0+0.5W7	-16.41	686.70	646.83	0.00	0.00	0.00
A3	3.19-1.2D1+1.6S0+0.5W8	-15.58	882.57	151.47	0.00	0.00	0.00
A3	3.21-1.2D1+1.6S1+0.5W1	-14.57	1038.48	0.02	0.00	0.00	0.00
A3	3.22-1.2D1+1.6S2+0.5W2	-16.41	1282.70	0.03	0.00	0.00	0.00
A3	3.23-1.2D1+1.6S3+0.5W3	36.03	-283.70	-302.93	0.00	0.00	0.00
A3	3.24-1.2D1+1.6S4+0.5W4	34.17	-62.11	-797.57	0.00	0.00	0.00
A3	3.25-1.2D1+1.6S5+0.5W5	13.43	-72.15	-0.01	0.00	0.00	0.00
A3	3.26-1.2D1+1.6S6+0.5W6	17.74	211.26	0.00	0.00	0.00	0.00
A3	3.27-1.2D1+1.6S7+0.5W7	-31.84	-747.75	646.75	0.00	0.00	0.00
A3	3.28-1.2D1+1.6S8+0.5W8	-27.85	-507.93	151.45	0.00	0.00	0.00
A3	6.01-0.9D1+1.0W1	-77.08	-1738.93	-0.02	0.00	0.00	0.00
A3	6.02-0.9D1+1.0W2	-74.26	-1196.02	0.00	0.00	0.00	0.00
A3	6.03-0.9D1+1.0W3	72.90	-604.56	-605.87	0.00	0.00	0.00
A3	6.04-0.9D1+1.0W4	69.20	-158.38	-1595.14	0.00	0.00	0.00
A3	6.05-0.9D1+1.0W5	50.39	-1144.81	-0.07	0.00	0.00	0.00
A3	6.06-0.9D1+1.0W6	53.21	-600.94	-0.05	0.00	0.00	0.00
A3	6.07-0.9D1+1.0W7	-65.08	-1549.04	1293.49	0.00	0.00	0.00
A3	6.08-0.9D1+1.0W8	-57.05	-1067.24	302.88	0.00	0.00	0.00
A4	1.01-1.4D1	-0.84	24.12	0.35	0.00	0.00	0.00
A4	3.12-1.2D1+1.6S0+0.5W1	-353.35	516.94	1.19	0.00	0.00	0.00
A4	3.13-1.2D1+1.6S0+0.5W2	-292.79	733.64	1.62	0.00	0.00	0.00
A4	3.14-1.2D1+1.6S0+0.5W3	-94.13	48.30	-255.12	0.00	0.00	0.00
A4	3.15-1.2D1+1.6S0+0.5W4	-36.16	-64.65	-693.92	0.00	0.00	0.00
A4	3.16-1.2D1+1.6S0+0.5W5	153.18	324.70	1.72	0.00	0.00	0.00
A4	3.17-1.2D1+1.6S0+0.5W6	213.76	541.39	2.15	0.00	0.00	0.00
A4	3.18-1.2D1+1.6S0+0.5W7	-254.05	976.17	206.20	0.00	0.00	0.00
A4	3.19-1.2D1+1.6S0+0.5W8	-195.99	854.29	50.18	0.00	0.00	0.00
A4	3.21-1.2D1+1.6S1+0.5W1	-286.25	352.45	1.44	0.00	0.00	0.00

Node Reactions-Combined Loads

Node	Result Case	FX lb	FY lb	FZ lb	MX lb-in	MY lb-in	MZ lb-in
A4	3.22-1.2D1+1.6S2+0.5W2	-237.36	575.89	1.75	0.00	0.00	0.00
A4	3.23-1.2D1+1.6S3+0.5W3	36.51	-908.29	-261.83	0.00	0.00	0.00
A4	3.24-1.2D1+1.6S4+0.5W4	85.09	-1013.20	-703.77	0.00	0.00	0.00
A4	3.25-1.2D1+1.6S5+0.5W5	165.72	136.91	-6.65	0.00	0.00	0.00
A4	3.26-1.2D1+1.6S6+0.5W6	237.92	337.00	-0.61	0.00	0.00	0.00
A4	3.27-1.2D1+1.6S7+0.5W7	-199.47	123.94	204.12	0.00	0.00	0.00
A4	3.28-1.2D1+1.6S8+0.5W8	-129.26	4.18	47.85	0.00	0.00	0.00
A4	6.01-0.9D1+1.0W1	-529.38	-835.33	-58.17	0.00	0.00	0.00
A4	6.02-0.9D1+1.0W2	-407.10	-356.64	-35.26	0.00	0.00	0.00
A4	6.03-0.9D1+1.0W3	77.85	-1862.30	-527.73	0.00	0.00	0.00
A4	6.04-0.9D1+1.0W4	175.12	-2067.14	-1410.15	0.00	0.00	0.00
A4	6.05-0.9D1+1.0W5	483.74	-1193.83	-44.18	0.00	0.00	0.00
A4	6.06-0.9D1+1.0W6	606.01	-717.14	-21.62	0.00	0.00	0.00
A4	6.07-0.9D1+1.0W7	-402.51	219.68	407.93	0.00	0.00	0.00
A4	6.08-0.9D1+1.0W8	-261.80	-19.76	95.38	0.00	0.00	0.00
B1	1.01-1.4D1	36.27	394.19	0.86	0.00	0.00	0.00
B1	3.12-1.2D1+1.6S0+0.5W1	-255.46	2054.82	25.83	0.00	0.00	0.00
B1	3.13-1.2D1+1.6S0+0.5W2	-374.01	3043.28	29.48	0.00	0.00	0.00
B1	3.14-1.2D1+1.6S0+0.5W3	827.59	2490.93	1.44	0.00	0.00	0.00
B1	3.15-1.2D1+1.6S0+0.5W4	713.97	3836.06	2.00	0.00	0.00	0.00
B1	3.16-1.2D1+1.6S0+0.5W5	864.52	2870.15	1.42	0.00	0.00	0.00
B1	3.17-1.2D1+1.6S0+0.5W6	745.94	3862.13	1.83	0.00	0.00	0.00
B1	3.18-1.2D1+1.6S0+0.5W7	627.31	2448.42	373.87	0.00	0.00	0.00
B1	3.19-1.2D1+1.6S0+0.5W8	513.21	3821.33	110.65	0.00	0.00	0.00
B1	3.21-1.2D1+1.6S1+0.5W1	-573.01	260.91	3.21	0.00	0.00	0.00
B1	3.22-1.2D1+1.6S2+0.5W2	-639.47	1268.66	7.19	0.00	0.00	0.00
B1	3.23-1.2D1+1.6S3+0.5W3	131.81	-1899.64	-0.31	0.00	0.00	0.00
B1	3.24-1.2D1+1.6S4+0.5W4	67.40	-549.10	0.31	0.00	0.00	0.00
B1	3.25-1.2D1+1.6S5+0.5W5	730.22	3043.42	26.35	0.00	0.00	0.00
B1	3.26-1.2D1+1.6S6+0.5W6	630.84	4031.75	21.82	0.00	0.00	0.00
B1	3.27-1.2D1+1.6S7+0.5W7	61.43	-1863.84	360.87	0.00	0.00	0.00
B1	3.28-1.2D1+1.6S8+0.5W8	-35.33	-535.08	95.13	0.00	0.00	0.00
B1	6.01-0.9D1+1.0W1	-1815.81	-4950.42	13.57	0.00	0.00	0.00
B1	6.02-0.9D1+1.0W2	-1955.51	-3027.19	17.22	0.00	0.00	0.00
B1	6.03-0.9D1+1.0W3	208.45	-4210.53	-0.96	0.00	0.00	0.00
B1	6.04-0.9D1+1.0W4	79.22	-1515.41	0.38	0.00	0.00	0.00
B1	6.05-0.9D1+1.0W5	456.04	-3345.51	-1.05	0.00	0.00	0.00
B1	6.06-0.9D1+1.0W6	316.27	-1424.73	-0.44	0.00	0.00	0.00
B1	6.07-0.9D1+1.0W7	79.63	-4131.66	718.37	0.00	0.00	0.00
B1	6.08-0.9D1+1.0W8	-114.25	-1476.00	186.79	0.00	0.00	0.00
B4	1.01-1.4D1	-35.67	394.13	0.44	0.00	0.00	0.00
B4	3.12-1.2D1+1.6S0+0.5W1	-897.34	2597.68	0.98	0.00	0.00	0.00
B4	3.13-1.2D1+1.6S0+0.5W2	-767.79	3580.50	1.33	0.00	0.00	0.00
B4	3.14-1.2D1+1.6S0+0.5W3	-547.26	2891.48	1.03	0.00	0.00	0.00
B4	3.15-1.2D1+1.6S0+0.5W4	-417.39	4231.08	1.08	0.00	0.00	0.00
B4	3.16-1.2D1+1.6S0+0.5W5	135.48	2442.51	1.52	0.00	0.00	0.00
B4	3.17-1.2D1+1.6S0+0.5W6	264.99	3425.38	1.88	0.00	0.00	0.00
B4	3.18-1.2D1+1.6S0+0.5W7	-785.40	2096.21	355.91	0.00	0.00	0.00
B4	3.19-1.2D1+1.6S0+0.5W8	-660.03	3469.20	83.32	0.00	0.00	0.00
B4	3.21-1.2D1+1.6S1+0.5W1	-772.20	2747.78	9.74	0.00	0.00	0.00
B4	3.22-1.2D1+1.6S2+0.5W2	-660.91	3731.78	1.47	0.00	0.00	0.00
B4	3.23-1.2D1+1.6S3+0.5W3	-21.29	-1400.45	-0.43	0.00	0.00	0.00
B4	3.24-1.2D1+1.6S4+0.5W4	88.04	-70.17	-0.54	0.00	0.00	0.00
B4	3.25-1.2D1+1.6S5+0.5W5	414.60	713.15	1.19	0.00	0.00	0.00
B4	3.26-1.2D1+1.6S6+0.5W6	489.99	1709.59	1.52	0.00	0.00	0.00
B4	3.27-1.2D1+1.6S7+0.5W7	-168.68	-2242.64	329.43	0.00	0.00	0.00
B4	3.28-1.2D1+1.6S8+0.5W8	-94.71	-894.97	62.79	0.00	0.00	0.00
B4	6.01-0.9D1+1.0W1	-581.78	-3818.98	-1.66	0.00	0.00	0.00
B4	6.02-0.9D1+1.0W2	-425.05	-1903.80	-1.06	0.00	0.00	0.00
B4	6.03-0.9D1+1.0W3	0.66	-3203.35	-1.18	0.00	0.00	0.00
B4	6.04-0.9D1+1.0W4	219.56	-549.87	-1.31	0.00	0.00	0.00
B4	6.05-0.9D1+1.0W5	1451.82	-4159.11	9.91	0.00	0.00	0.00
B4	6.06-0.9D1+1.0W6	1608.68	-2242.63	7.82	0.00	0.00	0.00
B4	6.07-0.9D1+1.0W7	-281.68	-4899.52	655.62	0.00	0.00	0.00
B4	6.08-0.9D1+1.0W8	-133.99	-2205.67	122.34	0.00	0.00	0.00
C1	1.01-1.4D1	39.12	422.92	-0.92	0.00	0.00	0.00

Node Reactions-Combined Loads

Node	Result Case	FX lb	FY lb	FZ lb	MX lb-in	MY lb-in	MZ lb-in
C1	3.12-1.2D1+1.6S0+0.5W1	-158.47	3061.21	0.32	0.00	0.00	0.00
C1	3.13-1.2D1+1.6S0+0.5W2	-303.36	4326.88	0.42	0.00	0.00	0.00
C1	3.14-1.2D1+1.6S0+0.5W3	1039.93	3111.60	-200.45	0.00	0.00	0.00
C1	3.15-1.2D1+1.6S0+0.5W4	891.13	4099.10	-503.94	0.00	0.00	0.00
C1	3.16-1.2D1+1.6S0+0.5W5	1184.58	3180.59	-8.98	0.00	0.00	0.00
C1	3.17-1.2D1+1.6S0+0.5W6	1039.74	4448.49	-5.56	0.00	0.00	0.00
C1	3.18-1.2D1+1.6S0+0.5W7	671.54	3621.38	-0.10	0.00	0.00	0.00
C1	3.19-1.2D1+1.6S0+0.5W8	523.91	4626.77	0.64	0.00	0.00	0.00
C1	3.21-1.2D1+1.6S1+0.5W1	-529.36	797.69	-15.47	0.00	0.00	0.00
C1	3.22-1.2D1+1.6S2+0.5W2	-610.78	2087.94	-8.12	0.00	0.00	0.00
C1	3.23-1.2D1+1.6S3+0.5W3	190.21	-2555.91	-193.24	0.00	0.00	0.00
C1	3.24-1.2D1+1.6S4+0.5W4	107.16	-1547.54	-491.61	0.00	0.00	0.00
C1	3.25-1.2D1+1.6S5+0.5W5	990.89	3406.91	0.74	0.00	0.00	0.00
C1	3.26-1.2D1+1.6S6+0.5W6	870.60	4658.50	0.79	0.00	0.00	0.00
C1	3.27-1.2D1+1.6S7+0.5W7	-78.00	-1897.28	-0.58	0.00	0.00	0.00
C1	3.28-1.2D1+1.6S8+0.5W8	-203.06	-933.95	0.11	0.00	0.00	0.00
C1	6.01-0.9D1+1.0W1	-1922.49	-5488.13	-0.35	0.00	0.00	0.00
C1	6.02-0.9D1+1.0W2	-2090.27	-2991.36	-0.25	0.00	0.00	0.00
C1	6.03-0.9D1+1.0W3	320.38	-5562.51	-383.84	0.00	0.00	0.00
C1	6.04-0.9D1+1.0W4	154.75	-3548.22	-980.40	0.00	0.00	0.00
C1	6.05-0.9D1+1.0W5	698.48	-5280.00	-0.69	0.00	0.00	0.00
C1	6.06-0.9D1+1.0W6	530.23	-2785.33	-3.00	0.00	0.00	0.00
C1	6.07-0.9D1+1.0W7	-203.76	-4234.06	-1.29	0.00	0.00	0.00
C1	6.08-0.9D1+1.0W8	-454.18	-2308.55	0.08	0.00	0.00	0.00
C4	1.01-1.4D1	-37.95	421.83	-1.10	0.00	0.00	0.00
C4	3.12-1.2D1+1.6S0+0.5W1	-1065.17	3553.94	-29.23	0.00	0.00	0.00
C4	3.13-1.2D1+1.6S0+0.5W2	-902.70	4801.85	-34.09	0.00	0.00	0.00
C4	3.14-1.2D1+1.6S0+0.5W3	-731.23	3488.04	-197.09	0.00	0.00	0.00
C4	3.15-1.2D1+1.6S0+0.5W4	-565.11	4460.29	-502.46	0.00	0.00	0.00
C4	3.16-1.2D1+1.6S0+0.5W5	421.18	2422.34	2.48	0.00	0.00	0.00
C4	3.17-1.2D1+1.6S0+0.5W6	583.70	3670.17	-2.44	0.00	0.00	0.00
C4	3.18-1.2D1+1.6S0+0.5W7	-1028.12	3054.65	0.63	0.00	0.00	0.00
C4	3.19-1.2D1+1.6S0+0.5W8	-861.95	4044.11	0.67	0.00	0.00	0.00
C4	3.21-1.2D1+1.6S1+0.5W1	-911.12	3772.85	0.23	0.00	0.00	0.00
C4	3.22-1.2D1+1.6S2+0.5W2	-772.02	5008.48	-3.39	0.00	0.00	0.00
C4	3.23-1.2D1+1.6S3+0.5W3	-86.62	-1984.37	-149.98	0.00	0.00	0.00
C4	3.24-1.2D1+1.6S4+0.5W4	58.00	-1035.33	-462.19	0.00	0.00	0.00
C4	3.25-1.2D1+1.6S5+0.5W5	793.34	204.04	-23.73	0.00	0.00	0.00
C4	3.26-1.2D1+1.6S6+0.5W6	888.90	1474.14	-26.08	0.00	0.00	0.00
C4	3.27-1.2D1+1.6S7+0.5W7	-196.37	-2547.78	0.01	0.00	0.00	0.00
C4	3.28-1.2D1+1.6S8+0.5W8	-96.91	-1557.93	0.08	0.00	0.00	0.00
C4	6.01-0.9D1+1.0W1	-648.51	-4385.38	-0.53	0.00	0.00	0.00
C4	6.02-0.9D1+1.0W2	-452.35	-1917.44	-4.72	0.00	0.00	0.00
C4	6.03-0.9D1+1.0W3	-127.66	-4404.59	-292.76	0.00	0.00	0.00
C4	6.04-0.9D1+1.0W4	162.79	-2511.89	-919.42	0.00	0.00	0.00
C4	6.05-0.9D1+1.0W5	2366.89	-6651.25	0.46	0.00	0.00	0.00
C4	6.06-0.9D1+1.0W6	2562.60	-4181.91	0.52	0.00	0.00	0.00
C4	6.07-0.9D1+1.0W7	-334.54	-5545.30	-0.09	0.00	0.00	0.00
C4	6.08-0.9D1+1.0W8	-135.71	-3566.46	0.06	0.00	0.00	0.00
D1	1.01-1.4D1	0.60	16.99	0.01	0.00	0.00	0.00
D1	3.12-1.2D1+1.6S0+0.5W1	-298.17	43.98	-0.15	0.00	0.00	0.00
D1	3.13-1.2D1+1.6S0+0.5W2	-420.08	253.17	-0.21	0.00	0.00	0.00
D1	3.14-1.2D1+1.6S0+0.5W3	408.16	715.90	0.43	0.00	0.00	0.00
D1	3.15-1.2D1+1.6S0+0.5W4	284.61	1153.82	1.66	0.00	0.00	0.00
D1	3.16-1.2D1+1.6S0+0.5W5	556.79	750.00	0.00	0.00	0.00	0.00
D1	3.17-1.2D1+1.6S0+0.5W6	434.83	956.93	-0.07	0.00	0.00	0.00
D1	3.18-1.2D1+1.6S0+0.5W7	52.09	-408.26	405.55	0.00	0.00	0.00
D1	3.19-1.2D1+1.6S0+0.5W8	-70.69	33.97	90.57	0.00	0.00	0.00
D1	3.21-1.2D1+1.6S1+0.5W1	-201.06	-70.78	-0.38	0.00	0.00	0.00
D1	3.22-1.2D1+1.6S2+0.5W2	-341.50	91.59	-0.40	0.00	0.00	0.00
D1	3.23-1.2D1+1.6S3+0.5W3	413.58	118.80	0.61	0.00	0.00	0.00
D1	3.24-1.2D1+1.6S4+0.5W4	269.60	510.34	1.82	0.00	0.00	0.00
D1	3.25-1.2D1+1.6S5+0.5W5	395.95	627.86	0.39	0.00	0.00	0.00
D1	3.26-1.2D1+1.6S6+0.5W6	293.82	877.60	0.51	0.00	0.00	0.00
D1	3.27-1.2D1+1.6S7+0.5W7	-76.70	-1330.35	440.94	0.00	0.00	0.00
D1	3.28-1.2D1+1.6S8+0.5W8	-178.64	-822.41	119.67	0.00	0.00	0.00

Node Reactions-Combined Loads

Node	Result Case	FX lb	FY lb	FZ lb	MX lb-in	MY lb-in	MZ lb-in
D1	6.01-0.9D1+1.0W1	-720.25	-1471.40	68.23	0.00	0.00	0.00
D1	6.02-0.9D1+1.0W2	-960.59	-1017.97	45.79	0.00	0.00	0.00
D1	6.03-0.9D1+1.0W3	832.66	227.58	1.17	0.00	0.00	0.00
D1	6.04-0.9D1+1.0W4	543.97	1011.47	3.63	0.00	0.00	0.00
D1	6.05-0.9D1+1.0W5	999.77	-17.35	21.47	0.00	0.00	0.00
D1	6.06-0.9D1+1.0W6	759.82	437.63	0.63	0.00	0.00	0.00
D1	6.07-0.9D1+1.0W7	-159.56	-2698.66	886.92	0.00	0.00	0.00
D1	6.08-0.9D1+1.0W8	-363.23	-1681.45	244.47	0.00	0.00	0.00
D2	1.01-1.4D1	0.06	32.50	0.01	0.00	0.00	0.00
D2	3.12-1.2D1+1.6S0+0.5W1	-41.93	1147.37	0.02	0.00	0.00	0.00
D2	3.13-1.2D1+1.6S0+0.5W2	-39.89	1503.28	0.02	0.00	0.00	0.00
D2	3.14-1.2D1+1.6S0+0.5W3	37.87	572.05	-0.26	0.00	0.00	0.00
D2	3.15-1.2D1+1.6S0+0.5W4	39.44	960.84	-0.74	0.00	0.00	0.00
D2	3.16-1.2D1+1.6S0+0.5W5	58.16	431.42	0.04	0.00	0.00	0.00
D2	3.17-1.2D1+1.6S0+0.5W6	60.18	787.40	0.05	0.00	0.00	0.00
D2	3.18-1.2D1+1.6S0+0.5W7	-46.74	1534.66	0.69	0.00	0.00	0.00
D2	3.19-1.2D1+1.6S0+0.5W8	-44.94	1907.73	0.17	0.00	0.00	0.00
D2	3.21-1.2D1+1.6S1+0.5W1	-17.50	-294.92	0.03	0.00	0.00	0.00
D2	3.22-1.2D1+1.6S2+0.5W2	-19.69	99.89	0.04	0.00	0.00	0.00
D2	3.23-1.2D1+1.6S3+0.5W3	42.80	-1304.95	-0.28	0.00	0.00	0.00
D2	3.24-1.2D1+1.6S4+0.5W4	39.68	-872.71	-0.77	0.00	0.00	0.00
D2	3.25-1.2D1+1.6S5+0.5W5	22.59	1183.92	0.01	0.00	0.00	0.00
D2	3.26-1.2D1+1.6S6+0.5W6	29.14	1497.01	0.02	0.00	0.00	0.00
D2	3.27-1.2D1+1.6S7+0.5W7	-72.50	-53.28	0.55	0.00	0.00	0.00
D2	3.28-1.2D1+1.6S8+0.5W8	-66.01	277.64	0.12	0.00	0.00	0.00
D2	6.01-0.9D1+1.0W1	-104.75	-1209.28	-0.08	0.00	0.00	0.00
D2	6.02-0.9D1+1.0W2	-99.93	-501.66	-0.05	0.00	0.00	0.00
D2	6.03-0.9D1+1.0W3	86.97	-2659.64	-0.57	0.00	0.00	0.00
D2	6.04-0.9D1+1.0W4	80.54	-1793.14	-1.53	0.00	0.00	0.00
D2	6.05-0.9D1+1.0W5	97.90	-2662.22	-0.06	0.00	0.00	0.00
D2	6.06-0.9D1+1.0W6	102.80	-1954.75	-0.02	0.00	0.00	0.00
D2	6.07-0.9D1+1.0W7	-146.33	-130.31	1.09	0.00	0.00	0.00
D2	6.08-0.9D1+1.0W8	-133.29	531.18	0.22	0.00	0.00	0.00
D3	1.01-1.4D1	0.20	42.71	0.00	0.00	0.00	0.00
D3	3.12-1.2D1+1.6S0+0.5W1	-33.18	1115.22	0.02	0.00	0.00	0.00
D3	3.13-1.2D1+1.6S0+0.5W2	-31.22	1531.09	0.02	0.00	0.00	0.00
D3	3.14-1.2D1+1.6S0+0.5W3	34.54	1713.05	0.03	0.00	0.00	0.00
D3	3.15-1.2D1+1.6S0+0.5W4	36.80	2188.98	0.03	0.00	0.00	0.00
D3	3.16-1.2D1+1.6S0+0.5W5	52.37	758.04	-0.01	0.00	0.00	0.00
D3	3.17-1.2D1+1.6S0+0.5W6	54.31	1173.85	-0.01	0.00	0.00	0.00
D3	3.18-1.2D1+1.6S0+0.5W7	-36.30	337.75	0.00	0.00	0.00	0.00
D3	3.19-1.2D1+1.6S0+0.5W8	-34.23	785.76	-0.01	0.00	0.00	0.00
D3	3.21-1.2D1+1.6S1+0.5W1	-13.85	1917.57	0.01	0.00	0.00	0.00
D3	3.22-1.2D1+1.6S2+0.5W2	-15.49	2309.41	0.01	0.00	0.00	0.00
D3	3.23-1.2D1+1.6S3+0.5W3	35.56	-330.95	0.01	0.00	0.00	0.00
D3	3.24-1.2D1+1.6S4+0.5W4	33.84	119.82	0.04	0.00	0.00	0.00
D3	3.25-1.2D1+1.6S5+0.5W5	27.40	-637.79	-0.01	0.00	0.00	0.00
D3	3.26-1.2D1+1.6S6+0.5W6	33.14	-200.61	-0.01	0.00	0.00	0.00
D3	3.27-1.2D1+1.6S7+0.5W7	-60.94	-1856.59	-0.06	0.00	0.00	0.00
D3	3.28-1.2D1+1.6S8+0.5W8	-54.98	-1381.35	-0.02	0.00	0.00	0.00
D3	6.01-0.9D1+1.0W1	-90.31	-2062.47	0.00	0.00	0.00	0.00
D3	6.02-0.9D1+1.0W2	-85.80	-1223.04	0.01	0.00	0.00	0.00
D3	6.03-0.9D1+1.0W3	72.09	-703.91	0.02	0.00	0.00	0.00
D3	6.04-0.9D1+1.0W4	68.48	197.61	0.09	0.00	0.00	0.00
D3	6.05-0.9D1+1.0W5	82.91	-2762.00	-0.05	0.00	0.00	0.00
D3	6.06-0.9D1+1.0W6	87.51	-1920.82	-0.04	0.00	0.00	0.00
D3	6.07-0.9D1+1.0W7	-123.15	-3766.36	-0.13	0.00	0.00	0.00
D3	6.08-0.9D1+1.0W8	-111.19	-2815.56	-0.05	0.00	0.00	0.00
D4	1.01-1.4D1	-2.04	27.87	0.01	0.00	0.00	0.00
D4	3.12-1.2D1+1.6S0+0.5W1	-464.60	944.23	-0.46	0.00	0.00	0.00
D4	3.13-1.2D1+1.6S0+0.5W2	-363.57	1290.42	-0.59	0.00	0.00	0.00
D4	3.14-1.2D1+1.6S0+0.5W3	-235.00	767.64	-0.10	0.00	0.00	0.00
D4	3.15-1.2D1+1.6S0+0.5W4	-131.91	1346.02	0.31	0.00	0.00	0.00
D4	3.16-1.2D1+1.6S0+0.5W5	404.82	252.62	0.15	0.00	0.00	0.00
D4	3.17-1.2D1+1.6S0+0.5W6	505.81	598.92	0.03	0.00	0.00	0.00
D4	3.18-1.2D1+1.6S0+0.5W7	-423.43	311.22	383.64	0.00	0.00	0.00

Node Reactions-Combined Loads

Node	Result Case	FX lb	FY lb	FZ lb	MX lb-in	MY lb-in	MZ lb-in
D4	3.19-1.2D1+1.6S0+0.5W8	-321.82	892.05	66.09	0.00	0.00	0.00
D4	3.21-1.2D1+1.6S1+0.5W1	-388.63	684.95	-0.24	0.00	0.00	0.00
D4	3.22-1.2D1+1.6S2+0.5W2	-301.35	1050.81	-0.43	0.00	0.00	0.00
D4	3.23-1.2D1+1.6S3+0.5W3	-41.25	-689.51	0.41	0.00	0.00	0.00
D4	3.24-1.2D1+1.6S4+0.5W4	46.67	-80.70	0.60	0.00	0.00	0.00
D4	3.25-1.2D1+1.6S5+0.5W5	447.73	-42.78	0.13	0.00	0.00	0.00
D4	3.26-1.2D1+1.6S6+0.5W6	562.98	276.27	0.04	0.00	0.00	0.00
D4	3.27-1.2D1+1.6S7+0.5W7	-326.45	-978.48	393.23	0.00	0.00	0.00
D4	3.28-1.2D1+1.6S8+0.5W8	-210.12	-406.77	78.90	0.00	0.00	0.00
D4	6.01-0.9D1+1.0W1	-636.72	-915.52	31.57	0.00	0.00	0.00
D4	6.02-0.9D1+1.0W2	-432.72	-199.19	5.28	0.00	0.00	0.00
D4	6.03-0.9D1+1.0W3	-75.90	-1424.43	0.81	0.00	0.00	0.00
D4	6.04-0.9D1+1.0W4	99.38	-201.82	1.18	0.00	0.00	0.00
D4	6.05-0.9D1+1.0W5	1109.85	-2301.20	80.37	0.00	0.00	0.00
D4	6.06-0.9D1+1.0W6	1314.21	-1587.33	53.24	0.00	0.00	0.00
D4	6.07-0.9D1+1.0W7	-654.60	-1986.58	789.01	0.00	0.00	0.00
D4	6.08-0.9D1+1.0W8	-421.82	-842.44	160.36	0.00	0.00	0.00

Table of Contents

Result Cases

Name	ID
1.01-1.4D1	15
3.12-1.2D1+1.6S0+0.5W1	16
3.13-1.2D1+1.6S0+0.5W2	17
3.14-1.2D1+1.6S0+0.5W3	18
3.15-1.2D1+1.6S0+0.5W4	19
3.16-1.2D1+1.6S0+0.5W5	20
3.17-1.2D1+1.6S0+0.5W6	21
3.18-1.2D1+1.6S0+0.5W7	22
3.19-1.2D1+1.6S0+0.5W8	23
3.21-1.2D1+1.6S1+0.5W1	24
3.22-1.2D1+1.6S2+0.5W2	25
3.23-1.2D1+1.6S3+0.5W3	26
3.24-1.2D1+1.6S4+0.5W4	27
3.25-1.2D1+1.6S5+0.5W5	28
3.26-1.2D1+1.6S6+0.5W6	29
3.27-1.2D1+1.6S7+0.5W7	30
3.28-1.2D1+1.6S8+0.5W8	31
6.01-0.9D1+1.0W1	32
6.02-0.9D1+1.0W2	33
6.03-0.9D1+1.0W3	34
6.04-0.9D1+1.0W4	35
6.05-0.9D1+1.0W5	36
6.06-0.9D1+1.0W6	37
6.07-0.9D1+1.0W7	38
6.08-0.9D1+1.0W8	39

Member Forces

Member	Fx Min lb	Fx Max lb	Vy lb	Mz Min lb-in	Mz Max lb-in
eb001	-4783.69 (32	7566.97 (19	-21.45 (38	-4219.28 (38	3222.32 (34
eb002	-4776.00 (32)	5464.39 (23)	-67.09 (34)	-4983.57 (34)	3222.32 (34)
eb003	-4777.66 (32)	7643.96 (29)	25.33 (34)	-4983.57 (34)	2684.03 (38)
eb007	-6846.01 (36)	9465.53 (25)	-35.43 (38)	-6970.44 (38)	3276.11 (34)
eb008	-6833.26 (36)	6652.36 (19)	94.31 (38)	-6970.44 (38)	4564.41 (38)
eb009	-6832.99 (36)	9178.44 (23)	26.48 (34)	-5209.05 (34)	4564.41 (38)
edb1	-2179.95 (29)	129.67 (34)	0.00 (34)	0.00 (34)	0.00 (23)
edb2	-2163.65 (25)	109.28 (38)	0.00 (38)	0.00 (19)	0.00 (38)
edb5	-2732.94 (25)	182.03 (38)	0.00 (38)	0.00 (19)	0.00 (38)
edb6	-2618.12 (29)	134.49 (34)	0.00 (39)	0.00 (39)	0.00 (39)
gh1	-1224.49 (32)	1369.51 (29)	0.00 (35)	0.00 (35)	0.00 (38)
gh2	-1012.69 (35)	1301.01 (29)	0.00 (35)	0.00 (38)	0.00 (35)
gh3	-1220.51 (35)	1247.10 (29)	0.00 (35)	0.00 (35)	0.00 (38)
gh4	-653.32 (36)	1910.75 (28)	0.00 (35)	0.00 (35)	0.00 (22)
gh5	-586.54 (32)	1991.63 (28)	0.00 (35)	0.00 (35)	0.00 (38)
gh6	-1104.07 (32)	2128.09 (29)	0.00 (35)	0.00 (35)	0.00 (38)
gv001	-1282.70 (25)	1738.93 (32)	-1595.14 (35)	-75251.26 (35)	61017.34 (38)
gv002	-1282.62 (25)	1739.31 (32)	-1345.82 (35)	-53395.77 (38)	65837.06 (35)
gv003	-1251.52 (23)	2543.06 (34)	-1036.65 (35)	-41499.25 (35)	33648.36 (38)
gv004	-1251.84 (23)	2544.35 (34)	983.70 (35)	-26447.73 (35)	21449.96 (38)
gv005	-2309.41 (25)	3766.36 (38)	-0.13 (38)	-16.30 (38)	10.96 (35)
gv006	-2309.34 (25)	3766.99 (38)	0.13 (38)	-8.11 (38)	5.46 (35)
gv007	-1907.73 (23)	2662.22 (36)	-1.53 (35)	-197.60 (35)	140.88 (38)
gv008	-1908.38 (23)	2663.64 (36)	-1.53 (35)	-35.38 (38)	49.63 (35)
mr1	-673.36 (21)	1234.72 (32)	736.78 (38)	-42686.66 (35)	51689.65 (38)
mr2	-1481.78 (29)	1025.37 (38)	-799.82 (32)	-43280.35 (35)	51773.43 (38)
mr3	-971.60 (29)	1151.04 (34)	818.11 (32)	-7618.59 (35)	13802.08 (38)
mr4	-976.17 (22)	1497.52 (34)	-780.58 (34)	-55255.37 (34)	23306.10 (33)
mr5	-1414.65 (29)	1419.16 (34)	-843.74 (36)	-25601.97 (33)	55309.48 (34)
mr6	-1156.00 (29)	1327.92 (34)	-335.02 (32)	-5217.00 (21)	16495.64 (32)
mr7	-4053.64 (29)	4933.96 (32)	1708.42 (38)	-75006.68 (21)	155317.33 (32)
mr8	-8972.60 (29)	6654.79 (32)	-3076.86 (32)	-75173.14 (21)	155591.48 (32)
mr9	-6886.55 (23)	7292.65 (32)	3003.49 (34)	-31076.05 (23)	125082.37 (34)
mr10	-4231.08 (19)	4184.18 (38)	-1820.93 (34)	-126366.97 (36)	70971.77 (17)

Member Forces

Member	Fx Min lb	Fx Max lb	Vy lb	Mz Min lb-in	Mz Max lb-in
mr11	-8381.03 (25)	6991.34 (32)	-2600.16 (36)	-71006.00 (17)	126523.06 (36)
mr12	-6469.85 (23)	7488.38 (32)	2563.86 (38)	-31164.64 (23)	124676.01 (34)
mr19	-4658.50 (29)	5488.13 (32)	2492.51 (38)	-96158.53 (21)	173569.32 (38)
mr20	-10219.16 (23)	9795.83 (36)	-3321.97 (32)	-96146.60 (21)	173257.83 (38)
mr21	-7832.91 (19)	10063.15 (36)	3202.15 (34)	-38458.36 (19)	170161.43 (38)
mr22	-5010.82 (25)	6651.25 (36)	-2107.41 (34)	-199181.67 (36)	89930.26 (17)
mr23	-11097.51 (25)	9275.11 (36)	-4022.23 (36)	-89967.95 (17)	199242.60 (36)
mr24	-8472.81 (19)	9769.53 (36)	4022.02 (38)	-38562.56 (19)	170878.95 (38)
mr25	-1153.82 (19)	2117.99 (38)	1330.77 (38)	-48706.38 (37)	95938.33 (38)
mr26	-2211.94 (29)	1498.92 (38)	-1404.25 (38)	-49010.51 (37)	96051.80 (38)
mr27	-1446.89 (29)	1678.75 (34)	-1112.38 (29)	-2867.01 (37)	21800.69 (38)
mr28	-1346.02 (19)	2249.44 (36)	-1046.12 (34)	-74918.11 (36)	33612.06 (17)
mr29	-2147.98 (29)	1912.87 (34)	-1920.03 (36)	-35060.67 (39)	74873.85 (36)
mr30	-1740.55 (29)	1865.75 (34)	-598.46 (38)	-8145.95 (19)	30031.85 (38)
ms1	-673.36 (21)	1234.72 (32)	811.01 (33)	-34635.75 (34)	38540.81 (33)
ms001	-8421.58 (29)	6661.92 (32)	-843.61 (23)	-83317.35 (34)	24139.00 (23)
ms2	-1444.16 (29)	1027.03 (38)	1267.05 (34)	-36152.10 (35)	38393.41 (38)
ms002	-7213.97 (23)	6697.63 (32)	1297.29 (34)	-72623.38 (34)	30150.72 (29)
ms003	-7830.01 (25)	6998.47 (32)	-894.86 (19)	-70940.77 (38)	24980.41 (19)
ms4	-1159.36 (29)	1150.64 (34)	603.37 (32)	-20215.50 (32)	21165.55 (29)
ms004	-6768.30 (23)	7030.34 (32)	1170.90 (25)	-61780.96 (38)	30510.76 (25)
ms005	-1182.43 (29)	1327.51 (34)	724.46 (25)	-23134.22 (19)	37475.42 (32)
ms6	-976.17 (22)	1497.52 (34)	-606.01 (37)	-29269.12 (37)	21307.86 (32)
ms006	-6698.04 (23)	7487.30 (32)	2166.28 (38)	-18536.95 (38)	83521.05 (34)
ms7	-1403.03 (29)	1420.82 (34)	-716.48 (34)	-30159.71 (32)	40644.75 (34)
ms007	-1784.60 (29)	1865.08 (34)	-1339.11 (38)	-41050.14 (19)	71920.69 (38)
ms008	-1555.14 (29)	1201.40 (34)	-1038.23 (34)	-21886.85 (32)	34202.05 (34)
ms009	-9530.34 (23)	9804.74 (36)	-1098.67 (23)	-88146.74 (34)	30381.35 (23)
ms10	-4053.64 (29)	4933.96 (32)	1955.51 (33)	-48480.87 (21)	108905.86 (32)
ms010	-8341.35 (19)	9842.16 (36)	1539.54 (38)	-77648.39 (34)	39120.34 (29)
ms11	-8872.25 (29)	6659.21 (32)	-2655.25 (32)	-78830.46 (34)	101136.47 (32)
ms011	-10408.69 (25)	9284.03 (36)	-1134.86 (19)	-114780.39 (38)	31687.54 (19)
ms12	-7114.74 (23)	7291.57 (32)	2540.26 (34)	-21985.66 (34)	70628.98 (38)
ms012	-9006.17 (19)	9313.16 (36)	1788.50 (38)	-98586.16 (38)	37447.65 (25)
ms013	-1377.54 (29)	1201.65 (34)	223.47 (28)	-21851.81 (32)	21058.82 (29)
ms14	-4231.08 (19)	4184.18 (38)	-1608.68 (37)	-87804.00 (36)	47819.30 (17)
ms014	-1350.83 (29)	1422.57 (34)	879.78 (32)	-27762.39 (38)	25184.55 (32)
ms15	-8280.67 (25)	6995.76 (32)	-2238.28 (36)	-67065.75 (38)	82026.83 (34)
ms015	-1295.97 (29)	1422.82 (34)	968.81 (32)	-23131.04 (19)	37046.37 (32)
ms016	-2224.26 (29)	1395.87 (34)	-1122.54 (34)	-28976.91 (29)	34220.95 (34)
ms017	-1927.13 (29)	1396.28 (34)	356.75 (28)	-24212.73 (32)	31744.92 (29)
ms018	-2041.61 (29)	1918.54 (34)	1943.15 (38)	-60420.02 (38)	45008.23 (38)
ms019	-1950.20 (29)	1918.95 (34)	2162.86 (38)	-41045.63 (19)	71355.19 (38)
ms020	-8093.86 (19)	9842.99 (36)	1759.74 (38)	-42917.49 (34)	49150.05 (28)
ms021	-8758.68 (19)	9313.99 (36)	2160.76 (38)	-51899.72 (38)	46554.10 (24)
ms22	-4658.50 (29)	5488.13 (32)	2090.27 (33)	-64771.49 (21)	117765.90 (32)
ms022	-7015.98 (23)	6698.29 (32)	1581.55 (34)	-39547.52 (34)	37224.60 (28)
ms23	-10093.68 (23)	9801.36 (36)	-2869.52 (32)	-82502.31 (34)	124346.62 (38)
ms023	-6570.31 (23)	7031.00 (32)	1343.46 (38)	-33916.01 (38)	38411.90 (24)
ms24	-8118.12 (19)	10061.79 (36)	2705.17 (34)	-23943.31 (34)	114103.53 (38)
ms25	-5010.82 (25)	6651.25 (36)	-2562.60 (37)	-140859.91 (36)	58388.01 (17)
ms26	-10972.03 (25)	9280.64 (36)	-3470.16 (36)	-110292.50 (38)	128065.08 (36)
ms27	-8758.02 (19)	9768.18 (36)	3415.61 (38)	-27431.72 (38)	93131.27 (38)
ms28	-1153.82 (19)	2117.99 (38)	-999.77 (36)	-44243.07 (36)	45094.06 (33)
ms29	-2148.95 (29)	1501.69 (38)	1307.29 (36)	-40948.64 (37)	71128.08 (38)
ms30	-1759.74 (29)	1678.08 (34)	733.10 (32)	-22132.32 (32)	31971.46 (29)
ms32	-1346.02 (19)	2249.44 (36)	-1314.21 (37)	-61287.30 (37)	24766.05 (32)
ms33	-2128.61 (29)	1915.63 (34)	-1594.18 (36)	-64731.45 (38)	44370.59 (34)
pdb1	101.87 (15)	1886.58 (29)	0.00 (29)	0.00 (18)	0.00 (29)
pdb2	102.56 (15)	1867.28 (25)	0.00 (25)	0.00 (22)	0.00 (25)
pdb5	105.58 (15)	2256.05 (29)	0.00 (29)	0.00 (18)	0.00 (29)
pdb6	107.00 (15)	2363.96 (25)	0.00 (25)	0.00 (22)	0.00 (25)
pe1	-1249.69 (35)	-0.43 (39)	0.00 (23)	0.00 (23)	0.00 (34)
pe001	-296.34 (32)	209.66 (19)	0.00 (38)	0.00 (37)	0.00 (38)
pe2	-780.84 (35)	-0.90 (15)	0.00 (19)	0.00 (38)	0.00 (19)
pe002	-412.48 (34)	322.82 (22)	0.00 (38)	0.00 (37)	0.00 (38)
pe7	-887.48 (35)	0.15 (20)	0.00 (36)	0.00 (17)	0.00 (36)

Member Forces

Member	Fx Min lb	Fx Max lb	Vy lb	Mz Min lb-in	Mz Max lb-in
pe8	-1057.04 (38)	-1.19 (28)	0.00 (38)	0.00 (38)	0.00 (19)
pl001	-566.76 (35)	428.56 (38)	0.00 (38)	0.00 (38)	0.00 (37)
pl2	-135.19 (35)	89.67 (38)	0.00 (38)	0.00 (19)	0.00 (38)
pl002	-224.64 (35)	139.67 (38)	0.00 (38)	0.00 (38)	0.00 (37)
pl3	-1408.23 (35)	465.03 (38)	0.00 (38)	0.00 (38)	0.00 (25)
pl003	-700.43 (19)	675.29 (38)	0.00 (38)	0.00 (38)	0.00 (37)
pl4	-776.63 (19)	38.96 (34)	0.00 (34)	0.00 (34)	0.00 (38)
pl004	-718.65 (35)	486.14 (38)	0.00 (38)	0.00 (38)	0.00 (37)
pl5	-848.32 (35)	667.43 (38)	0.00 (34)	0.00 (34)	0.00 (23)
pl005	-107.14 (35)	58.69 (38)	0.00 (38)	0.00 (37)	0.00 (38)
pl6	-495.87 (35)	-35.70 (15)	0.00 (34)	0.00 (34)	0.00 (38)
pl17	-648.56 (19)	63.72 (38)	0.00 (38)	0.00 (35)	0.00 (38)
pl18	-63.16 (35)	24.93 (38)	0.00 (38)	0.00 (35)	0.00 (38)
pl19	-732.65 (35)	1.27 (39)	0.00 (38)	0.00 (24)	0.00 (38)
pl20	-289.56 (35)	202.61 (38)	0.00 (34)	0.00 (34)	0.00 (39)
pl21	-604.38 (38)	-30.56 (28)	0.00 (34)	0.00 (34)	0.00 (38)
wb1	0.82 (15)	1065.65 (38)	0.00 (32)	0.00 (32)	0.00 (32)
wb2	38.28 (33)	1409.61 (35)	0.00 (32)	0.00 (34)	0.00 (32)
wb3	0.19 (15)	970.77 (38)	0.00 (38)	0.00 (38)	0.00 (37)
wb4	1.13 (16)	1337.68 (35)	0.00 (34)	0.00 (34)	0.00 (32)
wb5	62.51 (15)	677.63 (22)	0.00 (38)	0.00 (38)	0.00 (19)
wb6	3.13 (30)	766.14 (35)	0.00 (35)	0.00 (38)	0.00 (35)
wb7	63.07 (15)	829.15 (22)	0.00 (38)	0.00 (38)	0.00 (18)
wb8	239.89 (33)	1238.90 (35)	0.00 (35)	0.00 (37)	0.00 (35)
wb9	9.21 (26)	543.71 (19)	0.00 (35)	0.00 (35)	0.00 (35)
wb10	21.77 (26)	596.66 (38)	0.00 (32)	0.00 (37)	0.00 (32)
wb11	62.25 (15)	497.05 (19)	0.00 (28)	0.00 (35)	0.00 (28)
wb12	37.92 (31)	533.00 (38)	0.00 (34)	0.00 (33)	0.00 (34)
wb13	0.26 (29)	1060.88 (38)	0.00 (39)	0.00 (39)	0.00 (39)
wb14	0.99 (36)	1172.84 (35)	0.00 (37)	0.00 (37)	0.00 (37)
wb15	6.44 (33)	941.82 (38)	0.00 (39)	0.00 (39)	0.00 (39)
wb16	1.45 (15)	1098.17 (35)	0.00 (35)	0.00 (35)	0.00 (35)
wb17	136.00 (37)	1421.94 (38)	0.00 (36)	0.00 (36)	0.00 (39)
wb18	5.63 (36)	1201.96 (35)	0.00 (35)	0.00 (21)	0.00 (35)
wb19	43.00 (31)	893.69 (38)	0.00 (38)	0.00 (38)	0.00 (34)
wb20	6.05 (34)	856.69 (19)	0.00 (35)	0.00 (35)	0.00 (17)
wb21	6.98 (26)	427.59 (38)	0.00 (38)	0.00 (34)	0.00 (38)
wb22	25.15 (35)	351.36 (19)	0.00 (35)	0.00 (35)	0.00 (28)
wb23	19.79 (39)	474.07 (36)	0.00 (38)	0.00 (35)	0.00 (38)
wb24	8.63 (39)	385.70 (17)	0.00 (39)	0.00 (24)	0.00 (39)

Node Reactions (extreme rows: max and min)

Node	Result Case	FX lb	FY lb	FZ lb	MX lb-in	MY lb-in	MZ lb-in
A3	6.04-0.9D1+1.0W4	69.20	-158.38	**-1595.14**	0.00	0.00	0.00
A3	6.07-0.9D1+1.0W7	-65.08	-1549.04	**1293.49**	0.00	0.00	0.00
C1	6.02-0.9D1+1.0W2	**-2090.27**	-2991.36	-0.25	0.00	0.00	0.00
C4	3.22-1.2D1+1.6S2+0.5W2	-772.02	**5008.48**	-3.39	0.00	0.00	0.00
C4	6.05-0.9D1+1.0W5	2366.89	**-6651.25**	0.46	0.00	0.00	0.00
C4	6.06-0.9D1+1.0W6	**2562.60**	-4181.91	0.52	0.00	0.00	0.00

Node Results (extreme rows: max and min)

Node	Result Case	DX in	DY in	DZ in
N039	6.04-0.9D1+1.0W4	-0.59	0.00	**0.95**
N039	6.07-0.9D1+1.0W7	0.55	0.01	**-0.75**
N072	6.07-0.9D1+1.0W7	**1.34**	0.97	-0.15
N073	3.22-1.2D1+1.6S2+0.5W2	0.09	**-0.39**	0.00
N079	6.07-0.9D1+1.0W7	1.07	**1.26**	0.01
N081	6.03-0.9D1+1.0W3	**-0.85**	0.77	0.10

HTS tentiQ GmbH
Hinter der SchlagmÃ¼hle 1
63699 Kefenrod
Germany

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Planning Worksheet

APP NO. 20-01723

No Inspections Required ❍

ADDRESS: 35 N. High Street

DATE: 9/18/20

Updated in Naviline ❍

PLAN REVIEWER: Velma Coen

Check All Required Inspections

Zoning Rough	ZONR	*	☑
Zoning Final	P18	(999)	☑

* Must come before Frame Inspection

City of Dublin
OHIO, USA
Approved for Construction
TSTR-20-01723
11/03/20

Series 5 (3-6 Ton)

Johnson Controls

Single Package R-410A Air Conditioner

Project Name: **The Shops at Rocky Fork**

Unit Model #: **JA6ZFN10U2AAB1**

Quantity: **4** Tag #: **Building B RTU-3,5,6,7**

System: **JA6ZFN10U2AAB1 (4)**

Cooling Performance	
Total capacity	68.8 MBH
Sensible capacity	50.4 MBH
Refrigerant type	R-410A
Efficiency (at ARI)	11.00 EER
Ambient DB temp.	95.0 °F
Entering DB temp.	80.0 °F
Entering WB temp.	67.0 °F
Leaving DB temp.	60.6 °F
Leaving WB temp.	58.0 °F
Power input (w/o blower)	6.65 kW
Sound power	82 dB(A)

Gas Heating Performance	
Entering DB temp.	60 °F
Heating output capacity (Max)	100 MBH
Supply air	2400 CFM
Heating input capacity (Max)	125 MBH
Leaving DB temp.	98.6 °F
Air temp. rise	38.6 °F
AFUE	80.3 %
Stages	1

Supply Air Blower Performance	
Supply air	2400 CFM
Ext. static pressure	0.6 IWG
Unit static resistance	0.2 IWG
Blower speed	1290 RPM
Max BHP of Motor (including service factor)	3.45 HP
Duct location	Bottom
Motor rating	3.00 HP
Actual required BHP	1.72 HP
Power input	1.61 kW
Elevation	0 ft.
Drive type	BELT

Electrical Data	
Power supply	208-3-60
Unit min circuit ampacity	37 Amps
Unit max over-current protection	50 Amps

Dimensions & Weight					
Hgt	33 in.	Len	83 in.	Wth	45 in.
Weight with factory installed options					770 lbs.

Clearances					
Right	24 in.	Front	32 in.	Back	36 in.
Top	72 in.	Bottom	0 In.	Left	36 in.

Note: Please refer to the tech guide for listed maximum static pressures

6 Ton

- Johnson Controls Units are Manufactured at an ISO 9001 Registered Facility and Each Rooftop is Completely Computer-Run Tested Prior to Shipment.

Unit Features

- Unit Cabinet Constructed of Powder Painted Steel, Certified At 1000 Hours Salt Spray Test (ASTM B-117 Standards)
- Through-the-Curb and Through-The-Base Utility Connections
- Either Supply and/or Return can be Field Converted from Vertical to Horizontal Configuration without Cutting Panels.
- Full Perimeter Base Rails with Built in Rigging Capabilities
- Galvanized Steel Drain Pan
- Scroll Compressor
- Single Stage Cooling
- Solid Core Liquid Line Filter Driers
- Microchannel Condenser Coil
- 100 MBH Output Aluminized Steel, Single Stage Gas Nominal Heat
- 3 HP High Static Belt Drive Blower
- Unit Ships with 1" Throwaway Filters with a Standard Filter Rack That Will Accept up to 2" Filters
- Single Point Power Connection
- Phase Monitor
- Single Enthalpy Economizer and Hood (No Barometric Relief Damper)
- Short Circuit Current: 5kA RMS Symmetrical

Standard Unit Controller: Simplicity Control Board

- An Integrated Low-Ambient Control, Anti-Short Cycle Protection, Lead-Lag, Fan On and Fan off Delays, Low Voltage Protection, On-Board Diagnostic and Fault Code Display.
- Safety Monitoring - Monitors the High and Low-Pressure Switches, the Freezestats, the Gas Valve, if Applicable, and the Temperature Limit Switch on Gas and Electric Heat Units. The Unit Control Board will Alarm on Ignition Failures, Safety Lockouts and Repeated Limit Switch Trips.

Warranty

- One (1) Year Limited Warranty on the Complete Unit
- Five (5) Year Warranty - Compressors and Electric Heater Elements
- Ten (10) Year Warranty - Aluminized Steel Tubular Heat Exchangers

Project Name: **The Shops at Rocky Fork**

Unit Model #: **JA6ZFN10U2AAB1**

Quantity: **4** Tag #: **Building B RTU-3,5,6,7**

System: **JA6ZFN10U2AAB1 (4)**

Factory Installed Options

JA6ZFN10U2AAB1

Nominal Cooling Capacity:	**JA6**	6 Ton Single Stage Cooling
Product Category:	**Z**	Johnson Controls Series 5 Single Packaged R-410A Air Conditioner
Product Identifier:	**F**	11.0 EER / 11.3 IEER
Heat Type and Nominal Heat Capacity:	**N10**	100 MBH Output Aluminized Steel, Single Stage Gas Heat
Airflow:	**U**	3 HP High Static Belt Drive Blower 1" Throwaway Filters Single Enthalpy Economizer and Hood (No Barometric Relief Damper)
Voltage:	**2**	208/230-3-60
Installation Options:	**A**	
Additional Options:	**AB**	Microchannel Condenser Coil Phase Monitor Galvanized Steel Drain Pan
Product Generation:	**1**	

Field Installed Accessories

- 1RC0434 - Roof Curb - 14" High, Flat, Uninsulated, Full Perimeter (Shipped Knocked Down) (86.0 lbs)
- 1RD0410 - Barometric Relief Damper with Hood Kit (Downflow Unit or Duct Mounted) (6.0 lbs)
- 2EP07700424 - JCI Branded, 2 Heat / 2 Cool, Electronic 7 Day Programmable, T600MSP-3 (2.0 lbs)

Project Name: **The Shops at Rocky Fork**

Quantity: **4** Tag #: **Building B RTU-3,5,6,7**

Unit Model #: **JA6ZFN10U2AAB1**

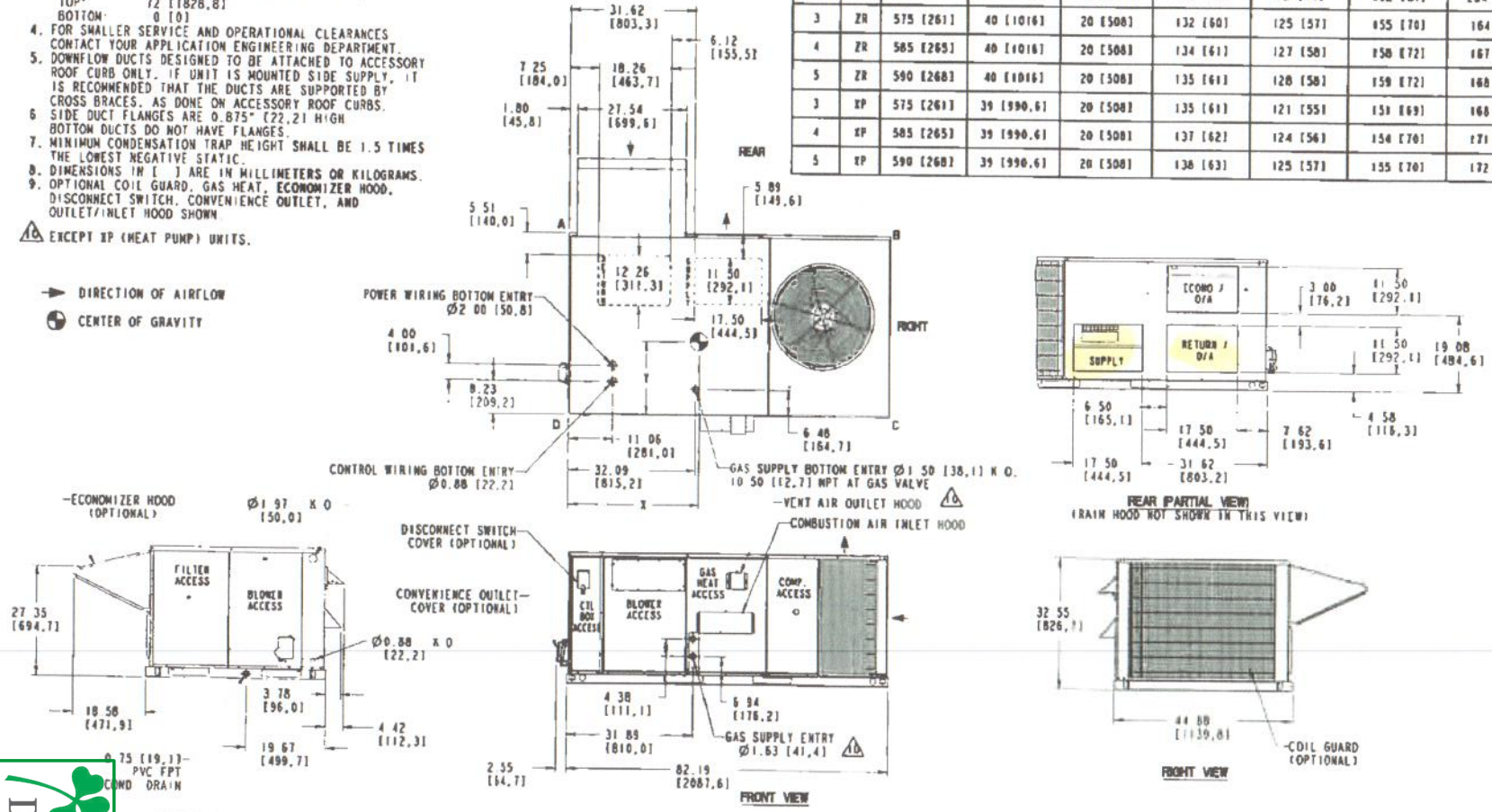
System: **JA6ZFN10U2AAB1 (4)**

Consolidated Drawing

NOTES:
1. FOR OUTDOOR USE ONLY.
2. WEIGHTS SHOWN ARE FOR COOLING ONLY UNITS.
3. MIN. CLEARANCES TO BE:
   - RIGHT SIDE: 24 [609.6]
   - LEFT SIDE: 24 [609.6] (LESS ECONOMIZER); 36 [914.4] (WITH ECONOMIZER)
   - FRONT: 24 [609.6] (COOLING/ELECTRIC HEAT); 32 [812.8] (GAS HEAT)
   - REAR: 12 [304.8] (LESS ECONOMIZER); 36 [914.4] (WITH ECONOMIZER OR FIXED AIR/MOTORIZED DAMPER)
   - TOP: 72 [1828.8]
   - BOTTOM: 0 [0]
4. FOR SMALLER SERVICE AND OPERATIONAL CLEARANCES CONTACT YOUR APPLICATION ENGINEERING DEPARTMENT.
5. DOWNFLOW DUCTS DESIGNED TO BE ATTACHED TO ACCESSORY ROOF CURB ONLY. IF UNIT IS MOUNTED SIDE SUPPLY, IT IS RECOMMENDED THAT THE DUCTS ARE SUPPORTED BY CROSS BRACES, AS DONE ON ACCESSORY ROOF CURBS.
6. SIDE DUCT FLANGES ARE 0.875" [22.2] HIGH. BOTTOM DUCTS DO NOT HAVE FLANGES.
7. MINIMUM CONDENSATION TRAP HEIGHT SHALL BE 1.5 TIMES THE LOWEST NEGATIVE STATIC.
8. DIMENSIONS IN [ ] ARE IN MILLIMETERS OR KILOGRAMS.
9. OPTIONAL COIL GUARD, GAS HEAT, ECONOMIZER HOOD, DISCONNECT SWITCH, CONVENIENCE OUTLET, AND OUTLET/INLET HOOD SHOWN

⚠ EXCEPT XP (HEAT PUMP) UNITS.

TONNAGE	UNIT	OPERATING WEIGHT (LBS) (BASE UNIT)	CENTER OF GRAVITY LOCATION (BASE UNIT)		4 POINT CORNER LOADS (LBS) (BASE UNIT)			
			X	Y	A	B	C	D
3	ZF	468 [212]	33 [838.2]	18.25 [463.6]	114 [52]	76 [35]	118 [50]	167 [76]
4	ZF	541 [245]	31.50 [800.1]	18.50 [469.9]	138 [63]	85 [39]	122 [55]	196 [89]
5	ZF	569 [258]	37 [938.8]	15 [381]	105 [48]	86 [39]	170 [77]	208 [94]
6	ZF	640 [290]	37 [938.8]	15 [381]	118 [54]	96 [44]	192 [87]	234 [106]
3	ZR	575 [261]	40 [1016]	20 [508]	132 [60]	125 [57]	155 [70]	164 [74]
4	ZR	585 [265]	40 [1016]	20 [508]	134 [61]	127 [58]	158 [72]	167 [76]
5	ZR	590 [268]	40 [1016]	20 [508]	135 [61]	128 [58]	159 [72]	168 [76]
3	XP	575 [261]	39 [990.6]	20 [508]	135 [61]	121 [55]	151 [69]	168 [76]
4	XP	585 [265]	39 [990.6]	20 [508]	137 [62]	124 [56]	154 [70]	171 [78]
5	XP	590 [268]	39 [990.6]	20 [508]	138 [63]	125 [57]	155 [70]	172 [78]



WASHINGTON TOWNSHIP
FIRE DEPARTMENT
6200 Eiterman Road
Dublin, Ohio 43016
614-652-3920

Tent Application Process
For Dublin 2017 Ohio Fire Code based upon the 2015 International Fire Code
Rules and Regulations for Tent Installation

Permits are required for a tent (capable of installing side curtains) in excess of 200 sq. ft. or a canopy (side curtain prohibited) in excess of 400 sq. ft.
Construction shall comply with the current Ohio Building Code and applicable provisions of Chapter 24 in the Dublin Fire Code.

- ☑ Place of assembly tents (50 or more persons) requires all of the following:
  - ✓ exit and emergency lighting
  - ✓ proper number of approved exits based on the occupant load
  - ✓ no open or exposed flames inside or within 20 feet of tent
- ☑ Free of straw, hay, shavings, or similar combustible materials
- ☑ NO SMOKING shall be permitted in tents or under canopies. Approved "No" Smoking signs must be posted.
- ☑ All tents and canopies shall be flame resistant treated and the proper certification along with proper labeling affixed on the material.
- ☑ All tents and canopies must be properly anchored. (City of Dublin requires caps on all steel stakes installed on city property.
- ☑ Fire extinguishers are required in cooking and place of assembly tents. (Minimum 5lb rated 2A-10BC)
- ☑ Cooking and heating equipment shall not be located within 10 feet of the exits or combustible materials.
- ☑ Flammable and combustible liquids must be stored outside in an approved manner not less than 50 feet away from structure.
- ☑ LP-gas containers 500 gallons or less shall have a minimum separation between the container and structure not less than 10 feet and properly secured to prevent unauthorized movement.
- ☑ LP-gas containers gallons or more shall have minimum separation between the container and structures of not less than 25 feet and properly secured to prevent unauthorized movement.
- ☑ Generators and other internal combustion power sources shall be separated from tents/canopies by a minimum of 20 feet and shall be isolated from contact with the public by fencing, enclosure or other approved means.
- ☑ Fees for tents and canopies are based on the number of tents or canopies installed #1-5 = $50.00 #6-10 = $75.00 #11-15 = $100.00 #16-20 = $160.00 #20+ = $200.00
- ☑ ALL TENTS SHALL BE INSPECTED by the Dublin Building Division and the Washington Township Fire Department before occupancy.

6200 Eiterman Road
Dublin, Ohio 43016
O 614 652 3920
wtwp.com

9/11 BC/JR DECIDED TO ACCEPT

City of Dublin Review Services - Commercial TENT Prescreen Checklist

THIS IS NOT A REVIEW FOR CODE COMPLIANCE

Application # TSTR-20-01723 **Submitted Date** 9/10

Project Name Tucci's Patio Tent Winter **Project Address** _____

Project Contact _____ **E-mail** _____ Phone _____

_____ **Staff Use Only Below This Line** _____

Received by Review Services (Date) 9/11

YES ☑ **NO** ☐ **Application Complete?** (Date) 9/11 **by:** df
If not complete please review items marked "**No**" below

NO **GENERAL- Actions Required** (**Assume YES unless marked NO and initialed**)

- ☐ **Application Temporary Structures Form** Complete — **Reviewer Initials** _____
- ☐ **Design Professional Seals** on Drawings/Documents — **Reviewer Initials** _____
- ☐ **No PRELIMINARY drawings** included in submitted Drawings/Documents — **Reviewer Initials** _____
- ☐ **Itemized response to previous reviews provided** — **Reviewer Initials** _____
- ☐ **Drawings** properly named and oriented. — **Reviewer Initials** _____

YES NA NO **BUILDING/ELECTRICAL- Actions Required** **Reviewer Initials** BC

- ☐ ☐ ☑ **Building Code Summary** (construction type, occupancy, and occupant load) provided
- ☑ ☐ ☐ **Tent Floor Plans** provided
- ☐ ☐ ☑ **Site Plan with distance from buildings to Tent Supports identified** provided
- ☐ ☑ ☐ **Platform with accessible exit(s).** 2 accessible exits if occupancy > 49 occupants provided on Drawings.
- ☐ ☐ ☑ **Flame Retardant Certificate for Tent Fabric** noted to provided on Drawings/Documents
- ☐ ☐ ☑ **Egress Illumination with Emergency Power at 1 FC** provided
- ☑ ☐ ☐ **Exits and exit access doors marked on the drawings** provided (if required)
- ☐ ☐ ☑ **Minimum Structural Loading** provided
- ☐ ☑ ☐ **Special Inspections** provided (if required)
- ☐ ☑ ☐ **Special Inspector's Credentials** provided (Credentials required for any approval)
- ☐ ☑ ☐ **Toilet Fixtures complying with OBC 2902.1 and OBC Chapter 11** provided
- ☐ ☑ ☐ **Delegated Design Listed** and **Phased Approval Request Form** provided? _____
- ☐ ☑ ☐ **Generator located, sized and grounded** shown on the plans

Brad 614/410-4613

YES NA NO **FIRE - Actions Required** **Reviewer Initials** _____

- ☐ ☑ ☐ **Required Fire Protection Systems** or **Fire Watch Plan** provided
- ☐ ☐ ☑ **Fire Extinguishers** located on the drawings.

YES NA NO **ZONING/PLANNING - Actions Required** **Reviewer Initials** BC

- ☑ ☐ ☐ **Site Plan** provided

YES NA NO **ENGINEERING - Actions Required** **Reviewer Initials** CAS/df

- ☑ ☐ ☐ **Site Plan** provided

PRESCREEN NOTES

Show how the base plate will be anchored

☐ **PRESCREEN NOTES ON NEXT PAGE IF BOX IS CHECKED**

City of Dublin OHIO, USA
Approved for Construction
TSTR-20-01723
11/03/20

PRESCREEN NOTES (Continued)

City of Dublin
OHIO, USA
Approved for ~~Construction~~
TSTR-20-01723
11/03/20

Washington Township Fire Department
6200 Eiterman Road
Dublin,Ohio 43016
(614)652-3920

Notice of Plan Review

Tucci's Restuarant
35 N High ST
Dublin, OH 43017

Occupancy ID:0000000184

Project: TUCCIS PATIO WINTER (TENT)
Application #: TSTR-20-01723
Use: A-2
Construction: N/A
Area: 1,949 SF
Occupancy: 62 - PER SEATING CHART
Notes: **RECOMMENDED FIRE DISAPPROVAL OF THE TENT DRAWINGS.**

Reported Date	Code/Description
09/16/2020	**150 Permit**
	3104.15 Heating and cooking equipment
	Notes:
	Heating and cooking equipment shall be in accordance with paragraphs (D)(15)(a)(3104.15.1) to (D)(15)(g) (3104.15.7) of this rule
	1. HOW WILL THIS STRUCTURE BE HEATED? - PROVIDE DETAIL OF ANY HEATING UNIT AND ITS POWER/FUEL SOURCE.

WE have reviewed the Construction Documents for the referenced project, as submitted to the Division of Building Standards for matters of concern to the Washington Township Fire Department pertaining to fire protection and the 2017 Ohio Fire Code (OFC)

Inspector,
Hamilton, Chad

* Denotes Violations Corrected or Variance Issued

City of Dublin
OHIO, USA
Approved for Construction
TSTR-20-01723
11/03/20

City of Dublin
OHIO, USA

LISTING OF ITEMS OF NON-COMPLIANCE

This is not a Building Permit. It is a record of our review of documents submitted with your application for a Building Permit.

---

23 September 2020

Ms. Brenda Kinser
O'Neil Tents
895 W. Walnut Street
Canal Winchester, OH 43110
(614) 837-6352 bjk@oneiltents.com

Re:	Tucci's Patio Winter Tent
Address:	35 N. High Street (43017)
Application No.:	TSTR-20-01723

Dear Ms. Kinser:

The construction documents submitted 15 September 2020 have been reviewed for compliance with the provisions of the 2017 Ohio Building Code (August 2018 Edition). The review was based upon the following criteria:

Primary Use Group:	A-2 (Restaurant)
Area/Occupant Load:	1,969 SF / Chairs @ Tables shown = 62 Seats* *Reference all current Governor of Ohio's "Responsible RestartOhio" regulations and guidance for social distancing requirements.
Construction Type:	TBD
Special Stipulations:	1. Set up 1 November 2020: Take down by 29 April 2021 (<180 days) or until the end of the executive Order, whichever is first. 1. Tents must be evacuated if wind speeds meet or exceed 40 MPH. 2. No cooking allowed.
Project Description:	Temporary structure to create outdoor eating area for Tucci's restaurant as allowed by City of Dublin "Executive Order for Portable Structures and Temporary Uses" related to COVID-19 State of Emergency (March 17, 2020). Tent consists of a clear span 43'-0"x43'-0" structure and attached 10'x12' vestibule tent, all with closed sides.
Previous Occ Cert:	TSTR-20-00999 (summer tent); 12-200470 (building)

City of Dublin
OHIO, USA
Approved for Construction
TSTR-20-01723
11/03/20

The construction documents were prepared by O'Neil Tents and Robert V. Wangia, Ohio registered engineer #E-73309 to comply with the requirements of the OBC Section 107.4.3 and have been reviewed, therefore, in accord with that Section.

OBC 107.4 Review of plans. When construction documents have been submitted to the building department for review and approval, the building official shall cause the construction documents to be examined for compliance with the rules of the board. . . .

The construction documents, which have been submitted for review, do not allow the City of Dublin to issue a full approval. The following item(s) have been found to not be in compliance with the rules of the board:

Item 1 **OBC 3103.1.1 Conformance.** Temporary structures and uses shall conform to the structural strength, fire safety, means of egress, accessibility, light, ventilation and sanitary requirements of this code as necessary to ensure public health, safety and general welfare.

Item 2 **OBC 106.1.1 Information on construction documents.** Construction documents shall be dimensioned and drawn upon suitable material. Electronic media documents are permitted to be submitted when approved by the building official. Construction documents shall be coordinated and of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code. Construction drawings shall include information necessary to determine compliance with the building, mechanical, plumbing and fire protection codes such as:

- **a.** *Please show the tent location (in relation to existing building and property lines) and orientation on the site plan, <u>including</u> location of the vestibule tent and access to the exit discharge.*
- **b.** *Floor plans must show all relevant information such as, but not limited to, door locations, door swings and all portions of the means of egress.*
- **c.** *Please provide information for any proposed heating in this structure.*

Item 3 **OBC 602.1 General.** Buildings and structures erected shall be classified in one of the five construction types defined in Section 602.2 through 602.5.

- **a.** *Please provide Flame Retardant Certificate for Tent Fabric or other documentation to demonstrate and confirm construction type classification.*

Item 4 **OBC 1010.1 Doors.** Means of egress doors shall meet the requirements of this section. Doors serving a means of egress system shall meet the requirements of this section and Section 1022.2.

- **a.** *Please provide information for all egress doors including size, direction of swing, door operations, and hardware.*

Item 5 **OBC 906.1 Where required.** Portable fire extinguishers shall be installed in all of the following locations: 1. In Group A occupancies….

- **a.** *Please show size, type and location of portable fire extinguishers.*

Item 6 **OBC 1604.8 Anchorage.** Buildings and other structures, and portions thereof, shall be provided with anchorage in accordance with Section 1604.8.1 and 1604.8.3, as applicable.

a. *The drawings indicate that (4) anchors are used in each base plate, but do not provide information for proposed anchors. Please show how the base plate will be anchored.*

Item 7 The Washington Township Fire Department has requested an opportunity to provide input to the Dublin building department on issues relating to fire protection. The building official has evaluated the Department's comments related to the fire protection provisions of the OBC and incorporates those comments, by reference, into this Listing of Items of Noncompliance.

a. *Please reply to and resolve the matters of the Fire Department's correspondence to this office.*

Please advise the reviewer if the owner will cause the information to be provided to the department for review or dispute the items of noncompliance we have identified. If the owner's intention is to dispute an item of non-compliance, please provide the basis for the dispute for the building official's review. The building official shall evaluate your response, the plans examiner's report and any reports received from the fire official as described in Section 106.1.2.5 and render a final determination as to whether the items of noncompliance are to be communicated to the owner in the form of an adjudication order complying with Section 109. The building official shall also determine whether any further approvals are possible, and issue the appropriate approval as described in Section 105.

Please provide a written, point by point response, identifying the action or position taken to each of the items and sub-items in the listing.

Reviewed and Signed,

J.E. Rusanowsky

Janet E. Rusanowsky, Architect
Commercial Plans Examiner
(614) 410 4612 jrusanowsky@dublin.oh.us

Owner or Owner's Representative Date

Print Name and Title as Signed

Tucci's TSTR-20-01723

GEOTECHNICAL CONSULTANTS INC.

MAIN OFFICE
720 Greencrest Drive
Westerville, OH 43081
614.895.1400 **phone**
614.895.1171 **fax**

YOUNGSTOWN OFFICE
8433 South Avenue
Building 1, Suite 1
Boardman, OH 44514
330.965.1400 **phone**
330.965.1410 **fax**

DAYTON OFFICE
2380 Bellbrook Avenue
Xenia, OH 45385
937.736.2053 **phone**

www.gci2000.com

FOOTING OBSERVATION REPORT

PROJECT: Tucci's Outdoor Canopy
25 N High St - Dublin, OH

DATE: 11/04/20 **JOB NO.:** 20-F-24684

CLIENT: Lehman Daman Construction

WEATHER: Sunny, 60's to 70's

OBSERVATIONS:
Footing soils were evaluated visually for foundation support. Soil bearing at footing elevation was verified using applicable testing methods and procedures. The following test data and observations were determined.

1) **FOOTING LOCATION:**	35 N High Street - Perimeter canopy augured pier footings at lines 1-4/A-D
2) **PERMIT NUMBER: (If Applicable)**	N/A
3) **FOOTING ELEVATION (DESIGN / UNDERCUT):**	Design
4) **FOOTING BEARING ON (FILL / NATURAL):**	Natural
5) **VISUAL SOIL CONDITIONS:**	Limestone bedrock
6) **AVERAGE SOIL BEARING (P.S.F.):**	5,000+
7) **REQUIRED SOIL BEARING (P.S.F.):**	3,000
8) **CONCRETE TEST CYLINDERS CAST? (YES / NO):**	No
9) **COMMENTS:**	

Observations indicated firm and stable soil conditions at footing grade. Observations indicated footing subgrade soil bearing values exceed required bearing values. Footings were excavated to approved project plan dimensions and reinforcing steel was installed per on site approved project plans (Page S1, dated 09/25/20, and submitted by Schaefer Architects).

CC: Lehman Daman Const (pdf)

TECHNICIAN: Brad Lemity

Commercial Temporary Structure (Tents) includes WTFD Permit

JOB INFORMATION

Date: 11/03/2020

Record ID/ Permit No.: TSTR-20-01723

Address: 35 N HIGH St, DUBLIN, OH 43017

Type: Commercial Temporary Structure (Tents) includes WTFD

Job Name: Tucci's Patio Tent - Winter

Description: Installing a 43x43 clear span tent over the patio. Tent will be enclosed for winter seating for the restau

Contractor:

Water Tap Size:

APPLICANT RESPONSIBILITY

I hereby agree that I will take full responsibility as required by law for compliance with all state and local codes and ordinances pertaining to construction and the conditions of this permit. All construction debris must be removed by the contractor. I also agree to notify the building department when work is ready for inspection and comply with section 108 of the Ohio Building Code for non-residential construction or the Residential Code of Ohio for Residential Construction.

PERMIT ISSUED BY

Issued By: Brad Fagrell

City of Dublin Building Standards, 5200 Emerald Parkway - Annex, Dublin, Ohio 43017

Phone: 614.410.4670

City of Dublin OHIO, USA
Approved for Construction
TSTR-20-01723
11/03/20

TSTR-20-01723

GEOTECHNICAL CONSULTANTS INC.

MAIN OFFICE
720 Greencrest Drive
Westerville, OH 43081
614.895.1400 **phone**
614.895.1171 **fax**

YOUNGSTOWN OFFICE
8433 South Avenue
Building 1, Suite 1
Boardman, OH 44514
330.965.1400 **phone**
330.965.1410 **fax**

DAYTON OFFICE
2380 Bellbrook Avenue
Xenia, OH 45385
937.736.2053 **phone**

www.gci2000.com

November 20, 2020

Mr. Seth Burner
Lehman Daman Construction
975 Eastwind Drive, Suite 130
Westerville, Ohio 43081

Reference: **Special Inspections Summary**
Tucci's Outdoor Canopy
35 North High Street – Dublin, Ohio
GCI Project No.: 20-F-24684

Dear Mr. Burner:

Geotechnical Consultants, Inc. (GCI) observed construction operations and performed materials testing from the period of November 4, 2020 to November 10, 2020 for the above referenced project. Services are on-going and a separate summary will be submitted at completion.

The foundations we observed were constructed on limestone bedrock. Our field reports noted that foundation subgrade bearing met or exceeded the required soil bearing pressure of 3,000 psf. Our observations further indicate that foundation steel reinforcement and dimensions were in accordance with the approved building plans and specifications. Compressive strength tests taken during foundation concrete placement met or exceeded design strength. Drilled anchor bolt placement (Hilti) was performed per the approved plans and the manufacturer's instructions.

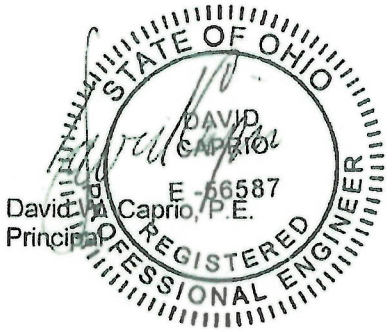
We also observed placement of non-shrink grout under column bases to be satisfactory.

Specific information regarding our daily site visits can be obtained from our *Daily Site Observation Reports* for the project.

In summary, based on our site observations, it is our opinion that the referenced items were constructed in accordance with the approved project plans and specifications. We trust this letter provides you with the necessary information. If you have any questions or need additional information, please call.

Respectfully submitted,
Geotechnical Consultants, Inc.

Robert L. Hiles, III
Vice President



David M. Caprio, P.E.
Principal

Washington Township Fire Department
6200 Eiterman Road
Dublin,Ohio 43016
(614)652-3920

Notice of Plan Review

Tucci's Restuarant
35 N High ST
Dublin, OH 43017

Occupancy ID:0000000184

Project: TUCCI'S PATIO WINTER TENT, REV.
Application #: TSTR-20-01723(1)
Use: A-2
Construction: N/A
Area: 1,949 SF
Occupancy: 62 PER SEATING CHART
Notes: **RECOMMENDED FIRE APPROVAL OF THE REVISED DRAWINGS.**

Reported Date	Code/Description
10/26/2020	**130 Building** **6801.01 No Violations Noted** **Notes:** No Violations Noted. REVISION 1 REVIEWED - COMPLIANT

WE have reviewed the Construction Documents for the referenced project, as submitted to the Division of Building Standards for matters of concern to the Washington Township Fire Department pertaining to fire protection and the 2017 Ohio Fire Code (OFC)

Inspector,
Hamilton, Chad

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* Denotes Violations Corrected or Variance Issued

City of Dublin
OHIO, USA

CERTIFICATE OF PLAN APPROVAL

This is not a Building Permit. It is a record of our review of documents submitted with your application for a Building Permit.

---

26 October 2020

Ms. Brenda Kinser
O'Neil Tents
895 W. Walnut Street
Canal Winchester, OH 43110
(614) 837-6352 bjk@oneiltents.com

Re:	Tucci's Patio Winter Tent
Address:	35 N. High Street (43017)
Application No.:	TSTR-20-01723(1)

Dear Ms. Kinser:

The construction documents dated 25 September 2020 have been reviewed for compliance with the provisions of the 2017 Ohio Building Code (August 2018 Edition). The review was based upon the following criteria:

Primary Use Group:	A-2
Area/Occupant Load:	1,849 SF / Chairs @ Tables shown = 62 Seats* *Reference all current Governor of Ohio's "Responsible RestartOhio" regulations and guidance for social distancing requirements
Construction Type:	IIB
Special Stipulations:	1. Set up 1 November 2020; Take down by 29 April 2020 (<180 days) or until the end of the Executive Order, whichever is first. 2. This approval is for the 43'x43' main tent only. 3. No cooking allowed.
Project Description:	Temporary structure to create additional eating area for Tucci's restaurant as allowed by City of Dublin "Executive Order for Portable Structures and Temporary Uses" related to COVID-19 State of Emergency (March 17, 2020). Tent consists of a clear span 43'-0"X43'-0" enclosed, heated structure anchored to new concrete piers with two illuminated exit signs/egress lights w battery back-up and 2 fire extinguishers.
Previous Occ Cert:	TSTR-20-00999 (summer tent): 12-200470 (building)

The construction documents were prepared by Robert V. Nangia, Ohio registered engineer #E-73309 and Jeffery R. Bolchalk, Ohio registered engineer #E-70796 to comply with t

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requirements of the OBC Section 107.4.3 and have been reviewed, therefore, in accord with that Section.

OBC 107.5.1 Approval of construction documents. . . . *When the construction documents have been determined to conform to the applicable provisions of the rules of the Board, the building official shall endorse or stamp such plans as approved and issue the certificate of plan approval in accordance with section 105.5.*

Item 1 **THE CONSTRUCTION DOCUMENTS ARE APPROVED**

Item 2 **The qualification of Geotechnical Consultants, Inc. as the Special Inspection company for all foundation and structural work has been reviewed and accepted by the building official.**
1704.2.4 Report requirement. *Special inspectors* shall keep records of inspections. The *special inspectors* shall submit reports of special inspections and tests to the building official and to the registered design professional in responsible charge. Reports shall indicate that work inspected or tested was or was not completed in conformance to approved construction documents. Discrepancies shall be brought to the immediate attention of the contractor for correction. If they are not corrected, the discrepancies shall be brought to the attention of the building official and to the registered design professional in responsible charge prior to the completion of that phase of the work. A final report documenting required special inspections and tests, and correction of any discrepancies noted in the inspections or tests, shall be submitted at a point in time agreed upon prior to the start of work by the owner or the owner's representative to the building official prior to the *issuance of a certificate of occupancy*.

This APPROVAL is for the issuance of a general building permit only. Separate permits and fees for plumbing, mechanical, sprinkler, electric and low-voltage must be obtained from the Dublin Building Standards Division prior to the start of any work in these generally subcontracted areas.

The following items are required for code compliance, but are not necessarily covered in detail in the construction documents. This list is a reminder to the design professional and contractors of issues, which are to be satisfactorily dealt with in the field:

Item A Review and Approval of Plumbing Drawings and inspection of Plumbing installations are performed by the Franklin County Board of Health

Item B **OBC 106.3 Amended construction documents.** If substantive changes to the building are contemplated after first document submission, or during construction, those changes must be submitted to the building official for review and approval prior to those changes being executed. The building official may waive this requirement in the instance of an emergency repair, or similar instance.

Item C **OBC 107.5.2 Posting.** The certificate of plan approval shall be posted in a conspicuous location on the site. The owner and the contractor shall preserve and keep the certificate posted until the final inspections are complete.

Item D **OBC 107.7 Approved construction document sets.** One set of construction documents shall be kept by the building official. The other set(s) shall be returned to the applicant, kept at the work site along with manufacturers' installation instructions and product information, and shall be available for use by the inspector.

Item E **OBC 108.1 General.** *. . . Construction or work for which an approval is required shall be subject to inspection by the building official. It shall be the duty of the owner or the owner's duly authorized representative to notify the building department when work is ready for inspection. Access to and means for inspection of such work shall be provided for any inspections that are required by this code.*
It shall be the duty of the owner or the owner's authorized representative to cause the work to remain accessible and exposed for inspection purposes . . . until the work has been inspected to verify compliance with the approved construction documents. . .
This includes firestopping and draftstopping, mechanical work; piping, ducts and systems, structural members and connections, and electrical work (Chapter 27 OBC). All systems and elements covered by code are to be inspected and approved before being covered.
Subsequent work is allowed to proceed only to the point of the next required inspection.

Item F **OBC 804.3 Testing and Identification** Interior floor finish and floor covering materials shall be tested by an approved agency in accordance with NFPA 253 and identified by a hang tag or other suitable method so as to identify the manufacturer or supplier and style, and shall indicate the interior floor finish or floor covering classification according to Section 804.2. Carpet-type floor coverings shall be tested as proposed for use, including underlayment. Test reports confirming the information provided in the manufacturer's product identification shall be furnished to the building official upon request.

Item G **OBC 1101.2 Design.** Buildings and facilities shall be designed and constructed to be accessible in accordance with this code and ICC 117.1 as amended in Section 1112 of this chapter.

Item H All electrical will comply with the requirements of Article 27 OBC and the National Electrical Code, NFPA 70, OBC approved.

Reviewed and Signed,

J.E. Rusanowsky

Janet E. Rusanowsky, Architect
Commercial Plans Examiner
(614) 410 4612 jrusanowsky@dublin.oh.us

Brad Fagrell

Brad Fagrell, P.E.
Director of Building Standards/CBO

City of Dublin OHIO, USA
Approved for Construction
TSTR-20-01723
11/03/20

Owner or Owner's Representative Date

Print Name and Title as Signed

CHECKLIST OF REQUIRED INSPECTIONS

City of Dublin
OHIO, USA

Date: **26-Oct-20**
Reviewer: **jer**
App Type Code: **TSTR**
Application No: **TSTR-20-01723(1)**
Project Name: **Tucci's Patio Wiinter Tent**

Project Address: **35 N. High Street**

( ) INSPECTION ***NOT REQUIRED***
(❍) INSPECTION ***TO BE REQUIRED***
(●) INSPECTION ***REQUIRED THIS PHASE***

FULL APPROVAL

TYPE OF INSPECTION	
Building Inspections	
(●)	FOOTINGS
( )	FOUNDATION STEEL
( )	FOUNDATION
( )	BUILDING PIERS
( )	BUILDING WATERPROOFING
( )	MASONRY WALL GROUTING
( )	DIAMONDS (BOX OUTS)
( )	PRE SLAB
( )	FIRE-RATED ASSEMBLY
( )	SHEAR WALLS
(●)	STRUCTURE / FRAME
( )	RATED WALL FASTENERS
( )	FIREPLACE
( )	EXTERIOR WALL INSULATION
( )	SHAFT WALL
( )	FIRESTOP ASSEMBLY
( )	STRUCTURAL ABOVE CEILING
( )	WITNESS
(●)	OCCUPANCY
Electrical Inspections	
( )	ELECTRIC TEMP SERVICE
( )	ELECTRIC UNDERGROUND
( )	ELECTRIC BONDING (UFER)
( )	ELECTRIC ROUGH
( )	ELECTRIC ABOVE CEILING
( )	ELECTRIC SERVICE
( )	ELECTRIC FINAL
Miscellaneous Inspections	
( )	TENT
( )	DEMOLITION

TYPE OF INSPECTION	
HVAC Inspections	
( )	HVAC ABOVE CEILING
( )	HVAC ROUGH
( )	HVAC FINAL
( )	HOOD SUPPRESSION
Gas Piping Inspections	
( )	GAS PIPING UNDERGROUND
( )	GAS PIPING ROUGH
( )	GAS PIPING FINAL
( )	GAS FIREPLACE
Franklin County Plumbing	
( )	PLUMBING UNDERGROUND
( )	PLUMBING ROUGH
( )	PLUMBING FINAL
Washington Twp Fire Inspections	
(●)	FIRE PREVENTION
( )	FIRE ALARM ROUGH
( )	FIRE ALARM FINAL
( )	SPRINKLER ROUGH
( )	SPRINKLER ABOVE CEILING
( )	SPRINKLER FINAL
( )	FIRE LINE UNDERGROUND
Additional Permits Required	
( )	ELECTRIC
( )	PLUMBING
( )	HVAC
( )	GAS PIPING
( )	LOW VOLTAGE
( )	FIRE PROTECTION
Certificate Type	
(●)	CERTIFICATE OF OCCUPANCY
( )	CERTIFICATE OF COMPLETION

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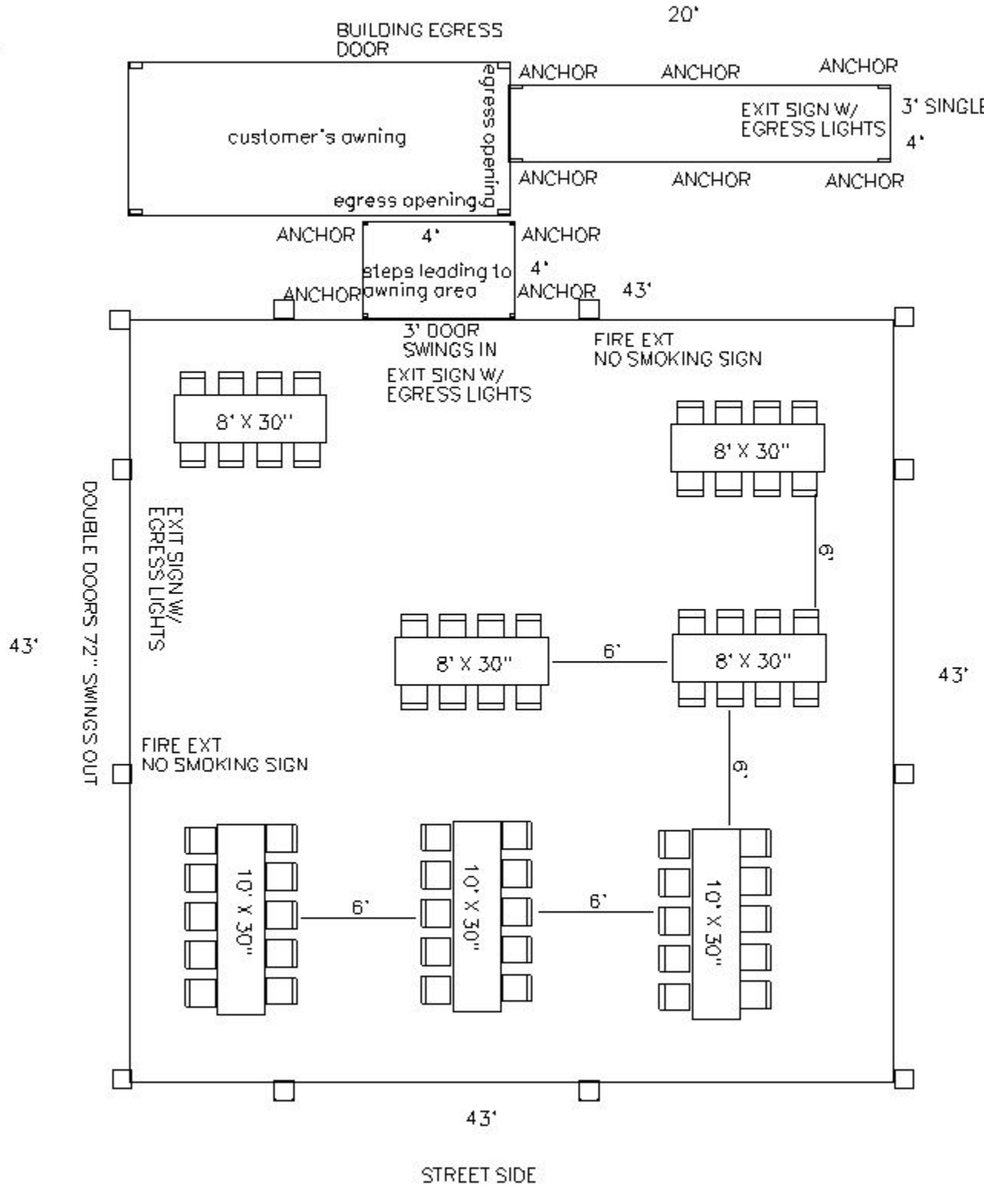
43X43 CLEAR SPAN TENT
WALL ON ALL SIDES
TENT WILL HAVE TWO
ILLUMINATED EXIT W/EGRESS
FIRE EXTGUISHERS 5 lb (3–A 40 B–C)
AND
NO SMOKING SIGNS

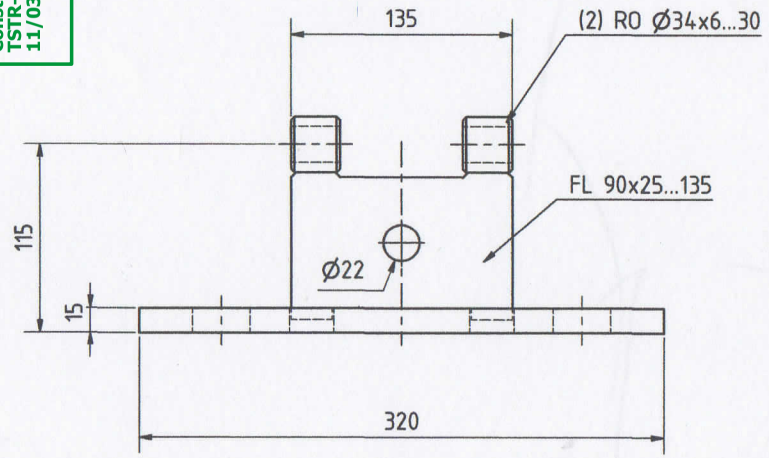
ALL OCCUPANTS HAVE
ACCESS TO RESTROOMS
IN THE BUILDING

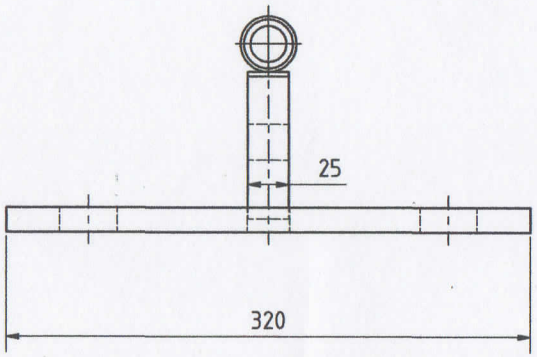
□ = BASE PLATE AT
EVERY UPRIGHT
USES FOUR ANCHORS

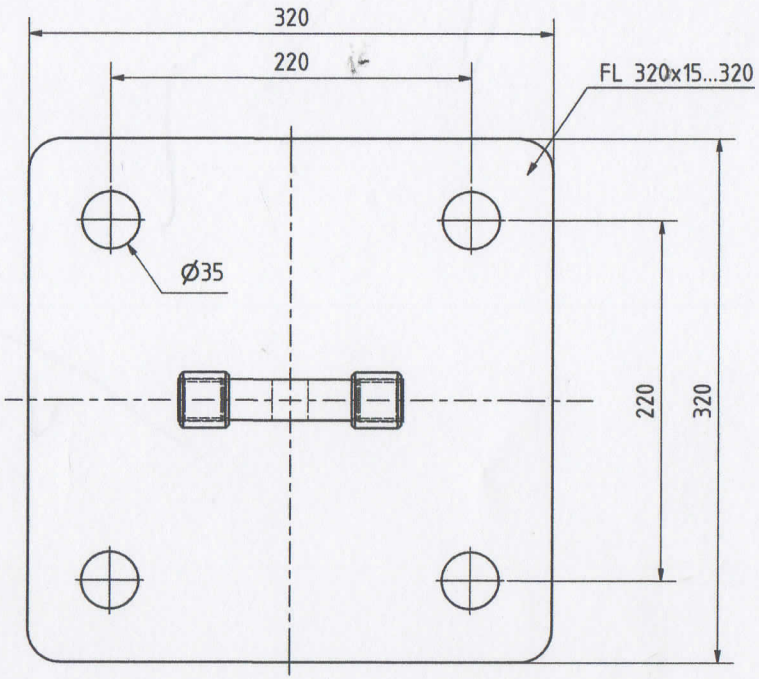
4X4 CANOPY WITH WALL
ON 4' SIDES ONLY.
THIS TENT JUST COVERS THE
AREA FROM THE TENT TO THE
AWNING AND CONTAINS A SINGLE DOOR THAT
SWINGS INWARD PER CITY SUGGESTION
FRON ON SITE MEETING
THIS TENT TO BE SECURED
WITH SINGLE ANCHORS
AT THE CORNERS

4'X20' WALKWAY TENT
THAT WILL HAVE SIDE WALLS AND
IT WILL CONNECT THE
AWNING COVERED AREA
AND RUN DOWN THE RAMP
WITH A DOOR SWINGING OUT ON THE END
THE TENT WILL BE SECURED WITH ANCHORS
INSTALLED IN THE CONCRETE.









01	Staenderblech von 20 auf 25mm geaendert	29.01.2018	alet
00	Uebernahme ACAD (Rev.02) ohne Aenderungen	13.05.2016	pschenkel
Rev.	Bemerkung Revisionsverlauf	Aend.-datum	Aenderer

Gew. 14.143 kg | Maßstab 1 : 3
Werkstoff, Halbzeug: S355JR

Toleranzregel DIN 30630
Allgemeintoleranzen
DIN EN ISO 13920 - BE
DIN ISO 2768 - mK

	Datum	Name
Erst.2D	17.05.2013	kloewer
Erst.3D	13.05.2016	pschenkel
Pruefer	29.01.2018	mkaiser

RÖDER HTS HÖCKER GMBH

Verwendung 1, Verwendung 2
LX15 Rand- u. Normalbinder
u. GS (EN); LX10 alle Binder (EN)

Benennung 1, Benennung 2
Ankerplatte 4-loch
LX10-LX35 alle Binder (Duebel)

Status: Freigabe

Teilenummer / Zeichnungsnummer	Revision	Version	Orderbuch
6900000114	01	001	Nein

spr. Material-Nr.: BP.0320.320.001
Ersatz fuer:
2 / 2 | A3

Gmail

Search mail

Compose

Inbox 3
Starred
Snoozed
Sent
Drafts
Trash
AMAZON

Meet
Start a meeting
Join a meeting

Hangouts
Brenda

No recent chats
Start a new one

1 of 101

City of Dublin OHIO, USA
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TSTR-20-01723
11/03/20

Re: Tucci tent

Inbox ×

Victor Manzano <victor.manzano@hts-tentiq.com>
to me

Tue, Sep 29, 8:11 PM (11 hours ago)

Brenda,

Door specs below.

width	1.185 mm
height	2.140 mm
Material	Aluminium
Sash and frame color	white
Filling	VSG 6mm clear
Bottom cover (kicker panel)	Without
Fittings double wing door	No double wing door
Demountable	No
Stop direction (from outside)	DIN right
Number of door closers	1 door closer
Variants	left and right aluminum rectangular tube 50x30x2mm
Fittings for single doors	Active wing: inside Panic bar/external lever handle
Fittings Party tent door	No party tent door
Component	single wing door

Best regards

Victor Manzano
Sales Manager US mid states & Canada.

HTS-TENTIQ
4328, E Tradewinds Avenue
Lauderdale By Sea
Florida, 33308
USA

Cell +1 561 665 1199
Phone +1 561 450 6974

E-Mail victor.manzano@hts-tentiq.com

Type here to search

7:46 AM
9/30/2020

STRUCTURAL NOTES

GOVERNING CODE

2017 OHIO BUILDING CODE (REFERENCES IBC 2015 & ASCE-7 10).

DESIGN LOADS

1. TENT STRUCTURE FOUNDATION: FOUNDATION DESIGN IS BASED ON FOUNDATION REACTIONS PROVIDED BY HTS TENTIQ, DATED AUGUST 31, 2020

CONSTRUCTION AND SAFETY

1. ENGINEER SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION SELECTED BY CONTRACTOR.
2. THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND IS NOT LIMITED TO NORMAL WORKING HOURS. WHEN ON SITE, THE ENGINEER IS RESPONSIBLE FOR HIS/HER OWN SAFETY BUT HAS NO RESPONSIBILITY FOR THE SAFETY OF OTHER PERSONNEL OR SAFETY CONDITIONS AT THE SITE.
3. CONTRACTOR SHALL BRACE ENTIRE STRUCTURE AS REQUIRED TO MAINTAIN STABILITY UNTIL COMPLETE AND FUNCTIONING AS THE DESIGNED UNIT.
4. ANCHOR RODS AND FOUNDATION DOWELS SHALL NOT BE REPAIRED, REPLACED OR FIELD-MODIFIED WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.

FOUNDATIONS

1. PER CLIENT'S REQUEST, THE FOUNDATION DESIGN AND GENERAL FOUNDATION NOTES ARE BASED ON THE ASSUMPTION OF FAVORABLE SOIL CONDITIONS. ALL FOOTINGS SHALL BEAR ON LEVEL (WITHIN 1 IN 12) UNDISTURBED SOIL OR APPROVED ENGINEERED FILL. FOUNDATIONS HAVE BEEN DESIGNED FOR A MAXIMUM SOIL BEARING PRESSURE OF 1500 PSF BELOW ISOLATED COLUMN FOOTINGS. FOUNDATIONS HAVE BEEN DESIGNED FOR A MAXIMUM LATERAL BEARING PRESSURE OF 150 PSF/FT BELOW NATURAL GRADE AGAINST PIERS.
2. CONTRACTOR SHALL CONTACT UTILITY COMPANIES FOR LOCATING UNDERGROUND SERVICES AND IS RESPONSIBLE FOR THEIR PROTECTION AND SUPPORT.
3. FROST DEPTH IS 32 INCHES BELOW GRADE. BOTTOM OF FOOTINGS MUST BE BELOW SPECIFIED MINIMUM FROST DEPTH AS MEASURED FROM EXTERIOR GRADE. MAINTAIN SPECIFIED T/FDN ELEVATIONS AND THICKEN FOOTING OR PLACE ON CLSM AS REQUIRED.
4. FOUNDATIONS MAY BE PLACED WITHOUT SIDE FORMS IF EXCAVATED WALLS STAND APPROXIMATELY VERTICAL

CAST-IN-PLACE CONCRETE (03-30-00)

1. CONCRETE MATERIALS:
   A. CONCRETE FOR FOOTINGS: f'c = 3000 PSI
   B. REINFORCING STEEL:
      i. DEFORMED BARS: ASTM A615,60 KSI YIELD.
2. REINFORCING BARS SHALL HAVE CLEAR COVER AS INDICATED ON THE DRAWINGS. WHERE NOT INDICATED, PROVIDE MINIMUM CLEAR COVER PER ACI-318.
3. REINFORCING BARS SHALL BE FREE OF DIRT AND FORM RELEASE AGENTS.
4. CONCRETE WORK IN COLD WEATHER SHALL CONFORM TO ALL REQUIREMENTS OF ACI 306.1-90 "STANDARD SPECIFICATION FOR COLD WEATHER CONCRETING" AND ACI 306R-16 "GUIDE TO COLD WEATHER CONCRETING".
5. CONCRETE WORK IN HOT WEATHER SHALL CONFORM TO ALL REQUIREMENTS OF ACI 305.1-14 "SPECIFICATION FOR HOT WEATHER CONCRETING" AND ACI 305R-10 "GUIDE TO HOT WEATHER CONCRETING". THE AIR TEMPERATURE, RELATIVE HUMIDITY, CONCRETE TEMPERATURE, AND WIND SPEED SHALL BE ENTERED INTO NOMOGRAPH FIGURE 4.2 IN ACI 305R-10 TO DETERMINE IF PRECAUTIONS AGAINST PLASTIC SHRINKAGE ARE REQUIRED.

POST INSTALLED ANCHORS

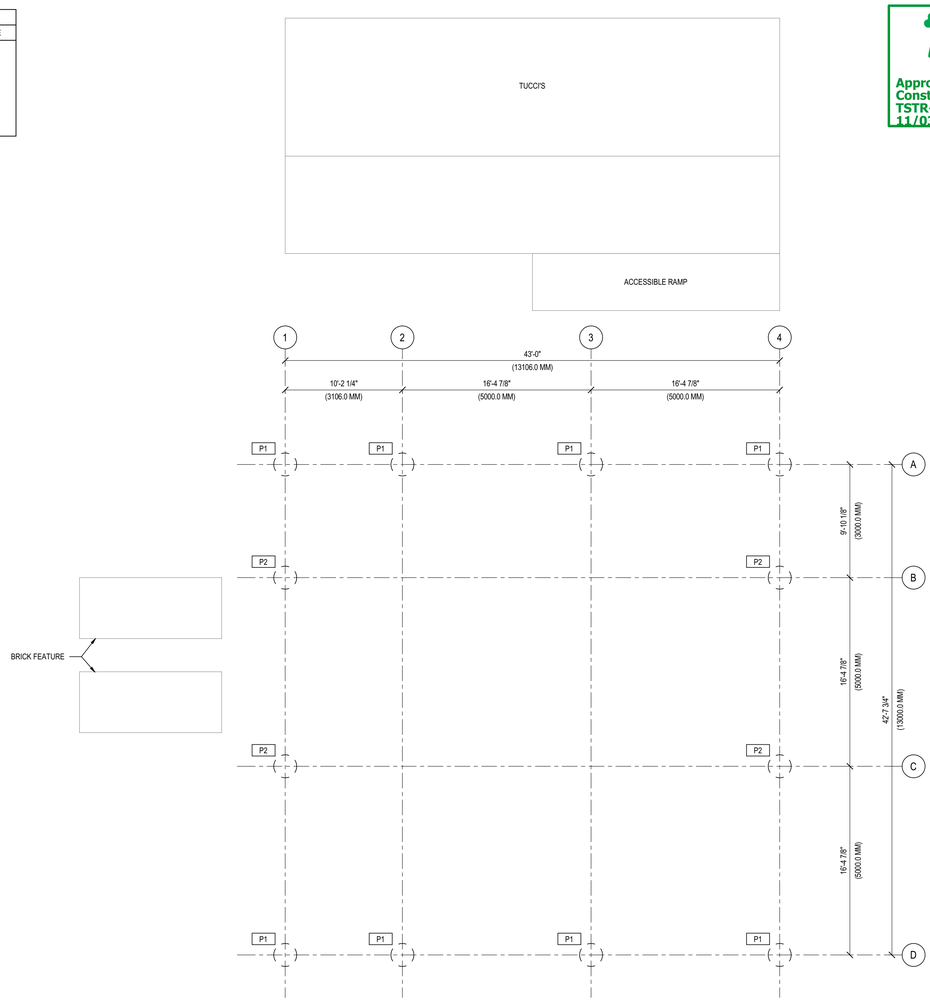
1. INSTALLATION: INSTALL ANCHORS PER EVALUATION REPORT AND MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII).
2. CONNECTIONS TO EXISTING REINFORCED CONCRETE OR MASONRY: PRIOR TO DRILLING, VERIFY LOCATIONS OF EXISTING REINFORCING BARS USING A REBAR DETECTOR. NOTIFY ENGINEER PRIOR TO INSTALLATION IF ANCHOR LOCATIONS CONFLICT WITH EXISTING REINFORCING BARS. DO NOT DRILL THROUGH REINFORCING BARS.
3. TESTING AND INSPECTION: REFER TO EVALUATION REPORTS FOR ADDITIONAL TESTING AND INSPECTION REQUIREMENTS.
4. SUBSTITUTIONS: SUBSTITUTIONS COMPLYING WITH SPECIFIED ACCEPTANCE CRITERIA MAY BE CONSIDERED. SUBMIT EVALUATION REPORT DEMONSTRATING COMPLIANCE WITH GOVERNING CODE AND SPECIFIED ACCEPTANCE CRITERIA PRIOR TO INSTALLATION.
5. ADHESIVE ANCHORS:
   A. ANCHOR RODS: HILTI "HAS-V-36" ASTM F1554, GRADE 36 UNLESS NOTED OTHERWISE. SIZE AND EMBEDMENT AS INDICATED ON DRAWINGS.
   B. ADHESIVE IN CONCRETE: HILTI "HIT-RE 500 V3" EPOXY (EVALUATION REPORT: ICC-ES ESR-3814) OR HILTI "HIT-HY 200-A" HYBRID ADHESIVE (EVALUATION REPORT: ICC-ES ESR-3187). SUBSTITUTES COMPLYING WITH ACCEPTANCE CRITERIA ICC-ES AC308 AND ACI 355.4 FOR USE IN CRACKED CONCRETE MAY BE CONSIDERED.
   C. VERIFY THAT THE SHELF LIFE OF THE ADHESIVE HAS NOT BEEN EXCEEDED ON THE DATE OF INSTALLATION.

SPECIAL INSPECTIONS

1. IT IS ASSUMED THAT SPECIAL INSPECTIONS ARE NOT REQUIRED, AND THAT THIS PROJECT MEETS THE EXCEPTIONS OF 1704.2 OF THE REFERENCED BUILDING CODE.

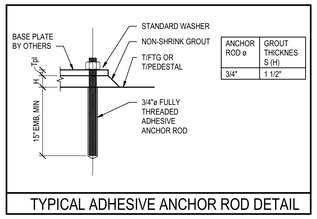
DESIGN OF TENT SYSTEM SUPERSTRUCTURE & BASE PLATES SHALL BE PROVIDED BY THE TENT SUPPLIER

LEGEND		
SYMBOL	DESCRIPTION	REFERENCE
n	COLUMN LINE DESIGNATION	
Pn	PIER MARK	SHEET S1
	ELEVATION INDICATION	

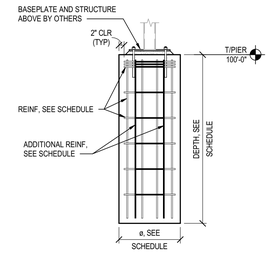


FOUNDATION PLAN
3/16" = 1'-0"

PIER SCHEDULE					
			REINFORCING		
MARK	ø	DEPTH	VERTICAL BARS	TIES	REMARKS
P1	2'-0"	5'-6"	(8) #5	#3 @ 10"oc w/ (3) TIES IN TOP 5"	PROVIDE ADDITIONAL (1) 180° BENT #5 BAR WITHIN 2" OF EACH ANCHOR ROD
P2	2'-0"	8'-0"	(8) #5	#3 @ 10"oc w/ (3) TIES IN TOP 5"	PROVIDE ADDITIONAL (1) 180° BENT #5 BAR WITHIN 2" OF EACH ANCHOR ROD



TYPICAL ADHESIVE ANCHOR ROD DETAIL



TYP PIER DETAIL
1/2" = 1'-0"
1 / S1

City of Dublin OHIO, USA
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TSTR-20-01723
11/03/20

STRUCTURAL ENGINEERS
800.542.3302
schaefer-inc.com
schaefer

STAMP:

STATE OF OHIO
JEFFEREY R. BOLCHALK
70796
REGISTERED
PROFESSIONAL ENGINEER

TUCCI'S

FOR

DESIGNED BY:	CMM
DRAWN BY:	TJK
CHECKED BY:	JRB

ISSUE/REVISION/SUBMISSION

NO	DATE	DESCRIPTION
	09/25/2020	PERMIT SET

PROJECT NUMBER:
2014.87

SHEET NAME:
GENERAL NOTES, PLAN & DETAIL

DATE:
09/25/2020

SHEET:
S1

10/23/2020 9:02:54 AM C:\Autodesk\Revit 2020\2014.87 Tucci's_R20_mwilcox.rvt

SATTLER
PRO-TEX

City of Dublin
OHIO, USA
Approved for Construction
TSTR-20-01723
11/03/20

Sattler PRO-TEX GmbH | Sattlerstraße 45 | 8077 Gössendorf, Austria

Unser Zeichen	Durchwahl	Gössendorf,
KOP	1532	29.09.2020

NFPA 701

We hereby confirm that the National Fire Prevention Association No. 701 Small Scale (Test 1) and Large Scale (Test 2) compliance documents are still valid:

- Flammability Test Report, Lab Identification no. 8543
- Flammability Test Report, Lab Identification no. 10316

Kind Regards

i.A. DI Petra Königshofer
Product Manager

Sattler PRO-TEX GmbH
Sattlerstraße 45, 8077 Gössendorf, Austria

Sitz Gössendorf, FN 425917z Landesgericht Graz
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IBAN: AT84 1200 0100 0510 1976, BIC: BKAUATWW

ISO 9001:2015
Reg.Nr.: 4048/6

ISO 14001:2015
Reg.Nr.: 405/6

CALIFORNIA DEPARTMENT OF FORESTRY and FIRE PROTECTION
OFFICE OF THE STATE FIRE MARSHAL

REGISTERED FLAME RESISTANT PRODUCT

Product:
787 POLYPLAN TENT OPAQUE

Registration No.
F-06001

Product Marketed By:
SATTLER AG
SATTLERSTRASSE 45,
8077 GOSSENDORF AUSTRIA

This product meets the minimum requirements of flame resistance established by the California State Fire Marshal for products identified in Section 13115, California Health and Safety Code.

The scope of the approved use of this product is provided in the current edition of the **CALIFORNIA APPROVED LIST OF FLAME RETARDANT CHEMICALS AND FABRICS, GENERAL AND LIMITED APPLICATIONS CONCERNS** published by the California State Fire Marshal.

Deputy State Fire Marshal

Expire: 6/30/2021

FR-8

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December 19, 2013

Mr. Joe Santaloci
OUTDURA CORP.
447 Main Street
Hudson, NC 28638

Reference: Flammability Test Report
Lab Identification No. 8543
Invoice No. 39305 (Attached)

Dear Mr. Santaloci:

One (1) fabric sample, identified as **787 POLYPLAN TENT OPAQUE**, was received and tested in accordance with the National Fire Prevention Association No. 701, "Standard Methods of Fire Tests for Flame Propagation of Textiles and Films, 2010 Edition, (Test 1, Small Scale)". The results are as follows:

Specimen Number	Residual Flame (seconds)	Weight Loss (percent)
1	0.0	4.41
2	0.0	3.80
3	0.0	3.81
4	0.0	2.33
5	0.0	3.97
6	0.0	2.96
7	0.0	3.96
8	0.0	3.95
9	0.0	4.18
10	0.0	4.15
AVG.	0.0	3.76

The fabric sample submitted **meets** the minimum requirements of the above standard. The average percent weight loss cannot exceed 40% and the weight loss of individual specimens cannot exceed mean value plus three standard deviations. The average residual flame cannot exceed 2.0 seconds.

If there are any questions or when we can be of further assistance, please let us know.

Sincerely,

Bobby E. Puett

BEP/mr
Attachment


O'NEIL TENTS
RENTALS AND MANUFACTURING
City of Dublin
OHIO, USA
Approved for Construction
TSTR-20-01723
11/03/20
X
43'
43'
Tucci's
Italian-inged chophouse
with live tunes
Wing Hill Ln
Screen HVAC per City Code.
X = Temporary HVAC unit placed in existing landscaped area