

Cartwright Park and Fitzsimons Park Renovations

Bid # 26-06

ADDENDUM No. 1

February 24, 2026

Any and all changes to the Contract Document are valid only if they are included by written addendum to all potential respondents, which will be mailed, emailed and/or faxed prior to the bid due date to all who are known to have received a complete bid document. Each respondent must acknowledge receipt of any addenda by indicating on the Bid Form. Each respondent, by acknowledging receipt of any addenda, is responsible for the contents of the addenda and any changes to the bid proposal therein. Failure to acknowledge receipt of any addenda may cause the bid to be rejected. If any language or figures contained in this addendum are in conflict with the original document, this addendum shall prevail.

This addendum consists of the following:

1. Addendum Number One (1) is attached and consists of a total of fifty-six (56) pages, including this cover sheet. Any changes to the drawings or specifications noted within Addendum Number One (1) will be reflected in subsequent drawing issues.

Please feel free to call (847-866-2935) or email (lithomas@cityofevanston.org) and (purchasing@cityofevanston.org) with any questions or comments.

Sincerely,

Linda Thomas
Purchasing Specialist

Cartwright Park and Fitzsimons Park Renovations

Bid # 26-06

ADDENDUM No. 1

February 24, 2026

This addendum forms a part of the Specifications and Bid Documents for Bid #26-06 and modifies these documents. This addendum consists of the following:

Drawings:

- 1. Revision to Sheet C3.0 (Sheet is not reissued)**
 - a. Revise picnic shelter footings to be squared.
 - b. Revise Schedule of Amenities Item O: Drinking Fountain. Manufacturer is Most Dependable Fountains, and the Supplier is Play Design Escapes Inc. Phone: 224-324-4597.

- 2. Reissue Sheet C7.3**
 - a. Revise Detail 1, Picnic Shelter to include engineered stamped dimensions.
 - b. Revise Detail 2, Shelter Footing to include engineered stamped dimensions.

- 3. Revision to Sheet F3.0 (Sheet is not reissued)**
 - a. Revise Schedule of Amenities Item K: Drinking Fountain. Manufacturer is Most Dependable Fountains, and the Supplier is Play Design Escapes Inc. Phone: 224-324-4597.
 - b. Revise Schedule of Amenities Item C: Swings to have two belts, one toddler seat, one ADA seat, and one cirrus swing.

Specifications:

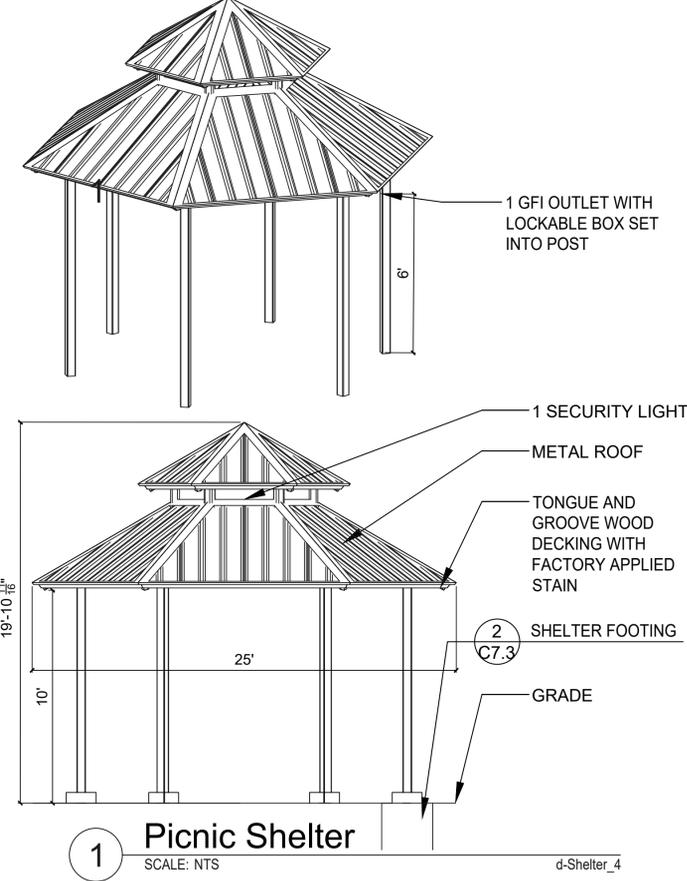
- 1. Reissue Section 32 0117 Asphalt Crack Repair System**
 - a. Revise crack filler and crack repair system products.

- 2. Reissue Section 12 9353 Shelter: Cutsheets.**
 - a. Reissue shelter cutsheets to stamped drawings, see attached.

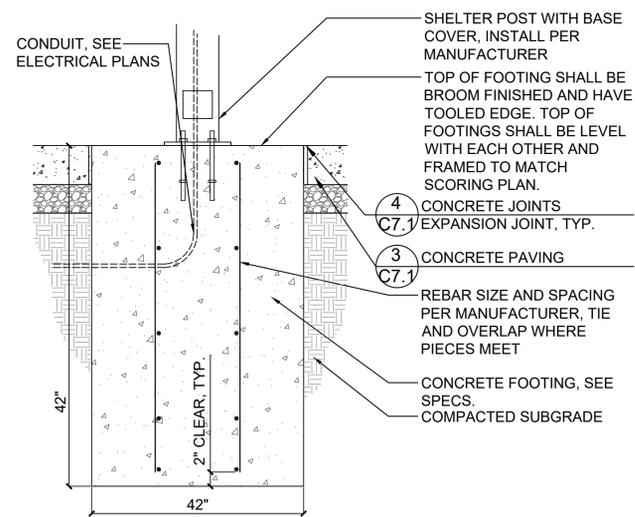
Note: Acknowledgment of this Addendum is required in the Bid.

NOTES:

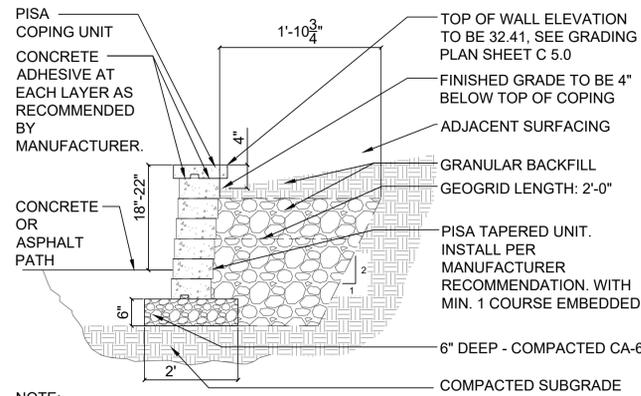
- MANUFACTURER:
POLIGON, SUPPLIER: PRODUCTS4PARKS, 847-514-1085
CONTRACTOR TO PROVIDE ALL NECESSARY MATERIALS AND EQUIPMENT FOR A COMPLETE INSTALLATION.
- CONTRACTOR TO TAKE DELIVERY OF SHELTER. UNCRATE, CHECK, DELIVER TO SITE AND FULLY ASSEMBLE AND INSTALL.
- POSTS TO SET ON FOOTING AND ATTACHED TO GALVANIZED ANCHOR BOLTS SUPPLIED BY MANUFACTURER.
- BID ITEMS TO INCLUDE COMPLETE SHELTER INCLUDING FOOTINGS, FILL & COMPACTION, LIGHTING & ELECTRICAL CONNECTION, AND TONGUE & GROOVE DECKING STAINED BY FACTORY.
- FOLLOW MANUFACTURER'S SPECIFICATIONS FOR INSTALLATION INSTRUCTIONS. COLOR: PER SITE AMENITIES SCHEDULE. ALL STEEL COMPONENTS TO BE POWDERCOATED.
- SUBMIT STAMPED ENGINEERED SHOP DRAWINGS.
- ELECTRICAL CONDUIT, PAINT TO MATCH SHELTER METAL. PROVIDE PROPOSED ROUTING TO OWNER FOR APPROVAL.



1 Picnic Shelter
SCALE: NTS
d-Shelter_4

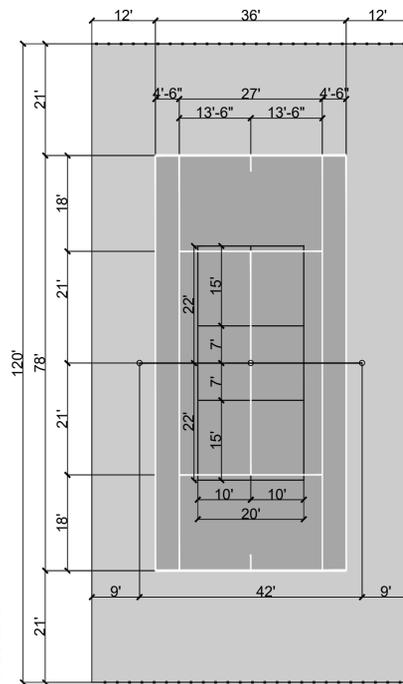


2 Shelter Footing
SCALE: N.T.S.
det-shelter-footing_12

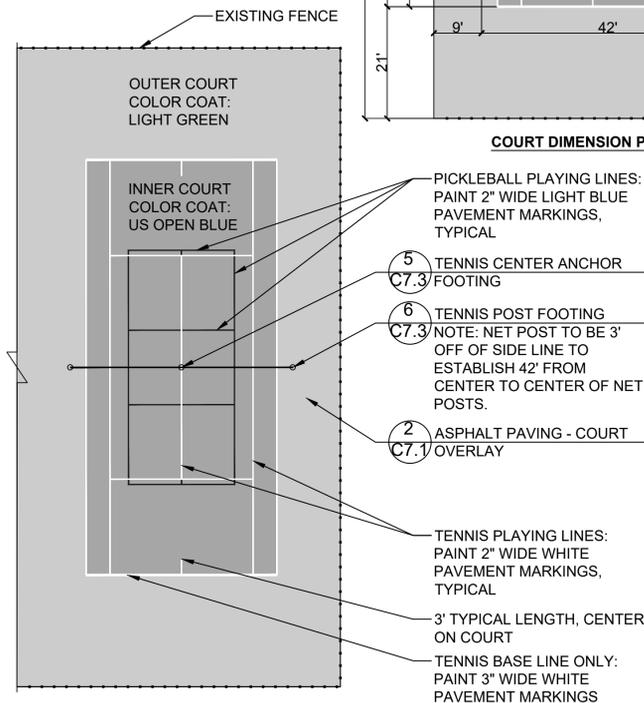


- NOTE:**
- GEOGRID REINFORCEMENT TO BE CUT PERPENDICULAR TO WALL FACE
 - STONE BLOCK TO BE PISAXL SMOOTH IN FIELDSTONE COLOR AS PROVIDED BY UNILCOK, 630-8929-215

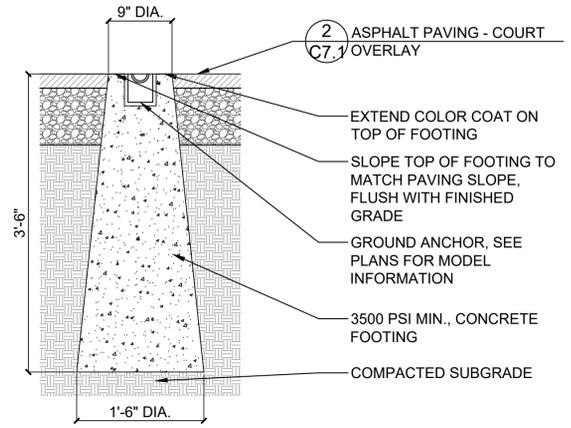
3 Unit Retaining Wall
SCALE: Not to Scale
d-block retaining wall_12.dwg



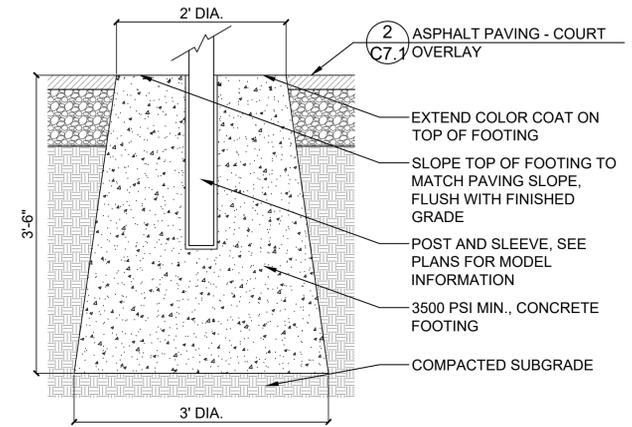
- NOTES:**
- ADJACENT TURF GRASS TO BE FLUSH WITH TOP OF BITUMINOUS PAVING
 - INSTALL NET, ANCHOR, ADJUSTABLE CENTER STRAP PER MANUFACTURER RECOMMENDATIONS
 - TOP OF FENCE POST, AND ANCHOR FOOTINGS TO BE COLOR COATED TO MATCH COURTS.



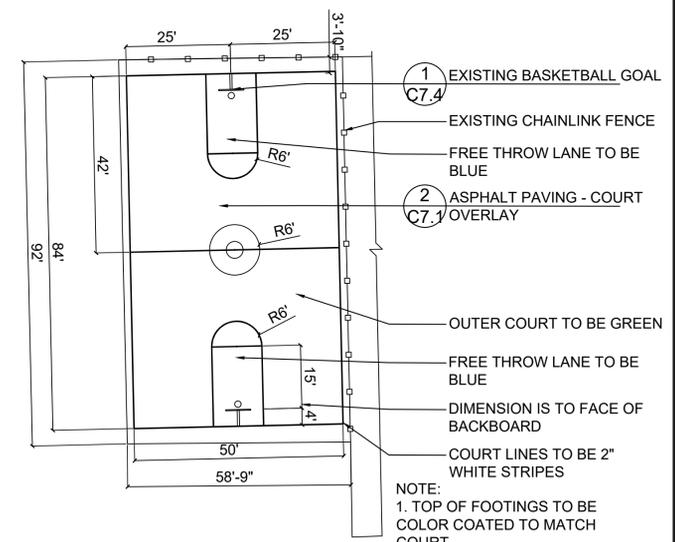
4 Tennis / Pickleball Court
SCALE: 1/16"=1'-0"
d-tennis-court_192



5 Tennis Center Anchor Footing
SCALE: 1"=1'-0"
d-tennis-anchor-footing_12



6 Tennis Post Footing
SCALE: 1"=1'-0"
d-tennis-footing_12



7 Basketball Court Layout
SCALE: Not to Scale
basketball



909 Davis Street
Evanston, Illinois 60201
Phone: 847-448-4311

PROJECT
Cartwright Park Improvements
3250 Grant Street, Evanston, IL 60201

PROJECT TEAM

uplandDesign Ltd
Landscape Architecture & Park Planning
Chicago, Illinois 312-350-4088
Plainfield, Illinois 815-254-0091
uplandDesign.com

CIVIL ENGINEER:
Environmental Design International Inc.
33 W. Monroe Street, Suite 1825 Chicago, Illinois 60603
Phone: 312-345-1400

ELECTRICAL ENGINEER
IMEG Consultants Corp.
263 Shuman Boulevard Suite 550
Naperville, Illinois 60563
Phone: 630-527-2320

ORIGINAL ISSUE DATE
Issue for Permit 04FEB2026

REVISIONS

TD/CG		

PROJECT NUMBER **1358**

SHEET TITLE
Construction Details

SHEET NUMBER

C 7.3

SECTION 32 0117
ASPHALT CRACK REPAIR SYSTEM

1.0 GENERAL

1.1 Description

- A. This work consists of providing all labor, materials, tools and equipment necessary to install fiberglass crack repair system with crack filler.

1.2 Required Submittals

- A. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- B. Manufacturer's Project References are required prior to bid opening if a product other than those listed as pre-approved are submitted as an 'or-equal': Submit manufacturer's list of successfully completed asphalt crack repair projects, including project name, location, and date of application.
- C. Installer's Project References: Submit applicator's list of successfully completed asphalt crack repair projects, including project name, location, type and quantity of crack repair applied, and date of application.
- D. Qualification Data: For IDOT qualified manufacturer.
- E. Product Data: Manufacturer's current technical data sheets for materials for each product specified.
- F. Material Test Reports: For each material.
- G. Warranty Documentation: Submit manufacturer's standard warranty. It is not to be less than one year from the date of project acceptance. All material and labor including any surface preparation or removals is to be included and non-prorated.

1.1 QUALITY ASSURANCE

- A. Manufacturer's Qualifications:
 - 1. Manufacturer regularly engaged, for past 5 years, in manufacture of Crack Repair systems for asphalt surfaces of similar type to that specified.
- B. Applicator's Qualifications:
 - 1. The installer must have been regularly engaged, for past 3 years, in the installation of fiber glass crack repair system of similar type to that specified.
 - 2. Employ persons certified to install fiberglass crack repair system

2.0 MATERIAL

- 2.1 Fiberglass Crack Repair System shall be according to IDOT Section 1063.
- 2.2 Hot Applied Mastick Crack Filler.
- 2.3 Rubberized Crack Filler.

3.0 EXECUTION

3.1 Weather Limitations

- A. Do not install when rain is imminent or if humidity is extremely high
- B. Do not install if asphalt is in any way damp
- C. Do not apply Fiberglass Crack Repair System unless the Temperature is 60° or above.

3.2 Surface Preparation

- A. Thoroughly remove dirt, dust, debris, oil, grease, vegetation, loose materials, and other contaminants from the surface which could adversely affect the installation

of the crack repair system. The Surface shall then be power washed using a deck power washing unit or Hydro-Jet-Blaster. Wand washing will not be accepted.

- B. Cracks to be repaired shall be routed using a powered asphalt routing machine and then blown clean using an air lance so that no dust or debris remains in the crack.

3.3 Crack Filling

- A. Narrow cracks, less than 1", shall be filled with rubberized crack filler.
- B. Large cracks, greater than 1", and/or alligator cracks shall be filled with hot applied mastic crack filler.
- C. Cracks shall be filled from the bottom to the top. Special care shall be taken to ensure all void space is filled. Multiple applications will be required to level the crack filler with the adjacent surface. The manufacturer's installation instructions shall be strictly followed.
- D. Sand and pre-coat as needed to assure repairs are not visible following applications.

3.4 Fiberglass Crack Repair System

- A. Install fiberglass crack repair system per IDOT standard specification 444.
- B. The manufacturer's installation instructions shall be strictly followed.

3.5 Protection of pavement surface

- A. It is the Contractor's responsibility to secure the area from unauthorized access during the work. This may include the addition of temporary fence. Materials and labor for this work is considered incidental and will not be paid for separately.

3.4 Protection of Vegetation

- B. Protection of existing vegetation shall conform to other sections of these Specifications. Protected vegetation shall include all trees, shrubs, plants or other vegetation within or adjacent to the construction area.
- C. At no time shall any material or equipment be stored, nor any construction activity take place within the drip line of any tree, within or adjacent to the construction area, without the written approval of the Owner/Owner's Rep.

3.5 Restoration

- A. The Contractor shall be responsible for the restoration of adjacent turf or planting areas disturbed or damaged through the fulfillment of this Contract.
- B. Disturbed areas shall be restored by the placement of pulverized topsoil raked smooth and level with the finished pavement surface, free of any stones or debris.

4.0 BASIS OF PAYMENT

- 4.1 A linear foot quantity (400) of crack repair has been listed on the bid proposal in order to establish a unit cost. Prior to final acceptance of the work, the contractor shall meet on site with the Owner/Owner's Rep to measure the total linear feet of repairs made. Upon agreement on the quantity of repairs made between the Contractor and the Owner/Owner's Rep, a change order will be prepared that will add to, or subtract, from the amount of repair stated on the bid proposal form. This change order will establish the final payment amount.

END OF SECTION

City of Evanston

32 0117- APHALT CRACK REPAIR SYSTEM

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Page 2 of 2



A Division of PORTERCORP 4240 N. 136th AVE HOLLAND, MI 49424 (616) 888-3500

PROJECT NAME: CARTWRIGHT PARK

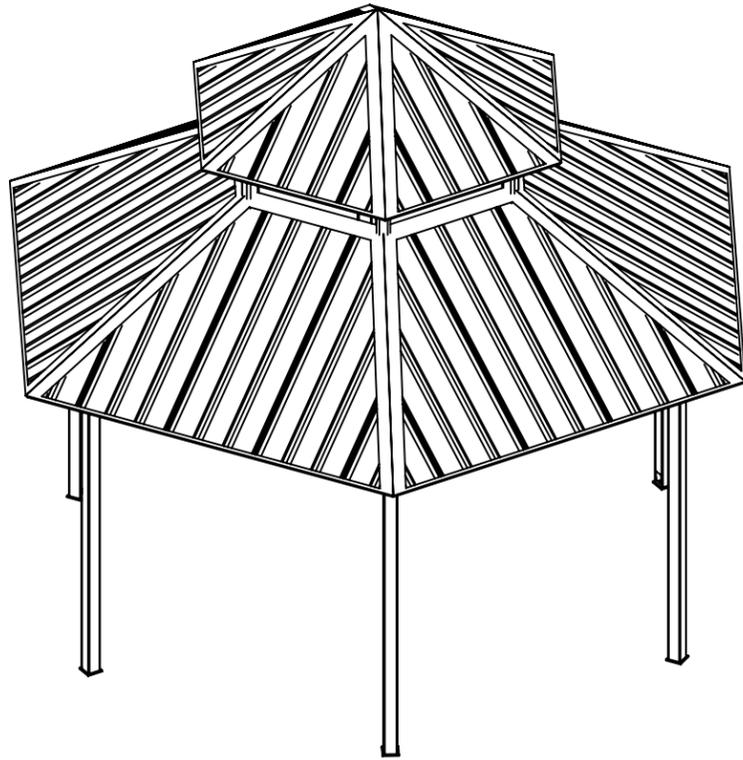
PROJECT LOCATION: EVANSTON, IL

BUILDING TYPE: GXO2 25

ROOF TYPE: MULTI-RIB OVER STAINED T & G

BUILDING NUMBER: P22924

ORDER NUMBER: 84404



DRAWING LIST:

SHEET NUMBER	DRAWING DESCRIPTION
C.S	COVER SHEET
1	ARCHITECTURAL ELEVATIONS
2-2.1	ANCHOR AND FOOTING LAYOUT / DETAILS
3	STRUCTURAL FRAMING PLAN
4-4.1	FRAME CONNECTION DETAILS
5-5.1	ELECTRICAL VIEWS
6-6.2	ROOF LAYOUT
7-7.3	ROOF CONNECTION DETAILS

MANUFACTURER NOTES:

MATERIALS:

DESCRIPTION	A STM DESIGNATION
TUBE STEEL	A 500 (GRADE C)
SCHEDULE PIPE	A 53 (GRADE B)
RMT PIPE	A 519
LIGHT GAGE COLD FORMED CONNECTION PLATES	A 1003 (GRADE 50)
PURLIN FLANGE PLATES	A 572 (GRADE 50)
ROOF PANELS (STEEL)	A 36
ANCHOR BOLTS	A 653
	SEE SHEET 2.1

GENERAL NOTES:

- PORTER CORP IS RESPONSIBLE ONLY FOR THE STRUCTURAL DESIGN OF THE STEEL STRUCTURE (AND FOUNDATION DESIGN IF APPLICABLE) IT SELLS TO THE BUILDER. PORTER CORP OR THEIR ENGINEER IS NOT THE DESIGN PROFESSIONAL OR ENGINEER OF RECORD FOR THE CONSTRUCTION PROJECT. PORTER CORP IS NOT RESPONSIBLE FOR THE DESIGN OF ANY COMPONENTS OR MATERIALS NOT SOLD BY IT OR THEIR INTERFACE AND CONNECTION WITH THE STEEL STRUCTURE.
- UNLESS NOTED OTHERWISE, THIS STRUCTURE WAS DESIGNED TO ONLY SUPPORT WHAT IS SHOWN ON THESE DRAWINGS. POLIGON MUST BE CONTACTED IF ANYTHING ELSE IS TO BE ATTACHED TO THIS STRUCTURE (WALLS, COLUMN WRAPS, RAILINGS, ETC.) SO THE DESIGN OF THIS STRUCTURE CAN BE REVIEWED AND POSSIBLY REVISED.
- THE ENGINEERING SEAL FOR THE STRUCTURE DETAILED IN THESE DRAWINGS IS ONLY VALID IF PORTER CORP DESIGNS AND FABRICATES THE STEEL COMPONENTS. FABRICATING THE STEEL COMPONENTS ELSEWHERE Voids THE ENGINEERING PROVIDED BY PORTER CORP.
- UNLESS NOTED OTHERWISE, THIS STRUCTURE WAS DESIGNED ASSUMING A 20' SEPARATION BETWEEN ANY ADJACENT STRUCTURE WITH AN EAVE HEIGHT EQUAL TO OR GREATER THAN THE EAVE HEIGHT OF THIS STRUCTURE (SEE SNOW DESIGN DATA). IF THAT SEPARATION DOES NOT EXIST AND THE GROUND SNOW LOAD (PG) IS GREATER THAN 0 PSF, POLIGON MUST BE CONTACTED SO THE DESIGN OF THIS STRUCTURE CAN BE REVIEWED AND POSSIBLY REVISED.
- STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATION MANUAL REFERENCED IN THE GOVERNING BUILDING CODE.
- ALL WELDING IS PERFORMED BY AMERICAN WELDING SOCIETY (AWS) CERTIFIED WELDERS AND CONFORMS TO AWS D1.1 OR D1.3 AS REQUIRED.
- PARTS SHOWN MAY BE UPGRADED DUE TO STANDARDIZED FABRICATION. REFER TO THE SHIPPING BILL OF MATERIALS AND FINAL INSTALLATION INSTRUCTIONS INCLUDED WITH THE STRUCTURE FOR POSSIBLE SUBSTITUTIONS AND IMPROVEMENTS.
- FOR PROPER FIELD INSTALLATION OF THE BUILDING IT IS RECOMMENDED THAT THE PRIMARY FRAME INSTALLER AND THE ROOF INSTALLER HAVE A MINIMUM FIVE (5) YEARS DOCUMENTED EXPERIENCE INSTALLING THIS TYPE OF PRODUCT.
- THE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, AND SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, TECHNIQUES, SEQUENCES AND PROCEDURES, INCLUDING BRACING, SHORING, LAYDOWN AND PROTECTION OF CONSTRUCTION MATERIALS, ETC. TEMPORARY SHORING AND BRACING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- FOR PROPER FIELD INSTALLATION OF THE BUILDING IT IS RECOMMENDED THAT ELECTRICAL WIRING, IF REQUIRED, BE RUN THROUGH THE STRUCTURAL MEMBERS BEFORE THE BUILDING IS ERECTED.
- MAKING HOLES, CUTS OR MODIFICATIONS TO THE STRUCTURAL STEEL MEMBERS IS NOT PERMITTED IN THE FIELD WITHOUT SPECIFIC APPROVAL OF POLIGON.

CERTIFICATES:

MIA MI-DADE COUNTY CERTIFICATE OF COMPETENCY NO. 25-0730.11
 PCI (POWDER COATING INSTITUTE) 4000 CERTIFIED

FABRICATOR APPROVALS:

CITY OF PHOENIX, AZ APPROVED FABRICATOR # C 08-2010
 CITY OF LOS ANGELES, CA APPROVED FABRICATOR # FB01596
 CITY OF RIVERSIDE, CA APPROVED FABRICATOR # SF_000042
 CITY OF HOUSTON, TX APPROVED FABRICATOR # 470
 CLARK COUNTY, NV APPROVED FABRICATOR # 264
 STATE OF UTAH APPROVED FABRICATOR 02008-14
 AISC APPROVED FABRICATOR C-00026910
 AWS CERTIFIED WELDING FABRICATOR # 240707F



DESIGN CRITERIA:

GENERAL:

2021 INTERNATIONAL BUILDING CODE
 RISK CATEGORY: II

DEAD LOAD:

ROOF DEAD LOAD: 6 PSF
 FRAME DEAD LOAD: SELF WEIGHT

LIVE LOAD:

ROOF LIVE LOAD: 20 PSF

SNOW DESIGN DATA:

GROUND SNOW LOAD (Pg): 25 PSF
 FLAT ROOF SNOW LOAD (Pf): 21 PSF
 SNOW EXPOSURE FACTOR (Ce): 1.0
 SNOW LOAD IMPORTANCE FACTOR (Is): 1.0
 THERMAL FACTOR (Ct): 1.2
 ROOF SLOPE FACTOR (Cs): 1.0
 DRIFT SURCHARGE LOAD (Pd): 0 PSF
 WIDTH OF SNOW DRIFT (w): 0 FT
 MINIMUM HORIZONTAL SEPARATION DISTANCE (s): 20 FT

WIND DESIGN DATA:

BASIC WIND SPEED (V): 110 MPH
 ALLOWABLE STRESS DESIGN WIND SPEED (Vasd): 85 MPH
 GUST EFFECT FACTOR (G): 0.85
 INTERNAL PRESSURE COEFFICIENT (Gcpi): 0
 WIND EXPOSURE: C

SEISMIC DESIGN DATA:

STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
 SEISMIC IMPORTANCE FACTOR (Ie): 1.0
 SEISMIC DESIGN CATEGORY: B
 SEISMIC SITE CLASS: D
 SHORT PERCENTRAL RESPONSE (Ss): 0.32
 1-SEC PERCENTRAL RESPONSE (S1): 0.08
 DESIGN SHORT PERCENTRAL RESPONSE (SDS): 0.33
 DESIGN 1-SEC PERCENTRAL RESPONSE (SD1): 0.13
 SEISMIC RESPONSE COEFFICIENT (Cs): 0.11
 RESPONSE MODIFICATION COEFFICIENT (R): 3.00
 EQUIVALENT LATERAL FORCE PROCEDURE
 SEE CALCULATIONS FOR ADDITIONAL DATA

ADDITIONAL CRITERIA:

NONE

DATE: 02/10/2026
 EXPIRES: 11/30/2026

IF THESE DRAWINGS ARE SEALED, THE SEAL APPLIES ONLY TO BUILDING COMPONENTS DETAILED WITHIN THESE DRAWINGS AND SUPPLIED BY PORTER CORP AS WELL AS THE FOUNDATION DESIGN, IF APPLICABLE.

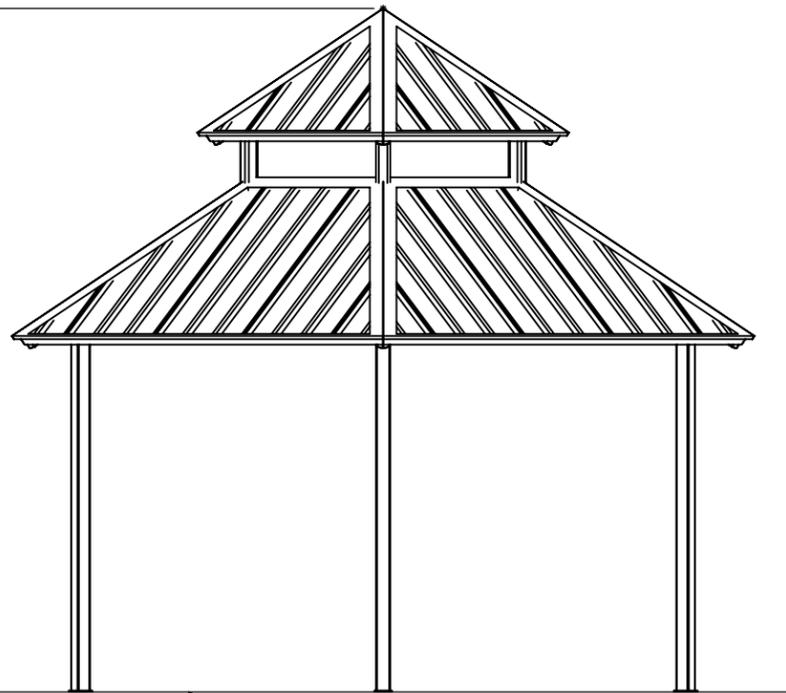
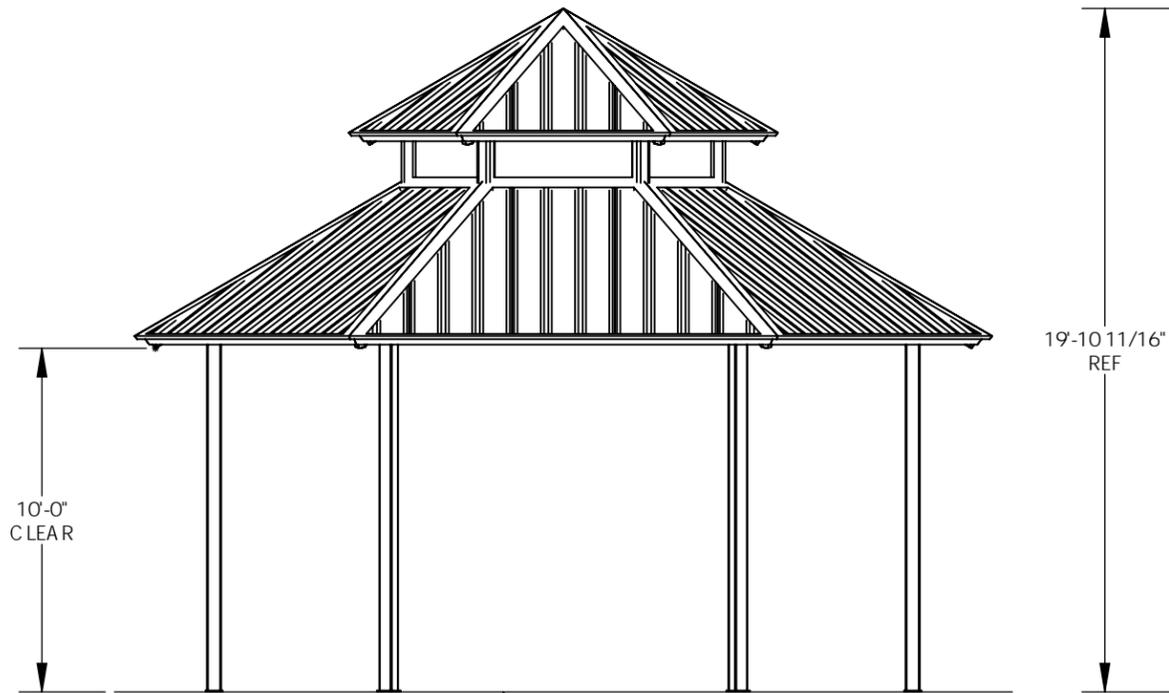
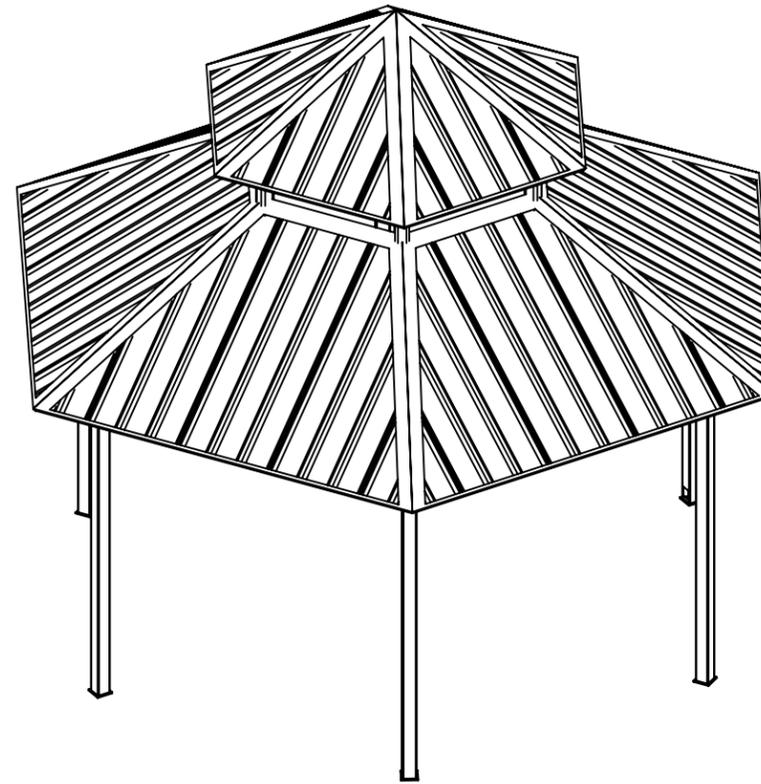
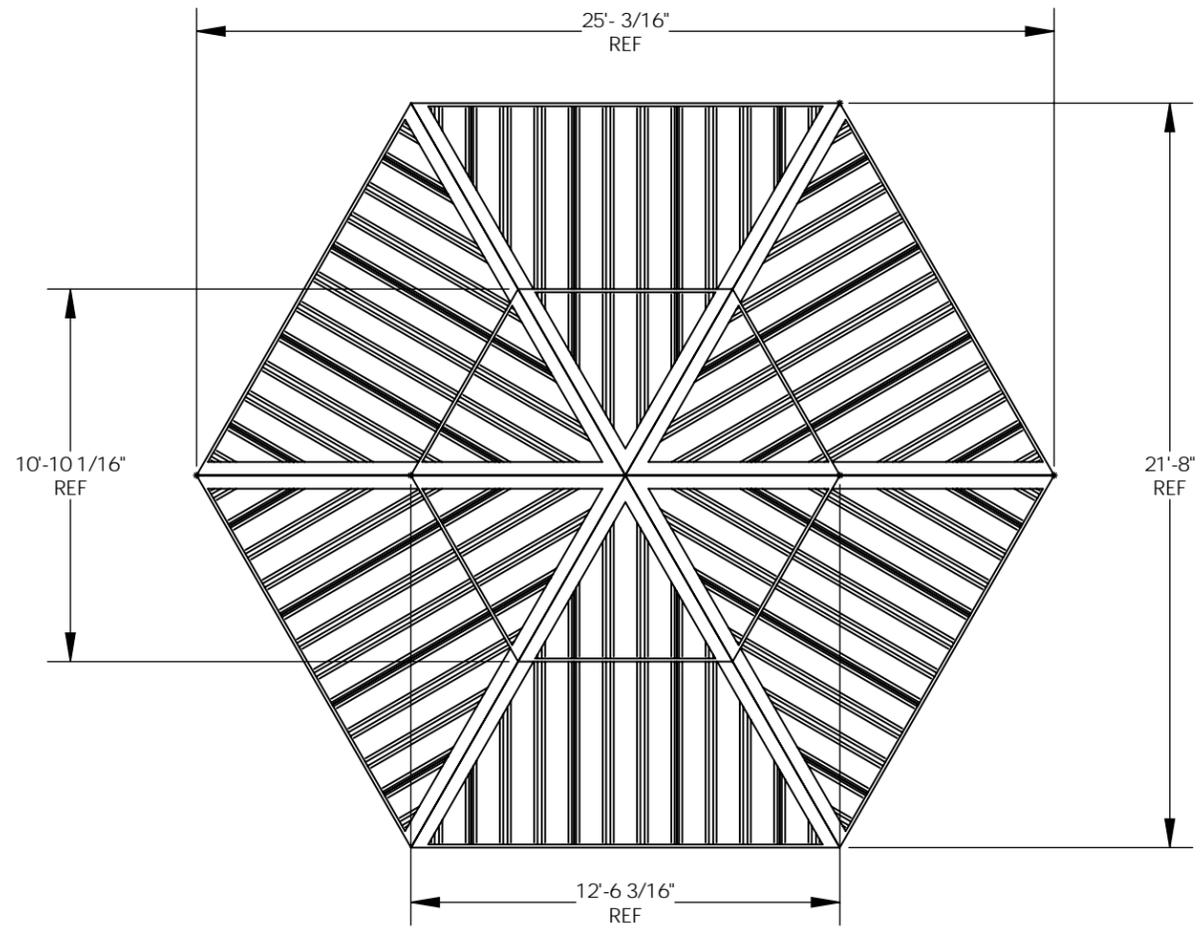
PROJECT: CARTWRIGHT PARK
 PROJECT LOCATION: EVANSTON, IL
 DRAWING: COVER SHEET

CREATION DATE: 11/16/2016
 DRAWN BY: anderson.bell
 ORDER NO: 84404
 CAD MODEL: ~BLDG -P22924

PRINT DATE: 2/5/2026
 SCALE: 1:66

WWW.POLIGON.COM
 MAIN: (616) 888-3500
 FIELD SUPPORT: (616) 888-3504

poligon
 by PORTER CORP



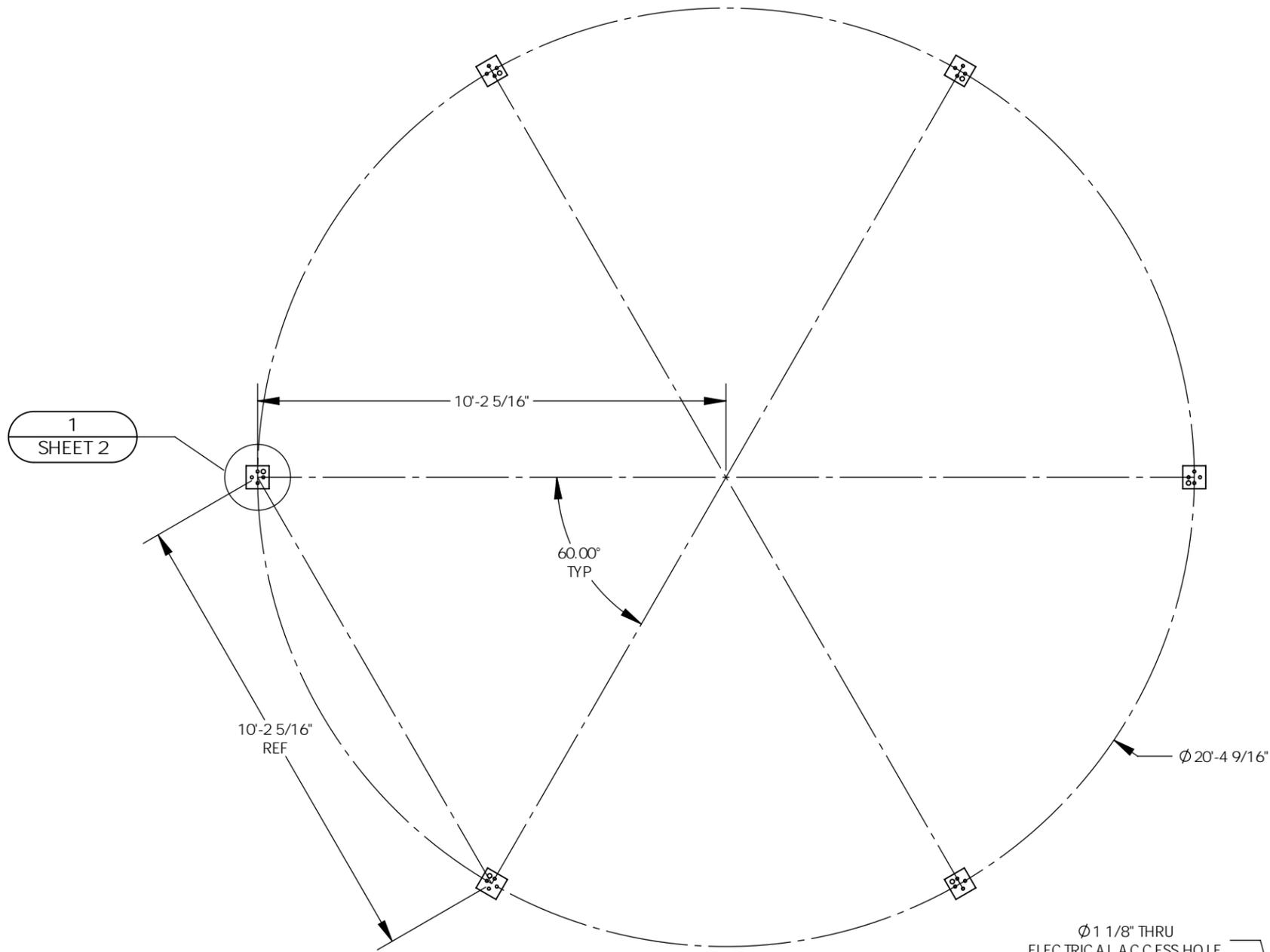
FINISH GRADE
(ASSUMED AT CONSTANT
ELEVATION UNLESS
OTHERWISE NOTED)

FINISH GRADE
(ASSUMED AT CONSTANT
ELEVATION UNLESS
OTHERWISE NOTED)

DATE: 02/10/2026
EXPIRES: 11/30/2026

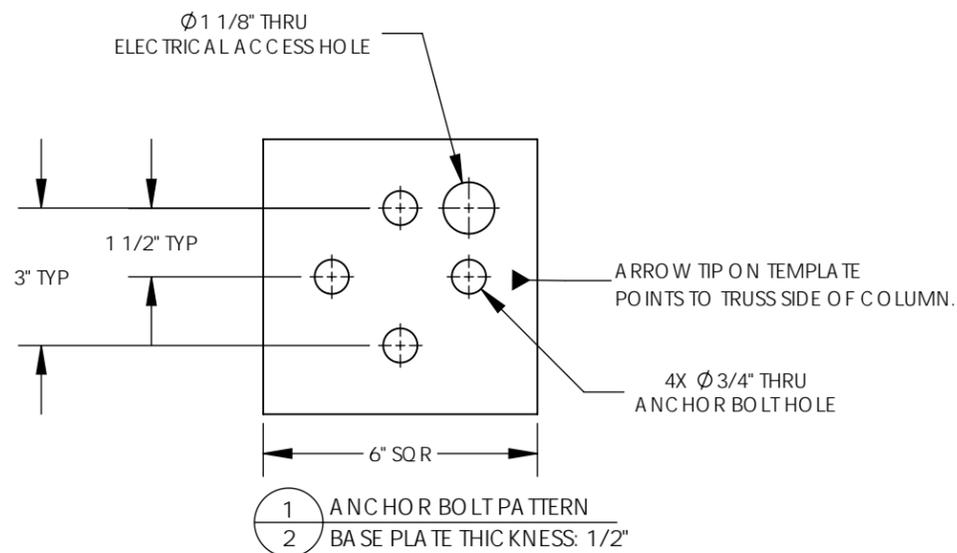
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PROJECT: CARTWRIGHT PARK PROJECT LOCATION: EVANSTON, IL DRAWING: ARCHITECTURAL ELEVATIONS	CREATION DATE: 11/16/2016 ORDER NO: 84404 CAD MODEL: ~BLDG -P22924	DRAWN BY: anderson.bell REV LEVEL: A	PRINT DATE: 2/5/2026 SCALE: 1:64	
SHEET				1



ANCHOR AND FOOTING LAYOUT NOTES:

1. ANCHORS MUST BE CENTERED IN FOOTINGS
2. FOOTINGS MUST BE TURNED TO ALIGN WITH COLUMN AND TRUSS CENTERLINE.

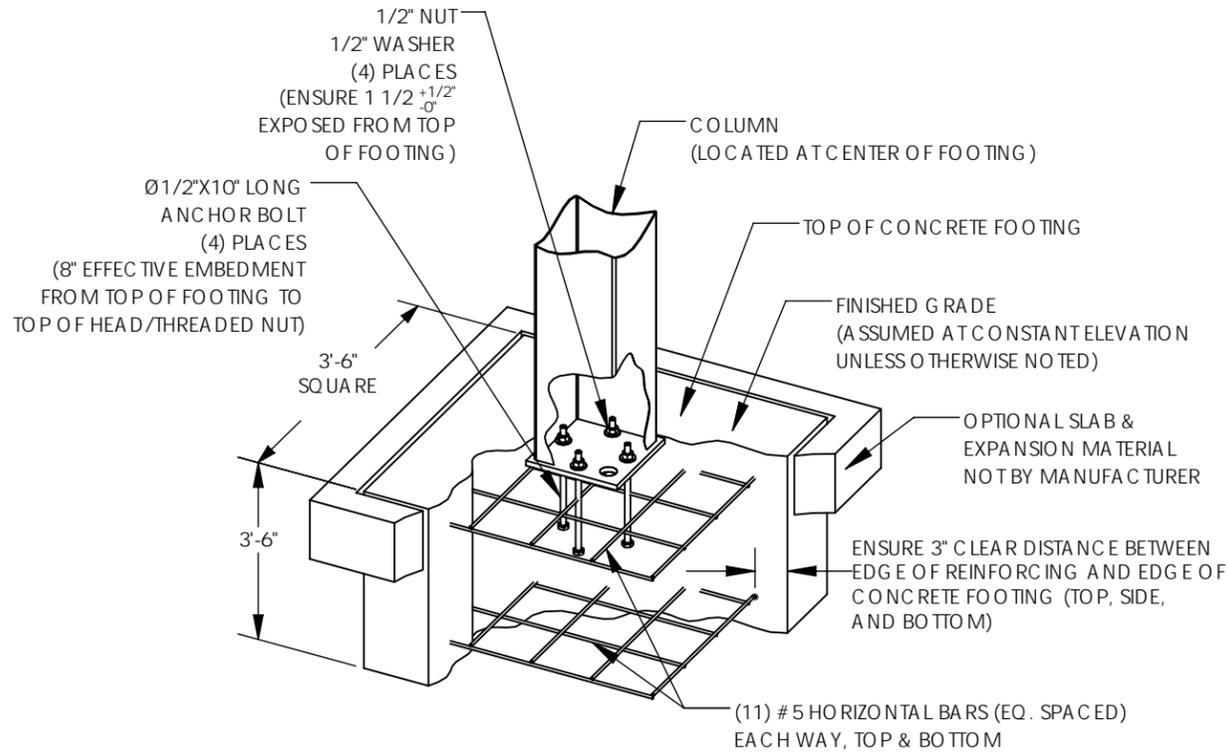


PROJECT: CARTWRIGHT PARK
 PROJECT LOCATION: EVANSTON, IL
 DRAWING: ANCHOR AND FOOTING LAYOUT

LICENSED STRUCTURAL ENGINEER
 JOSHUA T HOST
 081.008001
 STATE OF ILLINOIS
 DATE: 02/10/2026
 EXPIRES: 11/30/2026

IF THESE DRAWINGS ARE SEALED, THE SEAL APPLIES ONLY TO BUILDING COMPONENTS DETAILED WITHIN THESE DRAWINGS AND SUPPLIED BY PORTER CORP AS WELL AS THE FOUNDATION DESIGN, IF APPLICABLE.

PRINT DATE: 2/5/2026 SCALE: 1:36	DRAWN BY: anderson.bell REV LEVEL: A	CREATION DATE: 11/16/2016 ORDER NO: 84404 CAD MODEL: ~BLDG -P22924
PROJECT: CARTWRIGHT PARK PROJECT LOCATION: EVANSTON, IL DRAWING: ANCHOR AND FOOTING LAYOUT		
SHEET 2		



PAD FOOTING OPTION (INTERNAL ANCHOR BOLTS)

FOOTING DESIGN BY MANUFACTURER, FOOTING MATERIALS BY OTHERS.
 (TYPICAL WITH EACH COLUMN, QTY OF REINFORCING AND ANCHOR BOLTS
 SPECIFIED IN NOTES REFLECT SITE SPECIFIC REQUIREMENTS)

ANCHOR BOLT NOTES - INTERNAL (ANCHOR BOLTS LOCATED WITHIN COLUMN):

1. ANCHOR BOLTS SHALL BE ASTM A 307 (GRADE A) MATERIAL UNLESS OTHERWISE NOTED.
2. ANCHOR BOLTS SHALL BE EITHER "HEADED" OR "THREADED WITH NUT" AS DEFINED IN THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL.
3. HOOKED ANCHOR BOLTS ARE NOT ACCEPTABLE.
4. ACCURATE ANCHOR BOLT PLACEMENT IS CRITICAL TO ENSURE THE ANCHOR BOLT LAYOUT MEETS THE DIMENSIONS REQUIRED ON THE DRAWINGS. SURVEY (OR MEASURE) THE LOCATION OF ALL ANCHOR BOLTS PRIOR TO POURING THE FOOTINGS. AN ADDITIONAL SURVEY (OR MEASUREMENT) SHOULD BE MADE AFTER THE FOOTINGS ARE POURED TO CONFIRM THE ANCHOR BOLTS DID NOT SHIFT DURING THE CONCRETE POUR.
5. THE MANUFACTURER STRONGLY RECOMMENDS USING ANCHOR BOLT TEMPLATES BECAUSE THEY SIGNIFICANTLY IMPROVE THE ACCURACY OF ANCHOR BOLT PLACEMENT. AN ANCHOR BOLT TEMPLATE IS PROVIDED WITH ANY ANCHOR BOLT KIT PURCHASED.
6. IF OUTSIDE CONSULTING ENGINEERS ARE DESIGNING THE FOUNDATIONS FOR THIS STRUCTURE, THEY MUST REFER TO THE MANUFACTURER'S CALCULATIONS FOR MINIMUM CONCRETE PROPERTIES (COMPRESSIVE STRENGTH, EDGE DISTANCE, ETC.) REQUIRED FOR THE ANCHOR BOLT DESIGN.
7. ELECTRICAL ACCESS HOLE IS ALWAYS LOCATED IN THE COLUMN BASE PLATE AS SHOWN. BE SURE TO KEEP THE ANCHOR BOLT TEMPLATE PROPERLY ORIENTED WHEN ELECTRICAL ACCESS TO THE COLUMN IS REQUIRED. TEMPLATE MUST BE REMOVED BEFORE INSTALLING COLUMNS.
8. THE CALCULATIONS FOR THIS STRUCTURE ASSUME A PINNED COLUMN BASE.
9. THE FOLLOWING ADHESIVE ANCHORS MAY BE SUBSTITUTED FOR THE CAST-IN-PLACE ANCHOR BOLTS:
 -HILTI HIT-HY 200 (A OR R) V3 ADHESIVE WITH Ø 1/2" HASE ROD WITH 6" EFFECTIVE EMBEDMENT.
 CONTRACTOR SHALL FOLLOW ALL INSTALLATION SPECIFICATIONS AND REQUIREMENTS OF ANCHOR MANUFACTURER.

CONCRETE NOTES:

1. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE CURRENT "ACI MANUAL OF CONCRETE PRACTICE".
2. PORTLAND CEMENT SHALL CONFORM TO ASTM C-150 TYPE II OR TYPE V.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE CONCRETE MIX DESIGN MEETS THE "ACI MANUAL OF CONCRETE PRACTICE" REQUIREMENTS FOR CONCRETE BY EXPOSURE CLASS.
4. THE USE OF CHLORIDE ACCELERATORS IS NOT PERMITTED.
5. COARSE AGGREGATE SHALL BE # 57 OR LARGER.
6. CONCRETE AT PLACEMENT SHALL HAVE A SLUMP OF 4" +/- 1".
7. MINIMUM CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS: 4500 PSI.
8. REINFORCING STEEL SHALL BE DEFORMED STEEL CONFORMING TO THE REQUIREMENTS OF ASTM A 615 (DEFORMATIONS SHALL BE IN ACCORDANCE WITH ASTM A 305) AS FOLLOWS:
 GRADE 60: # 4 BARS AND LARGER
 GRADE 40: # 3 BARS
9. PRIOR TO PLACING OF CONCRETE, REINFORCING STEEL AND EMBEDDED ITEMS SHALL BE WELL SECURED IN POSITION.
10. MAINTAIN 3" CONCRETE COVER TO FACE OF BARS UNLESS OTHERWISE NOTED.
11. BARS SHALL BE CLEAN OF RUST, GREASE OR OTHER MATERIAL LIKELY TO IMPAIR BOND. BENDS SHALL BE MADE COLD.
12. WELDING OF REINFORCEMENT IS NOT ALLOWED.
13. ALL EXPOSED EXTERNAL CORNER OF FOUNDATIONS TO BE CHAMFERED BY 3/4" BY 45 DEGREES UNLESS NOTED OTHERWISE.
14. ALL NEW CONCRETE SHALL BE CURED IMMEDIATELY AFTER FINISHING OF REMOVING FORMWORK. CURING SHALL BE EITHER A MOISTURE METHOD OR THE USE OF A CURING COMPOUND.

FOUNDATION NOTES:

1. FOUNDATIONS SHALL BEAR ON COMPETENT, UNDISTURBED SOIL OR 95% COMPACTED FILL. IF SIGNS OF ORGANIC MATERIAL, UNCONTROLLED FILL, CLAY OR SILT, HIGH WATER TABLE OR OTHER POSSIBLE DETRIMENTAL CONDITIONS ARE FOUND, CONSTRUCTION OF THE FOUNDATIONS MUST BE STOPPED AND A GEO TECHNICAL ENGINEER BE CONTACTED.
2. NO FOUNDATIONS SHALL BE PLACED INTO OR ADJACENT TO SUBGRADE CONTAINING WATER, ICE, FROST, ORGANIC OR LOOSE MATERIAL.
3. WATER SHALL NOT BE PERMITTED TO ACCUMULATE IN FOUNDATION EXCAVATIONS.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCAL FROST DEPTH REQUIREMENT PRIOR TO CONSTRUCTION.
5. IF FOUNDATIONS SHOWN DO NOT MEET LOCAL FROST DEPTH REQUIREMENTS, EXTEND THE DRILLED PIER FOUNDATION AS REQUIRED, EXTENDING THE VERTICAL BARS AND PROVIDING ADDITIONAL TIES TO MEET SPACING REQUIREMENTS AS SHOWN. IF FROST DEPTH REQUIREMENTS ARE NOT MET, AND NO DRILLED PIER DESIGN IS PROVIDED, CONTACT POLIGON.
6. ALLOWABLE SOIL PRESSURES (AS APPLICABLE):

SPREAD PAD	
VERTICAL BEARING	1500 PSF
LATERAL COHESION	130 PSF

THE FOUNDATION DESIGN CONTAINED HEREIN IS SITE SPECIFIC, AND IS BASED ON PROPOSED CARTWRIGHT PARK IMPROVEMENTS, 3324 GRANT STREET, EVANSTON IL 60201, BY PIONEER ENGINEERING AND ENVIRONMENTAL SERVICES, LLC. DATED 12/10/2025. REPORT NO. 25-0127-151.
 PROPER CARE MUST BE TAKEN TO ENSURE ANY AND ALL RECOMMENDATIONS, OF THE ABOVE MENTIONED REPORT, FOR SITE PREPARATION, SOIL PERFORMANCE AND FOUNDATION DESIGN ARE MET. IF CONDITIONS ARE PRESENT THAT DO NOT ALLOW FOR THESE RECOMMENDATIONS TO BE MET, THE GEO TECHNICAL ENGINEER MUST BE CONTACTED.

DATE: 02/10/2026
 EXPIRES: 11/30/2026

IF THESE DRAWINGS ARE SEALED, THE SEAL APPLIES ONLY TO BUILDING COMPONENTS DETAILED WITHIN THESE DRAWINGS AND SUPPLIED BY PORTER CORP AS WELL AS THE FOUNDATION DESIGN, IF APPLICABLE.

PROJECT: CARTWRIGHT PARK

PROJECT LOCATION: EVANSTON, IL

DRAWING: ANCHOR AND FOOTING DETAILS

CREATION DATE: 11/16/2016

ORDER NO: 84404

CAD MODEL: ~BLDG -P22924

PRINT DATE: 2/5/2026

SCALE: 1:12

DRAWN BY: anderson.bell

REV LEVEL: A

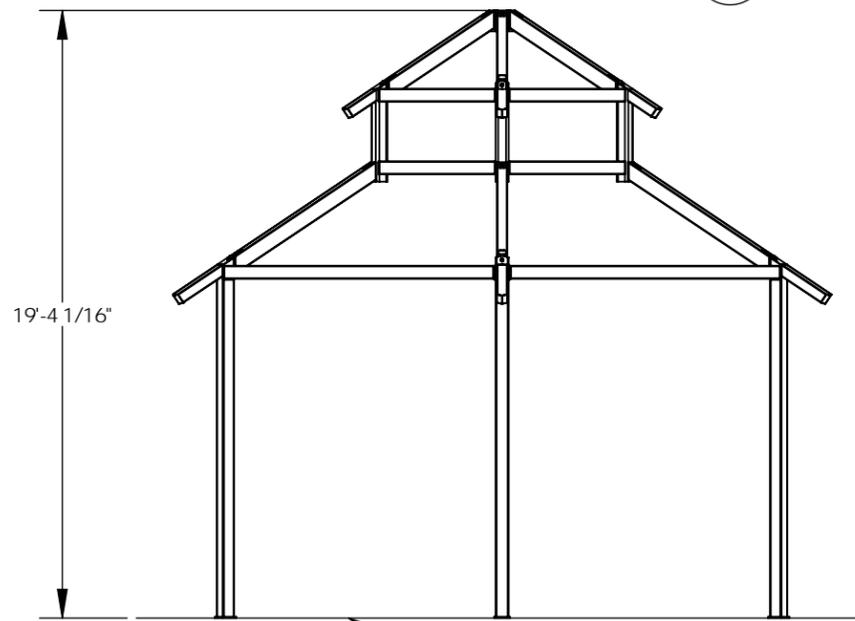
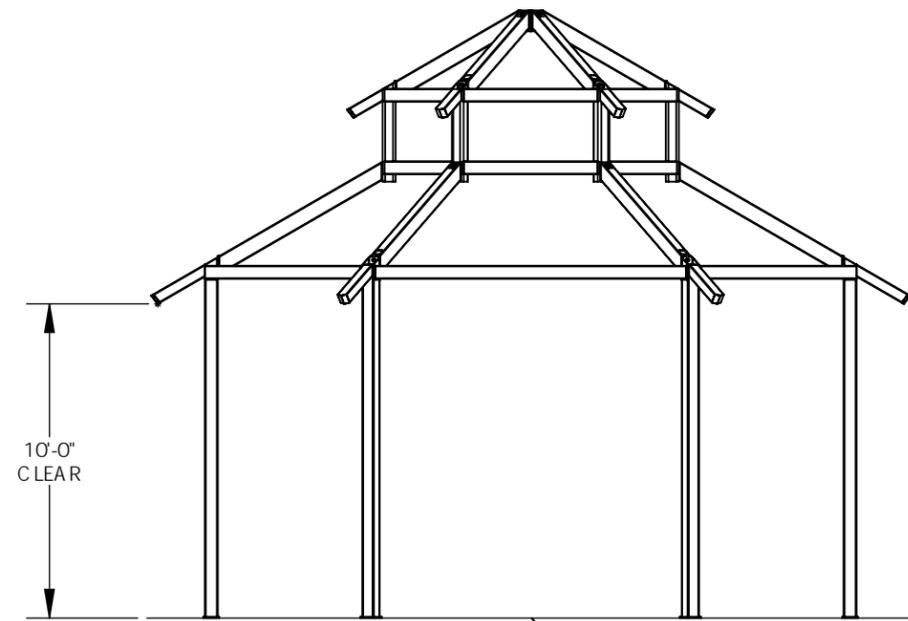
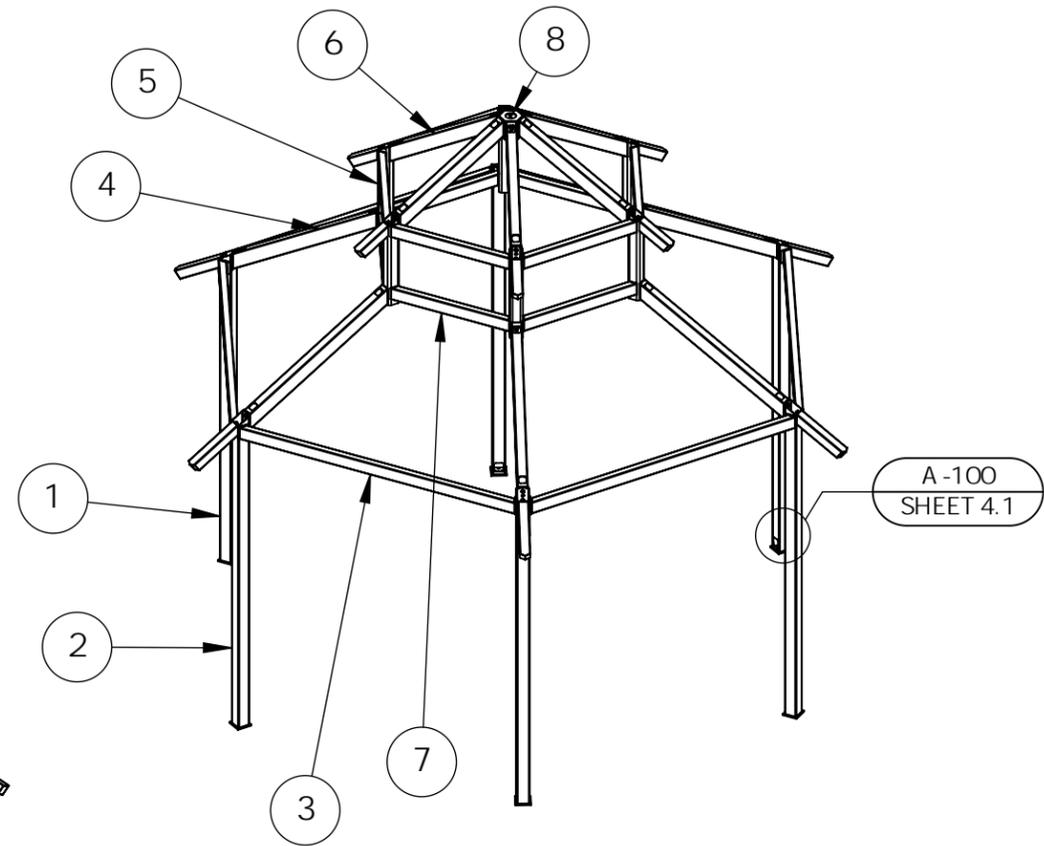
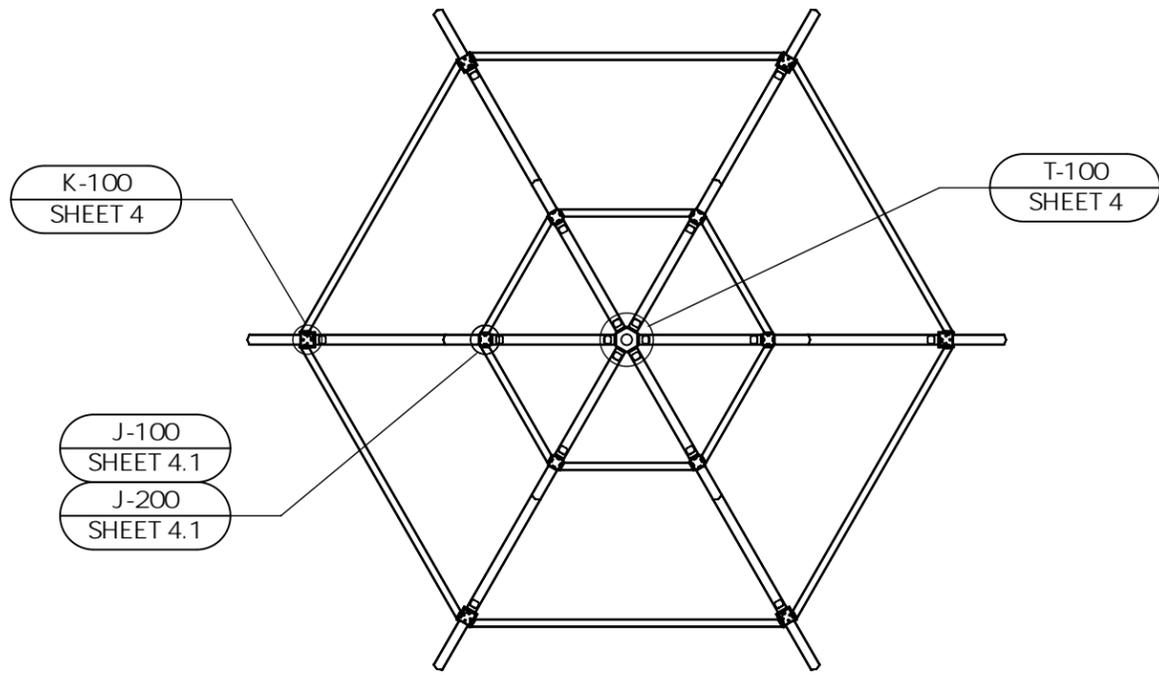
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FIELD SUPPORT: (616) 888-3504

SHEET

21



FINISH GRADE
(ASSUMED AT CONSTANT
ELEVATION UNLESS
OTHERWISE NOTED)

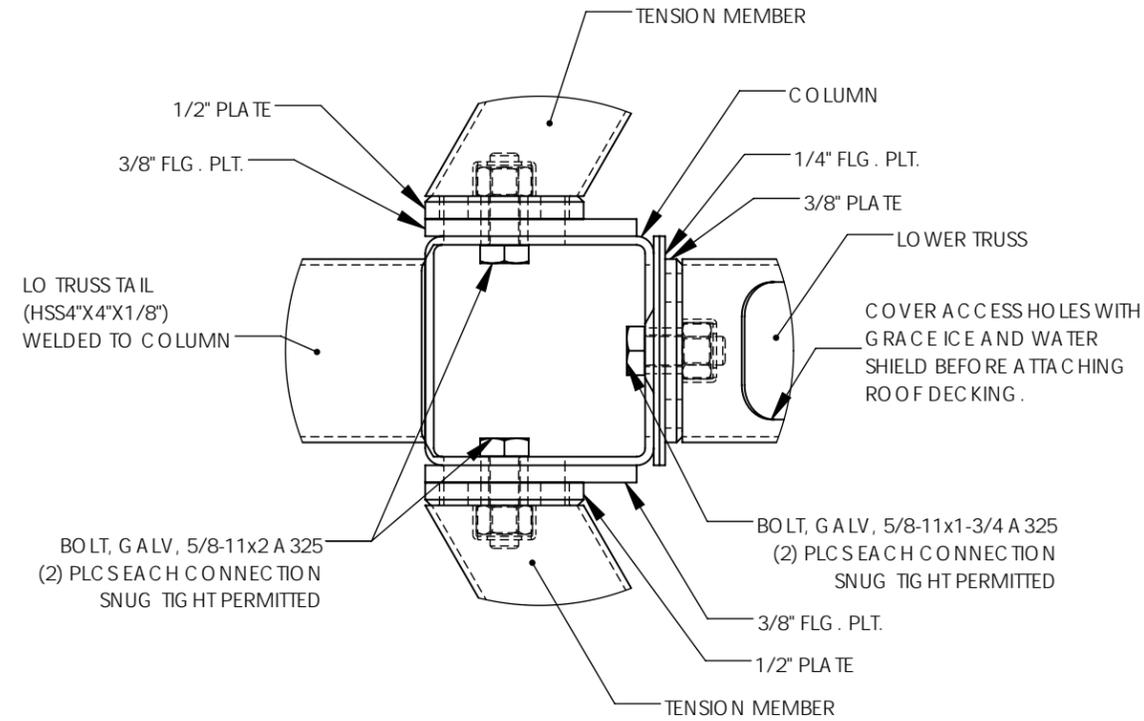
FINISH GRADE
(ASSUMED AT CONSTANT
ELEVATION UNLESS
OTHERWISE NOTED)

ITEM	QTY.	PART NO.	DESCRIPTION	MATERIAL SIZE	WEIGHT
8	1	-	HEX C-RING A SM	3/8" PLATE	32.26
7	12	-	CLERESTORY MEMBER 1 A SM	HSS5"X3"X1/8"	29.66
6	6	-	UP TRUSS 1 A SM	HSS6"X4"X1/8"	41.23
5	6	-	J-COL A SM	HSS5"X5"X1/2"	93.12
4	6	-	LO TRUSS 1 A SM	HSS6"X4"X1/8"	53.27
3	6	-	TENSION MEMBER 1 A SM	HSS5"X3"X1/8"	66.93
2	1	-	COLUMN 2 A SM	HSS5"X5"X3/16"	157.13
1	5	-	COLUMN 1 A SM	HSS5"X5"X3/16"	157.63

DATE: 02/10/2026
EXPIRES: 11/30/2026

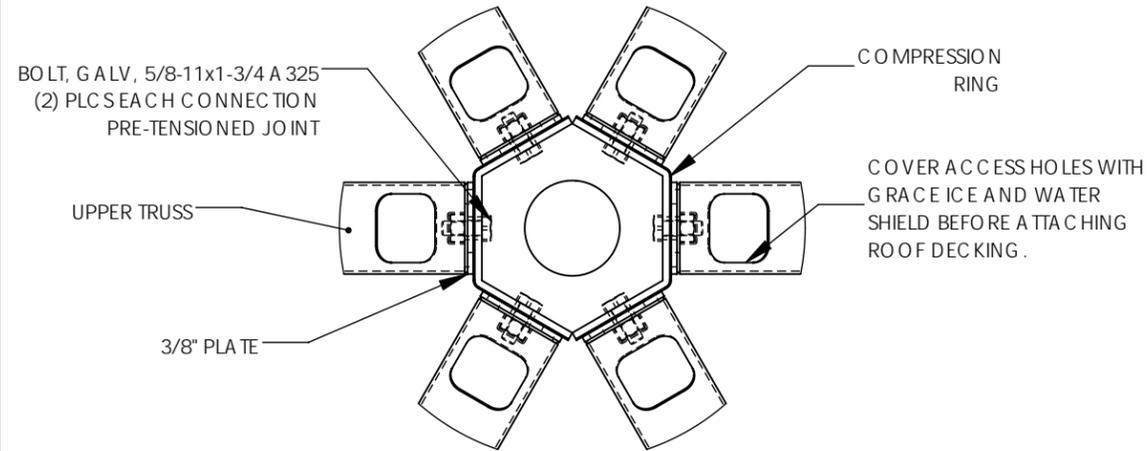
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NOTE:
SEE UC-100 FOR U-CLIP INSTALLATION



COLUMN CONNECTIONS

K-100

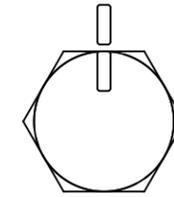


COMPRESSION MEMBER CONNECTION

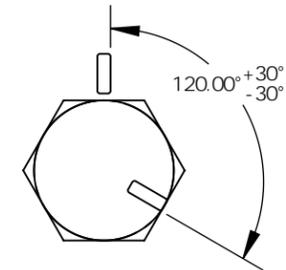
T-100

TURN-OF-NUT PRETENSIONING METHOD:
THESE STEPS ILLUSTRATE THE REQUIREMENTS OUTLINED IN THE AISC SPECIFICATION. THE ROTATION INDICATED IS ACCURATE FOR MOST BOLT DIAMETERS AND LENGTHS BUT IT IS THE RESPONSIBILITY OF THE INSTALLER TO MEET AISC REQUIREMENTS.

STEP ONE:
AFTER SNUG TIGHT, MATCH MARK PLATE



STEP TWO:
THEN TURN BOLT/NUT PAST SNUG TIGHT 1/3 TURN



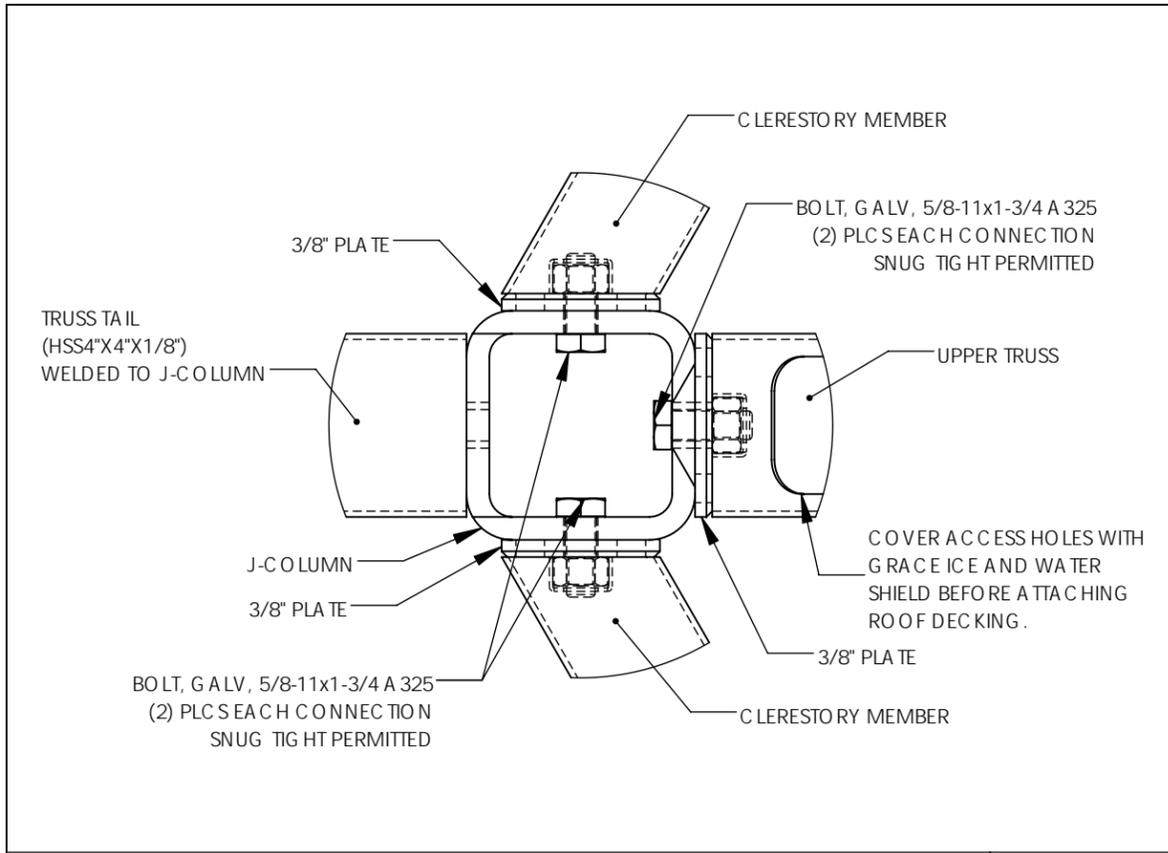
CONNECTION NOTES:

1. ALL BOLTS SHOWN ON THESE DRAWINGS ARE ASTM F3125 (A 325 TYPE 1) HIGH STRENGTH BOLTS (UNO) AND SHALL BE HOT DIPPED GALVANIZED PER ASTM F2329.
2. HIGH STRENGTH NUTS SHALL CONFORM TO ASTM A 563 AND SHALL BE GALVANIZED PER ASTM F2329.
3. HIGH STRENGTH WASHERS SHALL CONFORM TO ASTM F436 AND SHALL BE GALVANIZED PER ASTM F2329.
4. UNLESS A SNUG-TIGHT JOINT IS PERMITTED IN THE CONNECTION DETAIL, ALL BOLTS ARE TO BE INSTALLED BY ONE OF THE FOLLOWING PRETENSIONING METHODS AS SPECIFIED IN THE AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS", SECTION 8:
A. TURN-OF-NUT PRETENSIONING
5. THE SNUG-TIGHT CONDITION IS THE TIGHTNESS THAT IS ATTAINED WITH A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER USING AN ORDINARY SPUD WRENCH TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.
6. ANCHOR BOLTS NEED NOT BE TIGHTENED PAST SNUG-TIGHT.
7. WHEN INSTALLING BOLTS REFER TO SECTIONS 8.1 AND 8.2 OF THE "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS" FOR GUIDANCE.
8. LOCAL JURISDICTIONS MAY REQUIRE AN INSPECTOR TO BE PRESENT TO WITNESS HARDWARE INSTALLATION AND INDEPENDENT TESTING. INSPECTION REQUIREMENTS SHOULD BE VERIFIED BY INSTALLER PRIOR TO STEEL ERECTION.
9. ERECTION OF THE FRAMING MEMBERS WILL REQUIRE THE MAIN COLUMNS TO BE PLUMB SQUARE AND TIGHTENED TO THE TRUSSES AND/OR TENSION MEMBERS BEFORE INSTALLING THE PURLINS. PURLINS, IF REQUIRED, MUST BE AS SHOWN IN FRAMING PLAN.
10. TEMPORARY SHORING OR BRACING SHALL BE USED TO COMPACT THE JOINTS UNTIL THE CONNECTED PLIES ARE IN FIRM CONTACT PRIOR TO PRETENSIONING.
11. ALL BOLTS MUST BE LUBRICATED WITH WAX TO ASSIST IN PROPER TIGHTENING. TO LUBRICATE A BOLT IN THE FIELD, APPLY THE WAX STICK DOWN THE LENGTH OF THE BOLT'S THREADS.
12. TO PREVENT RUST STAINING OF FINISH, ALL METAL SHAVINGS MUST BE REMOVED AFTER INSTALLATION. ENSURE NO SHAVINGS ARE TRAPPED BETWEEN MATING SURFACES.
13. TOUCH-UP PAINT MUST BE APPLIED TO ALL EXPOSED FASTENERS. PERIODIC TOUCH-UP AT THESE CONNECTIONS IS REQUIRED.
14. ENSURE FRAME MEMBERS WITH DRAIN HOLES NEAR THE ENDS OF TUBES ARE INSTALLED FACING UP UNLESS SPECIFIED IN THE FRAME CONNECTION DETAILS.

DATE: 02/10/2026
EXPIRES: 11/30/2026

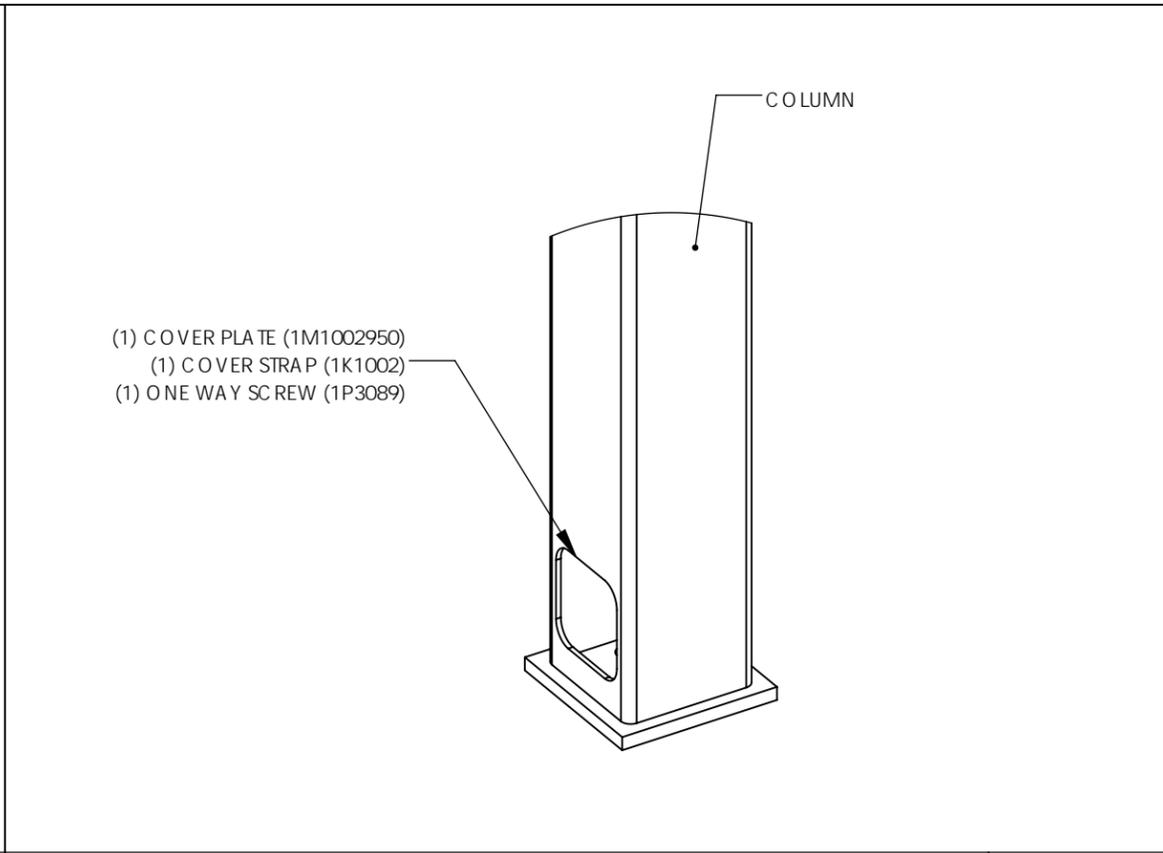
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CREATION DATE: 11/16/2016	ORDER NO: 84404	PROJECT: CARTWRIGHT PARK	PROJECT LOCATION: EVANSTON, IL
DRAWING: FRAME CONNECTION DETAILS			
SHEET			
4			



UPPER J-COLUMN CONNECTION

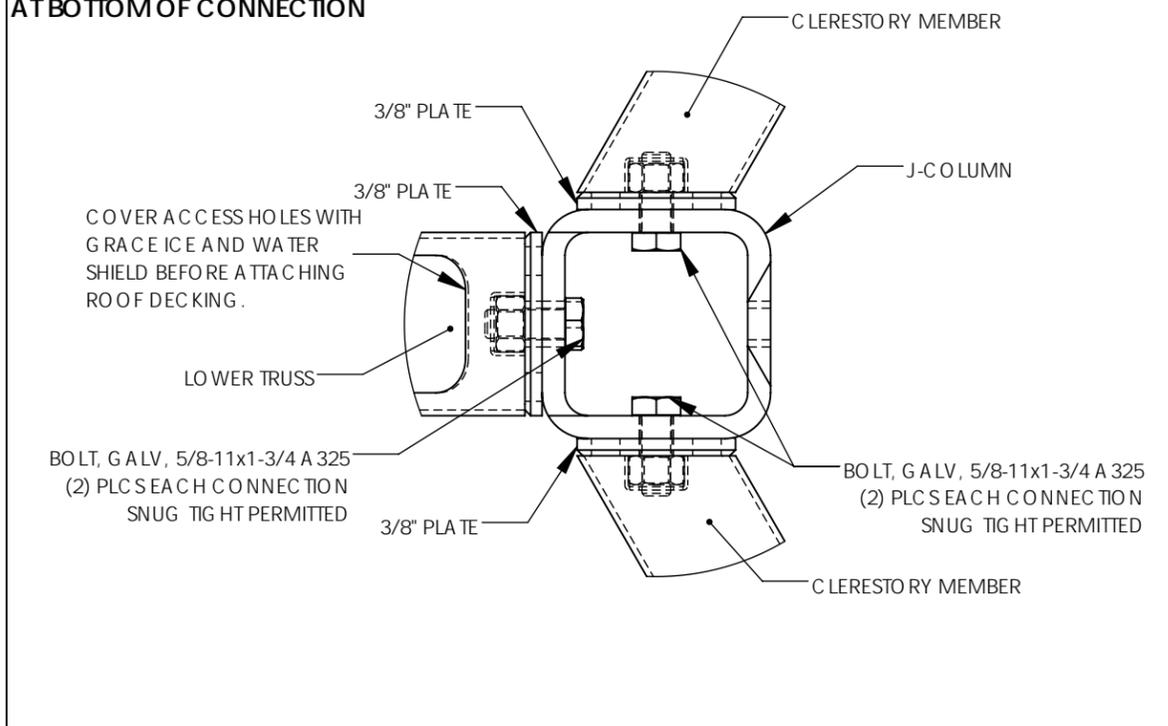
J-200



ANCHOR ACCESS COVER PLATE

A-100

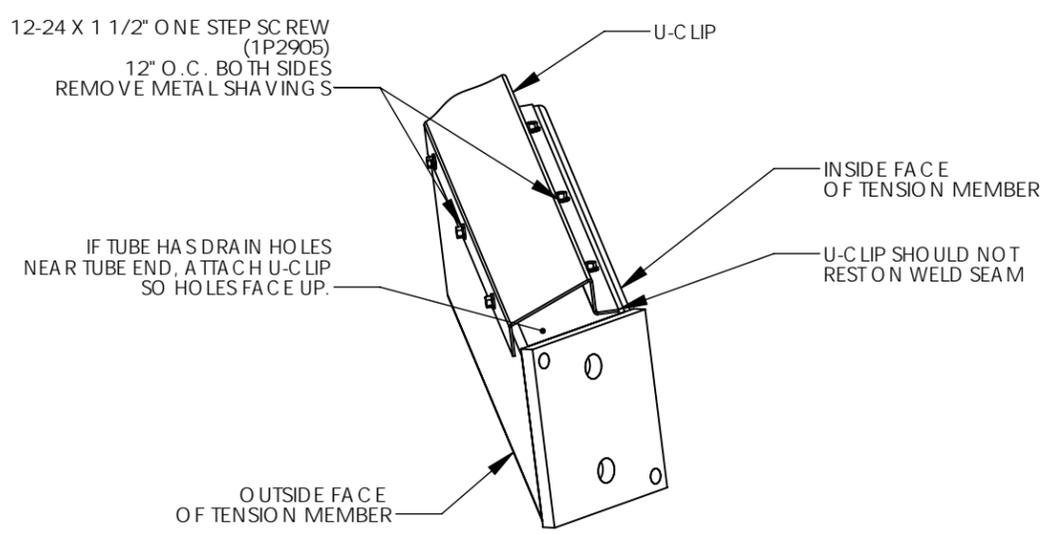
NOTE:
COVER PLATE
ATTACHED WITH POP RIVETS
(1P2903) (1) PER CLEAT
AT BOTTOM OF CONNECTION



LOWER J-COLUMN CONNECTION

J-100

NOTE:
U-C LIP MUST BE ATTACHED TO
TENSION MEMBER AS SHOWN
PRIOR TO BUILDING ASSEMBLY.



U-C LIP CONNECTION

UC-100

PROJECT: CARTWRIGHT PARK
PROJECT LOCATION: EVANSTON, IL
DRAWING: FRAME CONNECTION DETAILS

DATE: 02/10/2026
EXPIRES: 11/30/2026

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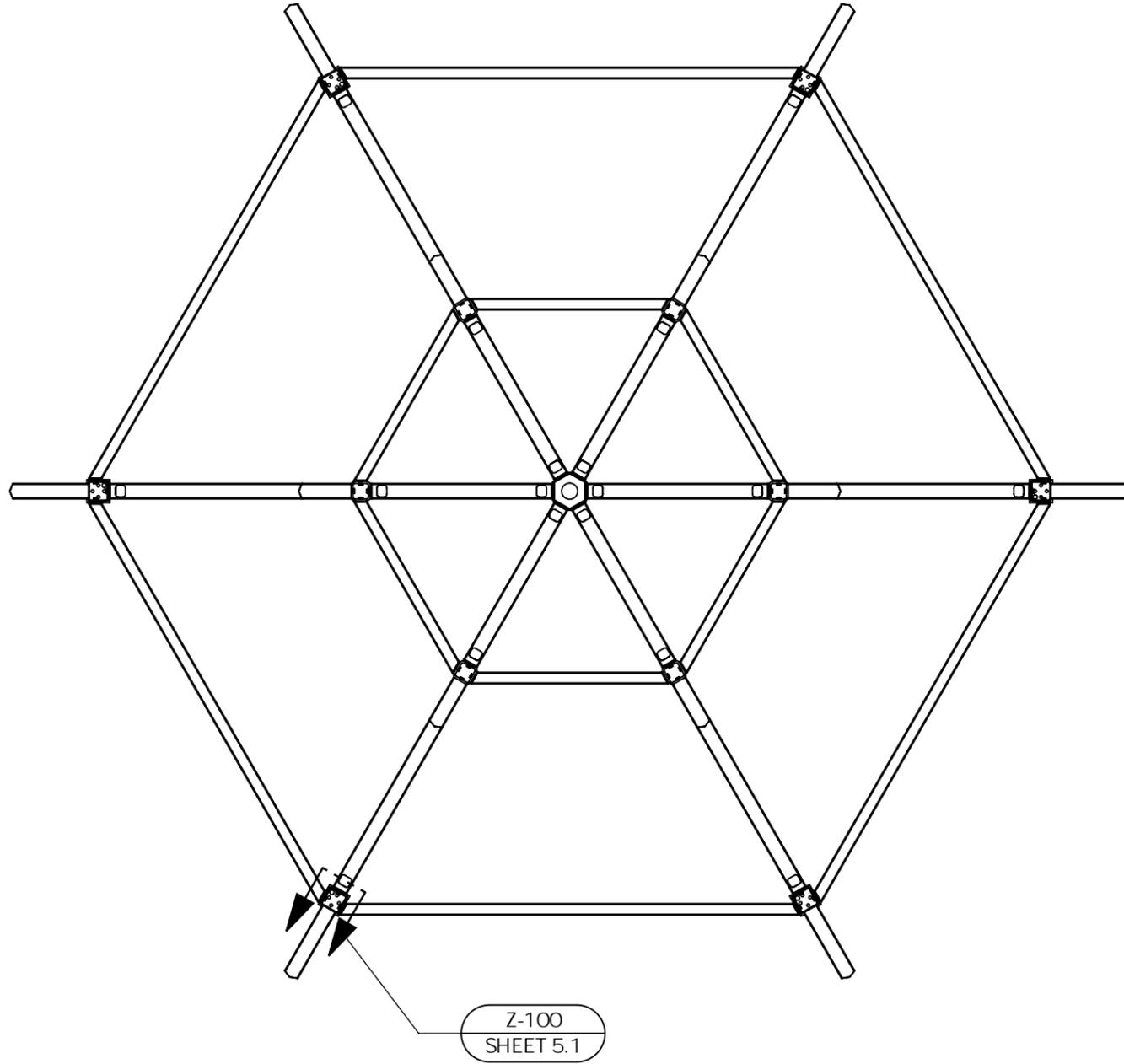
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REV LEVEL: A

CREATION DATE: 11/16/2016
ORDER NO: 84404
CAD MODEL: ~BLDG-P22924

SHEET
4.1



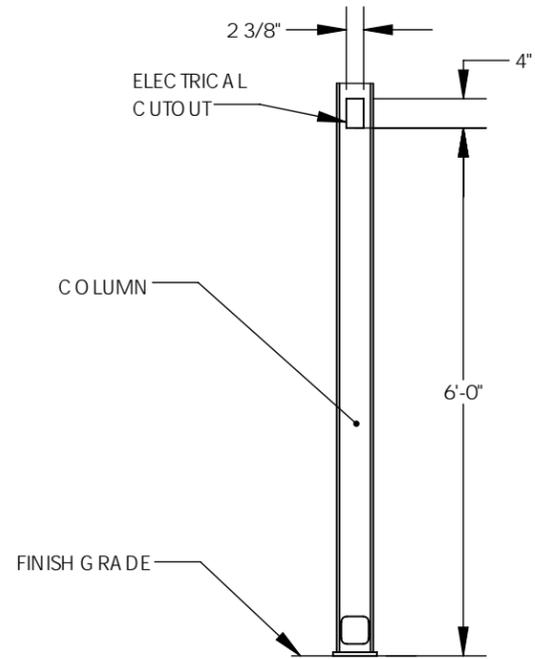
NOTE: POLIGON RECOMMENDS RUNNING ELECTRICAL WIRING PRIOR TO INSTALLING ROOF

DATE: 02/10/2026
 EXPIRES: 11/30/2026

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PROJECT: CARTWRIGHT PARK PROJECT LOCATION: EVANSTON, IL DRAWING: ELECTRICAL VIEWS	CREATION DATE: 11/16/2016 ORDERNO: 84404 CAD MODEL: ~BLDG -P22924	DRAWN BY: anderson.bell REV LEVEL: A	PRINT DATE: 2/5/2026 SCALE: 1:40
SHEET 5		 by PORTER CORP WWW.POLIGON.COM MAIN: (616) 888-3500 FIELD SUPPORT: (616) 888-3504	

NOTE: COVER PLATES PROVIDED FOR ALL ELECTRICAL CUTOUTS



CUSTOMER TO VERIFY CUTOUT SIZE AND LOCATION

ELECTRICAL CUTOUT LOCATION

Z-100



DATE: 02/10/2026
EXPIRES: 11/30/2026

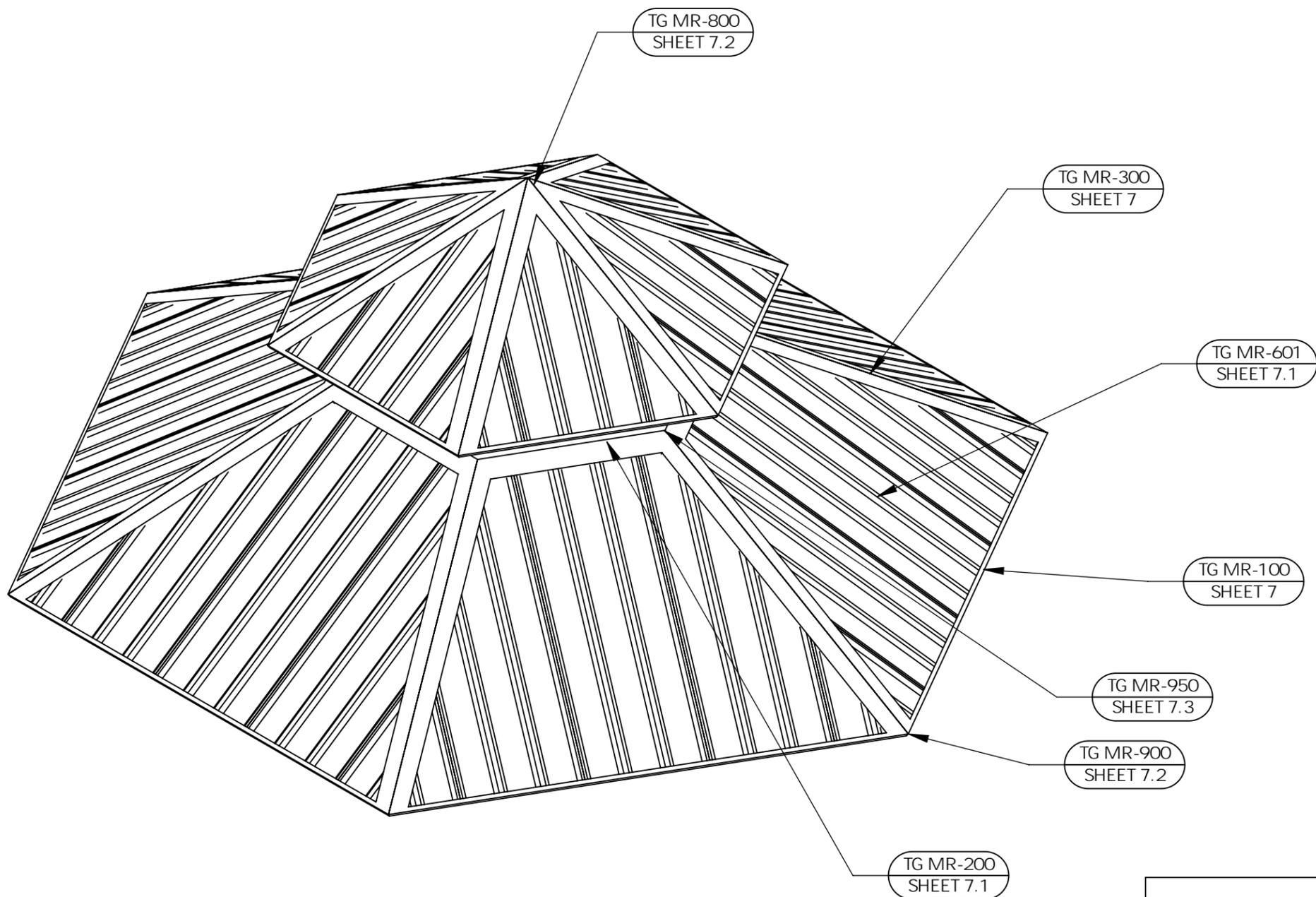
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SCALE: 1:4
DRAWN BY: anderson.bell
REV LEVEL: A
CREATION DATE: 11/16/2016
ORDERNO: 84404
CAD MODEL: ~BLDG -P22924

PROJECT: CARTWRIGHT PARK
PROJECT LOCATION: EVANSTON, IL
DRAWING: ELECTRICAL VIEWS

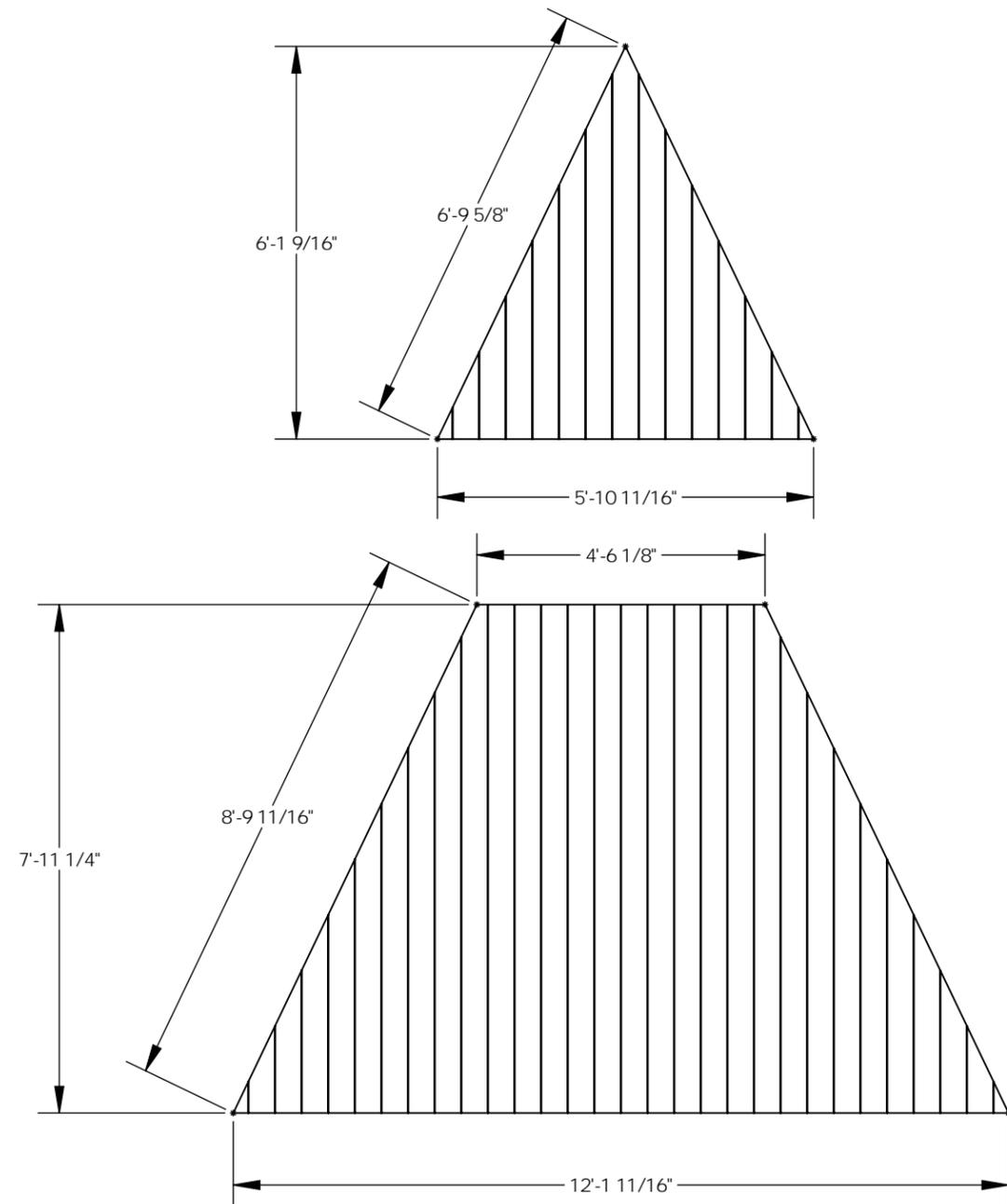
SHEET
5.1



DATE: 02/10/2026
 EXPIRES: 11/30/2026

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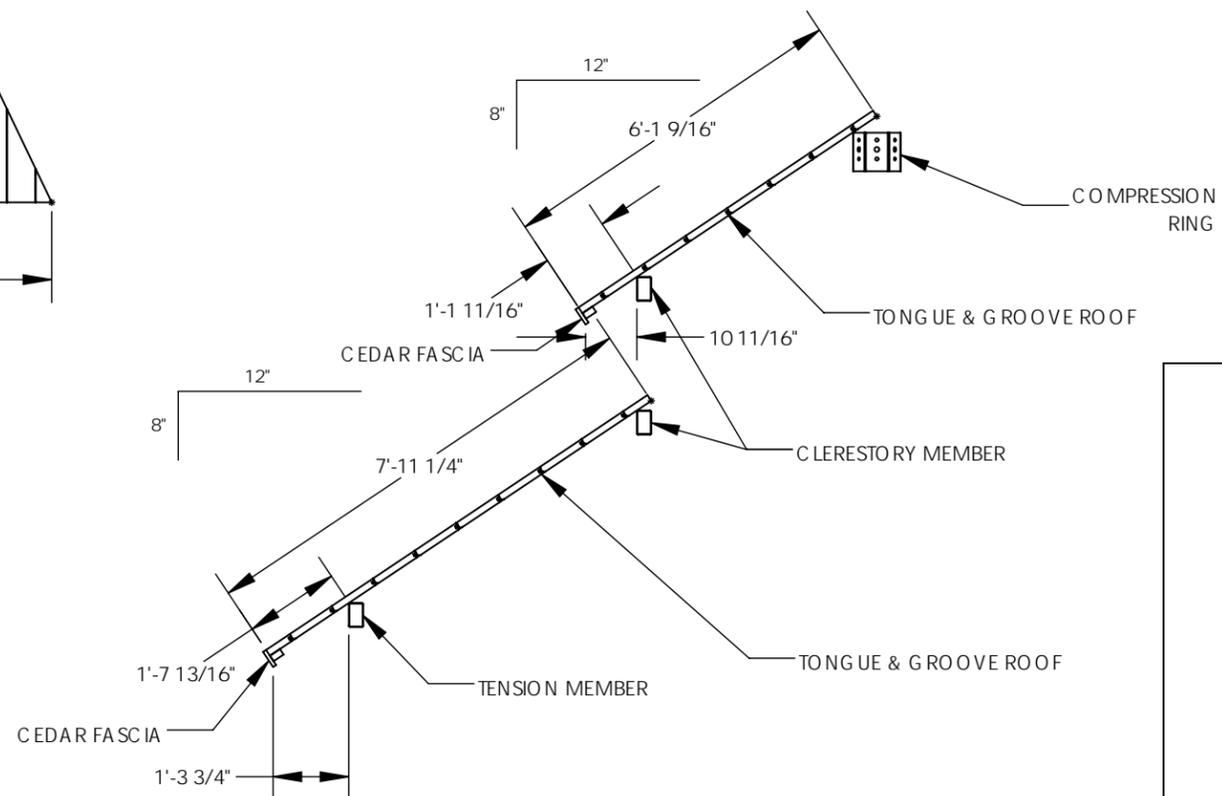
PROJECT:	CARTWRIGHT PARK	CREATION DATE:	11/16/2016	DRAWN BY:	anderson.bell	PRINT DATE:	2/5/2026
PROJECT LOCATION:	EVANSTON, IL	ORDERNO:	84404	REV LEVEL:	A	SCALE:	1:36
DRAWING:	ROOF OVERVIEW	CAD MODEL:	~BLDG -P22924				
SHEET	6						



TONGUE & GROOVE NOTES:

1. THE FIRST PLANK SHOULD BE INSTALLED PLUMB, STRAIGHT, AND ACCURATELY TO THE ADJACENT WORK. MAKE SURE PLANKS EXTEND ENOUGH TO COVER EAVE, TRUSSES, AND/OR THE CENTER OF THE PEAK.
2. THE T&G PROVIDED MAY CONTAIN SOME MINOR IMPERFECTIONS. REMOVE THESE IMPERFECTIONS AS REQUIRED AND USE REMAINDER OF MATERIAL TO ATTAIN MAXIMUM YIELD.
3. NO END JOINTS IN DECKING BETWEEN STRUCTURAL FRAMING AND EAVE OF DECKING.
4. A MINIMUM OF 24" SPACING IS REQUIRED BETWEEN ALL ADJACENT END JOINTS. BOARD LAYOUT MAY REQUIRE VISIBLE SPLICES.
5. IF PRE-STAINED T&G IS ORDERED, TOUCH-UP AT FIELD CUT EDGES MAY BE NECESSARY.
6. POLIGON RECOMMENDS ALL T&G BE STAINED/SEALED TO IMPROVE LONG TERM PERFORMANCE.

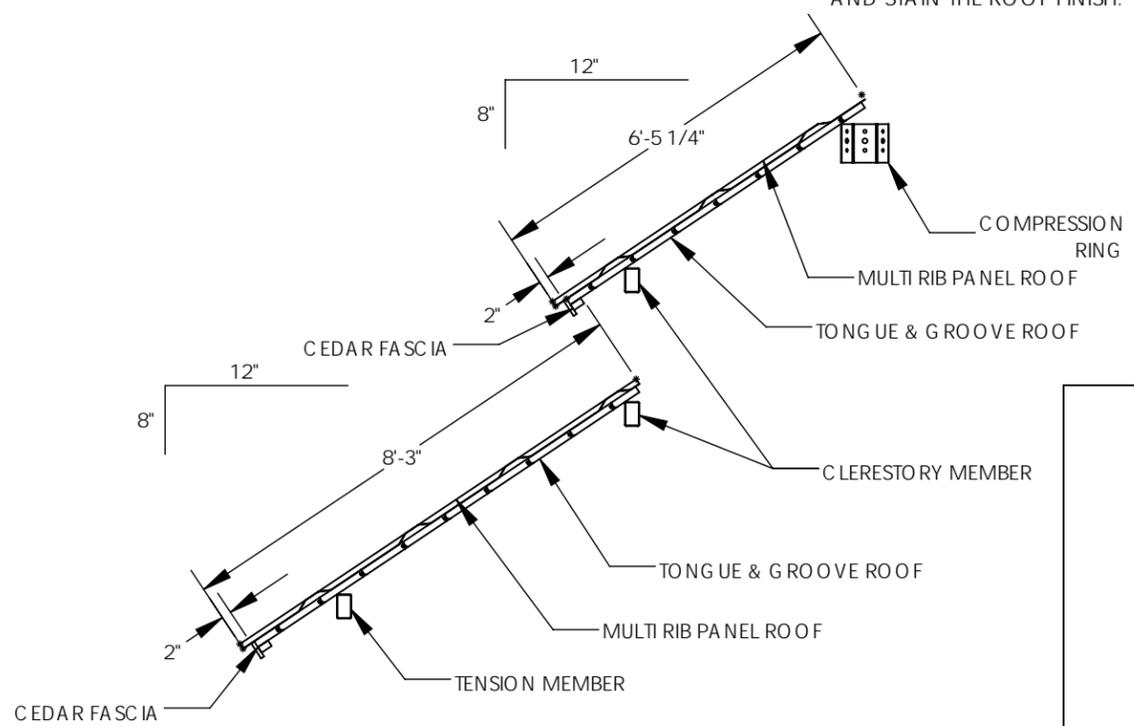
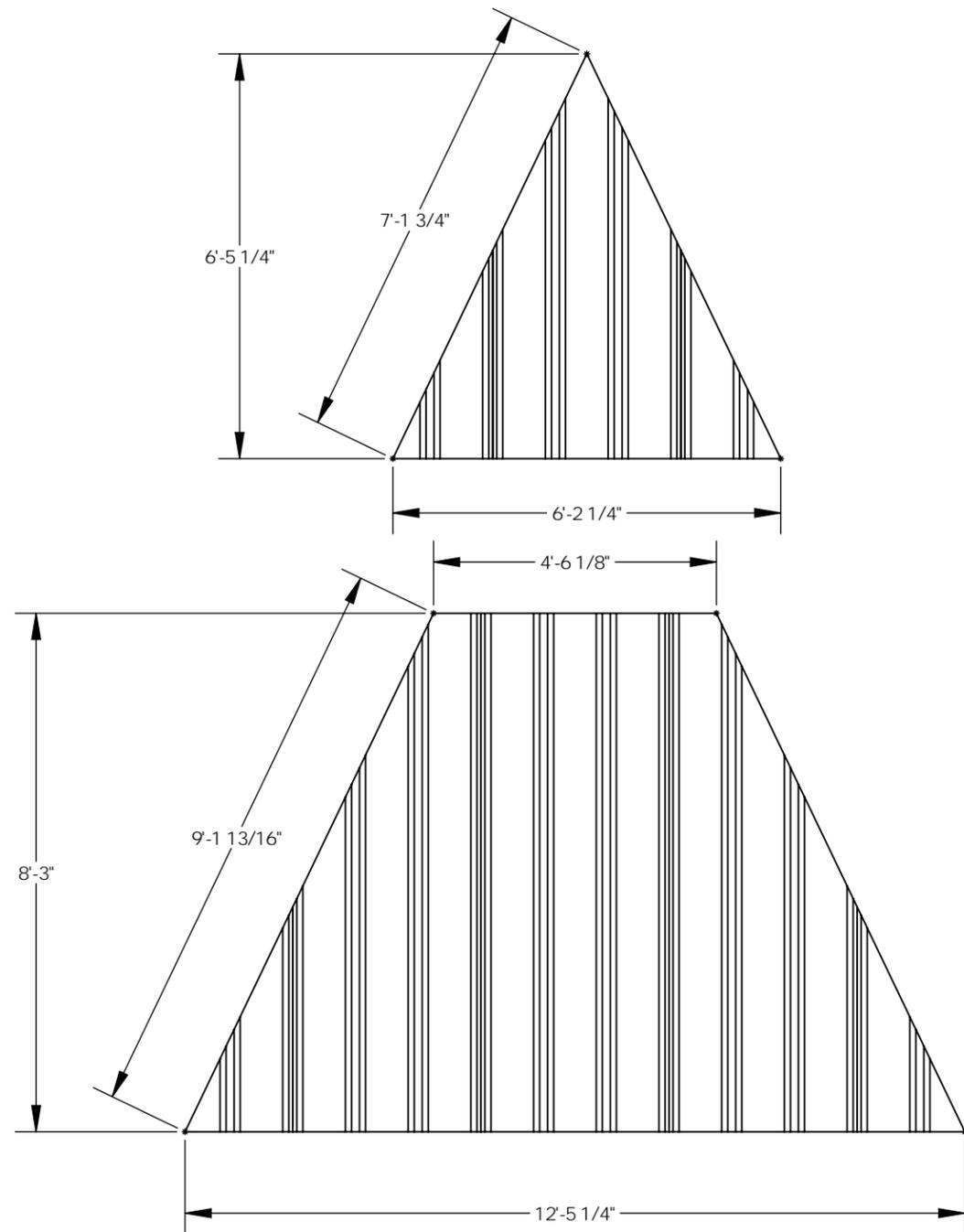
FOR BEST APPEARANCE POLIGON SUGGESTS THAT ALL END JOINTS BE MITERED @ 45°



DATE: 02/10/2026
EXPIRES: 11/30/2026

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CREATION DATE: 11/16/2016 ORDER NO: 84404 CAD MODEL: ~BLDG -P22924	PROJECT: CARTWRIGHT PARK PROJECT LOCATION: EVANSTON, IL DRAWING: ROOF LAYOUT	SHEET <h1 style="margin: 0;">6.1</h1>	



MULTI-RIB NOTES:

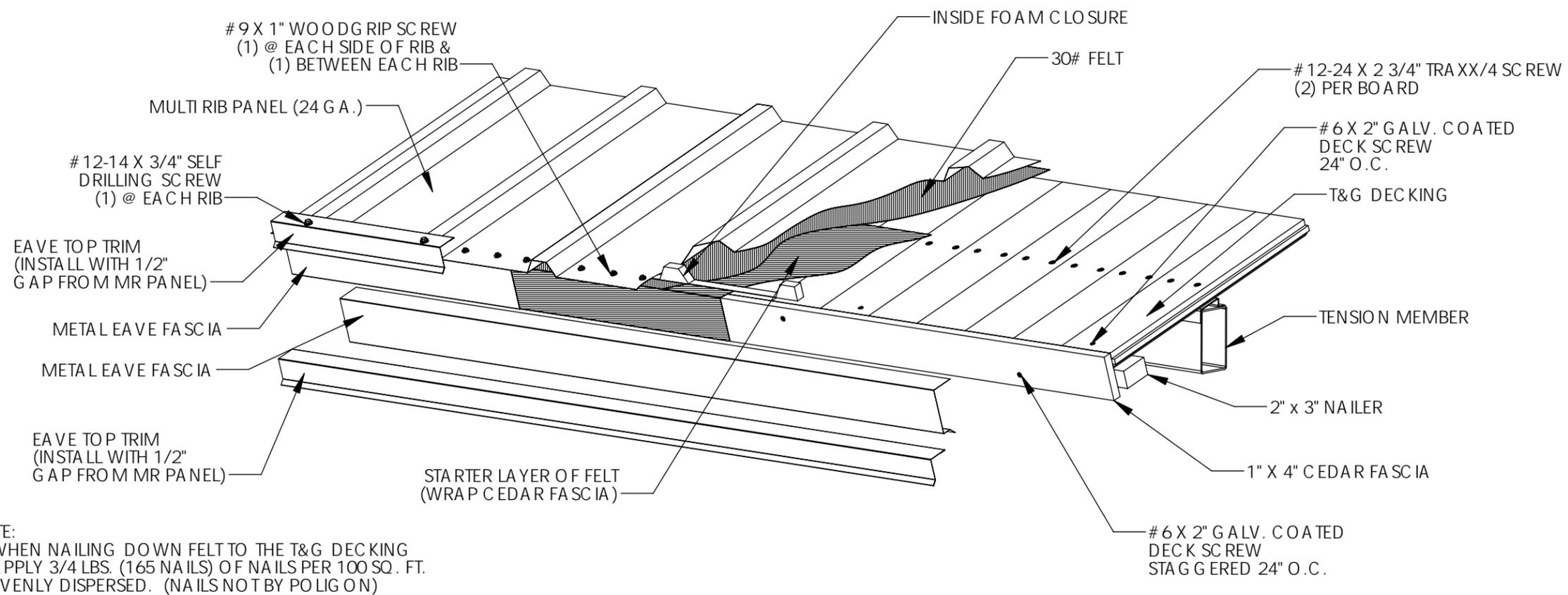
1. THE DETAILS SHOWN ARE SUGGESTIONS OR GUIDELINES ON HOW TO ERECT THE SYSTEMS. THE INFORMATION SHOWN IS ACCURATE, BUT IT IS NOT INTENDED TO COVER ALL INSTANCES, BUILDING REQUIREMENTS, DESIGNS OR CODES. THE DETAILS MAY REQUIRE CHANGES OR REVISIONS DUE TO FIELD CONDITIONS.
2. IT SHALL BE THE RESPONSIBILITY OF THE ERECTOR TO ENSURE THAT THE DETAILS MEET PARTICULAR BUILDING REQUIREMENTS AND TO ASSURE A DEQUATE WATER TIGHTNESS.
3. THE ERECTOR SHOULD THOROUGHLY FAMILIARIZE HIMSELF/HERSELF WITH ALL ERECTION INSTRUCTIONS BEFORE STARTING WORK.
4. THE PANELS SHOULD BE INSTALLED PLUMB, STRAIGHT, AND ACCURATELY TO THE ADJACENT WORK.
5. FLASHING AND TRIM SHALL BE INSTALLED TRUE, AND IN PROPER ALIGNMENT, WITH ANY EXPOSED FASTENERS EQUALLY SPACED FOR THE BEST APPEARANCE.
6. SEALANT SHALL BE FIELD APPLIED ON DRY, CLEAN SURFACES. SOME FIELD CUTTING AND FITTING OF PANELS AND FLASHING IS TO BE EXPECTED BY THE ERECTOR AND MINOR FIELD CORRECTIONS ARE A PART OF NORMAL ERECTION WORK.
7. WORKMANSHIP SHALL BE OF THE BEST INDUSTRY STANDARDS AND INSTALLATION SHALL BE PERFORMED BY EXPERIENCED METAL CRAFTSMEN.
8. METAL SHAVINGS FROM DRILLING OR INSTALLATION OF ROOF FASTENERS MUST BE CAREFULLY REMOVED FROM THE ROOF BY BRUSHING OR SWEEPING AT THE END OF EACH DAY DURING INSTALLATION. SHAVINGS LEFT ON THE ROOF WILL QUICKLY RUST AND STAIN THE ROOF FINISH.



DATE: 02/10/2026
EXPIRES: 11/30/2026

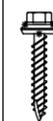
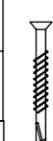
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	PRINT DATE: 2/5/2026 SCALE: 1:32
DRAWN BY: anderson.bell REV LEVEL: A	ORDER NO: 84404 CAD MODEL: ~BLDG -P22924
CREATION DATE: 11/16/2016	PROJECT: CARTWRIGHT PARK PROJECT LOCATION: EVANSTON, IL DRAWING: ROOF LAYOUT
SHEET 6.2	



NOTE:
WHEN NAILING DOWN FELT TO THE T&G DECKING
APPLY 3/4 LBS. (165 NAILS) OF NAILS PER 100 SQ. FT.
EVENLY DISPERSED. (NAILS NOT BY POLIGON)

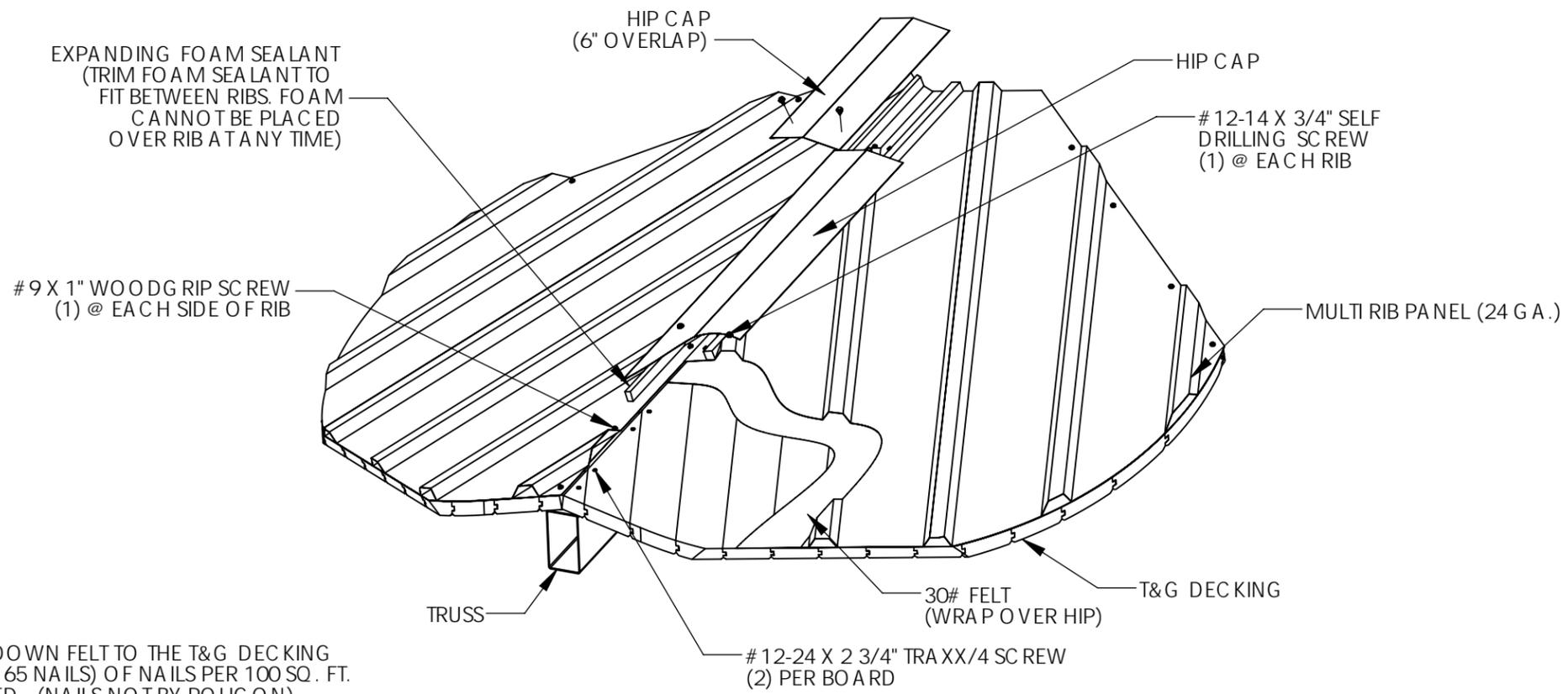
PART DESCRIPTIONS:

-  1/8" POP RIVET
-  #6x2" GALV. COATED DECK SCREW
-  #9x1" WOODGRIP SCREW
-  #12-14x3/4" SELF DRILLING SCREW
-  #12-24x2.75 TRAXX/4 SCREW
-  1" GALVANIZED ROOFING NAIL (NOT BY POLIGON)

2023A

EAVE DETAIL

TG MR-100



NOTE:
WHEN NAILING DOWN FELT TO THE T&G DECKING
APPLY 3/4 LBS. (165 NAILS) OF NAILS PER 100 SQ. FT.
EVENLY DISPERSED. (NAILS NOT BY POLIGON)



DATE: 02/10/2026
EXPIRES: 11/30/2026

2023A

TRUSS DETAIL

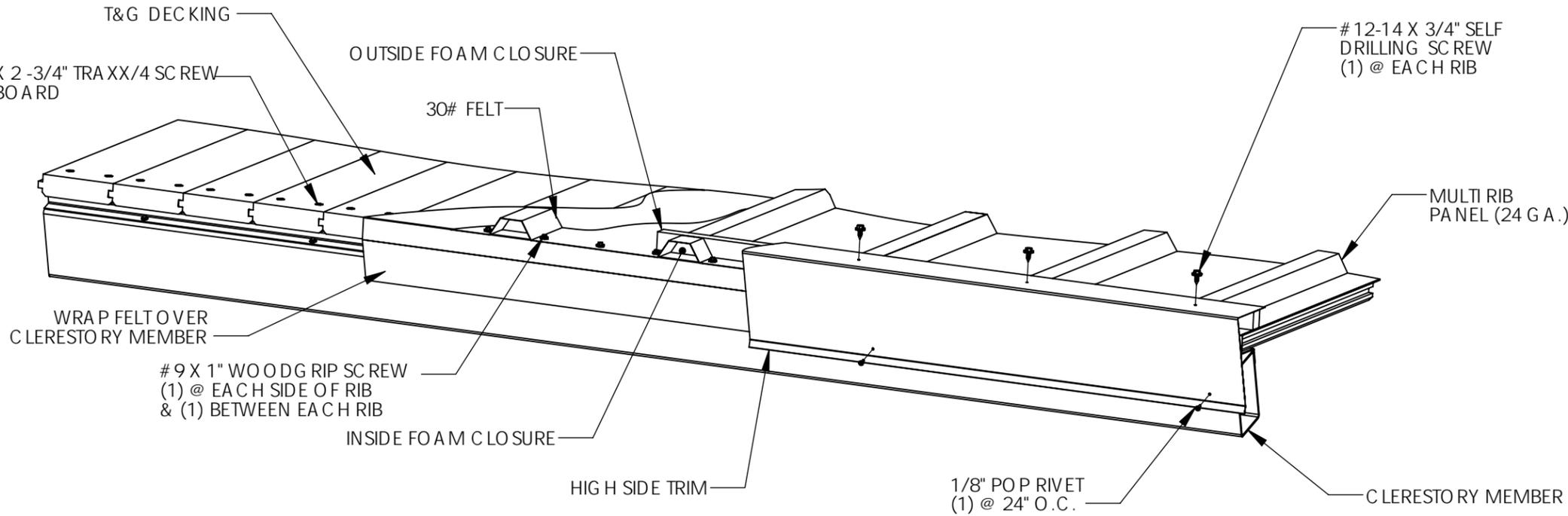
TG MR-300

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PROJECT: CARTWRIGHT PARK	DRAWN BY: anderson.bell	PRINT DATE: 2/5/2026	SCALE: NTS
PROJECT LOCATION: EVANSTON, IL	ORDER NO: 84404	REV LEVEL: A	
DRAWING: ROOF CONNECTION DETAILS	CAD MODEL: ~BLDG -P22924		

7

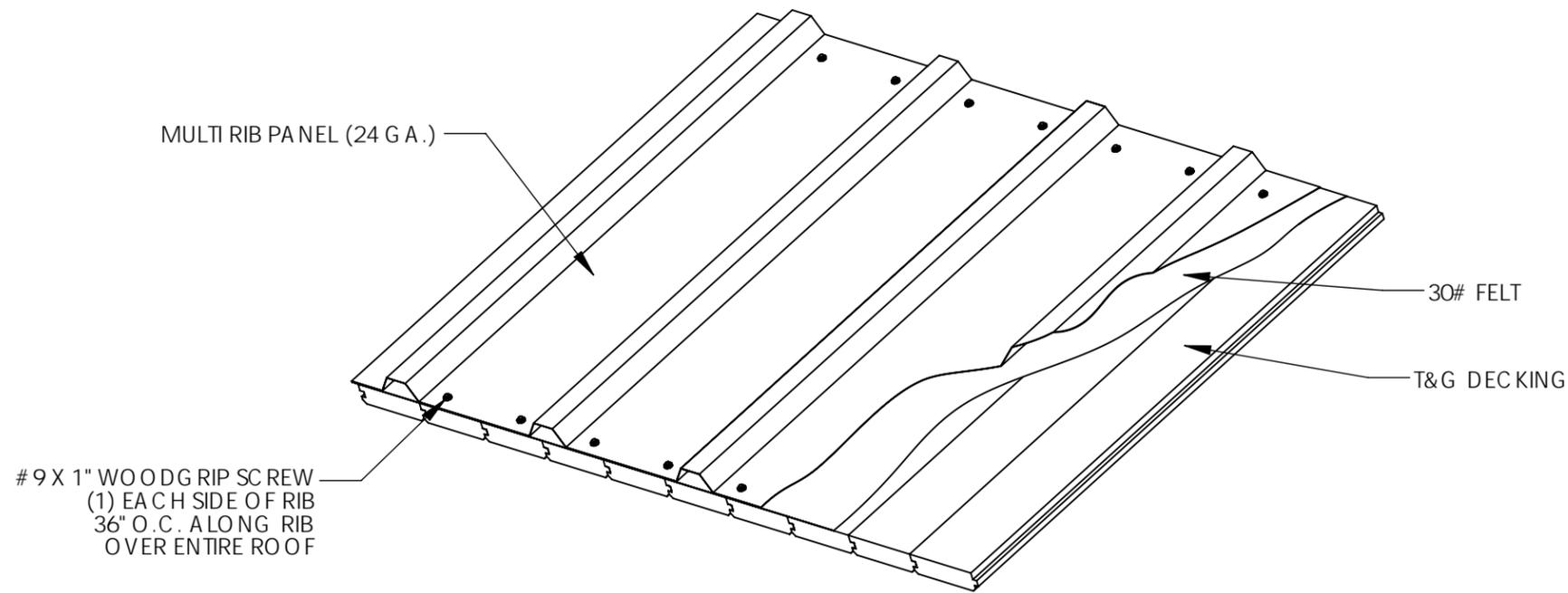


NOTE:
 WHEN NAILING DOWN FELT TO THE T&G DECKING
 APPLY 3/4 LBS. (165 NAILS) OF NAILS PER 100 SQ. FT.
 EVENLY DISPERSED. (NAILS NOT BY POLIGON)

2023A

HIGH SIDE DETAIL (VIEWING FROM ABOVE)

TG MR-200



NOTE:
 WHEN NAILING DOWN FELT TO THE T&G DECKING
 APPLY 3/4 LBS. (165 NAILS) OF NAILS PER 100 SQ. FT.
 EVENLY DISPERSED. (NAILS NOT BY POLIGON)

2023A

MID SPAN DETAIL

TG MR-601

PRINT DATE:	2/5/2026
SCALE:	NTS
DRAWN BY:	anderson.bell
REV LEVEL:	A
CREATION DATE:	11/16/2016
ORDER NO.:	84404
CAD MODEL:	~BLDG -P22924

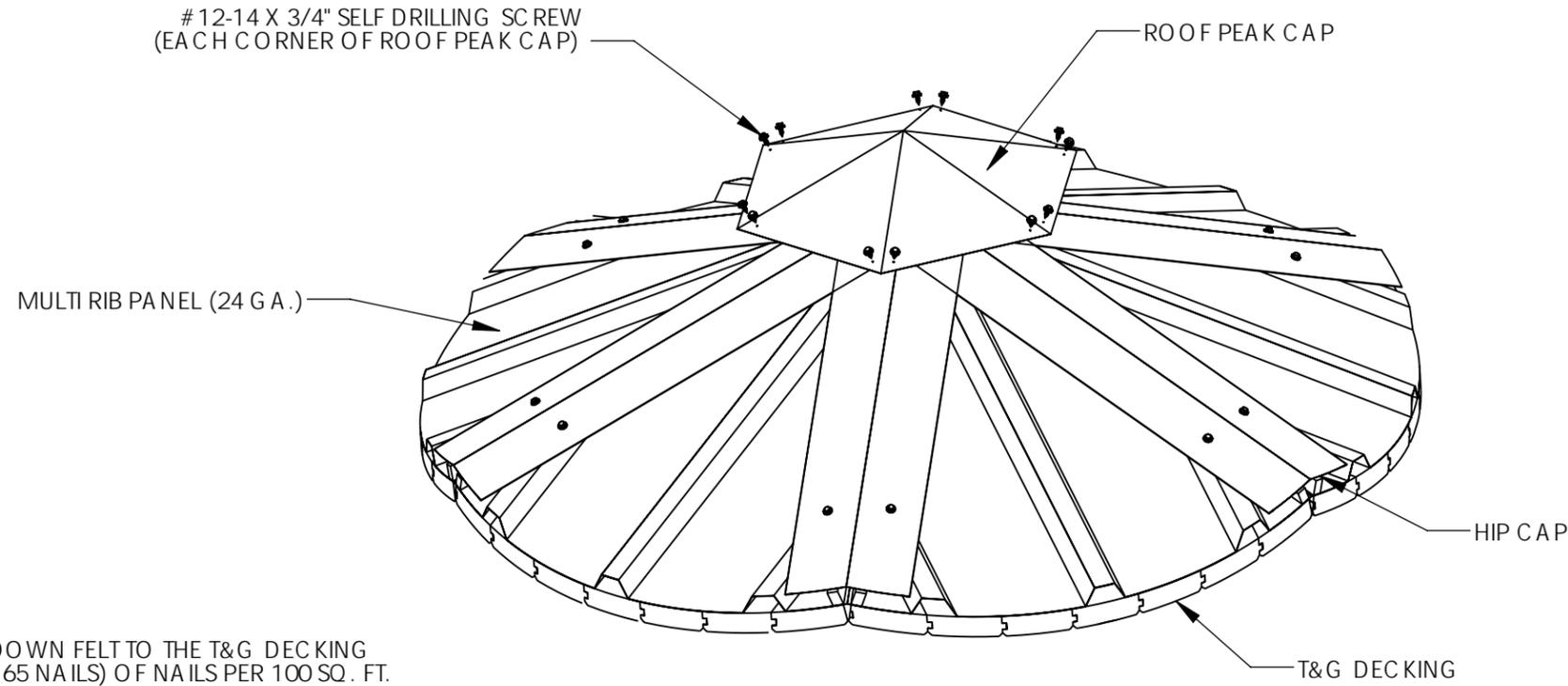
PROJECT: CARTWRIGHT PARK
 PROJECT LOCATION: EVANSTON, IL
 DRAWING: ROOF CONNECTION DETAILS



DATE: 02/10/2026
 EXPIRES: 11/30/2026

SHEET

7.1

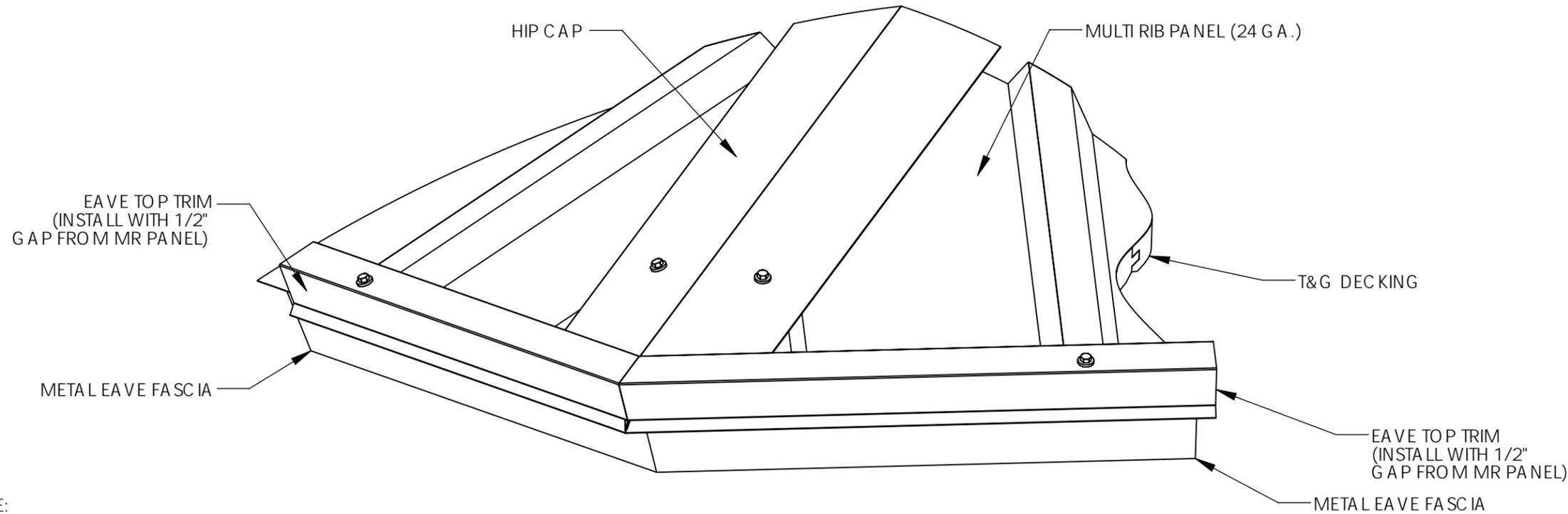


NOTE:
 WHEN NAILING DOWN FELT TO THE T&G DECKING
 APPLY 3/4 LBS. (165 NAILS) OF NAILS PER 100 SQ. FT.
 EVENLY DISPERSED. (NAILS NOT BY POLIGON)

2022A

ROOF PEAK DETAIL

TG MR-800



NOTE:
 WHEN NAILING DOWN FELT TO THE T&G DECKING
 APPLY 3/4 LBS. (165 NAILS) OF NAILS PER 100 SQ. FT.
 EVENLY DISPERSED. (NAILS NOT BY POLIGON)

2022A

CORNER DETAIL

TG MR-900



DATE: 02/10/2026
 EXPIRES: 11/30/2026

IF THESE DRAWINGS ARE SEALED, THE SEAL APPLIES ONLY TO BUILDING COMPONENTS DETAILED WITHIN THESE DRAWINGS AND SUPPLIED BY PORTER CORP AS WELL AS THE FOUNDATION DESIGN, IF APPLICABLE.

PRINT DATE:	2/5/2026
SCALE:	NTS
DRAWN BY:	anderson.bell
REV LEVEL:	A
CREATION DATE:	11/16/2016
ORDER NO.:	84404
CAD MODEL:	~BLDG -P22924

PROJECT: CARTWRIGHT PARK
 PROJECT LOCATION: EVANSTON, IL
 DRAWING: ROOF CONNECTION DETAILS

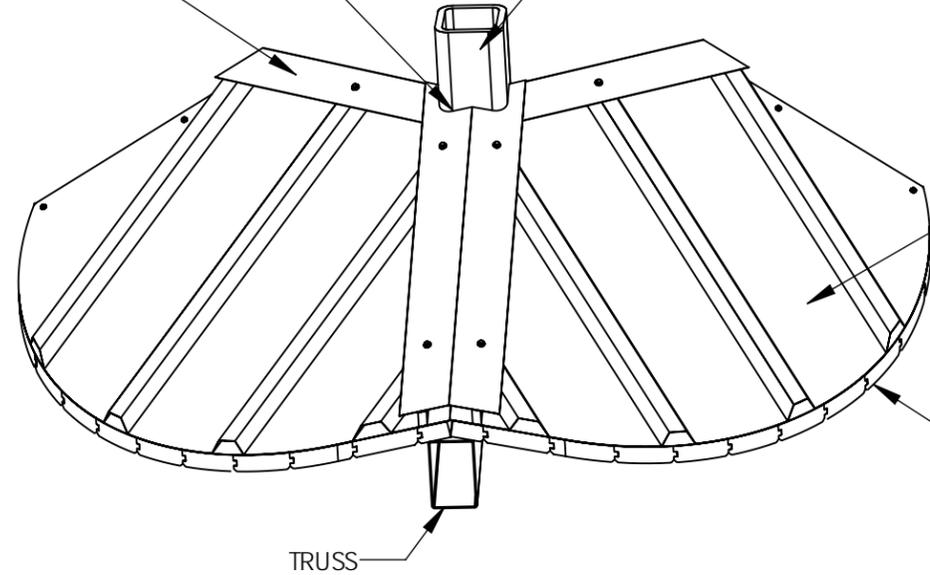
SHEET

7.2

TRIM ROOF PANELS, HIGH SIDE TRIM, AND
HIP CAP AROUND JUNCTION COLUMN

HIGH SIDE TRIM

JUNCTION COLUMN



MULTI RIB PANEL (24 GA.)

T&G DECKING

TRUSS

NOTE:
WHEN NAILING DOWN FELT TO THE T&G DECKING
APPLY 3/4 LBS. (165 NAILS) OF NAILS PER 100 SQ. FT.
EVENLY DISPERSED. (NAILS NOT BY POLIGON)

2022A

JUNCTION COLUMN DETAIL

TG MR-950



DATE: 02/10/2026
EXPIRES: 11/30/2026

IF THESE DRAWINGS ARE SEALED, THE SEAL APPLIES ONLY TO BUILDING
COMPONENTS DETAILED WITHIN THESE DRAWINGS AND SUPPLIED BY
PORTER CORP AS WELL AS THE FOUNDATION DESIGN, IF APPLICABLE.

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by PORTER CORP
WWW.POLIGON.COM
MAIN: (616) 888-3500
FIELD SUPPORT: (616) 888-3504

PRINT DATE: 2/5/2026
SCALE: NTS

DRAWN BY: anderson.bell
REV LEVEL: A

CREATION DATE: 11/16/2016
ORDERNO: 84404
CAD MODEL: ~BLDG -P22924

PROJECT: CARTWRIGHT PARK
PROJECT LOCATION: EVANSTON, IL
DRAWING: ROOF CONNECTION DETAILS

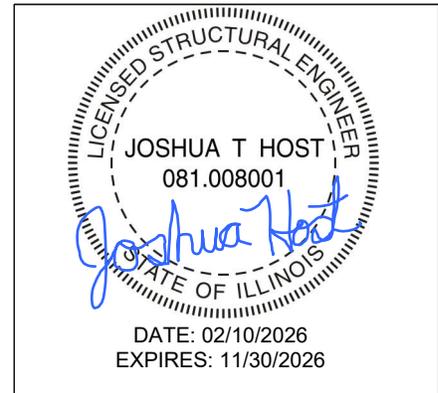
SHEET

7.3



CALCULATIONS FOR:

**POLIGON GX02 25
MULTI RIB OVER STAINED TONGUE AND GROOVE
2021 INTERNATIONAL BUILDING CODE**



PREPARED UNDER THE CONTROL AND SUPERVISION OF THE DESIGN PROFESSIONAL ABOVE. THE SEAL APPLIES ONLY TO BUILDING COMPONENTS DETAILED WITHIN THESE CALCULATIONS AND SUPPLIED BY PORTER CORP AS WELL AS THE FOUNDATION DESIGN, IF APPLICABLE.

TABLE OF CONTENTS

- Design Criteria
- Structural Engineering Notes
- Load Combinations
- Materials
- RISA Model Views
- Foundation Design
- Connection Design
- RISA Analysis Report
- Panel Data

DESIGN CRITERIA

GENERAL

Building Code:	See Cover Sheet	Lower Roof Slope (°):	33.69	8:12 Pitch
Design Code:	ASCE 7-16	Upper Roof Slope (°):	33.69	8:12 Pitch
Risk Category:	II	Equivalent Roof Height:	16.28	ft

DEAD LOAD

Weight of Roofing System	6.0	psf	
Frame Dead Load	Frame Self-Weight		(See RISA Analysis Report)

LIVE LOAD

Roof Live Load, L_r	20.0	psf	ASCE 7 Table 4-1
-----------------------	------	-----	------------------

SNOW LOAD

Ground Snow Load, p_g	25.0	psf	
Importance Factor, I (Snow Loads)	1.00		ASCE 7 Table 1.5-2
Slope Factor, C_s	1.0		ASCE 7 Figure 7.4-1
Thermal Factor, C_t	1.2		ASCE 7 Table 7.3-2
Exposure Factor, C_e	1.0		ASCE 7 Table 7.3-1
Flat Roof Snow Load, p_f	21.0	psf	ASCE 7 Section 7.3
Leeward Unbalanced Snow Load	0.0	psf	ASCE 7 Section 7.6.1
Drift Surcharge Load, p_d	13.5	psf	ASCE 7 Section 7.7
Width of Snow Drift, w	6.3	ft	ASCE 7 Section 7.7
Sliding Snow Load	3.0	psf	ASCE 7 Section 7.9

WIND LOAD

Basic Wind Speed, V	V_{ult}	110	mph	V_{asd}	85	mph	ASCE 7 Section 26.5
Exposure Category		C		V_f		mph	ASCE 7 Section 26.7
Ground Elevation Factor, K_e		1.00					ASCE 7 Table 26.9-1
Gust Effect Factor, G		0.85					ASCE 7 Section 26.11.1
Velocity Pressure Exposure Coefficient, K_z		0.86					ASCE 7 Table 26.10-1
Wind Directionality Factor, K_d		0.85		K_{dir}	0.80		ASCE 7 Table 26.6-1
Topographic Factor, K_{zt}		1.00					ASCE 7 Section 26.8.2
Velocity Pressure, q_z		22.74	psf	q_{st}	0.00	psf	ASCE 7 Section 26.10.2

Main Wind-Force Resisting System ASCE 7 Section 27.3

Open Building, Clear Wind Flow (Cn from ASCE 7 Fig. 27.3-4 - 27.3-7)

Load Case	Lower Roof		Upper Roof	
	A	B	A	B
$\gamma = 0$				
Windward $C_p =$	1.30	-0.15	1.30	-0.15
p (psf):	25.13	-2.88	25.13	-2.88
$\gamma = 180$				
Leeward $C_p =$	0.45	-0.75	0.45	-0.75
p (psf):	8.65	-14.54	8.65	-14.54
$\gamma = 90$				
Sideward $C_p =$	-0.80	0.80	-0.80	0.80
p (psf):	-15.46	15.46	-15.46	15.46

Component and Cladding Elements ASCE 7 Section 30.7.2

Open Building, Clear Wind Flow (Cn from ASCE 7 Fig. 30.7-1 - 30.7-3)

Zone	Wind Direction	Wind Direction	
		Toward Roof	Away From Roof
Zone 3	Cn:	2.50	-1.75
	p (psf):	48.35	-33.84
Zone 2	Cn:	1.93	-1.35
	p (psf):	37.23	-26.11
Zone 1	Cn:	1.25	-0.88
	p (psf):	24.17	-16.92

SEISMIC LOAD

Analysis Procedure	Equivalent Lateral Force Procedure	ASCE 7 Section 12.8	
Seismic Site Class	D	ASCE 7 Section 11.4.2	
Basic Seismic Force Resisting System	Steel Systems Not Specifically Detailed For Seismic Resistance	ASCE 7 Table 12.2-1	
Short Spectral Response Parameter, S_s	0.32		
1-Sec Spectral Response Parameter, S_1	0.08		
Seismic Design Category	B	ASCE 7 Section 11.6	
Importance Factor, I	1.00	ASCE 7 Table 11.5-1	
Response Modification Coefficient, R	3.00	ASCE 7 Table 12.2-1	
Redundancy Factor, ρ	1.00	ASCE 7 Table 12.2-1	
Overstrength Factor, Ω_o	3.00	ASCE 7 Table 12.2-1	
Design Short Spectral Response Parameter, S_{DS}	0.33	ASCE 7 Section 11.4.4	
1-Sec Design Spectral Response Parameter, S_{D1}	0.13	ASCE 7 Section 11.4.4	
Seismic Response Coefficient, C_s	0.11	ASCE 7 Section 12.8.1.1	
Effective Seismic Weight, W	6.00	psf	ASCE 7 Section 12.7.2
Seismic Base Shear, V	0.66	psf	ASCE 7 Section 12.8.1
Seismic Load, E	0.66	psf	ASCE 7 Section 12.4
Seismic Load with Overstrength Factor, E_m	1.98	psf	ASCE 7 Section 12.4

STRUCTURAL ENGINEERING NOTES

GENERAL NOTES

Loads applied to the structure may be greater than required for the project location.

Actual structure dimensions may be smaller than shown in this document.

The engineering seal for the structure designed in these calculations is only valid if Porter Corp fabricates the steel components. Fabricating the steel components elsewhere voids the engineering provided by Porter Corp.

Porter Corp is responsible only for the structural design of the Steel Structure (and foundation design if applicable) it sells to the Builder. Porter Corp or their engineer is not the Design Professional or Engineer of Record for the Construction Project. Porter Corp is not responsible for the design of any components or materials not sold by it or their interface and connection with the Steel Structure.

STRUCTURAL ANALYSIS NOTES

RISA-3D structural analysis software was used to model the 3-D space frame.

To reduce the amount of computer printout, the analysis results only show each member's controlling load case.

Unless noted otherwise in the 'RISA Analysis Report', the roof deck was not utilized in the structural analysis to provide lateral support to the members.

From the analysis, all member deflections and structural drift are within allowable limits.

STRUCTURAL DESIGN NOTES

End plates were designed by applying beam end forces to the edges of the plate and calculating the resulting prying moment at the edge of the bolt holes. In determining the prying moment it was assumed that the area of the plate between bolts was fixed.

Light gage members were designed in accordance with the latest edition of the AISC specifications and the AISI Cold-Formed Steel Design Manual.

STRUCTURAL CONNECTION NOTES

Bolt threads were assumed to not be excluded from the connections.

LOAD COMBINATIONS

Key		Service (Unfactored)	
Abbreviation	Description	Number	Description
DL	Dead Load	1	SERVICE D
Lr	Roof Live Load	2	SERVICE Lr
S	Snow Load	3	SERVICE S
Su	Unbalanced Snow Load	4	SERVICE Su
Ssliding	Sliding Snow	5	SERVICE Ssliding
Sdrift	Snow Drift	6	SERVICE Sdrift
Wx	Wind Load (X-Direction)	7	SERVICE Wx (LC A)
Wz	Wind Load (Z-Direction)	8	SERVICE Wz (LC B)
Wx (Min.)	16 psf Minimum Wind Load (X-Direction)	9	SERVICE Wz (LC A)
Wz (Min.)	16 psf Minimum Wind Load (Z-Direction)	10	SERVICE Wz (LC B)
Ex	Seismic Load (X-Direction)	11	SERVICE Ex
Ez	Seismic Load (Z-Direction)	12	SERVICE Ez
Emx	Seismic Load (X-Direction) with Overstrength Factor	13	SERVICE Ev
Emz	Seismic Load (Z-Direction) with Overstrength Factor		
Ev	Vertical Seismic Load Effect		
LC	Load Case		

Allowable Stress Design (Factored)

Number	Description	Number	Description
17	D	60	1.0D+0.525Ev+0.525Ehx+0.75S
18	D + Lr	61	0.6D-0.7Ev+0.7Ehx
19	D + S	62	1.0D+0.7Ev+0.7Ehz
20	D + Su	63	1.0D+0.525Ev+0.525Ehz+0.75S
21	D+Ssliding	64	0.6D-0.7Ev+0.7Ehz
22	D+Sdrift	65	1.0D+0.7Ev+0.7Ehx+0.21Ehz
23	D + 0.6Wx (LC A)	66	1.0D+0.525Ev+0.525Ehx+0.1575Ehz+0.75S
24	D + 0.6Wx (LC B)	67	0.6D-0.7Ev+0.7Ehx+0.21Ehz
25	D + 0.6Wz (LC A)	68	1.0D+0.7Ev+0.7Ehz+0.21Ehx
26	D + 0.6Wz (LC B)	69	1.0D+0.525Ev+0.525Ehz+0.1575Ehx+0.75S
27	D + (0.6Wx (Min.))	70	0.6D-0.7Ev+0.7Ehz+0.21Ehx
28	D + (0.6Wz (Min.))		
29	D+0.6(0.75Wx(LC A)+0.75Wz(LC A))		
30	D+0.6(0.75Wx(LC B)+0.75Wz(LC B))		
31	D+0.6(0.75Wx(Min.)+0.75Wz(Min.))		
32	D + 0.75(0.6Wx (LC A)) + 0.75Lr		
33	D + 0.75(0.6Wx (LC B)) + 0.75Lr		
34	D + 0.75(0.6Wz (LC A)) + 0.75Lr		
35	D + 0.75(0.6Wz (LC B)) + 0.75Lr		
36	D + 0.75(0.6Wx (Min.)) + 0.75Lr		
37	D + 0.75(0.6Wz (Min.)) + 0.75Lr		
38	D+0.75(0.6(0.75Wx(LC A)+0.75Wz(LC A))) + 0.75Lr		
39	D+0.75(0.6(0.75Wx(LC B)+0.75Wz(LC B))) + 0.75Lr		
40	D+ 0.75(0.6(0.75Wx(Min.)+0.75Wz(Min.))) + 0.75Lr		
41	D + 0.75(0.6Wx (LC A)) + 0.75S		
42	D + 0.75(0.6Wx (LC B)) + 0.75S		
43	D + 0.75(0.6Wz (LC A)) + 0.75S		
44	D + 0.75(0.6Wz (LC B)) + 0.75S		
45	D + 0.75(0.6Wx (Min.)) + 0.75S		
46	D + 0.75(0.6Wz (Min.)) + 0.75S		
47	D+0.75(0.6(0.75Wx(LC A)+0.75Wz(LC A))) + 0.75S		
48	D+0.75(0.6(0.75Wx(LC B)+0.75Wz(LC B))) + 0.75S		
49	D+ 0.75(0.6(0.75Wx(Min.)+0.75Wz(Min.))) + 0.75S		
50	0.6D + 0.6Wx (LC A)		
51	0.6D + 0.6Wx (LC B)		
52	0.6D + 0.6Wz (LC A)		
53	0.6D + 0.6Wz (LC B)		
54	0.6D + (0.6Wx (Min.))		
55	0.6D + (0.6Wz (Min.))		
56	0.6D+0.6(0.75Wx(LC A)+0.75Wz(LC A))		
57	0.6D+0.6(0.75Wx(LC B)+0.75Wz(LC B))		
58	0.6D+0.6(0.75Wx(Min.)+0.75Wz(Min.))		
59	1.0D+0.7Ev+0.7Ehx		

Notes:

1. Load combinations are effective in all states that have adopted IBC as a base code.
2. See "RISA Analysis Report" for the load combinations that are not listed above.

LOAD COMBINATIONS

Strength Design (Factored)

Number	Description	Number	Description
92	1.4D	148	1.2D + 1.0(0.75Wx (Min.))+0.75Wz (Min.)) + 0.5Lr
93	1.2D + 0.5Lr	149	1.2D + 1.0Wx (LC A) + 0.5S
94	1.2D + 0.5S	150	1.2D + 1.0Wx (LC B) + 0.5S
95	1.2D + 1.6Lr + 0.5Wx (LC A)	151	1.2D + 1.0Wz (LC A) + 0.5S
96	1.2D + 1.6Lr + 0.5Wx (LC B)	152	1.2D + 1.0Wz (LC B) + 0.5S
97	1.2D + 1.6Lr + 0.5Wz (LC A)	153	1.2D + 1.0Wx (Min.) + 0.5S
98	1.2D + 1.6Lr + 0.5Wz (LC B)	154	1.2D + 1.0Wz (Min.) + 0.5S
99	1.2D + 1.6Lr + 0.5Wx (Min.)	155	1.2D + 1.0(0.75Wx (LC A))+0.75Wz (LC A)) + 0.5S
100	1.2D + 1.6Lr + 0.5Wz (Min.)	156	1.2D + 1.0(0.75Wx (LC B))+0.75Wz (LC B)) + 0.5S
101	1.2D + 1.6Lr + 0.5(0.75Wx (LC A))+0.75Wz (LC A))	157	1.2D + 1.0(0.75Wx (Min.))+0.75Wz (Min.)) + 0.5S
102	1.2D + 1.6Lr + 0.5(0.75Wx (LC B))+0.75Wz (LC B))	158	0.9D + 1.0Wx (LC A)
103	1.2D + 1.6Lr + 0.5(0.75Wx (Min.))+0.75Wz (Min.))	159	0.9D + 1.0Wx (LC B)
104	1.2D + 1.6S + 0.5Wx (LC A)	160	0.9D + 1.0Wz (LC A)
105	1.2D + 1.6S + 0.5Wx (LC B)	161	0.9D + 1.0Wz (LC B)
106	1.2D + 1.6S + 0.5Wz (LC A)	162	0.9D + 1.0Wx (Min.)
107	1.2D + 1.6S + 0.5Wz (LC B)	163	0.9D + 1.0Wz (Min.)
108	1.2D + 1.6S + 0.5Wx (Min.)	164	0.9D + 1.0(0.75Wx (LC A))+0.75Wz (LC A))
109	1.2D + 1.6S + 0.5Wz (Min.)	165	0.9D + 1.0(0.75Wx (LC B))+0.75Wz (LC B))
110	1.2D + 1.6S + 0.5(0.75Wx (LC A))+0.75Wz (LC A))	166	0.9D + 1.0(0.75Wx (Min.))+0.75Wz (Min.))
111	1.2D + 1.6S + 0.5(0.75Wx (LC B))+0.75Wz (LC B))	167	1.2D+Ev+Ehx+0.2S
112	1.2D + 1.6S + 0.5(0.75Wx (Min.))+0.75Wz (Min.))	168	0.9D-Ev+Ehx
113	1.2D + 1.6Su + 0.5Wx (LC A)	169	1.2D+Ev+Ehz+0.2S
114	1.2D + 1.6Su + 0.5Wx (LC B)	170	0.9D-Ev+Ehz
115	1.2D + 1.6Su + 0.5Wz (LC A)	171	1.2D+Ev+Ehx+0.3Ehz+0.2S
116	1.2D + 1.6Su + 0.5Wz (LC B)	172	0.9D-Ev+Ehx+0.3Ehz
117	1.2D + 1.6Su + 0.5Wx (Min.)	173	1.2D+Ev+Ehz+0.3Ehx+0.2S
118	1.2D + 1.6Su + 0.5Wz (Min.)	174	0.9D-Ev+Ehz+0.3Ehx
119	1.2D + 1.6Su + 0.5(0.75Wx (LC A))+0.75Wz (LC A))		
120	1.2D + 1.6Su + 0.5(0.75Wx (LC B))+0.75Wz (LC B))		
121	1.2D + 1.6Su + 0.5(0.75Wx (Min.))+0.75Wz (Min.))		
122	1.2D + 1.6Ssliding + 0.5Wx (LC A)		
123	1.2D + 1.6Ssliding + 0.5Wx (LC B)		
124	1.2D + 1.6Ssliding + 0.5Wz (LC A)		
125	1.2D + 1.6Ssliding + 0.5Wz (LC B)		
126	1.2D + 1.6Ssliding + 0.5Wx (Min.)		
127	1.2D + 1.6Ssliding + 0.5Wz (Min.)		
128	1.2D + 1.6Ssliding + 0.5(0.75Wx (LC A))+0.75Wz (LC A))		
129	1.2D + 1.6Ssliding + 0.5(0.75Wx (LC B))+0.75Wz (LC B))		
130	1.2D + 1.6Ssliding + 0.5(0.75Wx (Min.))+0.75Wz (Min.))		
131	1.2D + 1.6Sdrift + 0.5Wx (LC A)		
132	1.2D + 1.6Sdrift + 0.5Wx (LC B)		
133	1.2D + 1.6Sdrift + 0.5Wz (LC A)		
134	1.2D + 1.6Sdrift + 0.5Wz (LC B)		
135	1.2D + 1.6Sdrift + 0.5Wx (Min.)		
136	1.2D + 1.6Sdrift + 0.5Wz (Min.)		
137	1.2D + 1.6Sdrift + 0.5(0.75Wx (LC A))+0.75Wz (LC A))		
138	1.2D + 1.6Sdrift + 0.5(0.75Wx (LC B))+0.75Wz (LC B))		
139	1.2D + 1.6Sdrift + 0.5(0.75Wx (Min.))+0.75Wz (Min.))		
140	1.2D + 1.0Wx (LC A) + 0.5Lr		
141	1.2D + 1.0Wx (LC B) + 0.5Lr		
142	1.2D + 1.0Wz (LC A) + 0.5Lr		
143	1.2D + 1.0Wz (LC B) + 0.5Lr		
144	1.2D + 1.0Wx (Min.) + 0.5Lr		
145	1.2D + 1.0Wz (Min.) + 0.5Lr		
146	1.2D + 1.0(0.75Wx (LC A))+0.75Wz (LC A)) + 0.5Lr		
147	1.2D + 1.0(0.75Wx (LC B))+0.75Wz (LC B)) + 0.5Lr		

Notes:

1. Load combinations are effective in all states that have adopted IBC as a base code.
2. See "RISA Analysis Report" for the load combinations that are not listed above.

MATERIALS

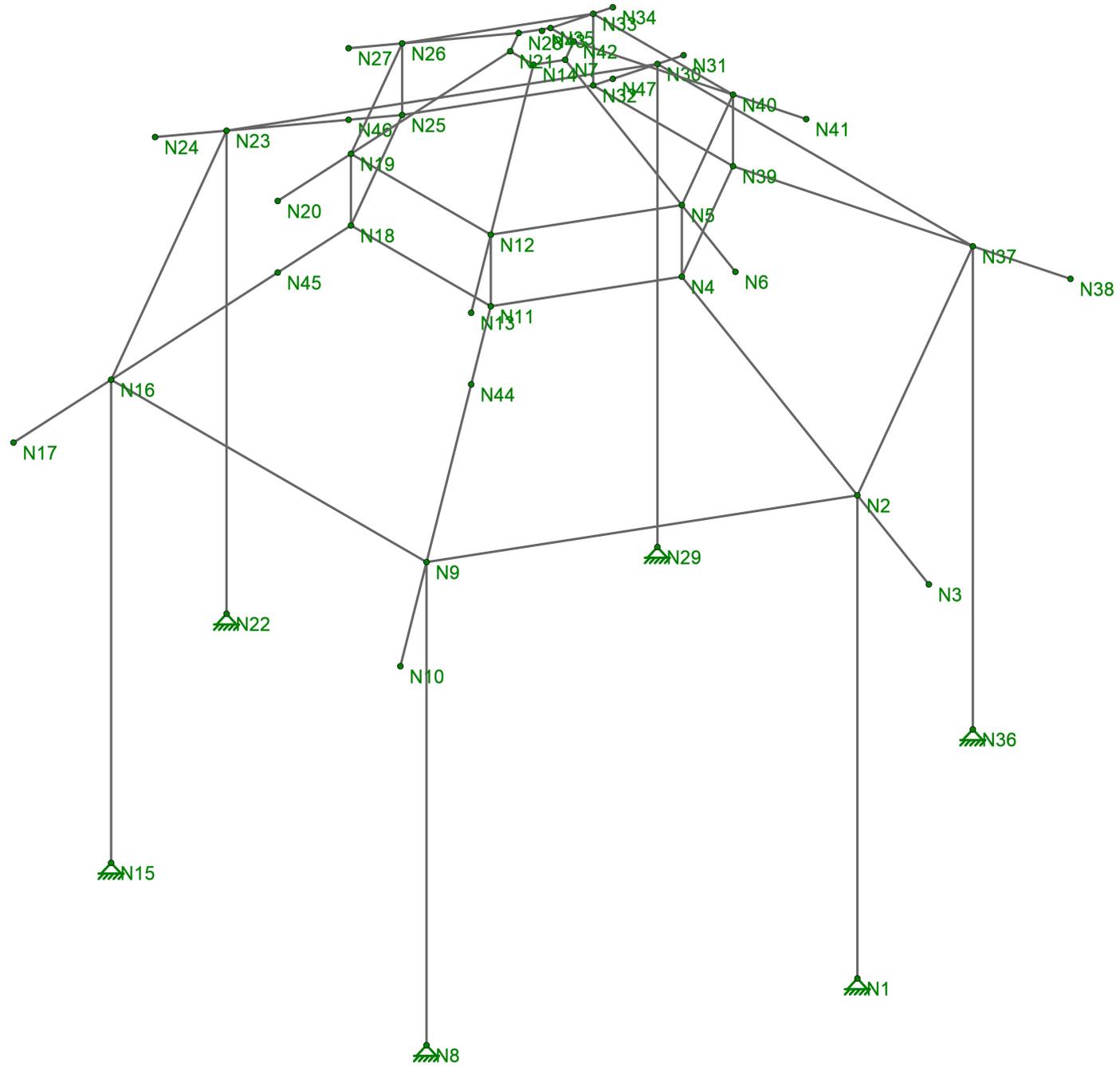
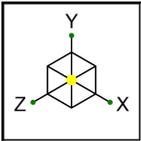
Column	HSS5x5x3/16
Truss	HSS6x4x1/8
Truss Tail	HSS4x4x1/8
Tension	HSS5x3x1/8
Compression Ring	3/8" Plate*
Juncture Column	HSS5x5x1/2
Clerestory	HSS5x3x1/8
Upper Truss	HSS6x4x1/8
Upper Truss Tail	HSS4x4x1/8

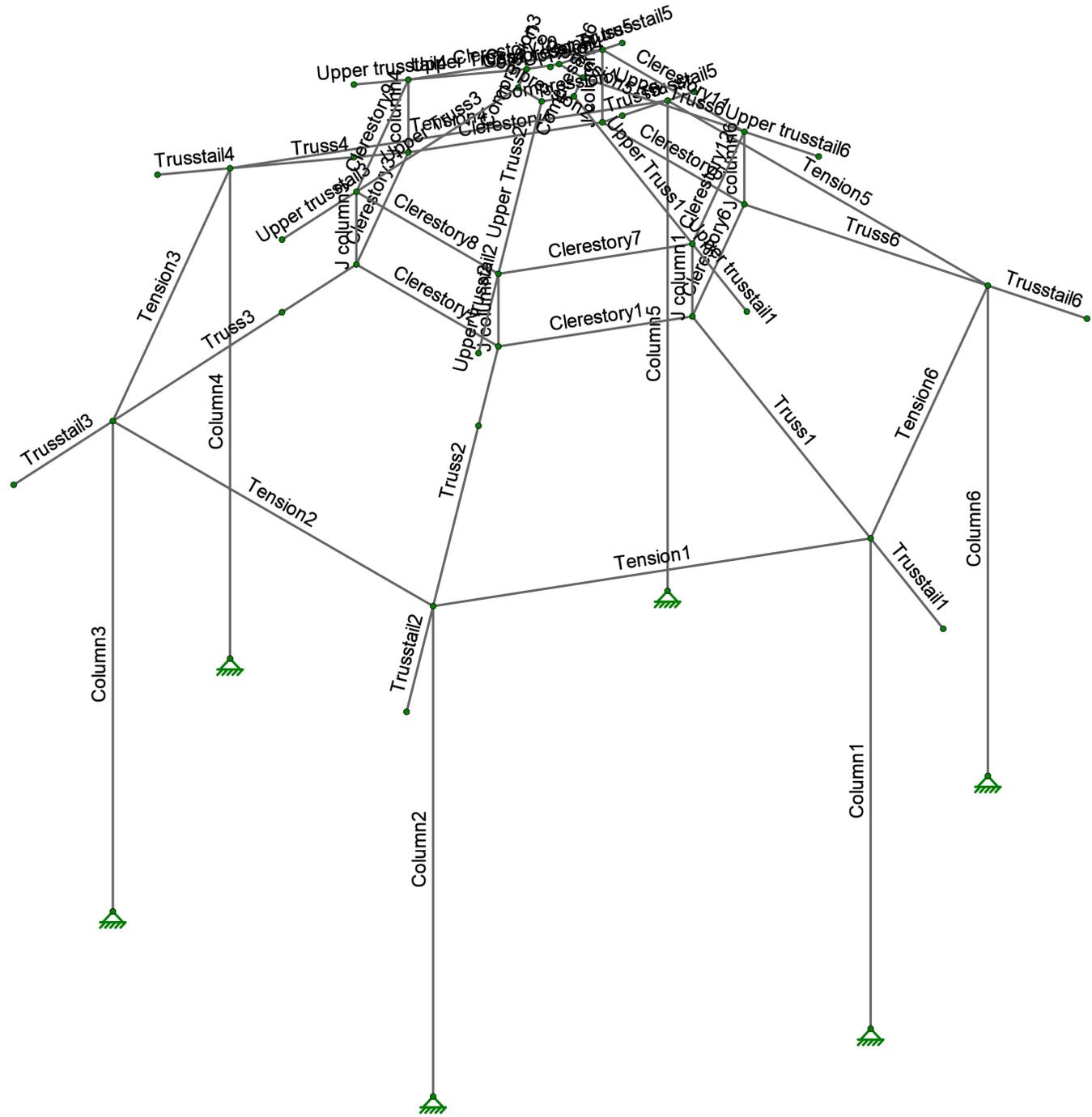
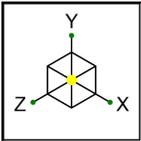
*3/8" Plate Weldment may be substituted with C7x9.8 weldment

HSS Sections:	ASTM A500 Gr. C
Pipe Sections:	ASTM A53 Gr. B
RMT Sections:	ASTM A519
Channel & Angle Sections:	ASTM A36
Connection Plates:	ASTM A572 Gr. 50
Purlin Flange Plates:	ASTM A36
Connections Bolts	ASTM A325
Welding Process:	Gas Metal Arc Welding
Welding Electrode:	E70xx

RISA MODEL VIEWS

Joint Labels
Member Labels
Member Shapes
Member Lengths
Member Local Axis





FOUNDATION DESIGN

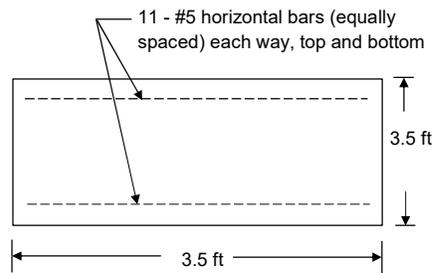
The foundation design contained herein is site specific, and is based on Proposed Cartwright Park Improvements, 3324 Grant Street, Evanston IL 60201, by PIONEER Engineering & Environmental Services, LLC. Dated 12/10/2025. Report No. 25-0127-151. Proper care must be taken to ensure any and all recommendations of the above mentioned report for site preparation, soil performance, and foundation design are met. If conditions are present that do not allow for these recommendations to be met, the geotechnical engineer must be contacted.

FOUNDATION DESIGN

SPREAD FOOTING

Spread Footing		Allowable	Actual	Load Combination / Member	
1	Bearing Pressure (Refer to Soils Report)	4000 psf	256 psf	22 / Column3	OK
2	Uplift Check SF = 35.53	3730 lbs	105 lbs	52 / Column4	OK
3	Sliding Check SF = 15.09	2686 lbs	178 lbs	28 / Column1	OK
4	Area of Reinforcement (ACI Chapter 7)	0.03 in ²	6.75 in ²	131 / Column4	OK

Design Forces / Moments								
Check	Load Combination	Member	Fx (Axial) [k]	Fy [k]	Fz [k]	Mx [k-in]	My [k-in]	Mz [k-in]
1	22	Column3	3.14	-0.05	0.00	0.00	0.00	0.00
2	52	Column4	-0.11	0.01	-0.09	0.00	0.00	0.00
3	28	Column1	0.95	-0.01	0.18	0.00	0.00	0.00
4	160	Column4	-0.28	0.01	-0.15	0.00	0.00	0.00
1	22	Column3	3.14	-0.05	0.00	0.00	0.00	0.00
2	52	Column4	-0.11	0.01	-0.09	0.00	0.00	0.00
3	28	Column1	0.95	-0.01	0.18	0.00	0.00	0.00
4	131	Column4	5.44	-0.22	0.00	0.00	0.00	0.00



Spread Footing Width (ft): 3.5
 Spread Footing Thickness (ft): 3.5

f'c (psi): 4500
 Concrete Unit Weight (lb/ft³): 145

CONNECTION DESIGN

COLUMN BASE PLATE CONNECTION

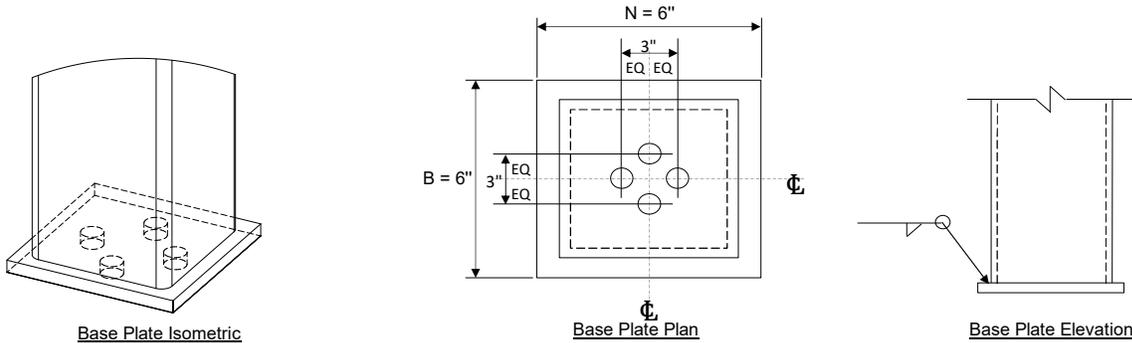
PINNED CONNECTION (INTERNAL BOLTS)

Base Plate Check: 6"x6"x1/2"		Allowable	Actual	Load Combination / Member	
1	Plate Size (AISC J8-1)	1.4 in ²	36.0 in ²	22 / Column3	OK
2	Plate Thickness (AISC PART 14)	0.05 in	0.50 in	22 / Column3	OK
3	Concrete Bearing (AISC J8-1)	1530 psi	87 psi	22 / Column3	OK
4	Weld Check (AISC J2-3)	2.78 k/in	0.02 k/in	23 / Column6	OK

Anchor Bolt Check: (4) 1/2" Anchors		Post-Installed Allowable	Cast-in-Place Allowable	Actual	Load Combination / Member	
5	Tension (ACI D5.1)	23.6 kip	24.7 kip	0.3 kip	160 / Column4	OK
6	Concrete Breakout (ACI D5.2)	16.6 kip	32.3 kip	0.3 kip	160 / Column4	OK
7	Concrete Bond/Pullout (ACI D5.3)	29.2 kip	54.0 kip	0.3 kip	160 / Column4	OK
8	Sideface Blowout (ACI D5.4)	N/A	N/A	N/A	Not Considered Per RD5.4	OK
9	Shear (ACI D6.1)	11.6 kip	10.6 kip	0.3 kip	149 / Column2	OK
10	Shear Breakout (ACI D6.2)	15.7 kip	32.7 kip	0.3 kip	149 / Column2	OK
11	Shear Pryout (ACI D6.3)	33.3 kip	45.2 kip	0.3 kip	149 / Column2	OK

Interaction Check		Post-Installed Actual	Cast-in-Place Actual	Allowable	Load Combination / Member	
12	Cast-In-Place Interaction (ACI RD.7)		0.0	1.00	149 / Column2	OK
13	Post-Installed Interaction (ACI RD.7)	0.0		1.00	149 / Column2	OK

Design Forces / Moments								
Check	Load Combination	Member	Fx (Axial) [k]	Fy [k]	Fz [k]	Mx [k-in]	My [k-in]	Mz [k-in]
1	22	Column3	3.14	-0.05	0.00	0.00	0.00	0.00
2	22	Column3	3.14	-0.05	0.00	0.00	0.00	0.00
3	22	Column3	3.14	-0.05	0.00	0.00	0.00	0.00
4	23	Column6	0.96	0.06	-0.17	0.00	0.00	0.00
5	160	Column4	-0.28	0.01	-0.15	0.00	0.00	0.00
6	160	Column4	-0.28	0.01	-0.15	0.00	0.00	0.00
7	160	Column4	-0.28	0.01	-0.15	0.00	0.00	0.00
8	x	x	x	x	x	x	x	x
9	149	Column2	1.89	0.10	0.30	0.00	0.00	0.00
10	149	Column2	1.89	0.10	0.30	0.00	0.00	0.00
11	149	Column2	1.89	0.10	0.30	0.00	0.00	0.00
12	149	Column2	1.89	0.10	0.30	0.00	0.00	0.00
13	149	Column2	1.89	0.10	0.30	0.00	0.00	0.00



Anchor Bolt Diameter (in):	1/2
Min. C.I.P. Effective Embedment Depth (in):	8.0
Min. P.I. Effective Embedment Depth (in):	6.0
Concrete Cover From Φ of Bolt (in):	19.5
f'_c (psi):	4500

Column Size:	HSS5X5X3
Min. Base Plate Size:	6"x6"x1/2"
Weld Size (in):	0.188

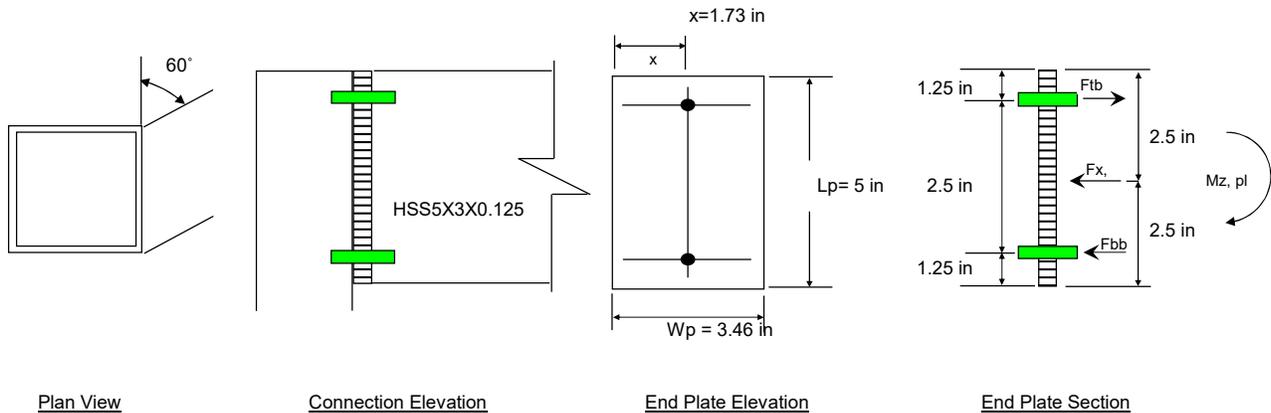
TENSION MEMBER TO COLUMN

2 BOLTS - SNUG-TIGHT JOINT

Bolt Check: (2) 0.625" Diameter, A325 Bolts			Allowable	Actual	Load Combination / Member	
1	Shear	AISC (J3-1)	R_N/Ω 8.3 kip	5.1 kip	49 / Tension1	OK
2	Tension	<i>allowable per J3.7</i> AISC (J3-2)	R_N/Ω 9.5 kip	6.8 kip	49 / Tension1	OK
3	Bearing	AISC (J3-6b,d)	R_N/Ω 14.8 kip	5.1 kip	49 / Tension1	OK

End Plate Check: 0.5" Thick			Allowable	Actual	Load Combination / Member	
4	Shear Yielding	AISC (J4-3)	R_N/Ω 34.6 kip	1.1 kip	22 / Tension2	OK
5	Shear Rupture	AISC (J4-4)	R_N/Ω 27.1 kip	1.1 kip	49 / Tension1	OK
6	Weld Check	$w = 0.125"$ AISC (J2-3)	R_N/Ω 1.9 kip/in	1.0 kip/in	49 / Tension1	OK
7	Plate Thickness (t_p)		$\sqrt{\frac{4\Omega M_{pl}}{F_{yp}W_{pl}}}$ 0.33 in	0.50 in	49 / Tension1	OK

Design Forces / Moments								
Check	Load Combination	Member	Fx (Axial) [k]	Fy [k]	Fz [k]	Mx [k-in]	My [k-in]	Mz [k-in]
1	49	Tension1	-1.6	0.7	0.0	0.2	-0.8	22.6
2	49	Tension1	-1.6	0.7	0.0	0.2	-0.8	22.6
3	49	Tension1	-1.6	0.7	0.0	0.2	-0.8	22.6
4	22	Tension2	-2.2	0.8	0.0	-0.2	-0.2	15.5
5	49	Tension1	-1.6	0.7	0.0	0.2	-0.8	22.6
6	49	Tension1	-1.6	0.7	0.0	0.2	-0.8	22.6
7	49	Tension1	-1.6	0.7	0.0	0.2	-0.8	22.6



Plan View

Connection Elevation

End Plate Elevation

End Plate Section

Member Height (in):	5	Number of Bolts:	2
Member Width (in):	3	Bolt Diameter (in):	0.625
Member Thickness (in):	0.125	End Plate Thickness (in):	0.500
End Plate Weld Size (in):	0.125	Flange Plate Thickness (in):	0.375

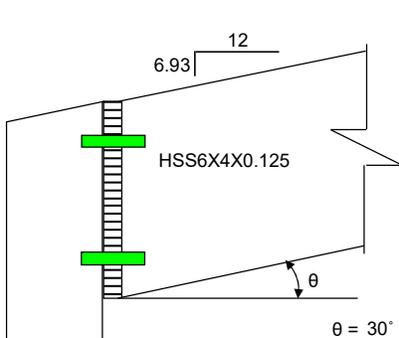
OUTSIDE OF TUBE

LOWER TRUSS TO COLUMN 2 BOLTS - SNUG-TIGHT JOINT

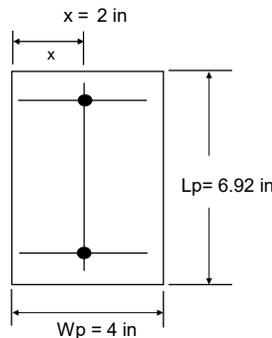
Bolt Check: (2) 0.625" Diameter, A325 Bolts			Allowable	Actual	Load Combination / Member	
1	Shear	AISC (J3-1)	R_N/Ω 8.3 kip	1.6 kip	49 / Truss2	OK
2	Tension	AISC (J3-1)	R_N/Ω 13.8 kip	3.4 kip	31 / Truss6	OK
3	Bearing	AISC (J3-6b,d)	R_N/Ω 18.9 kip	1.6 kip	49 / Truss2	OK

End Plate Check: 0.375" Thick			Allowable	Actual	Load Combination / Member	
4	Shear Yielding	AISC (J4-3)	R_N/Ω 52.0 kip	1.4 kip	41 / Truss4	OK
5	Shear Rupture	AISC (J4-4)	R_N/Ω 40.6 kip	1.4 kip	41 / Truss4	OK
6	Weld Check	$w = 0.125"$ AISC (J2-3)	R_N/Ω 1.9 kip/in	0.4 kip/in	49 / Truss6	OK
7	Plate Thickness (t_p)		$\sqrt{\frac{4\Omega M_{pl}}{F_{ypl}W_{pl}}}$ 0.27 in	0.38 in	31 / Truss6	OK

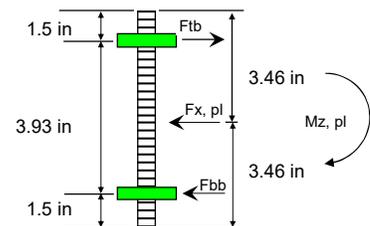
Design Forces / Moments								
Check	Load Combination	Member	Fx (Axial) [k]	Fy [k]	Fz [k]	Mx [k-in]	My [k-in]	Mz [k-in]
1	49	Truss2	2.1	0.0	0.0	-3.6	2.7	0.4
2	31	Truss6	0.6	-0.1	0.0	0.9	-0.5	-18.3
3	49	Truss2	2.1	0.0	0.0	-3.6	2.7	0.4
4	41	Truss4	2.6	0.1	0.0	0.0	0.0	8.5
5	41	Truss4	2.6	0.1	0.0	0.0	0.0	8.5
6	49	Truss6	1.8	-0.1	0.0	0.7	-0.4	-18.3
7	31	Truss6	0.6	-0.1	0.0	0.9	-0.5	-18.3



Connection Elevation



End Plate Elevation



End Plate Section

Member Height (in): 6
 Member Width (in): 4
 Member Thickness (in): 0.125
 End Plate Weld Size (in): 0.125

Number of Bolts: 2
 Bolt Diameter (in): 0.625
 End Plate Thickness (in): 0.375
 Flange Plate Thickness (in): 0.250
OUTSIDE OF TUBE

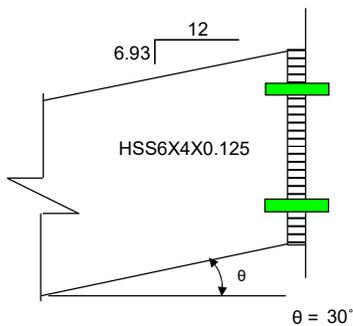
LOWER TRUSS TO JUNCTURE COLUMN

2 BOLTS - SNUG-TIGHT JOINT

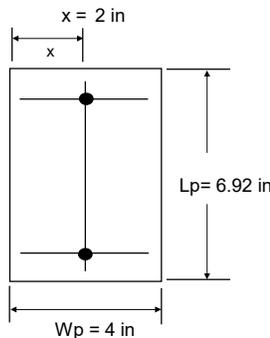
Bolt Check: (2) 0.625" Diameter, A325 Bolts		Allowable	Actual	Load Combination / Member		
1	Shear	AISC (J3-1) R_N/Ω	8.3 kip	1.8 kip	23 / Truss3	OK
2	Tension	AISC (J3-1) R_N/Ω	13.8 kip	2.4 kip	50 / Truss1	OK
3	Bearing	AISC (J3-6b,d) R_N/Ω	18.9 kip	1.8 kip	23 / Truss3	OK

End Plate Check: 0.375" Thick		Allowable	Actual	Load Combination / Member		
4	Shear Yielding	AISC (J4-3) R_N/Ω	52.0 kip	1.2 kip	41 / Truss4	OK
5	Shear Rupture	AISC (J4-4) R_N/Ω	40.6 kip	1.2 kip	41 / Truss4	OK
6	Weld Check	$w = 0.125"$ AISC (J2-3) R_N/Ω	1.9 kip/in	0.3 kip/in	23 / Truss1	OK
7	Plate Thickness (t_p)	$\sqrt{\frac{4\Omega M_{pl}}{F_{yp} W_{pl}}}$	0.23 in	0.38 in	50 / Truss1	OK

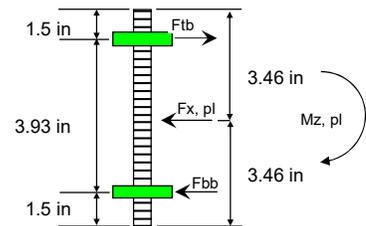
Design Forces / Moments								
Check	Load Combination	Member	Fx (Axial) [k]	Fy [k]	Fz [k]	Mx [k-in]	My [k-in]	Mz [k-in]
1	23	Truss3	1.1	-0.1	0.1	-5.1	5.2	7.5
2	50	Truss1	0.9	-0.2	0.0	0.0	0.0	-14.1
3	23	Truss3	1.1	-0.1	0.1	-5.1	5.2	7.5
4	41	Truss4	2.5	-0.1	0.0	0.0	0.0	4.5
5	41	Truss4	2.5	-0.1	0.0	0.0	0.0	4.5
6	23	Truss1	1.2	-0.2	0.0	0.0	0.0	-14.3
7	50	Truss1	0.9	-0.2	0.0	0.0	0.0	-14.1



Connection Elevation



End Plate Elevation



End Plate Section

Member Height (in):	6	Number of Bolts:	2
Member Width (in):	4	Bolt Diameter (in):	0.625
Member Thickness (in):	0.125	End Plate Thickness (in):	0.375
End Plate Weld Size (in):	0.125	Flange Plate Thickness (in):	NONE

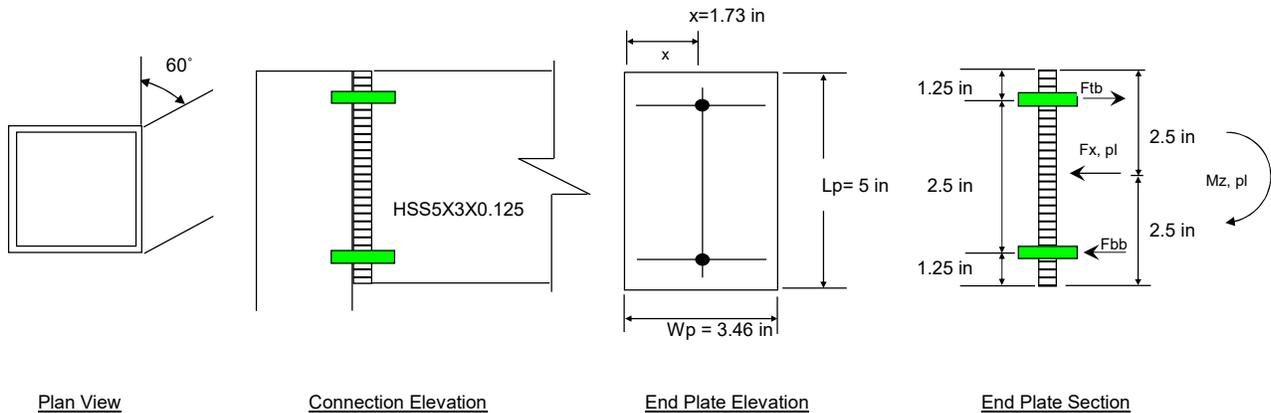
CLERESTORY MEMBER TO JUNCTURE COLUMN

2 BOLTS - SNUG-TIGHT JOINT

Bolt Check: (2) 0.625" Diameter, A325 Bolts			Allowable	Actual	Load Combination / Member	
1	Shear	AISC (J3-1)	R_N/Ω 8.3 kip	1.5 kip	41 / Clerestory2	OK
2	Tension	AISC (J3-1)	R_N/Ω 13.8 kip	1.5 kip	50 / Clerestory1	OK
3	Bearing	AISC (J3-6b,d)	R_N/Ω 14.8 kip	1.5 kip	41 / Clerestory2	OK

End Plate Check: 0.375" Thick			Allowable	Actual	Load Combination / Member	
4	Shear Yielding	AISC (J4-3)	R_N/Ω 26.0 kip	1.1 kip	44 / Clerestory2	OK
5	Shear Rupture	AISC (J4-4)	R_N/Ω 20.3 kip	1.1 kip	44 / Clerestory2	OK
6	Weld Check	$w = 0.125"$ AISC (J2-3)	R_N/Ω 1.9 kip/in	0.3 kip/in	23 / Clerestory1	OK
7	Plate Thickness (t_p)		$\sqrt{\frac{4\Omega M_{pl}}{F_{yp}W_{pl}}}$ 0.13 in	0.38 in	50 / Clerestory1	OK

Design Forces / Moments								
Check	Load Combination	Member	Fx (Axial) [k]	Fy [k]	Fz [k]	Mx [k-in]	My [k-in]	Mz [k-in]
1	41	Clerestory2	2.1	0.2	0.0	0.1	0.2	4.8
2	50	Clerestory1	0.3	0.2	0.1	-0.5	-2.0	4.1
3	41	Clerestory2	2.1	0.2	0.0	0.1	0.2	4.8
4	44	Clerestory2	2.1	0.1	0.0	0.0	-0.1	1.5
5	44	Clerestory2	2.1	0.1	0.0	0.0	-0.1	1.5
6	23	Clerestory1	0.6	0.3	0.1	-0.5	-2.0	4.4
7	50	Clerestory1	0.3	0.2	0.1	-0.5	-2.0	4.1



Plan View

Connection Elevation

End Plate Elevation

End Plate Section

Member Height (in):	5	Number of Bolts:	2
Member Width (in):	3	Bolt Diameter (in):	0.625
Member Thickness (in):	0.125	End Plate Thickness (in):	0.375
End Plate Weld Size (in):	0.125	Flange Plate Thickness (in):	NONE

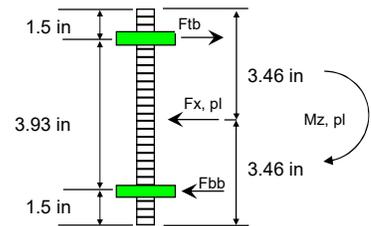
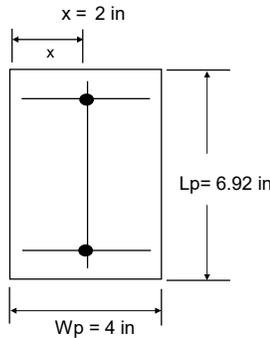
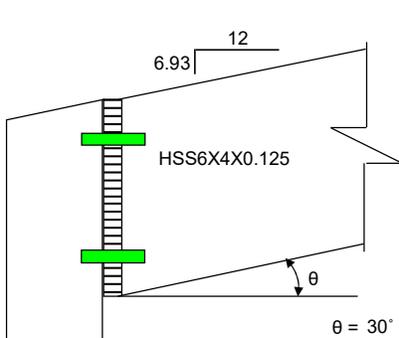
UPPER TRUSS TO JUNCTURE COLUMN

2 BOLTS - SNUG-TIGHT JOINT

Bolt Check: (2) 0.625" Diameter, A325 Bolts		Allowable	Actual	Load Combination / Member	
1	Shear	AISC (J3-1) R_N/Ω 8.3 kip	0.3 kip	23 / Upper Truss2	OK
2	Tension	AISC (J3-1) R_N/Ω 13.8 kip	1.0 kip	23 / Upper Truss4	OK
3	Bearing	AISC (J3-6b,d) R_N/Ω 18.9 kip	0.3 kip	23 / Upper Truss2	OK

End Plate Check: 0.375" Thick		Allowable	Actual	Load Combination / Member	
4	Shear Yielding	AISC (J4-3) R_N/Ω 52.0 kip	0.3 kip	41 / Upper Truss4	OK
5	Shear Rupture	AISC (J4-4) R_N/Ω 40.6 kip	0.3 kip	41 / Upper Truss4	OK
6	Weld Check $w = 0.125"$	AISC (J2-3) R_N/Ω 1.9 kip/in	0.1 kip/in	23 / Upper Truss4	OK
7	Plate Thickness (t_p)	$\sqrt{\frac{4\Omega M_{pl}}{F_{yp}W_{pl}}}$ 0.15 in	0.38 in	23 / Upper Truss4	OK

Design Forces / Moments								
Check	Load Combination	Member	Fx (Axial) [k]	Fy [k]	Fz [k]	Mx [k-in]	My [k-in]	Mz [k-in]
1	23	Upper Truss2	-0.1	0.0	-0.1	0.0	1.9	-1.5
2	23	Upper Truss4	0.4	0.1	0.0	0.0	0.0	5.7
3	23	Upper Truss2	-0.1	0.0	-0.1	0.0	1.9	-1.5
4	41	Upper Truss4	0.4	0.1	0.0	0.0	0.0	5.3
5	41	Upper Truss4	0.4	0.1	0.0	0.0	0.0	5.3
6	23	Upper Truss4	0.4	0.1	0.0	0.0	0.0	5.7
7	23	Upper Truss4	0.4	0.1	0.0	0.0	0.0	5.7



Member Height (in):	6	Number of Bolts:	2
Member Width (in):	4	Bolt Diameter (in):	0.625
Member Thickness (in):	0.125	End Plate Thickness (in):	0.375
End Plate Weld Size (in):	0.125	Flange Plate Thickness (in):	NONE

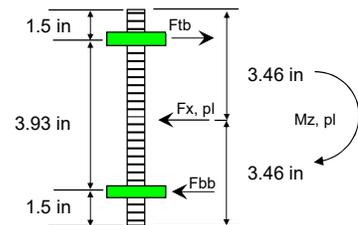
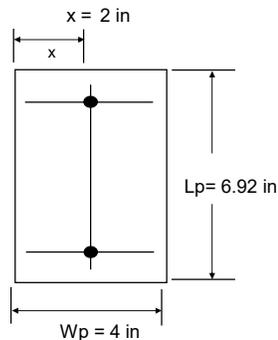
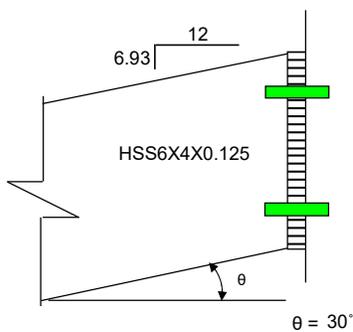
UPPER TRUSS TO COMPRESSION MEMBER

2 BOLTS - PRETENSIONED JOINT

Bolt Check: (2) 0.625" Diameter, A325 Bolts		Allowable	Actual	Load Combination / Member		
1	Shear	AISC (J3-1) R_N/Ω	8.3 kip	0.4 kip	23 / Upper Truss5	OK
2	Tension	AISC (J3-1) R_N/Ω	13.8 kip	0.3 kip	50 / Upper Truss6	OK
3	Bearing	AISC (J3-6b,d) R_N/Ω	18.9 kip	0.4 kip	23 / Upper Truss5	OK

End Plate Check: 0.375" Thick		Allowable	Actual	Load Combination / Member		
4	Shear Yielding	AISC (J4-3) R_N/Ω	52.0 kip	0.2 kip	23 / Upper Truss4	OK
5	Shear Rupture	AISC (J4-4) R_N/Ω	40.6 kip	0.2 kip	23 / Upper Truss4	OK
6	Weld Check	$w = 0.125"$ AISC (J2-3) R_N/Ω	1.9 kip/in	0.0 kip/in	50 / Upper Truss6	OK
7	Plate Thickness (t_p)	$\sqrt{\frac{4\Omega M_{pl}}{F_{yp} W_{pl}}}$	0.08 in	0.38 in	52 / Upper Truss1	OK

Design Forces / Moments								
Check	Load Combination	Member	Fx (Axial) [k]	Fy [k]	Fz [k]	Mx [k-in]	My [k-in]	Mz [k-in]
1	23	Upper Truss5	0.0	0.0	0.0	0.9	-1.1	-0.4
2	50	Upper Truss6	-0.1	0.0	0.1	0.0	0.8	-0.6
3	23	Upper Truss5	0.0	0.0	0.0	0.9	-1.1	-0.4
4	23	Upper Truss4	0.4	0.0	0.0	0.0	0.0	1.1
5	23	Upper Truss4	0.4	0.0	0.0	0.0	0.0	1.1
6	50	Upper Truss6	-0.1	0.0	0.1	0.0	0.8	-0.6
7	52	Upper Truss1	-0.3	0.0	0.0	-0.3	0.1	-1.0



Connection Elevation

End Plate Elevation

End Plate Section

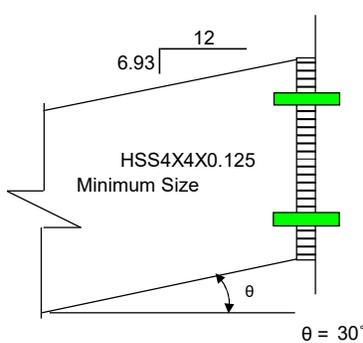
Member Height (in):	6	Number of Bolts:	2
Member Width (in):	4	Bolt Diameter (in):	0.625
Member Thickness (in):	0.125	End Plate Thickness (in):	0.375
End Plate Weld Size (in):	0.125	Flange Plate Thickness (in):	NONE

TRUSS TAIL CONNECTION 2 BOLTS - SNUG-TIGHT JOINT

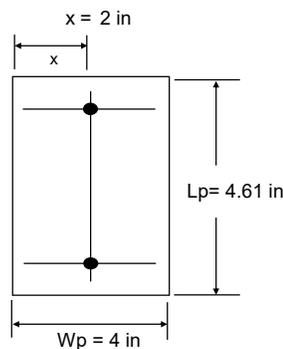
Bolt Check: (2) 0.625" Diameter, A325 Bolts			Allowable	Actual	Load Combination / Member	
1	Shear	AISC (J3-1)	R_N/Ω 8.3 kip	0.1 kip	21 / Trusstail2	OK
2	Tension	AISC (J3-1)	R_N/Ω 13.8 kip	0.3 kip	22 / Trusstail4	OK
3	Bearing	AISC (J3-6b,d)	R_N/Ω 14.8 kip	0.1 kip	21 / Trusstail2	OK

End Plate Check: 0.375" Thick			Allowable	Actual	Load Combination / Member	
4	Shear Yielding	AISC (J4-3)	R_N/Ω 34.6 kip	0.1 kip	22 / Trusstail4	OK
5	Shear Rupture	AISC (J4-4)	R_N/Ω 23.7 kip	0.1 kip	22 / Trusstail4	OK
6	Weld Check	$w = 0.125"$ AISC (J2-3)	R_N/Ω 1.9 kip/in	0.0 kip/in	22 / Trusstail4	OK
7	Plate Thickness (t_p)		$\sqrt{\frac{4\Omega M_{pl}}{F_{Ypl} W_{pl}}}$ 0.07 in	0.38 in	22 / Trusstail4	OK

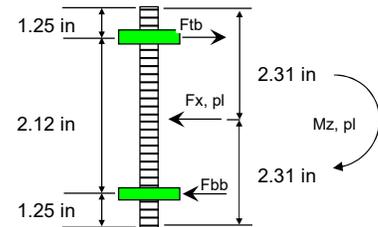
Design Forces / Moments								
Check	Load Combination	Member	Fx (Axial) [k]	Fy [k]	Fz [k]	Mx [k-in]	My [k-in]	Mz [k-in]
1	21	Trusstail2	0.0	-0.1	0.0	0.0	0.0	0.8
2	22	Trusstail4	0.0	-0.1	0.0	0.0	0.0	0.9
3	21	Trusstail2	0.0	-0.1	0.0	0.0	0.0	0.8
4	22	Trusstail4	0.0	-0.1	0.0	0.0	0.0	0.9
5	22	Trusstail4	0.0	-0.1	0.0	0.0	0.0	0.9
6	22	Trusstail4	0.0	-0.1	0.0	0.0	0.0	0.9
7	22	Trusstail4	0.0	-0.1	0.0	0.0	0.0	0.9



Connection Elevation



End Plate Elevation



End Plate Section

Member Height (in): 4
 Member Width (in): 4
 Member Thickness (in): 0.125
 End Plate Weld Size (in): 0.125

Number of Bolts: 2
 Bolt Diameter (in): 0.625
 End Plate Thickness (in): 0.375
 Flange Plate Thickness (in): NONE

RISA ANALYSIS REPORT



Basic Load Cases

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Distributed	Area(Member)
1 FRAMEWEIGHT	DL		-1			
2 DL	DL					12
3 LL	LL					12
4 SL	SL					12
5 SLU	SL					
6 SLsliding	SL					12
7 SLdrift	SL					15
8 X WINDWARD LOW	WL					6
9 X LEEWARD LOW	WL					6
10 X SIDEWARD LOW	WL					6
11 X WINDWARD UPPER	WL					6
12 X LEEWARD UPPER	WL					6
13 X SIDEWARD UPPER	WL					6
14 X10MINWIND	WL					4
15 Z WINDWARD LOW	WL					3
16 Z LEEWARD LOW	WL					3
17 Z SIDEWARD LOW	WL					12
18 Z WINDWARD UPPER	WL					3
19 Z LEEWARD UPPER	WL					3
20 Z SIDEWARD UPPER	WL					12
21 Z10MINWIND	WL					6
22 EX FRAME	EL	-1				
23 EX ROOF	EL					12
24 EZ FRAME	EL			-1		
25 EZ ROOF	EL					12
26 BLC 2 Transient Area Loads	None				146	
27 BLC 3 Transient Area Loads	None				146	
28 BLC 4 Transient Area Loads	None				146	
29 BLC 6 Transient Area Loads	None				146	
30 BLC 7 Transient Area Loads	None				158	
31 BLC 8 Transient Area Loads	None				81	
32 BLC 9 Transient Area Loads	None				81	
33 BLC 10 Transient Area Loads	None				52	
34 BLC 11 Transient Area Loads	None				75	
35 BLC 12 Transient Area Loads	None				75	
36 BLC 13 Transient Area Loads	None				52	
37 BLC 14 Transient Area Loads	None				52	
38 BLC 15 Transient Area Loads	None				26	
39 BLC 16 Transient Area Loads	None				26	
40 BLC 17 Transient Area Loads	None				162	
41 BLC 18 Transient Area Loads	None				26	
42 BLC 19 Transient Area Loads	None				26	
43 BLC 20 Transient Area Loads	None				150	
44 BLC 21 Transient Area Loads	None				74	
45 BLC 23 Transient Area Loads	None				146	
46 BLC 25 Transient Area Loads	None				146	

Load Combinations

Description	Solve	P-Delta	BLC	Factor										
1 SERVICE D			1	1	2	6								
2 SERVICE Lr			3	20										
3 SERVICE S			4	21										
4 SERVICE Su			5											
5 SERVICE Ssliding			6	21										
6 SERVICE Sdrift			7	21										
7 SERVICE Wx (LC A)			8	15.075	9	5.191	10	-9.277	11	15.075	12	5.191	13	-9.277
8 SERVICE Wx (LC B)			8	-1.73	9	-8.725	10	9.277	11	-1.73	12	-8.725	13	9.277
9 SERVICE Wz (LC A)			15	15.075	16	5.191	17	-9.277	18	15.075	19	5.19	20	-9.28
10 SERVICE Wz (LC B)			15	-1.73	16	-8.725	17	9.277	18	-1.73	19	-8.73	20	9.28
11 SERVICE Ex			22	0.11	23	0.659								
12 SERVICE Ez			24	0.11	25	0.659								
13 SERVICE Ev			1	0.066	2	0.395								
14														
15														
16														
17 D	Yes	Y	L1	1										
18 D + Lr	Yes	Y	L1	1	L2	1								
19 D + S	Yes	Y	L1	1	L3	1								
20 D + Su	Yes	Y	L1	1	L4	1								
21 D+Ssliding	Yes	Y	L1	1	L5	1								
22 D+Sdrift	Yes	Y	L1	1	L6	1								
23 D + 0.6Wx (LC A)	Yes	Y	L1	1	L7	1								
24 D + 0.6Wx (LC B)	Yes	Y	L1	1	L8	1								
25 D + 0.6Wz (LC A)	Yes	Y	L1	1	L9	1								
26 D + 0.6Wz (LC B)	Yes	Y	L1	1	L10	1								
27 D + (0.6Wx (Min.))	Yes	Y	L1	1	14	9.6								
28 D + (0.6Wz (Min.))	Yes	Y	L1	1	21	9.6								
29 D+0.6(0.75Wx(LC A))+0.75Wz(LC A))	Yes	Y	L1	1	L7	0.75	L9	0.75						
30 D+0.6(0.75Wx(LC B))+0.75Wz(LC B))	Yes	Y	L1	1	L8	0.75	L10	0.75						
31 D+0.6(0.75Wx(Min.))+0.75Wz(Min.))	Yes	Y	L1	1	14	7.2	21	7.2						
32 D + 0.75(0.6Wx (LC A)) + 0.75Lr	Yes	Y	L1	1	L7	0.75	L2	0.75						
33 D + 0.75(0.6Wx (LC B)) + 0.75Lr	Yes	Y	L1	1	L8	0.75	L2	0.75						
34 D + 0.75(0.6Wz (LC A)) + 0.75Lr	Yes	Y	L1	1	L9	0.75	L2	0.75						
35 D + 0.75(0.6Wz (LC B)) + 0.75Lr	Yes	Y	L1	1	L10	0.75	L2	0.75						
36 D + 0.75(0.6Wx (Min.)) + 0.75Lr	Yes	Y	L1	1	14	7.2	L2	0.75						
37 D + 0.75(0.6Wz (Min.)) + 0.75Lr	Yes	Y	L1	1	21	7.2	L2	0.75						
38 D+0.75(0.6(0.75Wx(LC A))+0.75Wz(LC A)) + 0.75Lr	Yes	Y	L1	1	L7	0.563	L9	0.563	L2	0.75				

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor										
39	D+0.75(0.6(0.75Wx(LC B))+0.75Wz(LC B)) + 0.75Lr	Yes	Y	L1	1	L8	0.563	L10	0.563	L2	0.75				
40	D+ 0.75(0.6(0.75Wx(Min.))+0.75Wz(Min.)) + 0.75Lr	Yes	Y	L1	1	L4	5.4	L21	5.4	L2	0.75				
41	D + 0.75(0.6Wx (LC A)) + 0.75S	Yes	Y	L1	1	L7	0.75	L3	0.75						
42	D + 0.75(0.6Wx (LC B)) + 0.75S	Yes	Y	L1	1	L8	0.75	L3	0.75						
43	D + 0.75(0.6Wz (LC A)) + 0.75S	Yes	Y	L1	1	L9	0.75	L3	0.75						
44	D + 0.75(0.6Wz (LC B)) + 0.75S	Yes	Y	L1	1	L10	0.75	L3	0.75						
45	D + 0.75(0.6Wx (Min.)) + 0.75S	Yes	Y	L1	1	L4	7.2	L3	0.75						
46	D + 0.75(0.6Wz (Min.)) + 0.75S	Yes	Y	L1	1	L21	7.2	L3	0.75						
47	D+0.75(0.6(0.75Wx(LC A))+0.75Wz(LC A)) + 0.75S	Yes	Y	L1	1	L7	0.563	L9	0.563	L3	0.75				
48	D+0.75(0.6(0.75Wx(LC B))+0.75Wz(LC B)) + 0.75S	Yes	Y	L1	1	L8	0.563	L10	0.563	L3	0.75				
49	D+ 0.75(0.6(0.75Wx(Min.))+0.75Wz(Min.)) + 0.75S	Yes	Y	L1	1	L4	5.4	L21	5.4	L3	0.75				
50	0.6D + 0.6Wx (LC A)	Yes	Y	L1	0.6	L7	1								
51	0.6D + 0.6Wx (LC B)	Yes	Y	L1	0.6	L8	1								
52	0.6D + 0.6Wz (LC A)	Yes	Y	L1	0.6	L9	1								
53	0.6D + 0.6Wz (LC B)	Yes	Y	L1	0.6	L10	1								
54	0.6D + (0.6Wx (Min.))	Yes	Y	L1	0.6	L4	9.6								
55	0.6D + (0.6Wz (Min.))	Yes	Y	L1	0.6	L21	9.6								
56	0.6D+0.6(0.75Wx(LC A))+0.75Wz(LC A))	Yes	Y	L1	0.6	L7	0.75	L9	0.75						
57	0.6D+0.6(0.75Wx(LC B))+0.75Wz(LC B))	Yes	Y	L1	0.6	L8	0.75	L10	0.75						
58	0.6D+0.6(0.75Wx(Min.))+0.75Wz(Min.))	Yes	Y	L1	0.6	L4	7.2	L21	7.2						
59	1.0D+0.7Ev+0.7Ehx	Yes	Y	L1	1	L13	0.7	L11	0.7						
60	1.0D+0.525Ev+0.525Ehx+0.75S	Yes	Y	L1	1	L13	0.525	L11	0.525	L3	0.75				
61	0.6D-0.7Ev+0.7Ehx	Yes	Y	L1	0.6	L13	-0.7	L11	0.7						
62	1.0D+0.7Ev+0.7Ehx	Yes	Y	L1	1	L13	0.7	L12	0.7						
63	1.0D+0.525Ev+0.525Ehx+0.75S	Yes	Y	L1	1	L13	0.525	L12	0.525	L3	0.75				
64	0.6D-0.7Ev+0.7Ehx	Yes	Y	L1	0.6	L13	-0.7	L12	0.7						
65	1.0D+0.7Ev+0.7Ehx+0.21Ehz	Yes	Y	L1	1	L13	0.7	L11	0.7	L12	0.21				
66	1.0D+0.525Ev+0.525Ehx+0.1575Ehz+0.75S	Yes	Y	L1	1	L13	0.525	L11	0.525	L12	0.16	L3	0.75		
67	0.6D-0.7Ev+0.7Ehx+0.21Ehz	Yes	Y	L1	0.6	L13	-0.7	L11	0.7	L12	0.21				
68	1.0D+0.7Ev+0.7Ehx+0.21Ehx	Yes	Y	L1	1	L13	0.7	L12	0.7	L11	0.21				
69	1.0D+0.525Ev+0.525Ehx+0.1575Ehx+0.75S	Yes	Y	L1	1	L13	0.525	L12	0.525	L11	0.16	L3	0.75		
70	0.6D-0.7Ev+0.7Ehx+0.21Ehx	Yes	Y	L1	0.6	L13	-0.7	L12	0.7	L11	0.21				
71															
72															
73															
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86															
87															
88															
89															
90															
91															
92	1.4D			L1	1.4										
93	1.2D + 0.5Lr			L1	1.2	L2	0.5								
94	1.2D + 0.5S			L1	1.2	L3	0.5								
95	1.2D + 1.6Lr + 0.5Wx (LC A)			L1	1.2	L2	1.6	L7	0.833						
96	1.2D + 1.6Lr + 0.5Wx (LC B)			L1	1.2	L2	1.6	L8	0.833						
97	1.2D + 1.6Lr + 0.5Wz (LC A)			L1	1.2	L2	1.6	L9	0.833						
98	1.2D + 1.6Lr + 0.5Wz (LC B)			L1	1.2	L2	1.6	L10	0.833						
99	1.2D + 1.6Lr + 0.5Wx (Min.)			L1	1.2	L2	1.6	L4	8						
100	1.2D + 1.6Lr + 0.5Wz (Min.)			L1	1.2	L2	1.6	L21	8						
101	1.2D + 1.6Lr + 0.5(0.75Wx (LC A))+0.75Wz (LC A))			L1	1.2	L2	1.6	L7	0.625	L9	0.63				
102	1.2D + 1.6Lr + 0.5(0.75Wx (LC B))+0.75Wz (LC B))			L1	1.2	L2	1.6	L8	0.625	L10	0.63				
103	1.2D + 1.6Lr + 0.5(0.75Wx (Min.))+0.75Wz (Min.))			L1	1.2	L2	1.6	L4	6	L21	6				
104	1.2D + 1.6S + 0.5Wx (LC A)			L1	1.2	L3	1.6	L7	0.833						
105	1.2D + 1.6S + 0.5Wx (LC B)			L1	1.2	L3	1.6	L8	0.833						
106	1.2D + 1.6S + 0.5Wz (LC A)			L1	1.2	L3	1.6	L9	0.833						
107	1.2D + 1.6S + 0.5Wz (LC B)			L1	1.2	L3	1.6	L10	0.833						
108	1.2D + 1.6S + 0.5Wx (Min.)			L1	1.2	L3	1.6	L4	8						
109	1.2D + 1.6S + 0.5Wz (Min.)			L1	1.2	L3	1.6	L21	8						
110	1.2D + 1.6S + 0.5(0.75Wx (LC A))+0.75Wz (LC A))			L1	1.2	L3	1.6	L7	0.625	L9	0.63				
111	1.2D + 1.6S + 0.5(0.75Wx (LC B))+0.75Wz (LC B))			L1	1.2	L3	1.6	L8	0.625	L10	0.63				
112	1.2D + 1.6S + 0.5(0.75Wx (Min.))+0.75Wz (Min.))			L1	1.2	L3	1.6	L4	6	L21	6				
113	1.2D + 1.6Su + 0.5Wx (LC A)			L1	1.2	L4	1.6	L7	0.833						
114	1.2D + 1.6Su + 0.5Wx (LC B)			L1	1.2	L4	1.6	L8	0.833						
115	1.2D + 1.6Su + 0.5Wz (LC A)			L1	1.2	L4	1.6	L9	0.833						
116	1.2D + 1.6Su + 0.5Wz (LC B)			L1	1.2	L4	1.6	L10	0.833						
117	1.2D + 1.6Su + 0.5Wx (Min.)			L1	1.2	L4	1.6	L4	8						
118	1.2D + 1.6Su + 0.5Wz (Min.)			L1	1.2	L4	1.6	L21	8						
119	1.2D + 1.6Su + 0.5(0.75Wx (LC A))+0.75Wz (LC A))			L1	1.2	L4	1.6	L7	0.625	L9	0.63				
120	1.2D + 1.6Su + 0.5(0.75Wx (LC B))+0.75Wz (LC B))			L1	1.2	L4	1.6	L8	0.625	L10	0.63				
121	1.2D + 1.6Su + 0.5(0.75Wx (Min.))+0.75Wz (Min.))			L1	1.2	L4	1.6	L4	6	L21	6				
122	1.2D + 1.6Ssliding + 0.5Wx (LC A)			L1	1.2	L5	1.6	L7	0.833						
123	1.2D + 1.6Ssliding + 0.5Wx (LC B)			L1	1.2	L5	1.6	L8	0.833						
124	1.2D + 1.6Ssliding + 0.5Wz (LC A)			L1	1.2	L5	1.6	L9	0.833						
125	1.2D + 1.6Ssliding + 0.5Wz (LC B)			L1	1.2	L5	1.6	L10	0.833						
126	1.2D + 1.6Ssliding + 0.5Wx (Min.)			L1	1.2	L5	1.6	L4	8						



Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
127	1.2D + 1.6Ssliding + 0.5Wz (Min.)			L1	1.2	L5	1.6	21	8						
128	1.2D + 1.6Ssliding + 0.5(0.75Wx (LC A))+0.75Wz (LC A))			L1	1.2	L5	1.6	L7	0.625	L9	0.63				
129	1.2D + 1.6Ssliding + 0.5(0.75Wx (LC B))+0.75Wz (LC B))			L1	1.2	L5	1.6	L8	0.625	L10	0.63				
130	1.2D + 1.6Ssliding + 0.5(0.75Wx (Min.))+0.75Wz (Min.)			L1	1.2	L5	1.6	14	6	21	6				
131	1.2D + 1.6Sdrift + 0.5Wx (LC A)			L1	1.2	L6	1.6	L7	0.833						
132	1.2D + 1.6Sdrift + 0.5Wz (LC B)			L1	1.2	L6	1.6	L8	0.833						
133	1.2D + 1.6Sdrift + 0.5Wz (LC A)			L1	1.2	L6	1.6	L9	0.833						
134	1.2D + 1.6Sdrift + 0.5Wz (LC B)			L1	1.2	L6	1.6	L10	0.833						
135	1.2D + 1.6Sdrift + 0.5Wx (Min.)			L1	1.2	L6	1.6	14	8						
136	1.2D + 1.6Sdrift + 0.5Wz (Min.)			L1	1.2	L6	1.6	21	8						
137	1.2D + 1.6Sdrift + 0.5(0.75Wx (LC A))+0.75Wz (LC A))			L1	1.2	L6	1.6	L7	0.625	L9	0.63				
138	1.2D + 1.6Sdrift + 0.5(0.75Wx (LC B))+0.75Wz (LC B))			L1	1.2	L6	1.6	L8	0.625	L10	0.63				
139	1.2D + 1.6Sdrift + 0.5(0.75Wx (Min.))+0.75Wz (Min.)			L1	1.2	L6	1.6	14	6	21	6				
140	1.2D + 1.0Wx (LC A) + 0.5Lr			L1	1.2	L7	1.667	L2	0.5						
141	1.2D + 1.0Wx (LC B) + 0.5Lr			L1	1.2	L8	1.667	L2	0.5						
142	1.2D + 1.0Wz (LC A) + 0.5Lr			L1	1.2	L9	1.667	L2	0.5						
143	1.2D + 1.0Wz (LC B) + 0.5Lr			L1	1.2	L10	1.667	L2	0.5						
144	1.2D + 1.0Wx (Min.) + 0.5Lr			L1	1.2	14	16	L2	0.5						
145	1.2D + 1.0Wz (Min.) + 0.5Lr			L1	1.2	21	16	L2	0.5						
146	1.2D + 1.0(0.75Wx (LC A))+0.75Wz (LC A)) + 0.5Lr			L1	1.2	L7	1.25	L9	1.25	L2	0.5				
147	1.2D + 1.0(0.75Wx (LC B))+0.75Wz (LC B)) + 0.5Lr			L1	1.2	L8	1.25	L10	1.25	L2	0.5				
148	1.2D + 1.0(0.75Wx (Min.))+0.75Wz (Min.) + 0.5Lr			L1	1.2	14	12	21	12	L2	0.5				
149	1.2D + 1.0Wx (LC A) + 0.5S			L1	1.2	L7	1.667	L3	0.5						
150	1.2D + 1.0Wx (LC B) + 0.5S			L1	1.2	L8	1.667	L3	0.5						
151	1.2D + 1.0Wz (LC A) + 0.5S			L1	1.2	L9	1.667	L3	0.5						
152	1.2D + 1.0Wz (LC B) + 0.5S			L1	1.2	L10	1.667	L3	0.5						
153	1.2D + 1.0Wx (Min.) + 0.5S			L1	1.2	14	16	L3	0.5						
154	1.2D + 1.0Wz (Min.) + 0.5S			L1	1.2	21	16	L3	0.5						
155	1.2D + 1.0(0.75Wx (LC A))+0.75Wz (LC A)) + 0.5S			L1	1.2	L7	1.25	L9	1.25	L3	0.5				
156	1.2D + 1.0(0.75Wx (LC B))+0.75Wz (LC B)) + 0.5S			L1	1.2	L8	1.25	L10	1.25	L3	0.5				
157	1.2D + 1.0(0.75Wx (Min.))+0.75Wz (Min.) + 0.5S			L1	1.2	14	12	21	12	L3	0.5				
158	0.9D + 1.0Wx (LC A)			L1	0.9	L7	1.667								
159	0.9D + 1.0Wx (LC B)			L1	0.9	L8	1.667								
160	0.9D + 1.0Wz (LC A)			L1	0.9	L9	1.667								
161	0.9D + 1.0Wz (LC B)			L1	0.9	L10	1.667								
162	0.9D + 1.0Wx (Min.)			L1	0.9	14	16								
163	0.9D + 1.0Wz (Min.)			L1	0.9	21	16								
164	0.9D + 1.0(0.75Wx (LC A))+0.75Wz (LC A))			L1	0.9	L7	1.25	L9	1.25						
165	0.9D + 1.0(0.75Wx (LC B))+0.75Wz (LC B))			L1	0.9	L8	1.25	L10	1.25						
166	0.9D + 1.0(0.75Wx (Min.))+0.75Wz (Min.)			L1	0.9	14	12	21	12						
167	1.2D+Ev+Ehx+0.2S			L1	1.2	L13	1	L11	1	L3	0.2				
168	0.9D-Ev+Ehx			L1	0.9	L13	-1	L11	1						
169	1.2D+Ev+Ehz+0.2S			L1	1.2	L13	1	L12	1	L3	0.2				
170	0.9D-Ev+Ehz			L1	0.9	L13	-1	L12	1						
171	1.2D+Ev+Ehx+0.3Ehz+0.2S			L1	1.2	L13	1	L11	1	L12	0.3	L3	0.2		
172	0.9D-Ev+Ehx+0.3Ehz			L1	0.9	L13	-1	L11	1	L12	0.3				
173	1.2D+Ev+Ehz+0.3Ehx+0.2S			L1	1.2	L13	1	L12	1	L11	0.3	L3	0.2		
174	0.9D-Ev+Ehz+0.3Ehx			L1	0.9	L13	-1	L12	1	L11	0.3				
175															
176															
177															
178															
179															
180															
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204															
205															
206															
207															
208	SERVICE Emx			22	0.329	23	1.976								
209	SERVICE Emz			24	0.329	25	1.976								
210															
211	1.0D+0.7Ev+0.7Emhx			L1	1	L13	0.7	L208	0.7						
212	1.0D+0.525Ev+0.525Emhx+0.75S			L1	1	L13	0.525	L208	0.525	L3	0.75				
213	0.6D-0.7Ev+0.7Emhx			L1	0.6	L13	-0.7	L208	0.7						
214	1.0D+0.7Ev+0.7Emhz			L1	1	L13	0.7	L209	0.7						



Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
215	1.0D+0.525Ev+0.525Emhz+0.75S			L1	1	L13	0.525	L209	0.525	L3	0.75				
216	0.6D-0.7Ev+0.7Emhz			L1	0.6	L13	-0.7	L209	0.7						
217															
218															
219															
220															
221	1.2D+Ev+Emhx+0.2S			L1	1.2	L13	1	L208	1	L3	0.2				
222	0.9D-Ev+Emhx			L1	0.9	L13	-1	L208	1						
223	1.2D+Ev+Emhx+0.2S			L1	1.2	L13	1	L209	1	L3	0.2				
224	0.9D-Ev+Emhx			L1	0.9	L13	-1	L209	1						
225															
226															
227															
228															
229															
230															
231															
232															
233															
234															
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247															
248															
249															
250															

Node Boundary Conditions

	Node Label	X [k/in]	Y [k/in]	Z [k/in]
1	N1	Reaction	Reaction	Reaction
2	N8	Reaction	Reaction	Reaction
3	N15	Reaction	Reaction	Reaction
4	N22	Reaction	Reaction	Reaction
5	N29	Reaction	Reaction	Reaction
6	N36	Reaction	Reaction	Reaction

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in ²]	Iyy [in ⁴]	Izz [in ⁴]	J [in ⁴]
1	Column	HSS5X5X3	Column	Tube	A500 Gr.C	Typical	3.28	12.6	12.6	19.9
2	Truss	HSS6X4X2	Beam	Tube	A500 Gr.C	Typical	2.23	6.15	11.4	12.6
3	Truss Tail	HSS4X4X2	Beam	Tube	A500 Gr.C	Typical	1.77	4.4	4.4	6.91
4	Tension	HSS5X3X2	Beam	Tube	A500 Gr.C	Typical	1.77	2.75	6.03	6.02
5	Compression Ring	C7X9.8	Beam	Channel	A36 Gr.36	Typical	2.87	0.957	21.2	0.1
6	Juncture Column	HSS5X5X8	Column	Tube	A500 Gr.C	Typical	7.88	26	26	44.6
7	Clerestory	HSS5X3X2	Beam	Tube	A500 Gr.C	Typical	1.77	2.75	6.03	6.02
8	Upper Truss	HSS6X4X2	Beam	Tube	A500 Gr.C	Typical	2.23	6.15	11.4	12.6
9	Upper Truss Tail	HSS4X4X2	Beam	Tube	A500 Gr.C	Typical	1.77	4.4	4.4	6.91

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	Column1	N1	N2	180	Column	Column	Tube	A500 Gr.C	Typical
2	Column2	N8	N9	120	Column	Column	Tube	A500 Gr.C	Typical
3	Column3	N15	N16	60	Column	Column	Tube	A500 Gr.C	Typical
4	Column4	N22	N23		Column	Column	Tube	A500 Gr.C	Typical
5	Column5	N29	N30	300	Column	Column	Tube	A500 Gr.C	Typical
6	Column6	N36	N37	240	Column	Column	Tube	A500 Gr.C	Typical
7	Truss1	N2	N4		Truss	Beam	Tube	A500 Gr.C	Typical
8	Truss2	N9	N11		Truss	Beam	Tube	A500 Gr.C	Typical
9	Truss3	N16	N18		Truss	Beam	Tube	A500 Gr.C	Typical
10	Truss4	N23	N25		Truss	Beam	Tube	A500 Gr.C	Typical
11	Truss5	N30	N32		Truss	Beam	Tube	A500 Gr.C	Typical
12	Truss6	N37	N39		Truss	Beam	Tube	A500 Gr.C	Typical
13	Trusstail1	N3	N2		Truss Tail	Beam	Tube	A500 Gr.C	Typical
14	Trusstail2	N10	N9		Truss Tail	Beam	Tube	A500 Gr.C	Typical
15	Trusstail3	N17	N16		Truss Tail	Beam	Tube	A500 Gr.C	Typical
16	Trusstail4	N24	N23		Truss Tail	Beam	Tube	A500 Gr.C	Typical
17	Trusstail5	N31	N30		Truss Tail	Beam	Tube	A500 Gr.C	Typical
18	Trusstail6	N38	N37		Truss Tail	Beam	Tube	A500 Gr.C	Typical
19	Tension1	N9	N2		Tension	Beam	Tube	A500 Gr.C	Typical
20	Tension2	N16	N9		Tension	Beam	Tube	A500 Gr.C	Typical
21	Tension3	N23	N16		Tension	Beam	Tube	A500 Gr.C	Typical
22	Tension4	N30	N23		Tension	Beam	Tube	A500 Gr.C	Typical
23	Tension5	N37	N30		Tension	Beam	Tube	A500 Gr.C	Typical
24	Tension6	N2	N37		Tension	Beam	Tube	A500 Gr.C	Typical
25	J column1	N4	N5	180	Juncture Column	Column	Tube	A500 Gr.C	Typical



Member Primary Data (Continued)

Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule	
26	J column2	N11	N12	120	Juncture Column	Column	Tube	A500 Gr.C	Typical
27	J column3	N18	N19	60	Juncture Column	Column	Tube	A500 Gr.C	Typical
28	J column4	N25	N26		Juncture Column	Column	Tube	A500 Gr.C	Typical
29	J column5	N32	N33	300	Juncture Column	Column	Tube	A500 Gr.C	Typical
30	J column6	N39	N40	240	Juncture Column	Column	Tube	A500 Gr.C	Typical
31	Clerestory1	N11	N4		Clerestory	Beam	Tube	A500 Gr.C	Typical
32	Clerestory2	N18	N11		Clerestory	Beam	Tube	A500 Gr.C	Typical
33	Clerestory3	N25	N18		Clerestory	Beam	Tube	A500 Gr.C	Typical
34	Clerestory4	N32	N25		Clerestory	Beam	Tube	A500 Gr.C	Typical
35	Clerestory5	N39	N32		Clerestory	Beam	Tube	A500 Gr.C	Typical
36	Clerestory6	N4	N39		Clerestory	Beam	Tube	A500 Gr.C	Typical
37	Clerestory7	N12	N5		Clerestory	Beam	Tube	A500 Gr.C	Typical
38	Clerestory8	N19	N12		Clerestory	Beam	Tube	A500 Gr.C	Typical
39	Clerestory9	N26	N19		Clerestory	Beam	Tube	A500 Gr.C	Typical
40	Clerestory10	N33	N26		Clerestory	Beam	Tube	A500 Gr.C	Typical
41	Clerestory11	N40	N33		Clerestory	Beam	Tube	A500 Gr.C	Typical
42	Clerestory12	N5	N40		Clerestory	Beam	Tube	A500 Gr.C	Typical
43	Upper Truss1	N5	N7		Upper Truss	Beam	Tube	A500 Gr.C	Typical
44	Upper Truss2	N12	N14		Upper Truss	Beam	Tube	A500 Gr.C	Typical
45	Upper Truss3	N19	N21		Upper Truss	Beam	Tube	A500 Gr.C	Typical
46	Upper Truss4	N26	N28		Upper Truss	Beam	Tube	A500 Gr.C	Typical
47	Upper Truss5	N33	N35		Upper Truss	Beam	Tube	A500 Gr.C	Typical
48	Upper Truss6	N40	N42		Upper Truss	Beam	Tube	A500 Gr.C	Typical
49	Upper trusstail1	N6	N5		Upper Truss Tail	Beam	Tube	A500 Gr.C	Typical
50	Upper trusstail2	N13	N12		Upper Truss Tail	Beam	Tube	A500 Gr.C	Typical
51	Upper trusstail3	N20	N19		Upper Truss Tail	Beam	Tube	A500 Gr.C	Typical
52	Upper trusstail4	N27	N26		Upper Truss Tail	Beam	Tube	A500 Gr.C	Typical
53	Upper trusstail5	N34	N33		Upper Truss Tail	Beam	Tube	A500 Gr.C	Typical
54	Upper trusstail6	N41	N40		Upper Truss Tail	Beam	Tube	A500 Gr.C	Typical
55	Compression1	N7	N14		Compression Ring	Beam	Channel	A36 Gr.36	Typical
56	Compression2	N14	N21		Compression Ring	Beam	Channel	A36 Gr.36	Typical
57	Compression3	N21	N28		Compression Ring	Beam	Channel	A36 Gr.36	Typical
58	Compression4	N28	N35		Compression Ring	Beam	Channel	A36 Gr.36	Typical
59	Compression5	N35	N42		Compression Ring	Beam	Channel	A36 Gr.36	Typical
60	Compression6	N42	N7		Compression Ring	Beam	Channel	A36 Gr.36	Typical

Member Advanced Data

Label	Col-Wall Vert Release	Physical	Deflection Ratio Options	Seismic DR
1	Column1	Yes	** NA **	None
2	Column2	Yes	** NA **	None
3	Column3	Yes	** NA **	None
4	Column4	Yes	** NA **	None
5	Column5	Yes	** NA **	None
6	Column6	Yes	** NA **	None
7	Truss1	Yes	N/A	None
8	Truss2	Yes	N/A	None
9	Truss3	Yes	N/A	None
10	Truss4	Yes	N/A	None
11	Truss5	Yes	N/A	None
12	Truss6	Yes	N/A	None
13	Trusstail1	Yes	N/A	None
14	Trusstail2	Yes	N/A	None
15	Trusstail3	Yes	N/A	None
16	Trusstail4	Yes	N/A	None
17	Trusstail5	Yes	N/A	None
18	Trusstail6	Yes	N/A	None
19	Tension1	Yes	N/A	None
20	Tension2	Yes	N/A	None
21	Tension3	Yes	N/A	None
22	Tension4	Yes	N/A	None
23	Tension5	Yes	N/A	None
24	Tension6	Yes	N/A	None
25	J column1	Yes	** NA **	None
26	J column2	Yes	** NA **	None
27	J column3	Yes	** NA **	None
28	J column4	Yes	** NA **	None
29	J column5	Yes	** NA **	None
30	J column6	Yes	** NA **	None
31	Clerestory1	Yes	N/A	None
32	Clerestory2	Yes	N/A	None
33	Clerestory3	Yes	N/A	None
34	Clerestory4	Yes	N/A	None
35	Clerestory5	Yes	N/A	None
36	Clerestory6	Yes	N/A	None
37	Clerestory7	Yes	N/A	None
38	Clerestory8	Yes	N/A	None
39	Clerestory9	Yes	N/A	None
40	Clerestory10	Yes	N/A	None
41	Clerestory11	Yes	N/A	None
42	Clerestory12	Yes	N/A	None
43	Upper Truss1	Yes	N/A	None
44	Upper Truss2	Yes	N/A	None
45	Upper Truss3	Yes	N/A	None
46	Upper Truss4	Yes	N/A	None
47	Upper Truss5	Yes	N/A	None
48	Upper Truss6	Yes	N/A	None
49	Upper trusstail1	Yes	N/A	None
50	Upper trusstail2	Yes	N/A	None



Member Advanced Data (Continued)

Label	Col-Wall Vert Release	Physical	Deflection Ratio Options	Seismic DR
51	Upper trusstail3	Yes	N/A	None
52	Upper trusstail4	Yes	N/A	None
53	Upper trusstail5	Yes	N/A	None
54	Upper trusstail6	Yes	N/A	None
55	Compression1	Yes	N/A	None
56	Compression2	Yes	N/A	None
57	Compression3	Yes	N/A	None
58	Compression4	Yes	N/A	None
59	Compression5	Yes	N/A	None
60	Compression6	Yes	N/A	None

Hot Rolled Steel Design Parameters

Label	Shape	Length [ft]	K y-y	K z-z	Channel Conn.	a [ft]	Function
1	Column1	Column	13.5	2	2	N/A	Lateral
2	Column2	Column	13.5	2	2	N/A	Lateral
3	Column3	Column	13.5	2	2	N/A	Lateral
4	Column4	Column	13.5	2	2	N/A	Lateral
5	Column5	Column	13.5	2	2	N/A	Lateral
6	Column6	Column	13.5	2	2	N/A	Lateral
7	Truss1	Truss	6.55	0.65	0.65	N/A	Lateral
8	Truss2	Truss	6.55	0.65	0.65	N/A	Lateral
9	Truss3	Truss	6.55	0.65	0.65	N/A	Lateral
10	Truss4	Truss	6.55	0.65	0.65	N/A	Lateral
11	Truss5	Truss	6.55	0.65	0.65	N/A	Lateral
12	Truss6	Truss	6.55	0.65	0.65	N/A	Lateral
13	Trusstail1	Truss Tail	2.666	2.1	2.1	N/A	Lateral
14	Trusstail2	Truss Tail	2.667	2.1	2.1	N/A	Lateral
15	Trusstail3	Truss Tail	2.667	2.1	2.1	N/A	Lateral
16	Trusstail4	Truss Tail	2.666	2.1	2.1	N/A	Lateral
17	Trusstail5	Truss Tail	2.667	2.1	2.1	N/A	Lateral
18	Trusstail6	Truss Tail	2.667	2.1	2.1	N/A	Lateral
19	Tension1	Tension	10.191	0.65	0.65	N/A	Lateral
20	Tension2	Tension	10.19	0.65	0.65	N/A	Lateral
21	Tension3	Tension	10.191	0.65	0.65	N/A	Lateral
22	Tension4	Tension	10.191	0.65	0.65	N/A	Lateral
23	Tension5	Tension	10.19	0.65	0.65	N/A	Lateral
24	Tension6	Tension	10.191	0.65	0.65	N/A	Lateral
25	J column1	Juncture Column	2	0.65	0.65	N/A	Lateral
26	J column2	Juncture Column	2	0.65	0.65	N/A	Lateral
27	J column3	Juncture Column	2	0.65	0.65	N/A	Lateral
28	J column4	Juncture Column	2	0.65	0.65	N/A	Lateral
29	J column5	Juncture Column	2	0.65	0.65	N/A	Lateral
30	J column6	Juncture Column	2	0.65	0.65	N/A	Lateral
31	Clerestory1	Clerestory	4.518	0.65	0.65	N/A	Lateral
32	Clerestory2	Clerestory	4.518	0.65	0.65	N/A	Lateral
33	Clerestory3	Clerestory	4.518	0.65	0.65	N/A	Lateral
34	Clerestory4	Clerestory	4.518	0.65	0.65	N/A	Lateral
35	Clerestory5	Clerestory	4.518	0.65	0.65	N/A	Lateral
36	Clerestory6	Clerestory	4.518	0.65	0.65	N/A	Lateral
37	Clerestory7	Clerestory	4.518	0.65	0.65	N/A	Lateral
38	Clerestory8	Clerestory	4.518	0.65	0.65	N/A	Lateral
39	Clerestory9	Clerestory	4.518	0.65	0.65	N/A	Lateral
40	Clerestory10	Clerestory	4.518	0.65	0.65	N/A	Lateral
41	Clerestory11	Clerestory	4.518	0.65	0.65	N/A	Lateral
42	Clerestory12	Clerestory	4.518	0.65	0.65	N/A	Lateral
43	Upper Truss1	Upper Truss	4.351	0.65	0.65	N/A	Lateral
44	Upper Truss2	Upper Truss	4.351	0.65	0.65	N/A	Lateral
45	Upper Truss3	Upper Truss	4.351	0.65	0.65	N/A	Lateral
46	Upper Truss4	Upper Truss	4.351	0.65	0.65	N/A	Lateral
47	Upper Truss5	Upper Truss	4.351	0.65	0.65	N/A	Lateral
48	Upper Truss6	Upper Truss	4.351	0.65	0.65	N/A	Lateral
49	Upper trusstail1	Upper Truss Tail	2	2.1	2.1	N/A	Lateral
50	Upper trusstail2	Upper Truss Tail	2	2.1	2.1	N/A	Lateral
51	Upper trusstail3	Upper Truss Tail	2	2.1	2.1	N/A	Lateral
52	Upper trusstail4	Upper Truss Tail	2	2.1	2.1	N/A	Lateral
53	Upper trusstail5	Upper Truss Tail	2	2.1	2.1	N/A	Lateral
54	Upper trusstail6	Upper Truss Tail	2	2.1	2.1	N/A	Lateral
55	Compression1	Compression Ring	0.75	0.65	0.65	N/A	Lateral
56	Compression2	Compression Ring	0.75	0.65	0.65	N/A	Lateral
57	Compression3	Compression Ring	0.75	0.65	0.65	N/A	Lateral
58	Compression4	Compression Ring	0.75	0.65	0.65	N/A	Lateral
59	Compression5	Compression Ring	0.75	0.65	0.65	N/A	Lateral
60	Compression6	Compression Ring	0.75	0.65	0.65	N/A	Lateral

Hot Rolled Steel Properties

Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e ⁻⁶ F ⁻¹]	Density [lb/ft ³]	Yield [ksi]	Ry	Fu [ksi]	Rt	
1	A992	29000	11154	0.3	0.65	490	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	490	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	490	50	1.1	65	1.1
4	A500 Gr.B	29000	11154	0.3	0.65	527	46	1.4	58	1.3
5	A500 Gr.C	29000	11154	0.3	0.65	527	50	1.4	62	1.3
6	A53 Gr.B	29000	11154	0.3	0.65	490	35	1.6	60	1.2
7	A1085	29000	11154	0.3	0.65	490	50	1.4	65	1.3
8	A913 Gr.65	29000	11154	0.3	0.65	490	65	1.1	80	1.1



Envelope AISC 15TH (360-16): ASD Member Steel Code Checks

Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-in]	Mnzz/om [k-in]	Cb	Eqn	
1	Column1	HSS5X5X3	0.228	13.5	31	0.007	13.5	z	28	18.041	98.204	176.347	1.678	H1-1b	
2	Column2	HSS5X5X3	0.27	13.5	46	0.006	13.5	z	23	18.041	98.204	176.347	1.678	H1-1b	
3	Column3	HSS5X5X3	0.271	13.5	46	0.006	13.5	y	31	18.041	98.204	176.347	1.678	H1-1b	
4	Column4	HSS5X5X3	0.274	13.5	49	0.007	13.5	z	28	18.041	98.204	176.347	1.678	H1-1b	
5	Column5	HSS5X5X3	0.245	13.5	45	0.006	13.5	z	31	18.041	98.204	176.347	1.678	H1-1b	
6	Column6	HSS5X5X3	0.241	13.5	23	0.006	13.5	z	23	18.041	98.204	176.347	1.678	H1-1b	
7	Truss1	HSS6X4X2	0.166	0	41	0.053	6.55	y	28	54.754	66.766	78.098	1.21352	1.048	H1-1b
8	Truss2	HSS6X4X2	0.16	0	41	0.048	0	y	31	54.755	66.766	78.098	1.21352	1.297	H1-1b
9	Truss3	HSS6X4X2	0.147	0	31	0.06	6.55	z	23	54.755	66.766	78.098	1.21352	1.389	H1-1b
10	Truss4	HSS6X4X2	0.13	0	23	0.053	6.55	y	28	54.754	66.766	78.098	1.21352	1.478	H1-1b
11	Truss5	HSS6X4X2	0.181	0	46	0.059	6.55	z	23	54.755	66.766	78.098	1.21352	1.269	H1-1b
12	Truss6	HSS6X4X2	0.18	0	46	0.042	6.55	y	24	54.755	66.766	78.098	1.21352	1.259	H1-1b
13	Trusstail1	HSS4X4X2	0.013	2.666	41	0.005	2.666	y	41	46.405	52.994	69.459	69.459	3	H1-1b
14	Trusstail2	HSS4X4X2	0.012	2.667	22	0.004	2.667	y	22	46.403	52.994	69.459	69.459	3	H1-1b
15	Trusstail3	HSS4X4X2	0.014	2.667	22	0.005	2.667	y	22	46.403	52.994	69.459	69.459	3	H1-1b
16	Trusstail4	HSS4X4X2	0.014	2.666	22	0.005	2.666	y	22	46.405	52.994	69.459	69.459	3	H1-1b
17	Trusstail5	HSS4X4X2	0.012	2.667	22	0.004	2.667	y	22	46.403	52.994	69.459	69.459	3	H1-1b
18	Trusstail6	HSS4X4X2	0.011	2.667	21	0.004	2.667	y	21	46.403	52.994	69.459	69.459	3	H1-1b
19	Tension1	HSS5X3X2	0.289	0	49	0.05	0	y	41	38.994	52.994	50.729	87.725	2.307	H1-1b
20	Tension2	HSS5X3X2	0.285	0	41	0.045	10.19	y	22	38.996	52.994	50.729	87.725	2.429	H1-1b
21	Tension3	HSS5X3X2	0.264	10.191	46	0.043	10.191	y	44	38.994	52.994	50.729	87.725	2.378	H1-1b
22	Tension4	HSS5X3X2	0.277	10.191	49	0.044	10.191	y	22	38.994	52.994	50.729	87.725	2.342	H1-1b
23	Tension5	HSS5X3X2	0.286	10.19	41	0.045	10.19	y	42	38.996	52.994	50.729	87.725	2.464	H1-1b
24	Tension6	HSS5X3X2	0.261	10.191	41	0.051	10.191	y	41	38.994	52.994	50.729	87.725	2.044	H1-1b
25	J column1	HSS5X5X8	0.034	0	23	0.01	2	y	23	234.659	235.928	392.216	392.216	1.726	H1-1b
26	J column2	HSS5X5X8	0.021	2	50	0.011	2	z	23	234.659	235.928	392.216	392.216	1.091	H1-1b
27	J column3	HSS5X5X8	0.023	0	50	0.008	2	z	24	234.659	235.928	392.216	392.216	1.434	H1-1b
28	J column4	HSS5X5X8	0.021	0	51	0.006	2	y	44	234.659	235.928	392.216	392.216	1.547	H1-1b
29	J column5	HSS5X5X8	0.029	0	25	0.009	2	z	52	234.659	235.928	392.216	392.216	1.773	H1-1b
30	J column6	HSS5X5X8	0.029	0	25	0.011	2	z	23	234.659	235.928	392.216	392.216	1.757	H1-1b
31	Clerestory1	HSS5X3X2	0.099	0	41	0.021	0	y	41	47.245	52.994	50.729	87.725	2.36	H1-1b
32	Clerestory2	HSS5X3X2	0.08	0	41	0.015	0	y	42	47.245	52.994	50.729	87.725	2.661	H1-1b
33	Clerestory3	HSS5X3X2	0.083	4.518	44	0.02	4.518	z	25	47.245	52.994	50.729	87.725	2.623	H1-1b
34	Clerestory4	HSS5X3X2	0.082	4.518	43	0.019	0	z	23	47.245	52.994	50.729	87.725	2.649	H1-1b
35	Clerestory5	HSS5X3X2	0.079	4.518	41	0.014	4.518	y	42	47.245	52.994	50.729	87.725	2.688	H1-1b
36	Clerestory6	HSS5X3X2	0.095	4.518	41	0.021	4.518	y	23	47.245	52.994	50.729	87.725	2.366	H1-1b
37	Clerestory7	HSS5X3X2	0.06	0	23	0.023	0	y	41	47.245	52.994	50.729	87.725	2.404	H1-1b
38	Clerestory8	HSS5X3X2	0.039	0	41	0.012	0	y	42	47.245	52.994	50.729	87.725	2.669	H1-1b
39	Clerestory9	HSS5X3X2	0.045	4.518	44	0.018	4.518	y	44	47.245	52.994	50.729	87.725	2.639	H1-1b
40	Clerestory10	HSS5X3X2	0.038	0	52	0.017	4.518	y	41	47.245	52.994	50.729	87.725	2.198	H1-1b
41	Clerestory11	HSS5X3X2	0.039	4.518	42	0.012	4.518	y	42	47.245	52.994	50.729	87.725	2.583	H1-1b
42	Clerestory12	HSS5X3X2	0.061	4.518	23	0.023	4.518	y	23	47.245	52.994	50.729	87.725	2.408	H1-1b
43	Upper Truss1	HSS6X4X2	0.031	0	44	0.006	0	y	46	56.474	66.766	78.098	1.21352	1.961	H1-1b
44	Upper Truss2	HSS6X4X2	0.04	0	50	0.009	4.351	z	25	56.474	66.766	78.098	1.21352	1.209	H1-1b
45	Upper Truss3	HSS6X4X2	0.039	0	24	0.012	4.351	z	23	56.474	66.766	78.098	1.21352	1.722	H1-1b
46	Upper Truss4	HSS6X4X2	0.051	0	23	0.006	0	y	49	56.474	66.766	78.098	1.21352	1.581	H1-1b
47	Upper Truss5	HSS6X4X2	0.04	0	24	0.012	4.351	z	23	56.474	66.766	78.098	1.21352	1.739	H1-1b
48	Upper Truss6	HSS6X4X2	0.039	0	50	0.009	4.351	z	24	56.474	66.766	78.098	1.21352	1.202	H1-1b
49	Upper trusstail1	HSS4X4X2	0.006	2	41	0.004	2	y	41	49.179	52.994	69.459	69.459	3	H1-1b
50	Upper trusstail2	HSS4X4X2	0.005	2	41	0.003	2	y	19	49.179	52.994	69.459	69.459	3	H1-1b
51	Upper trusstail3	HSS4X4X2	0.005	2	19	0.003	2	y	19	49.179	52.994	69.459	69.459	3	H1-1b
52	Upper trusstail4	HSS4X4X2	0.005	2	44	0.004	2	y	44	49.179	52.994	69.459	69.459	3	H1-1b
53	Upper trusstail5	HSS4X4X2	0.005	2	43	0.003	2	y	19	49.179	52.994	69.459	69.459	3	H1-1b
54	Upper trusstail6	HSS4X4X2	0.005	2	43	0.003	2	y	48	49.179	52.994	69.459	69.459	3	H1-1b
55	Compression1	C7X9.8	0.074	0	23	0.027	0.387	z	23	61.535	61.868	21.309	154.994	1.239	H1-1b
56	Compression2	C7X9.8	0.018	0.75	23	0.004	0.553	y	23	61.535	61.868	21.309	154.994	1.396	H1-1b
57	Compression3	C7X9.8	0.073	0.75	25	0.027	0.371	z	23	61.535	61.868	21.309	154.994	2.135	H1-1b
58	Compression4	C7X9.8	0.073	0	52	0.027	0.379	z	52	61.535	61.868	21.309	154.994	1.387	H1-1b
59	Compression5	C7X9.8	0.018	0	23	0.004	0.273	y	23	61.535	61.868	21.309	154.994	1.382	H1-1b
60	Compression6	C7X9.8	0.075	0.75	25	0.028	0.364	z	23	61.535	61.868	21.309	154.994	1.455	H1-1b

Material Take-Off

	Material	Size	Pieces	Length[ft]	Weight[LB]
1	Hot Rolled Steel				
2	A36 Gr.36	C7X9.8	6	4.5	43.963
3	A500 Gr.C	HSS4X4X2	12	28	181.367
4	A500 Gr.C	HSS5X3X2	18	115.4	747.274
5	A500 Gr.C	HSS5X5X3	6	81	972.315
6	A500 Gr.C	HSS5X5X8	6	12	346.064
7	A500 Gr.C	HSS6X4X2	12	65.4	533.787
8	Total HR Steel		60	306.3	2824.77

PANEL DATA

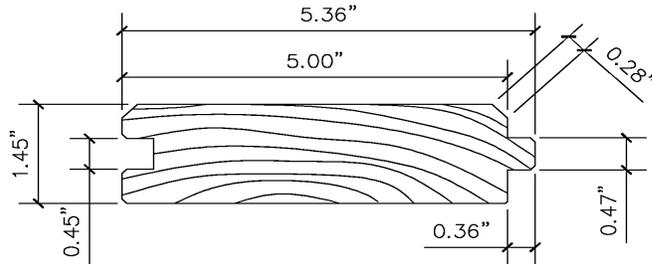
2 x 6 Tongue and Groove Panels

Allowable Loads

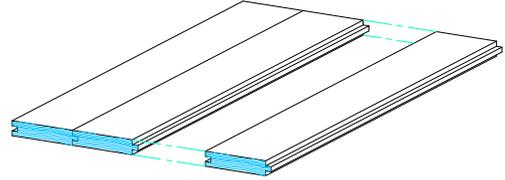
Hem-Fir Selected

Factory Stained

Section / Isometric View of Panel Cross-Section



Section View of Typical Panel



Isometric View of Panels

Section Properties (Out of Plane Bending)

Member Size	Weight (psf)	F_b (ksi)	I_x (in ⁴)	S_e (in ³)	M_a (in-kips)
2" X 6"	3.38	1.0472	1.251	1.724	1.805

Allowable Loads

Span Type	Span Lengths (ft)	Allowable Load (psf)
Single Span	4	181
	5	116
	6	80
	7	59
	8	45
Two Span	4	181
	5	116
	6	80
	7	59
	8	45

Load Duration Factors (C_D)

Typical Design Loads	C_D
Dead Load	0.9
Live Load	1.0
Snow Load	1.15
Wind Load	1.6
Earthquake Load	1.6

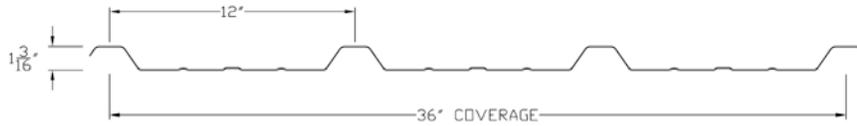
Notes

1. All calculations for properties of panels are calculated in accordance with the National Design Specification (NDS) for Wood Construction, 2018 Edition. Allowable loads are based on at least two sections of the tongue and groove decking in place, with tongue and groove in contact.
2. The spans shown assume equal spacing between the multi-span conditions.
3. Weight of panels and roof covering material must be deducted from values to obtain net allowable load.
4. Per NDS 2018 Section 2.3.2, reference design values shall be multiplied by the appropriate load duration factor, C_D .



Multi-Rib

Bare Galvalume & Painted Galvalume



SECTION PROPERTIES						TOP IN COMPRESSION			BOTTOM IN COMPRESSION		
GAUGE	FY (ksi)	WEIGHT (psf)	V _a (kip/ft.)	P _{a_end} (lbs/ft.)	P _{a_int} (lbs/ft.)	I _x (in. ⁴ /ft.)	S _e (in. ³ /ft.)	M _a (kip-in./ft.)	I _x (in. ⁴ /ft.)	S _e (in. ³ /ft.)	M _a (kip-in./ft.)
24	50.0	1.10	0.7727	235.0	320.8	0.050	0.055	1.375	0.029	0.046	1.148

1. Section properties are calculated in accordance with the 2016 AISI North American Specification for the Design of Cold-Formed Steel Structural Members.
2. V_a is the allowable shear.
3. P_a is the allowable load for web crippling on end & interior supports.
4. I_x is for deflection determination.
5. S_e is for bending.
6. M_a is the allowable bending moment.
7. All values are for one foot of panel width.

Allowable Uniform Loads (PSF)

Span Type	Load Type	Span in Feet															
		1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00
Single	Positive Wind	407	229	146	101	74	57	45	36	30	25	21	18	16	14	12	11
	Negative Wind	340	191	122	85	62	47	37	30	25	21	18	15	13	11	10	9
	Live	407	229	146	101	74	57	45	36	30	25	21	18	16	14	12	11
	Deflection (L/180)	500	500	279	161	101	68	47	34	26	20	15	12	10	8	7	5
	Deflection (L/240)	500	409	209	121	76	51	35	26	19	15	11	9	7	6	5	4
2 Span	Positive Wind	314	182	118	83	61	47	37	30	25	21	18	15	13	11	10	9
	Negative Wind	365	214	140	98	73	56	44	36	30	25	21	18	16	14	12	11
	Live	314	182	118	83	61	47	37	30	25	21	18	15	13	11	10	9
	Deflection (L/180)	500	500	500	309	194	130	91	66	50	38	30	24	19	16	13	11
	Deflection (L/240)	500	500	400	231	146	97	68	50	37	28	22	18	14	12	10	8
3 Span	Positive Wind	380	224	146	103	76	58	46	37	31	26	22	19	16	14	13	11
	Negative Wind	438	261	172	122	90	69	55	45	37	31	26	23	20	17	15	14
	Live	380	224	146	103	76	58	46	37	31	26	22	19	16	14	13	11
	Deflection (L/180)	500	500	418	242	152	102	71	52	39	30	23	19	15	12	10	8
	Deflection (L/240)	500	500	314	181	114	76	53	39	29	22	17	14	11	9	7	6
4 Span	Positive Wind	359	210	137	96	71	54	43	35	29	24	21	18	15	13	12	10
	Negative Wind	414	246	162	114	84	65	51	42	34	29	25	21	18	16	14	13
	Live	359	210	137	96	71	54	43	35	29	24	21	18	15	13	12	10
	Deflection (L/180)	500	500	444	257	161	108	76	55	41	32	25	20	16	13	11	9
	Deflection (L/240)	500	500	333	192	121	81	57	41	31	24	18	15	12	10	8	7

Notes:

1. Allowable uniform loads are based upon equal span lengths.
2. Live is the allowable live or snow load.
3. Deflection (L/180) is the allowable load that limits the panel's deflection to L/180 while under positive or live load.
4. Deflection (L/240) is the allowable load that limits the panel's deflection to L/240 while under positive or live load.
5. The weight of the panel has **NOT** been deducted from the allowable loads.
6. Positive Wind, Negative Wind, and Live Load values are limited to combined shear & bending using Eq. H2-1 of the AISI Specification.
7. Positive Wind and Live Load values are limited by web crippling using a bearing length of 2".
8. Web crippling values are determined using a ratio of the uniform load **actually** supported by the top flanges of the section.
9. Load Tables are limited to a maximum allowable load of 500 psf.