

# GENERAL NOTES

**STRUCTURE LOCATION**  
1206 W. 2150 N.  
OGDEN, UT 84404

**DESIGN CRITERIA**  
CODES AND STANDARDS  
2021 INTERNATIONAL BUILDING CODE (IBC)  
ASCE 7-16  
AISC 2018  
ASCE 55

**VERTICAL LOADS ROOF**  
DEAD LOAD = SELF WEIGHT + 2.2 PSF (FABRIC & UTILITY)  
LIVE LOAD = 0 PSF (BOUNDARY-LESS SHAPE OF THE SHELL COUPLED WITH THE SLIPPERY CANVAS DOES NOT PERMIT SAFE ACCESS TO THE TOPSIDE, NOR CAN ANY RE-ROOFING WORK BE UNDERTAKEN)  
SNOW LOAD = 12 PSF  
FOR SNOW AREAS ONLY - THIS STRUCTURE IS DESIGNED TO SHED/RELEASE SNOW, THE PERIMETER OF THE STRUCTURE SHALL BE KEPT CLEAR.

**LATERAL LOADS**  
**SEISMIC**  
RISK CATEGORY: II  
SEISMIC DESIGN CATEGORY: D  
SITE CLASS D - DEFAULT  
SS = 1.483  
S1 = 0.537  
Fa = 1.2  
Fv = 1.76  
SDS = 1.187  
SD1 = 0.631  
PGA = 0.669  
R = 3  
IE = 1.0  
Qo = 2.5  
Cd = 3.0  
IP = 1.0  
CS = 0.333  
STRUCTURE'S WEIGHT W = 16.74 KIPS  
SEISMIC BASE SHEAR = WxCs = 5.53 KIPS (ASD)  
SEISMIC FORCE RESISTING SYSTEM: MOMENT RESISTING FRAME (SHORT DIRECTION) AND CABLE BRACED (LONG DIRECTION)  
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE  
LINEAR STATIC WIND  
VULT = 115 MPH  
RISK CATEGORY: II  
EXPOSURE CATEGORY: C  
GCOPI = 0.55

**UTILITY LOADS**

SPRUNG STRUCTURES ARE DESIGNED TO SUPPORT AN AVERAGE AND BALANCED UTILITY LOAD OF 2 PSF, COMPRISED OF SUCH ITEMS AS SPRINKLER LINES, HVAC DUCTS, ELECTRICAL, LIGHTING, FANS, CEILING GRIDS, AUDIO-VISUAL EQUIPMENT, ETC. THE SEISMIC EFFECT AND FORCES CAUSED BY THE UTILITY LOAD ALLOWANCE ARE TAKEN INTO CONSIDERATION IN THE DESIGN OF THE STRUCTURE.

FOR MANY STRUCTURES, THE WIND EFFECT FROM THE DESIGN WIND SPEED EXCEEDS THE FORCES THE STRUCTURE WILL SEE FROM THE SEISMIC DEMAND CAUSED BY THE PROPOSED SUSPENDED UTILITIES. REGARDLESS OF WHAT CONTROLS ENGINEERING REQUIREMENTS, ALL STRUCTURAL DESIGNS INCLUDE THIS 2-PSF UTILITY LOAD ALLOWANCE, AND ARE ENSURED TO HAVE SUFFICIENT CAPACITY TO UNIFORMLY SUPPORT IT.

THE MAXIMUM CONCENTRATED LOAD AT ANY ATTACHMENT POINT IS 300 LBS.

CONCENTRATED LOADS GREATER THAN 300 LBS MUST BE APPROVED BY SPRUNG, AND IF PRESENT, REQUIRE A PROJECT SPECIFIC UTILITY LOAD STUDY TO BE CONDUCTED.

ATTACHMENT OF THE UTILITIES MUST ONLY BE TO THE BOTTOM FLANGE OF THE (FRAME) BEAM AND CAN BE ACHIEVED USING THE FLANGE'S BOLT CHASE (3/8" DIA. FOR 5X10 BEAMS & 1/2" DIA. FOR 8X12 BEAMS). FOR STRUCTURES WITHOUT AN INTERIOR LINER, APPROVED SPECIALTY BEAM CLAMPS OR THE BOLT CHASE MAY BE USED TO ATTACH UTILITIES TO THE ALUMINUM ARCHES. BEAM CLAMPS SHALL ENGAGE THE BOTTOM FLANGE OF THE ARCH BEAM ON BOTH SIDES OF THE WEB BEAM CLAMPS SHALL NOT ENGAGE THE ROPE CHASE. ECCENTRIC CONNECTIONS TO THE FLANGE ARE NOT PERMITTED, REGARDLESS OF ATTACHMENT METHOD.

NO UTILITY LOADS CAN BE ATTACHED TO THE (FRAME) BEAMS WITH SCREWS OR OTHER METHODS THAT PUNCTURE THE BEAM'S FLANGES OR WEB. UNDER NO CIRCUMSTANCES CAN LOADS BE ATTACHED TO PURLINS/SPREADERS OR CABLES. ANY ATTACHMENT TO THE STRUCTURE SHOULD BE FLEXIBLE ENOUGH TO ALLOW FOR THE MOVEMENT OF THE STRUCTURE IN HIGH WIND CONDITIONS. ALL METHODS AND DESIGN OF ATTACHMENT OF THE UTILITIES TO THE STRUCTURE ARE THE RESPONSIBILITY OF YOUR CLIENT'S ENGINEER.

**QUALITY CONTROL**  
ISO 9001:2015  
INSPECTION DOCUMENTATION IS AS PER THE ISO STANDARD AND AS PER ADM CHAPTER N.2.

**ALUMINUM:**  
- MIL CERTS ARE CHECKED FOR CONFORMANCE WITH SPRUNG'S SPECIFICATIONS.  
- ALUMINUM PROFILES ARE RANDOMLY SELECTED TO ENSURE CONFORMANCE TO ASTM B 221.  
- ALL CURVED SECTIONS FROM BENDERS ARE TO BE PLACED IN A JIG AND CHECKED FOR GEOMETRIC TOLERANCES.  
- MANUFACTURING CONSIST OF CUTTING OF THE ALUMINUM EXTRUSIONS, DRILLING OF HOLES C&C MACHINES AND PUNCH PRESSES WITH DIES.  
- FABRICATED PARTS ARE VISUALLY CHECKED TO ENSURE IT CONFORMS WITH SHOP DRAWINGS.

**STEEL PARTS:**  
- ALL WELDED STRUCTURAL STEEL COMPONENTS ARE FABRICATED IN AN AWS SHOP.  
- ALL STRUCTURAL STEEL COMPONENTS ARE HOT DIPPED GALVANIZED TO ASTM A153 STANDARDS.

**MEMBRANE:**  
- UPON RECEIPT OF MATERIALS, MIL CERTS ARE CHECKED FOR CONFORMANCE WITH SPRUNG'S SPECIFICATIONS.  
- AS MEMBRANE IS PATTERNED AND ASSEMBLED, A VISUAL CHECK OF THE MEMBRANE TAKES PLACE. FLAWED MATERIAL IS PUT ASIDE.  
- COMPLETED MEMBRANE PANELS ARE VISUALLY CHECKED TO ENSURE DIMENSIONAL ACCURACY.

**MATERIALS**

ALUMINUM: ADM 2020  
6351-T6, DESIGN & FABRICATION SHALL BE PER THE ALUMINUM DESIGN MANUAL.  
MECHANICAL PROPERTIES:  

<b>TENSION</b>	
Fu ULTIMATE = 42 ksi	Fy YIELD = 37 ksi
<b>ELONGATION = 8%</b>	
<b>ADHESION</b>	
Fsu ULTIMATE = 25 ksi	Fsy YIELD = 22 ksi
<b>BEARING</b>	
Fb ULTIMATE = 84 ksi	

**MEMBRANE:** ASCE-55  
**OUTER MEMBRANE - HERCULITE EXCEL 18**  
- FINISHED COATED WEIGHT 20 +/- 2 oz/yd<sup>2</sup>  
- TONGUE TEAR 175/155 lbf  
- GRAB TENSILE 450/345 lbf  
- STRIP TENSILE 1" 325/245 lbf/in  
- ADHESION 10 lbf/in  
- HYDROSTATIC RESISTANCE 600psi  
- LOW TEMPERATURE 1/8" MANDREL, 4hr - PASS @ -40 DEGREES F

**DAYLIGHT PANEL MEMBRANE - SEAMAN SHELTER-RITE 8324**  
- FINISHED COATED WEIGHT 24 +/- 2 oz/yd<sup>2</sup>  
- TONGUE TEAR 140/130 lbf  
- GRAB TENSILE 400/350lbf  
- STRIP TENSILE 1" 300/240 lbf/in  
- ADHESION 10 lbf/in  
- HYDROSTATIC RESISTANCE 500psi  
- LOW TEMPERATURE 1/8" MANDREL, 4hr - PASS @ -40 DEGREES F

**STRUCTURE MEMBRANE MEETS:**  
- NFPA 701  
- CALIFORNIA STATE FIRE MARSHALL  
- ASTM-E-84 CLASS A

**STEEL:**  
- 44W AISC 360  
ALL STEEL IN CONTACT WITH ALUMINUM SHALL BE HOT DIPPED GALVANIZED TO ASTM A153 STANDARDS. DESIGN AND FABRICATION OF STRUCTURAL STEEL SHALL BE IN CONFORMANCE WITH AISC 360-16 & ASTM A572 GRADE 42 COMPLIANT.

**STRUCTURAL BOLTS:**  
STRUCTURAL BOLTS, ZINC-DICHROMATE PLATE SAE GRADE 8. ALL STRUCTURAL BOLTS SHALL BE TIGHTENED TO A SNUG TIGHT CONDITION, I.E., ALL PLIES SHALL BE BROUGHT INTO FIRM CONTACT WITH A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A MAN WITH A SPUD WRENCH.

**CABLE BRACING:** ASCE 19  
- ALL CABLE BRACING 1/2" DIAMETER STEEL GALVANIZED AIRCRAFT CABLE C/W HOT DIPPED GALVANIZED HEAVY DUTY THIMBLE EYES. 6X19+ IWRC, 26,600 LBS MINIMUM BREAKING STRENGTH.  
- 5/8" X 9" JAW/JAW TURNBUCKLES - HOT DIPPED GALVANIZED  
- 5/8" SHACKLES - HOT DIPPED GALVANIZED

**DISSIMILAR METALS:**  
AS PER THE ALUMINUM DESIGN MANUAL, ALUMINUM CAN BE COUPLED TO MAGNESIUM, ZINC, CADMIUM, AND PASSIVE STAINLESS STEEL WITHOUT THE THREAT OF GALVANIC CORROSION.

**STRUCTURE ANCHORAGE (EARTH)**

- MR3 EARTH ANCHOR IN CONJUNCTION WITH 2 @ 3/4" DIA. X 5FT PINS PER COLUMN BASE.
- SOIL CAPACITY FOR THE EARTH ANCHORING METHOD TO BE REVIEWED AND APPROVED BY A LOCAL ENGINEER.
- EARTH ANCHORS TO BE PULLED AND LOCKED TO THE VALUES AS OUTLINED ON THE EARTH ANCHOR LAYOUT (BY SPRUNG). ACHIEVED VALUES ARE TO BE RECORDED ON THIS DRAWING AT TIME OF INSTALLATION.
- EARTH ANCHORS MUST BE PROOF TESTED TO THE LOADS SPECIFIED ON EARTH THE ANCHOR LAYOUT (BY SPRUNG) WITH THE FORESIGHT LL-2 LOAD LOCKER OR AN ENGINEER APPROVED EQUIVALENT.
- ATTACHMENT OF THE MR3 EARTH ANCHORS TO THE SPRUNG ARCHES TO BE MAINTAINED IN A TAUT CONDITION THROUGH OUT THE LIFE OF THE STRUCTURE.
- MINIMUM EARTH ANCHOR DEPTH = 7'-0" OR DEEPER DEPENDING ON SOIL CONDITIONS AS DETERMINED BY LOCAL ENGINEER.

**STRUCTURE ANCHORAGE (CONCRETE)**

- HILTI ADHESIVE AND MECHANICAL ANCHORS
- THE APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:
- THE DESIGN INFORMATION LISTED IN THE RESEARCH REPORT AND TABLES ARE VALID FOR THE FASTENERS ONLY. CONNECTED MEMBERS SHALL BE CHECKED FOR THEIR CAPACITY (WHICH MAY GOVERN).
  - THE ANCHORS SHALL BE IDENTIFIED BY LABELS ON THE PACKAGING INDICATING THE MANUFACTURER'S NAME AND PRODUCT DESIGNATION.
  - DESIGN INFORMATION, EDGE DISTANCES, SPACING AND MINIMUM EMBEDMENT REQUIREMENTS SHALL BE PER TABLES IN ICC-ES REPORT NO. ESR-3187.
  - SPECIAL INSPECTION SHALL BE PROVIDED FOR ANCHOR INSTALLATIONS.
  - THE ANCHORS SHALL BE INSTALLED AS PER THE MANUFACTURER'S INSTRUCTIONS EXCEPT AS OTHERWISE STATED IN THIS REPORT. COPIES OF THE INSTALLATION INSTRUCTIONS SHALL BE AVAILABLE AT EACH JOB SITE.
  - THE ADHESIVE ANCHORS AND POST INSTALLED REINFORCING BAR CONNECTORS SHALL NOT BE USED TO SUPPORT FIRE-RESISTIVE CONSTRUCTION, UNLESS IN COMPLIANCE WITH SECTION 5.12 OF ICC-ES ESR3187.
  - MINIMUM CONCRETE COVER PER SECTION 20.6.1.3 OF ACI 318-14 SHALL BE FOLLOWED WHENEVER APPLICABLE.
  - ATTACHMENT TO MASONRY IS OUTSIDE THE SCOPE OF THIS APPROVAL.

**STRUCTURAL OBSERVATION**

- STRUCTURAL OBSERVATION MAY BE REQUIRED FOR THE STRUCTURAL SYSTEM. STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION AT THE CONSTRUCTION SITE OF THE ELEMENTS AND CONNECTIONS OF THE STRUCTURAL SYSTEM AT SIGNIFICANT CONSTRUCTION STAGES, AND THE COMPLETE STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS. STRUCTURAL OBSERVATION DOES NOT WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED OF THE BUILDING INSPECTOR OR THE DEPUTY INSPECTOR.
- THE OWNER SHALL EMPLOY A STATE REGISTERED (AS REQUIRED) CIVIL OR STRUCTURAL ENGINEER OR LICENSED ARCHITECT TO PERFORM THE STRUCTURAL OBSERVATION. LOCAL PLANNING DEPT MAY REQUIRE THE USE OF THE ENGINEER OR ARCHITECT, OR HIS/HER DESIGNEE RESPONSIBLE FOR THE STRUCTURAL DESIGN WHO ARE INDEPENDENT OF THE CONTRACTOR.
- THE STRUCTURAL OBSERVER SHALL PROVIDE EVIDENCE OF EMPLOYMENT BY THE OWNER OR THE OWNER'S REPRESENTATIVE. A LETTER FROM THE OWNER, THE OWNER'S REPRESENTATIVE, OR A COPY OF THE AGREEMENT FOR SERVICES SHALL BE SENT TO THE BUILDING INSPECTOR BEFORE THE FIRST SITE VISIT.
- THE OWNER OR OWNER'S REPRESENTATIVE SHALL COORDINATE AND CALL FOR A MEETING BETWEEN THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN, STRUCTURAL OBSERVER, CONTRACTOR, AFFECTED SUBCONTRACTORS AND DEPUTY INSPECTORS. THE PURPOSE OF THE MEETING SHALL BE TO IDENTIFY THE MAJOR STRUCTURAL ELEMENTS AND CONNECTIONS THAT AFFECT THE VERTICAL AND LATERAL LOAD SYSTEMS OF THE STRUCTURE AND TO REVIEW SCHEDULING OF THE REQUIRED OBSERVATIONS. A RECORD OF THE MEETING SHALL BE INCLUDED IN THE FIRST OBSERVATION REPORT SUBMITTED TO THE BUILDING INSPECTOR.
- THE STRUCTURAL OBSERVER SHALL PERFORM SITE VISITS AT THOSE STEPS IN THE PROGRESS OF THE WORK THAT ALLOW FOR CORRECTION OF DEFICIENCIES WITHOUT SUBSTANTIAL EFFORT OR UNCOVERING OF THE WORK INVOLVED. AT A MINIMUM, THE LISTED SIGNIFICANT CONSTRUCTION STAGES ON EITHER THE "STRUCTURAL OBSERVATION/SIGNIFICANT CONSTRUCTION STAGES" FORM OR THE "STRUCTURAL OBSERVATION PROGRAM AND DESIGNATION OF THE STRUCTURAL OBSERVER" FORM I NIFORM.08 (PART 2) REQUIRE A SITE VISIT AND AN OBSERVATION REPORT FROM THE STRUCTURAL OBSERVER.
- THE STRUCTURAL OBSERVER SHALL PREPARE A REPORT OF THE "STRUCTURAL OBSERVATION REPORT FORM" I NIFORM.08 (PART 1) FOR EACH SIGNIFICANT STAGE OF CONSTRUCTION OBSERVED. THE ORIGINAL OF THE STRUCTURAL OBSERVATION REPORT SHALL BE SENT TO THE BUILDING INSPECTOR'S OFFICE AND SHALL BE SIGNED AND SEALED (WET STAMP) BY THE RESPONSIBLE STRUCTURAL OBSERVER. ONE COPY OF THE OBSERVATION REPORT SHALL BE ATTACHED TO THE APPROVED PLANS. THE COPY ATTACHED TO THE PLANS SHALL BE SIGNED AND SEALED (WET STAMP) BY THE RESPONSIBLE STRUCTURAL OBSERVER OR THEIR DESIGNEE. COPIES OF THE REPORT SHALL ALSO BE GIVEN TO THE OWNER, CONTRACTOR, AND DEPUTY INSPECTOR. ANY DEFICIENCY NOTED ON THE OBSERVATION REPORT WILL BECOME THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER OR ARCHITECT OF RECORD TO VERIFY ITS COMPLETION BY THE STRUCTURAL OBSERVER.
- A FINAL OBSERVATION REPORT MUST BE SUBMITTED WHICH SHOWS THAT ALL OBSERVED DEFICIENCIES WERE RESOLVED AND STRUCTURAL SYSTEM GENERALLY CONFORMS WITH THE APPROVED PLANS AND SPECIFICATIONS. THE LOCAL PLANNING DEPT. MAY NOT ACCEPT THE STRUCTURAL WORK WITHOUT THE FINAL OBSERVATION REPORT AND THE CORRECTION OF SPECIFIC DEFICIENCIES NOTED DURING NORMAL BUILDING INSPECTION.
- THE STRUCTURAL OBSERVER SHALL PROVIDE THE ORIGINAL STAMPED AND SIGNED "STRUCTURAL OBSERVATION REPORT FORM" TO THE LOCAL PLANNING DEPARTMENT AND SAFETY BUILDING INSPECTOR.
- WHEN THERE IS A NEED TO REPLACE THE STRUCTURAL OBSERVER OF RECORD, THE OWNER SHALL:
  - NOTIFY THE BUILDING INSPECTOR IN WRITING BEFORE THE NEXT INSPECTION BY SUBMITTING COMPLETED "STRUCTURAL OBSERVATION PROGRAM AND DESIGNATION OF THE STRUCTURAL OBSERVER" FORM.
  - CALL AN ADDITIONAL PRE-CONSTRUCTION MEETING, AND
  - FURNISH THE REPLACEMENT STRUCTURAL OBSERVER WITH A COPY OF ALL PREVIOUS OBSERVATION REPORTS.
  - THE NEW STRUCTURAL OBSERVER MUST BE DESIGNATED BY THE ENGINEER OR ARCHITECT OF RECORD.
 THE REPLACEMENT STRUCTURAL OBSERVER SHALL APPROVE THE CORRECTION OF THE ORIGINAL OBSERVED DEFICIENCIES UNLESS OTHERWISE APPROVED BY PLAN CHECK SUPERVISION. THE POLICY OF THE DEPARTMENT SHALL BE TO CORRECT ANY PROPERLY NOTED DEFICIENCIES WITHOUT CONSIDERATION OF THEIR SOURCE.
- THE ENGINEER OR ARCHITECT OF RECORD SHALL DEVELOP ALL CHANGES RELATING TO THE STRUCTURAL SYSTEMS. THE BUILDING DEPARTMENT SHALL REVIEW AND APPROVE ALL CHANGES TO THE APPROVED PLANS AND SPECIFICATIONS.

STRUCTURAL OBSERVATION IS REQUIRED PER IBC SECTION 1704.6.1 FOR SEISMIC RESISTANCE.

IN THE DIRECTION PERPENDICULAR TO THE BUILDING RIDGE THE LATERAL FORCE RESISTING SYSTEM IS THE 3 PIN ARCHES. IN THE DIRECTION PARALLEL TO THE RIDGE THE LATERAL FORCE RESISTING SYSTEM IS THE HORIZONTAL SPREADERS AND THE THREE BAYS OF 5X6 ARCH, 5X6 COLUMNS AND 5/8" DIAMETER STEEL CROSS BRACING.

**SPECIAL INSPECTION**

SEE FOUNDATION ENGINEER'S DRAWINGS FOR ADDITIONAL SPECIAL INSPECTION REQUIREMENTS NOT STATED HERE.

THIS BUILDING INCORPORATES STRUCTURAL BOLTS AND POST-INSTALLED ANCHORS WHICH MAY REQUIRE SPECIAL INSPECTION UNDER THE BUILDING CODE. PER THE BUILDING CODE, SPECIAL INSPECTION IF REQUIRED, IS THE RESPONSIBILITY OF THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE OWNERS AGENT.

STATEMENT OF SPECIAL INSPECTION  
HIGH STRENGTH BOLTING TO A SNUG TIGHT CONDITION: PERIODIC

INSTALLATION OF ADHESIVE ANCHORS: PERIODIC SPECIAL INSPECTION IS REQUIRED AND SHALL CONFORM TO THE REQUIREMENTS OF ESR-3187, SECTION 4.4.

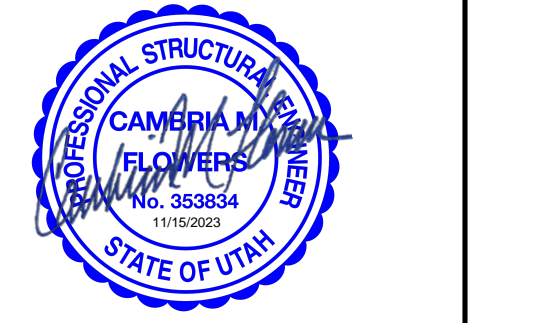
WELDED STEEL CONNECTIONS: SPECIAL INSPECTION IS NOT REQUIRED SINCE THESE CONNECTIONS SHALL BE FABRICATED IN A CERTIFIED FABRICATION SHOP.

**DRAWING INDEX**

SHEET #	DRAWING #	DESCRIPTION
1	TITLE	
2	R23-1351.0	FLOOR PLANS & ELEVATIONS
3	R23-1351.1	EARTH ANCHOR LAYOUT
4	S-1	SECTION & BASE DETAILS
5	S-2	PURLIN & SPLICE DETAILS
6	S-3	CABLE BRACE & MEMBRANE DETAILS
7	S-4	FLAT END DETAILS
8		
9		
10		



TOLL FREE: 1-800-528-9899  
(403) 601-2292 www.sprung.com



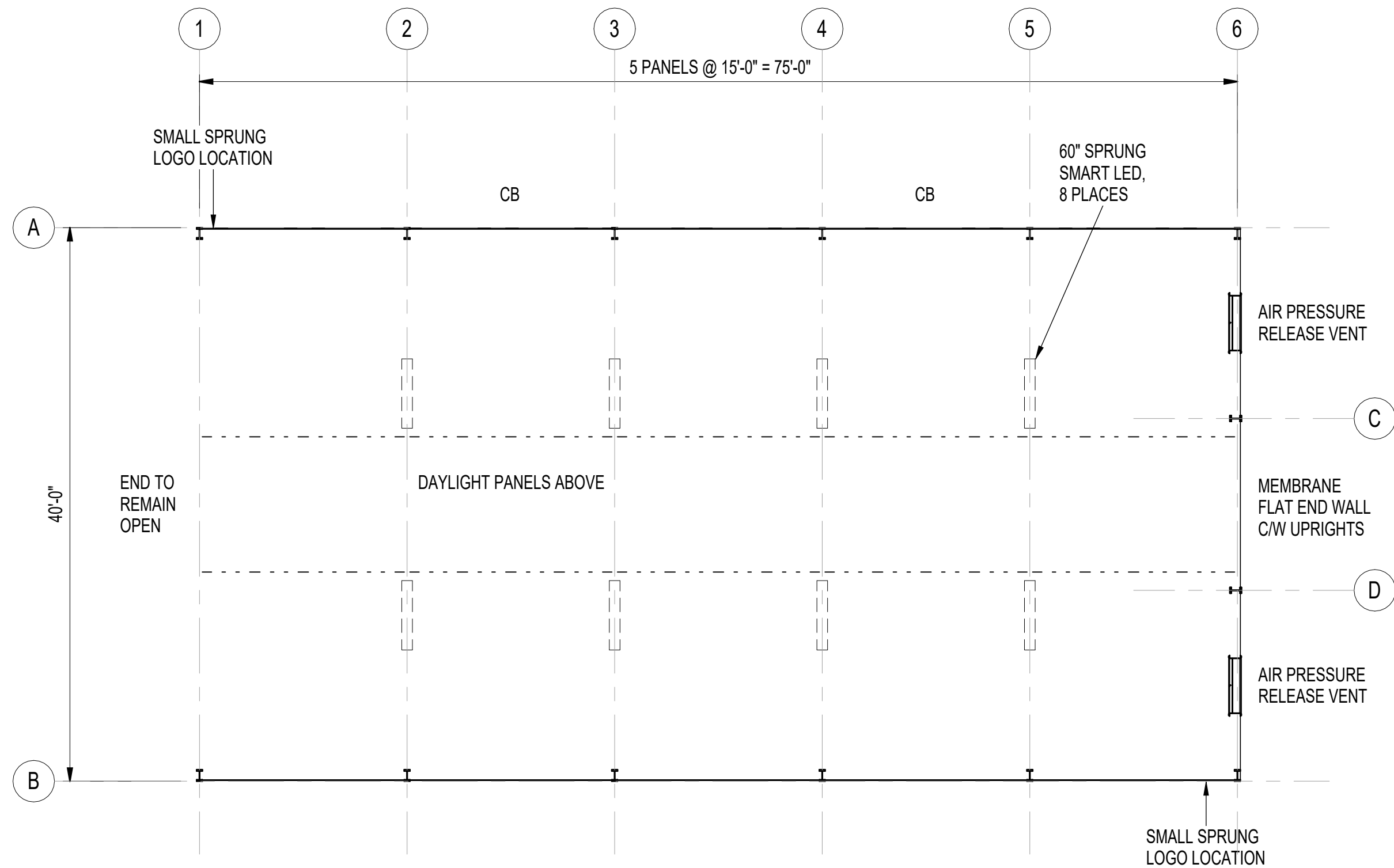
**PINSHON PROPERTIES**  
**LLC**  
**40'-0" x 75'-0"**  
**WAREHOUSE**  
**OGDEN, UTAH, UNITED STATES**

REV	MMDDYY	BY	DESCRIPTION
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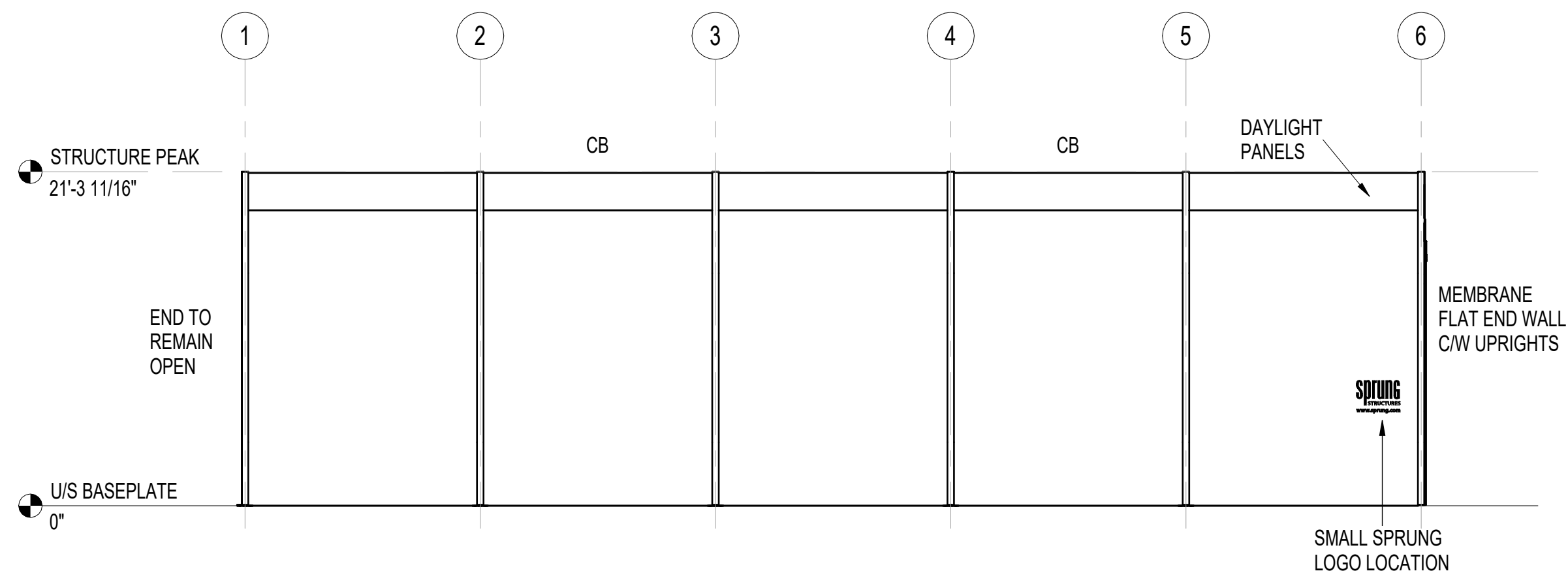
**TITLE SHEET**  
DATE: 11/08/2023 DRAWN BY:  
**TITLE**  
**SIGNATURE SERIES** SPRUNG WO# 27004

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CB = CABLE BRACING

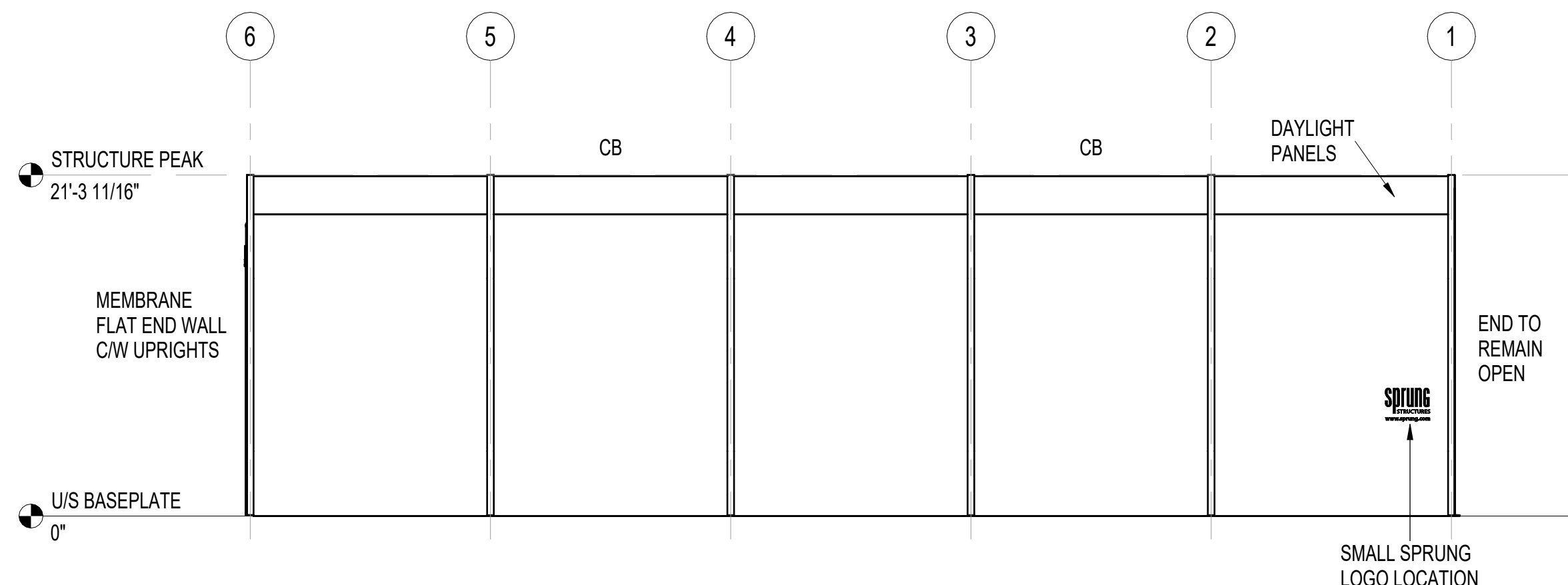


1 OPEN PLAN VIEW  
1351.0 1/8" = 1'-0"

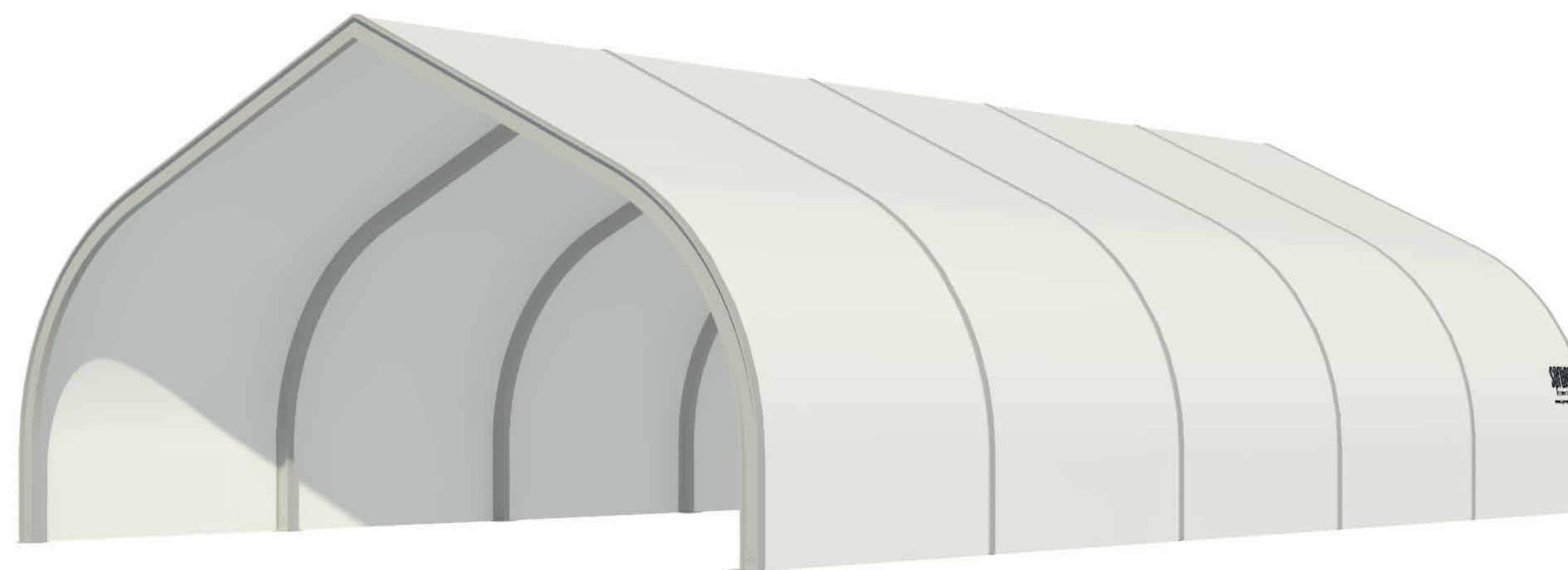


2 FRONT ELEVATION  
1351.0 1/8" = 1'-0"

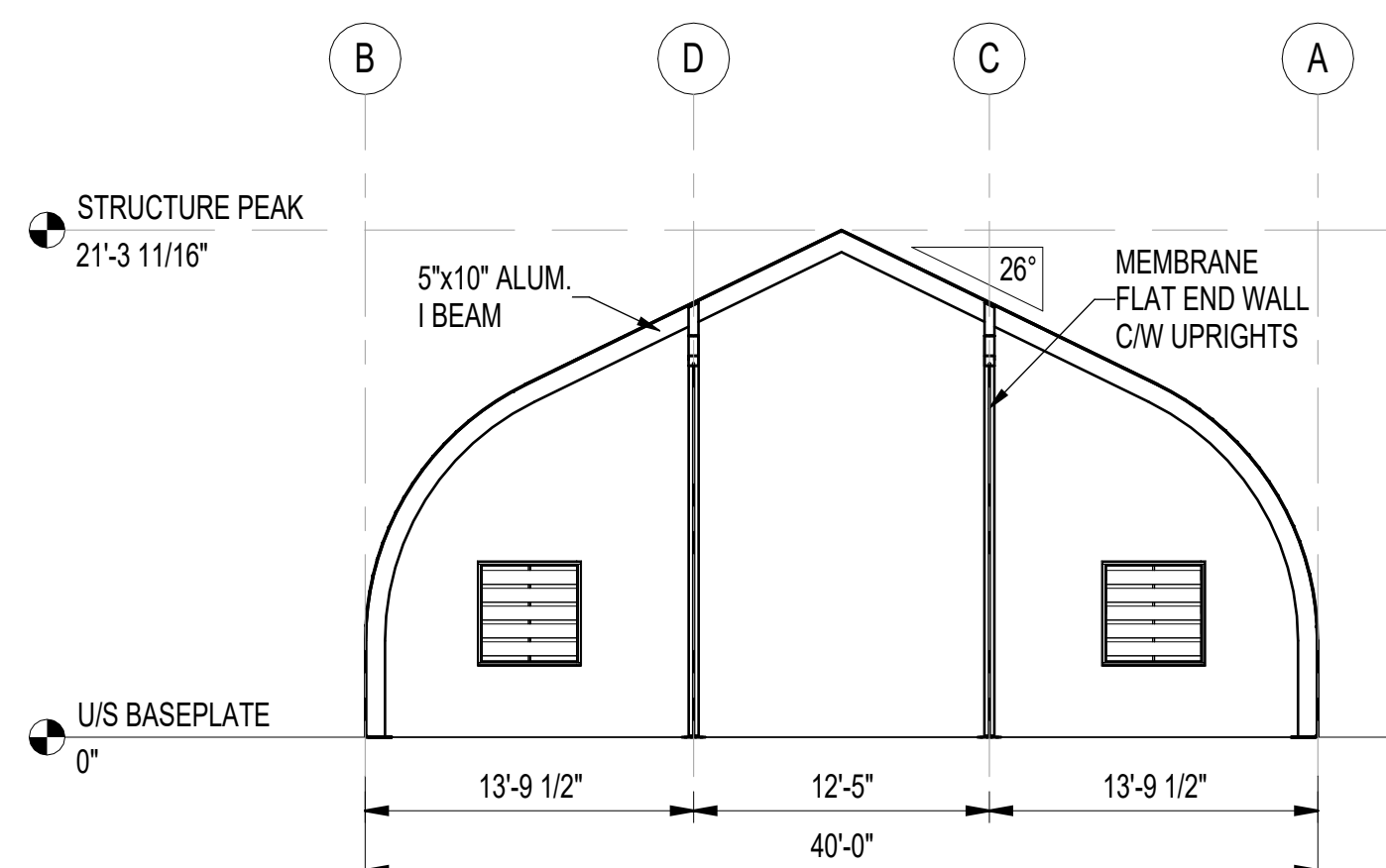
COLORS ON THESE ELEVATIONS MAY VARY SIGNIFICANTLY DEPENDING ON PRINTER OR MONITOR. PLEASE REFER TO MEMBRANE SAMPLES FOR ACTUAL COLORS.



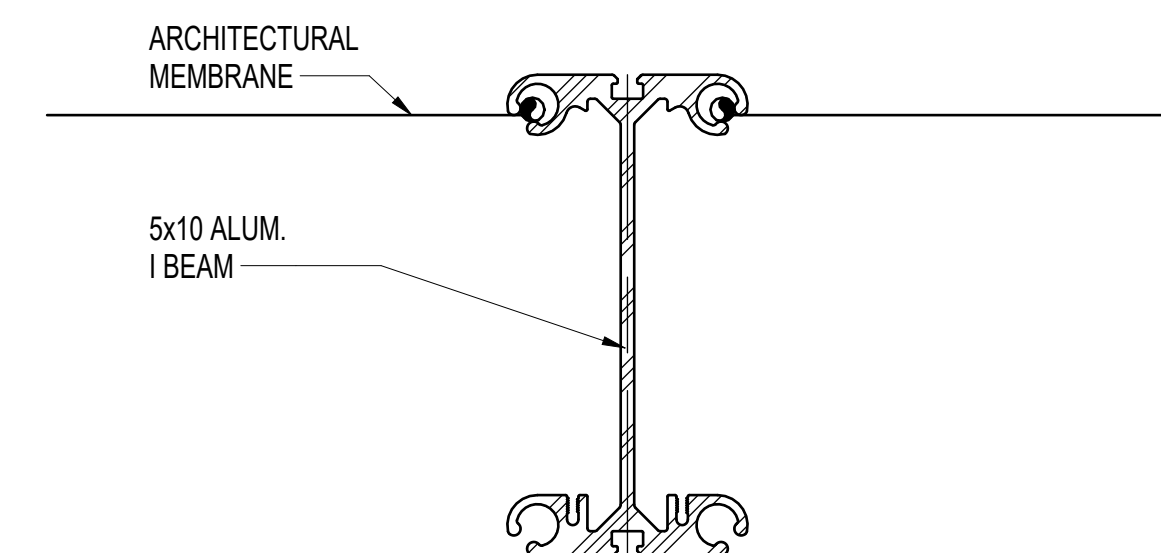
3 REAR ELEVATION  
1351.0 1/8" = 1'-0"



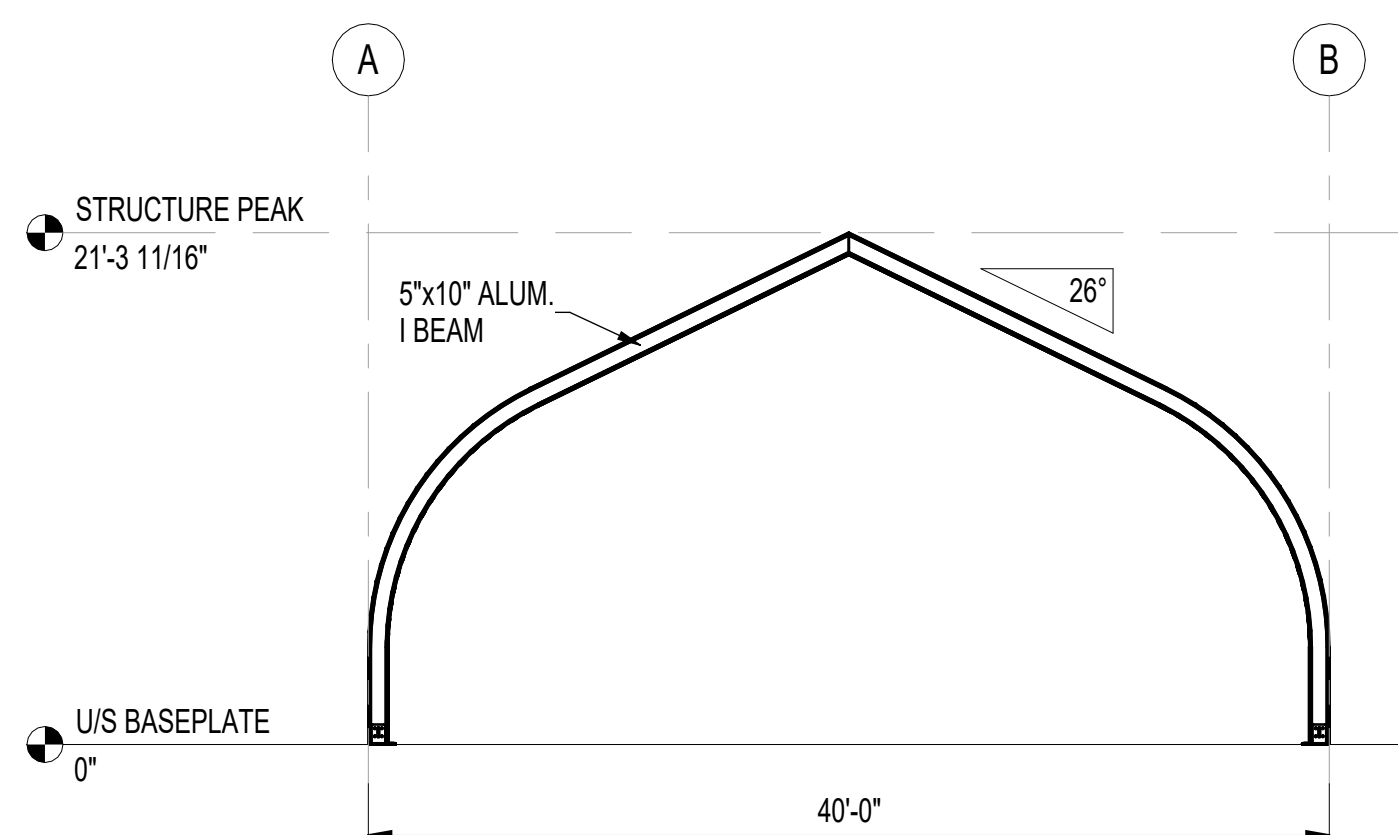
4 EXTERIOR VIEW  
1351.0



5 RIGHT ELEVATION  
1351.0 1/8" = 1'-0"



7 5x10 NON-INSULATED BEAM SECTION  
1351.0 3" = 1'-0"



6 LEFT ELEVATION  
1351.0 1/8" = 1'-0"

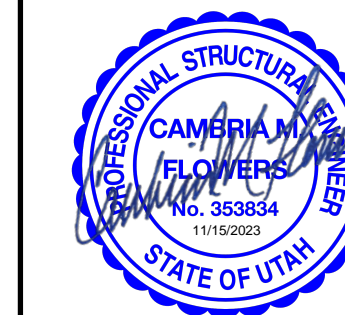
ACCESSORIES				
CATEGORY	TYPE	SIZE	COMMENT	COUNT
LIGHTING	SPRUNG SMART LED		60"	8
VENTILATION	APRV			2

REFER TO TITLE SHEET FOR SPECIAL INSPECTION & ADDITIONAL MATERIAL NOTES.



TOLL FREE: 1-800-528-9899  
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- GENERAL NOTES:**
- STRUCTURE MEMBRANE MEETS: NFPA 701, CALIFORNIA STATE FIRE MARSHAL, ASTM E84, CANULC-S-109 & CANULC-S-102 SPECIFICATIONS.
  - THIS STRUCTURE IS DESIGNED TO SHED/RELEASE SNOW. THE PERIMETER OF THE STRUCTURE SHALL BE KEPT CLEAR.
  - WHEN DESIGNING A HEATING, VENTILATION OR AIR CONDITIONING SYSTEM FOR ANY TYPE OF BUILDING, IT IS IMPORTANT TO ENSURE THAT THIS SYSTEM INTAKES MORE AIR THAN IS BEING EXHAUSTED AT ANY GIVEN TIME. THIS PROCESS WILL RESULT IN A POSITIVE PRESSURE BEING MAINTAINED. CONVERSELY, IF NEGATIVE PRESSURE EXISTS WITHIN THE STRUCTURE, IT WILL BE DIFFICULT TO OPEN DOORS AND MOISTURE WILL BE DRAWN INTO THE STRUCTURE.
  - ALL INTERIOR WALLS & PARTITIONS (IF APPLICABLE) TO BE FREE STANDING & INDEPENDENT OF SPRUNG STRUCTURE.



**canyons**  
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SALT LAKE CITY, UTAH  
PH: (801) 486.6848  
info@canyonsstructural.com  
www.canyonsstructural.com

**DESIGN LOADS**  
LOCATION: OGDEN, UT  
BUILDING CODE: IBC 2021  
WIND SPEED: 115 mph 3 SEC GUST  
RISK CATEGORY: II EXPOSURE: C  
GROUND SNOW LOAD: 43 psf  
(SEE SNOW SHED REPORT)

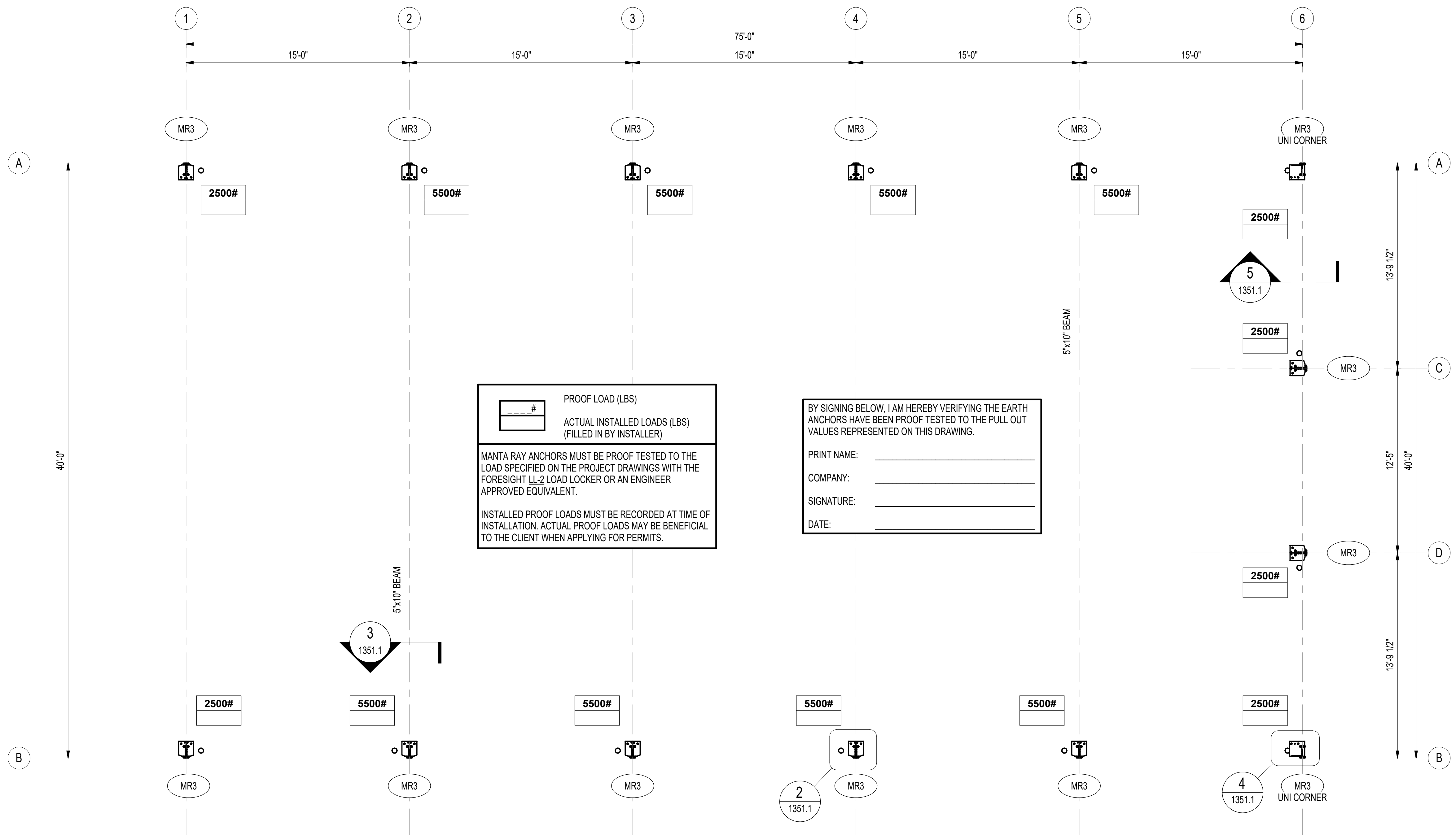
**PINSHON PROPERTIES LLC**  
40' - 0" x 75' - 0"  
WAREHOUSE  
OGDEN, UTAH, UNITED STATES

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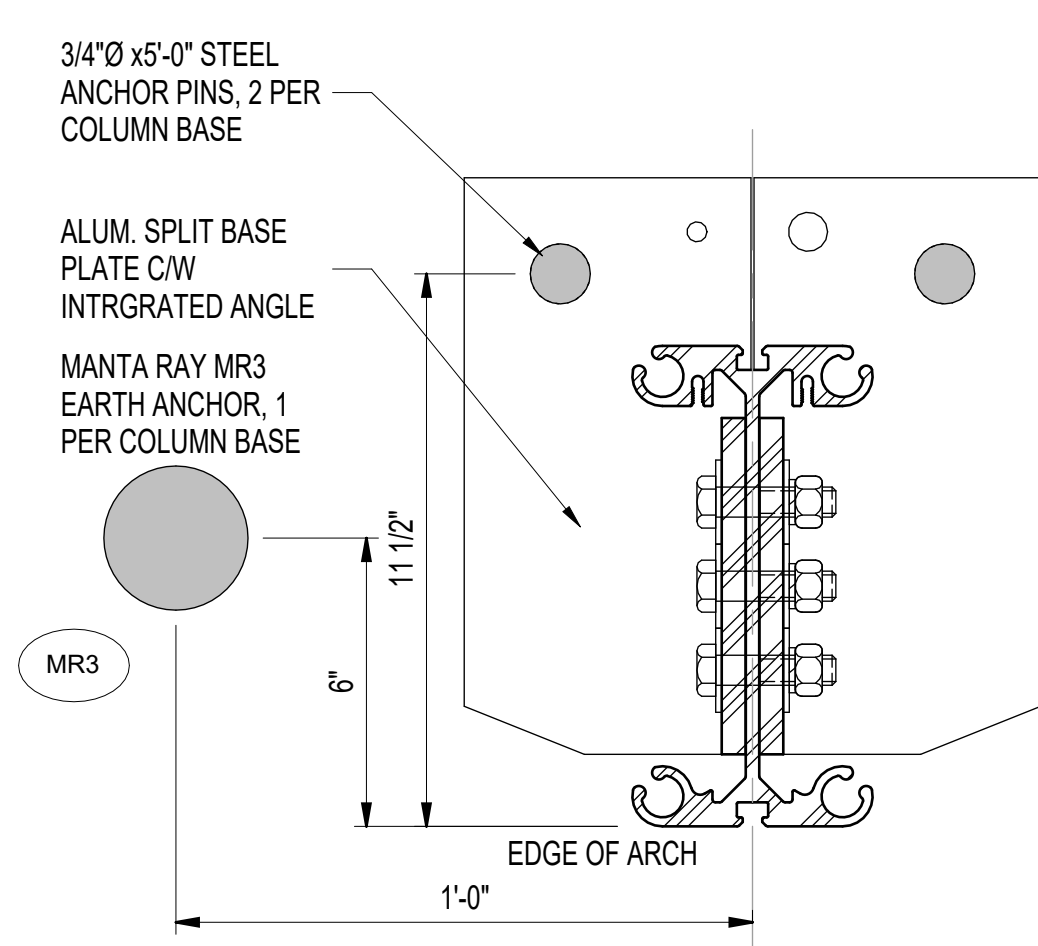
**FLOOR PLAN & ELEVATIONS**  
DATE: 11/01/2023 DRAWN BY: B. PHILOPFF  
R23-1351.0  
SIGNATURE SERIES SPRUNG WO #27004

SIGNATURE SERIES

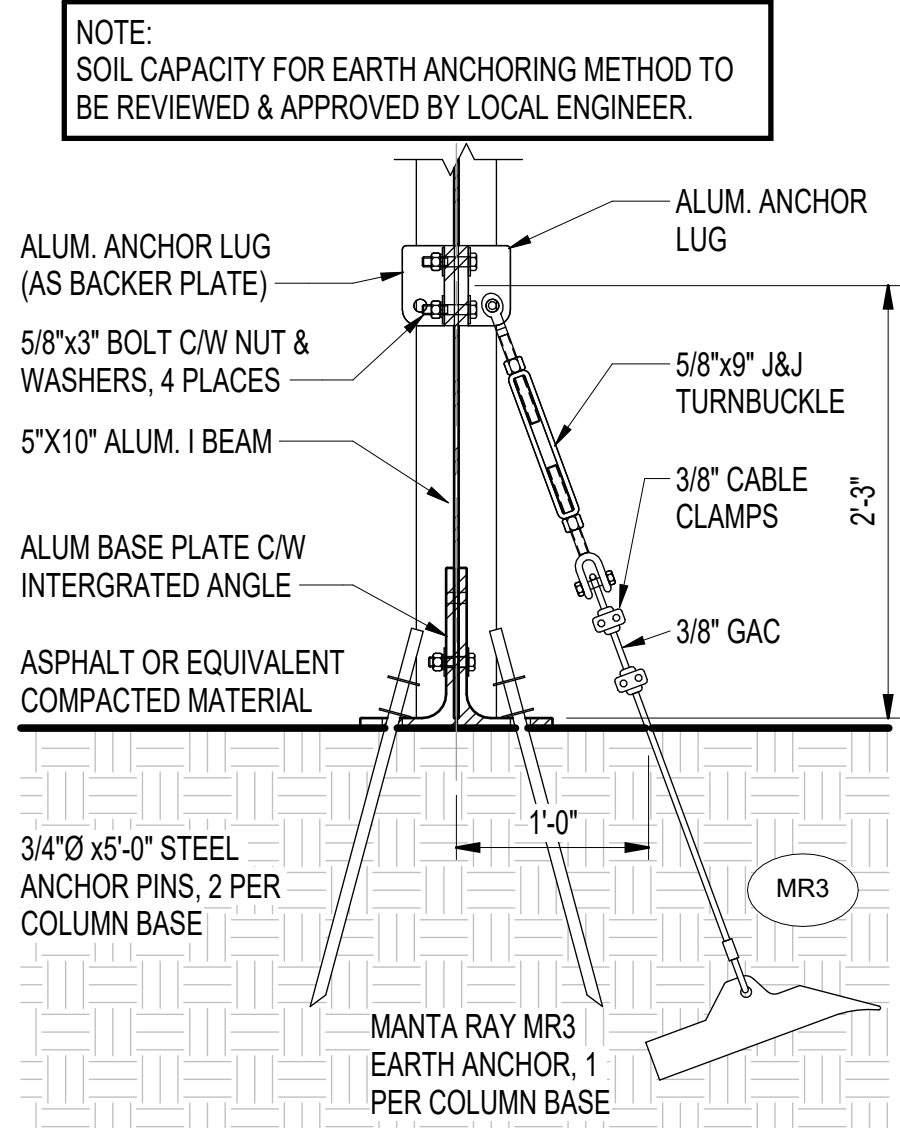
- EARTH ANCHOR GENERAL NOTES:**
1. EARTH ANCHOR TO BE LOCATED PRIOR TO ERECTION.
  2. SOIL CAPACITY AND SUITABILITY FOR EARTH ANCHORS AND SOIL BEARING TO BE REVIEWED AND APPROVED BY A LOCAL GEOTECHNICAL ENGINEER.
  3. ATTACHMENT OF THE EARTH ANCHORS TO THE SPRUNG ARCHES TO BE MAINTAINED IN A TAUT CONDITION THROUGHOUT THE LIFE OF THE STRUCTURE.



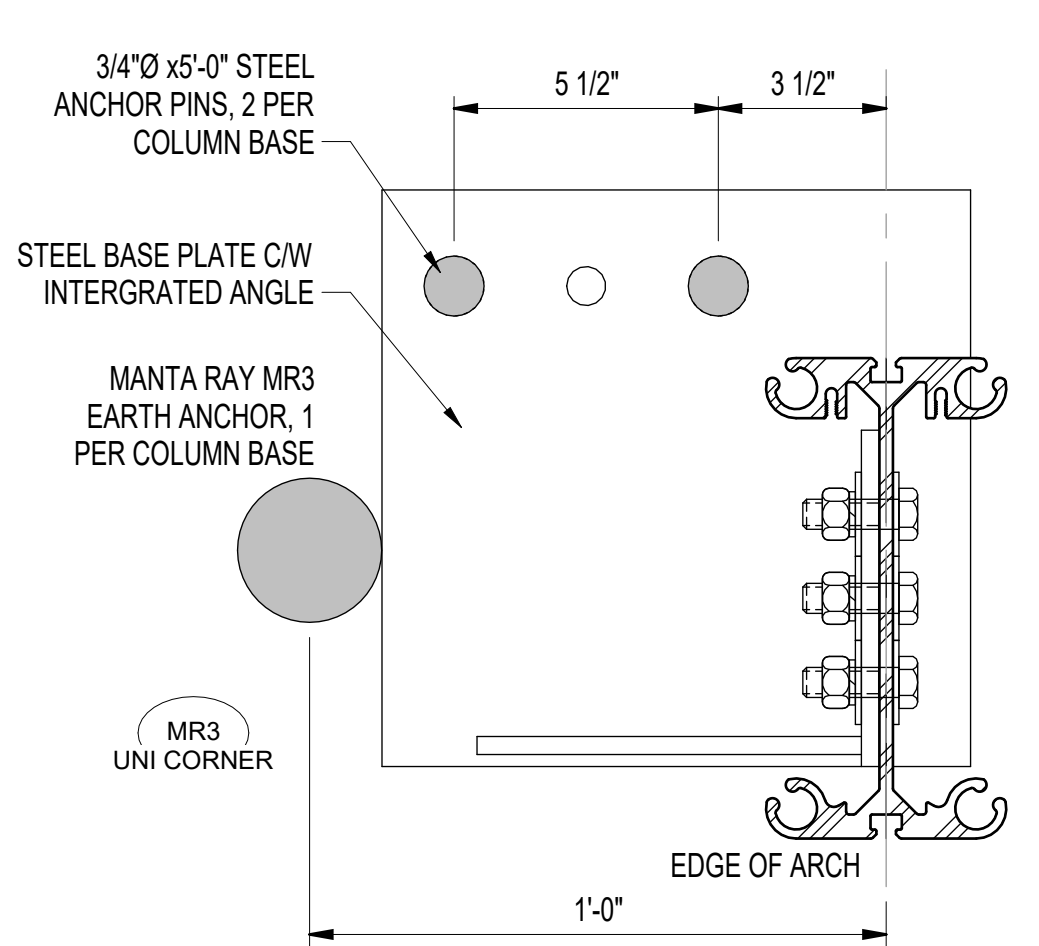
**1 EARTH ANCHOR LAYOUT**  
1351.1 1/4" = 1'-0"



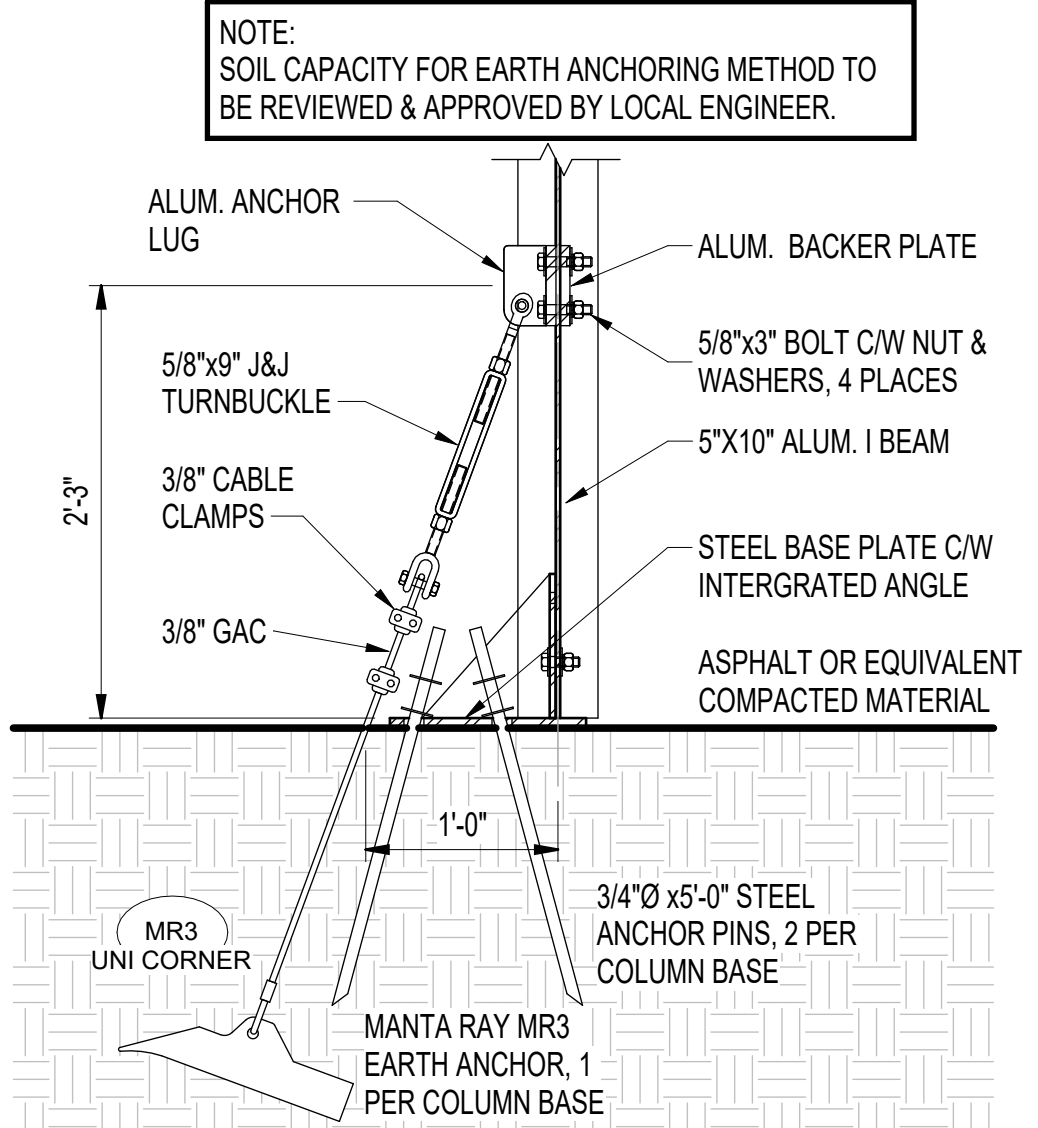
**2 5x10 BASE PLATE EARTH MR3 - PLAN**  
1351.1 3" = 1'-0"



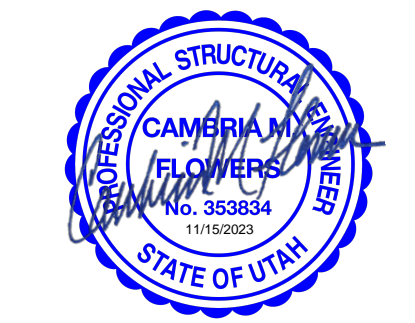
**3 5x10 BASE PLATE EARTH MR3 - SECTION**  
1351.1 1" = 1'-0"



**4 5x10 CORNER BASE PLATE NON-INS MR3 - PLAN**  
1351.1 3" = 1'-0"



**5 5x10 CORNER BASE PLATE EARTH MR3 NON-INS - SECTION**  
1351.1 1" = 1'-0"



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SALT LAKE CITY, UTAH  
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info@canyonsstructural.com  
www.canyonsstructural.com

**PINSHON PROPERTIES**  
LLC  
40' - 0" x 75' - 0"  
WAREHOUSE  
OGDEN, UTAH, UNITED STATES

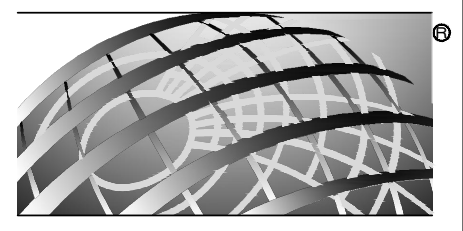
REV.	MMDDYY	BY	DESCRIPTION

**EARTH ANCHOR LAYOUT**

DATE: 11/06/2023 DRAWN BY: P. DUMONT

R23-1351.1

SIGNATURE SERIES SPRUNG WO #27004



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BUILDING MATERIALS:

STRUCTURAL BOLTS:  
ALL STRUCTURAL BOLTS SHALL BE SAE GRADE 5 ZINC-DICHROMATE PLATED, WITH F<sub>u</sub>=113 ksi. BOLTS ARE ASTM A325 COMPLIANT.

ANCHOR BOLTS:  
ANCHOR BOLTS SHALL NOT BE CAST-IN-PLACE. THE DEVELOPMENT OF THE POST-INSTALLED ANCHORS INTO THE CONCRETE FOUNDATION IS THE RESPONSIBILITY OF THE OWNER OR THE OWNER'S REGISTERED FOUNDATION ENGINEER.

ALUMINIUM: 6351-T6 DESIGN AND FABRICATION SHALL BE PER THE ALUMINIUM DESIGN MANUAL.

STEEL: 300W CSA, G40.21, F<sub>y</sub>=44 KSI. ALL STEEL IN CONTACT WITH ALUMINIUM SHALL BE HOT DIP GALVANIZED. DESIGN AND FABRICATION OF STRUCTURAL STEEL SHALL BE IN CONFORMANCE WITH AISC 360-16 & ASTM A572 GRADE 42 COMPLIANT.

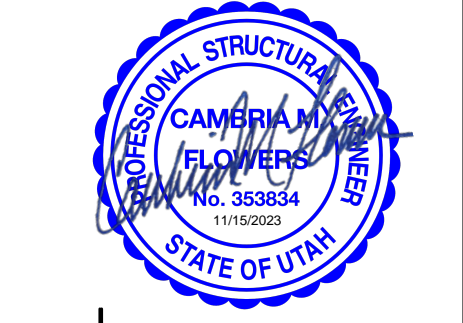
STEEL WIRE ROPE: 6X19 IWRC, 26,800 LBS MINIMUM BREAKING STRENGTH.

SPECIAL INSPECTION:  
THIS BUILDING INCORPORATES STRUCTURAL BOLTS AND POST-INSTALLED ANCHORS WHICH MAY REQUIRE SPECIAL INSPECTION UNDER THE BUILDING CODE. FOR THE BUILDING CODE, SPECIAL INSPECTION, IF REQUIRED, IS THE RESPONSIBILITY OF THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE OWNER'S AGENT.

CONCRETE: 3000psi OR GREATER

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PROJECT: PINSHON PROPERTIES WAREHOUSE, OGDEN, UTAH, UNITED STATES



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**PINSHON PROPERTIES**  
LLC

**WAREHOUSE**  
40'-0" x 75'-0"  
OGDEN, UTAH, UNITED STATES

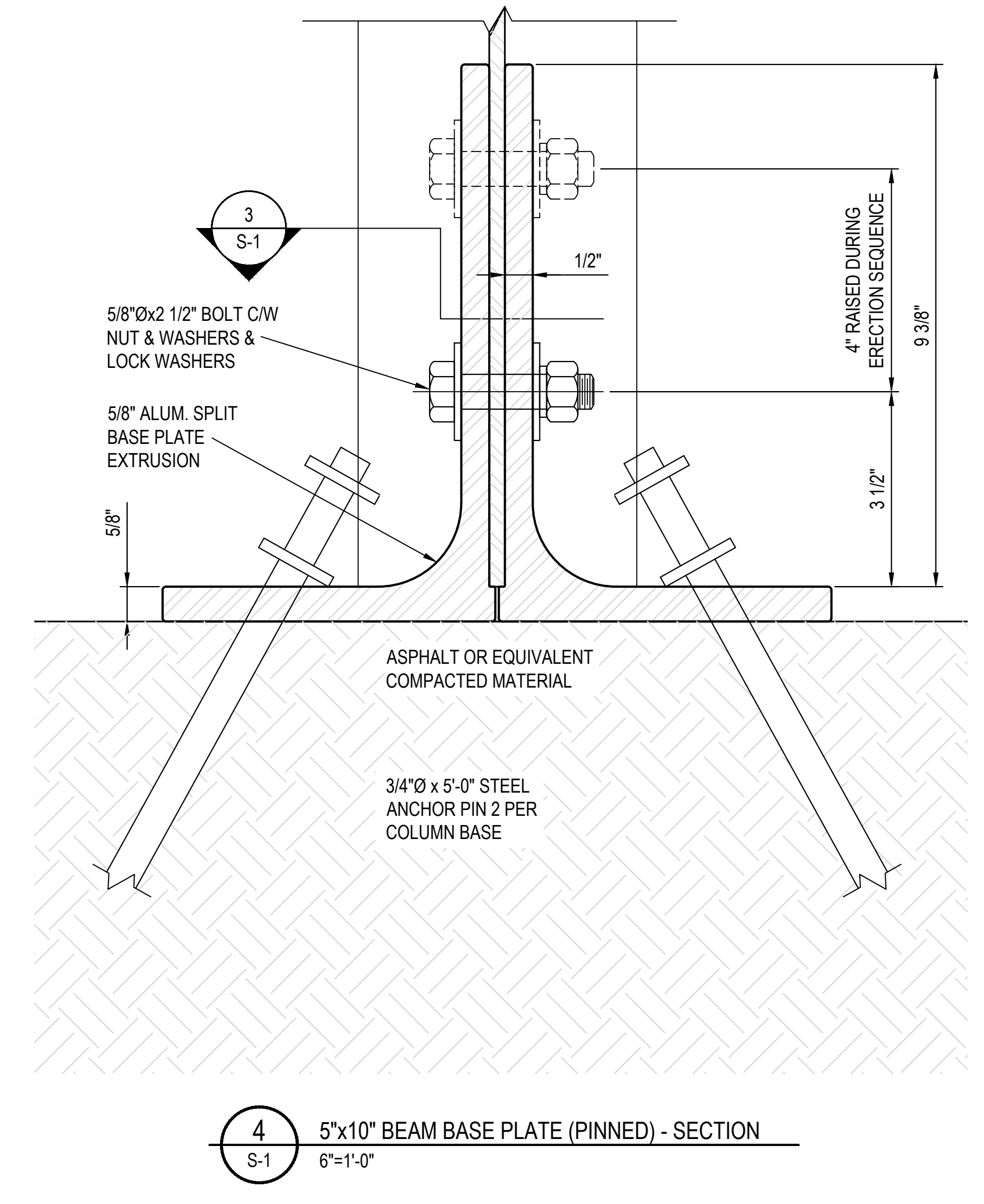
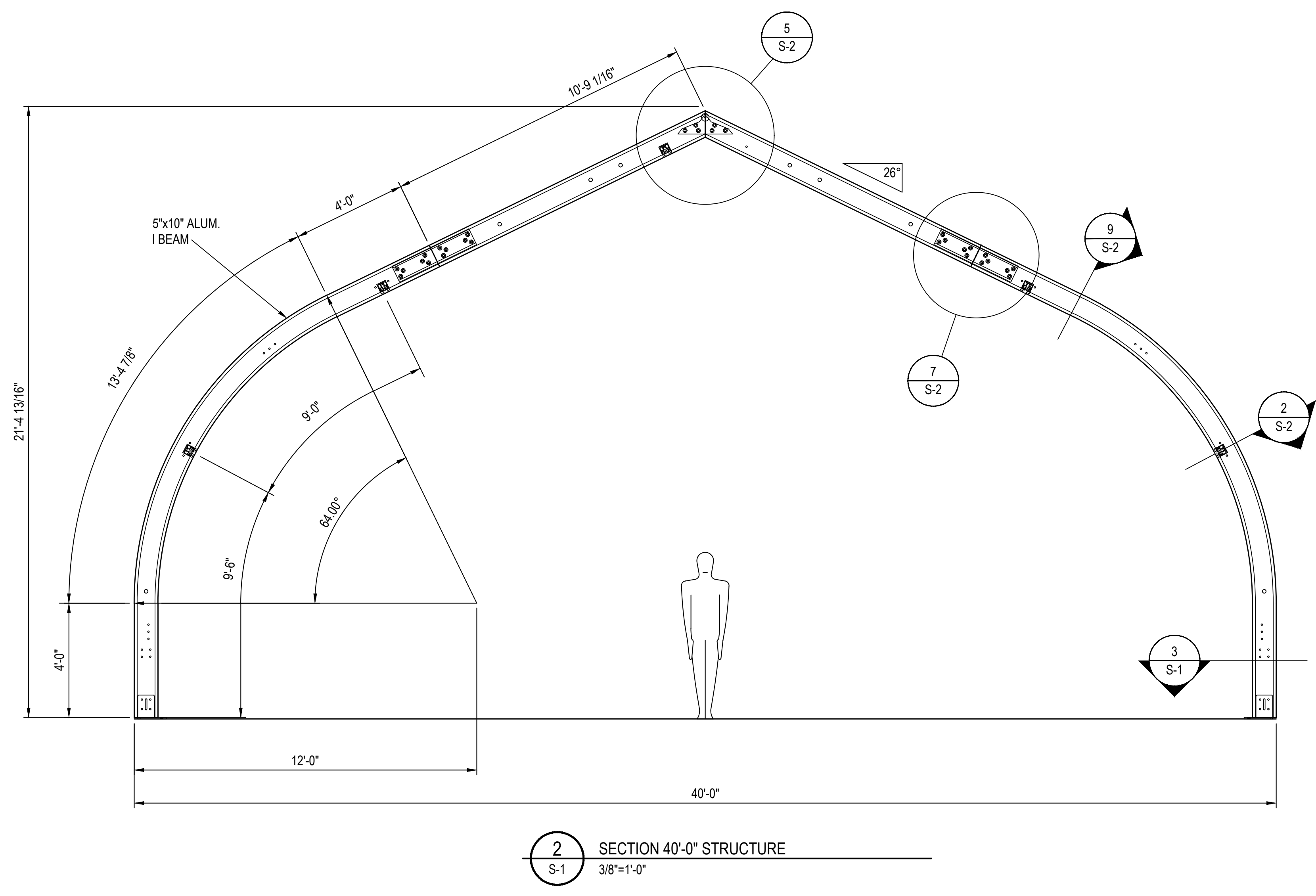
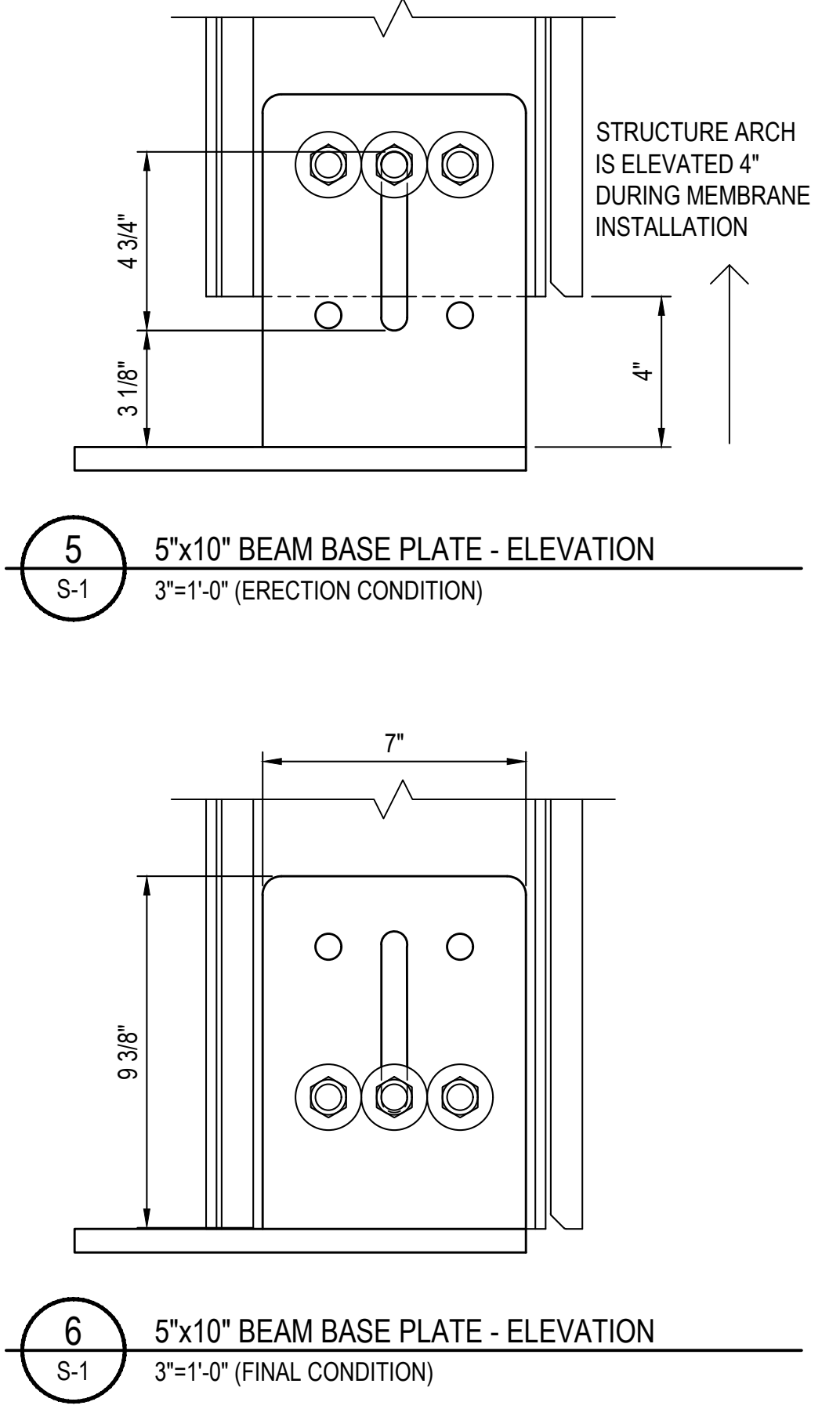
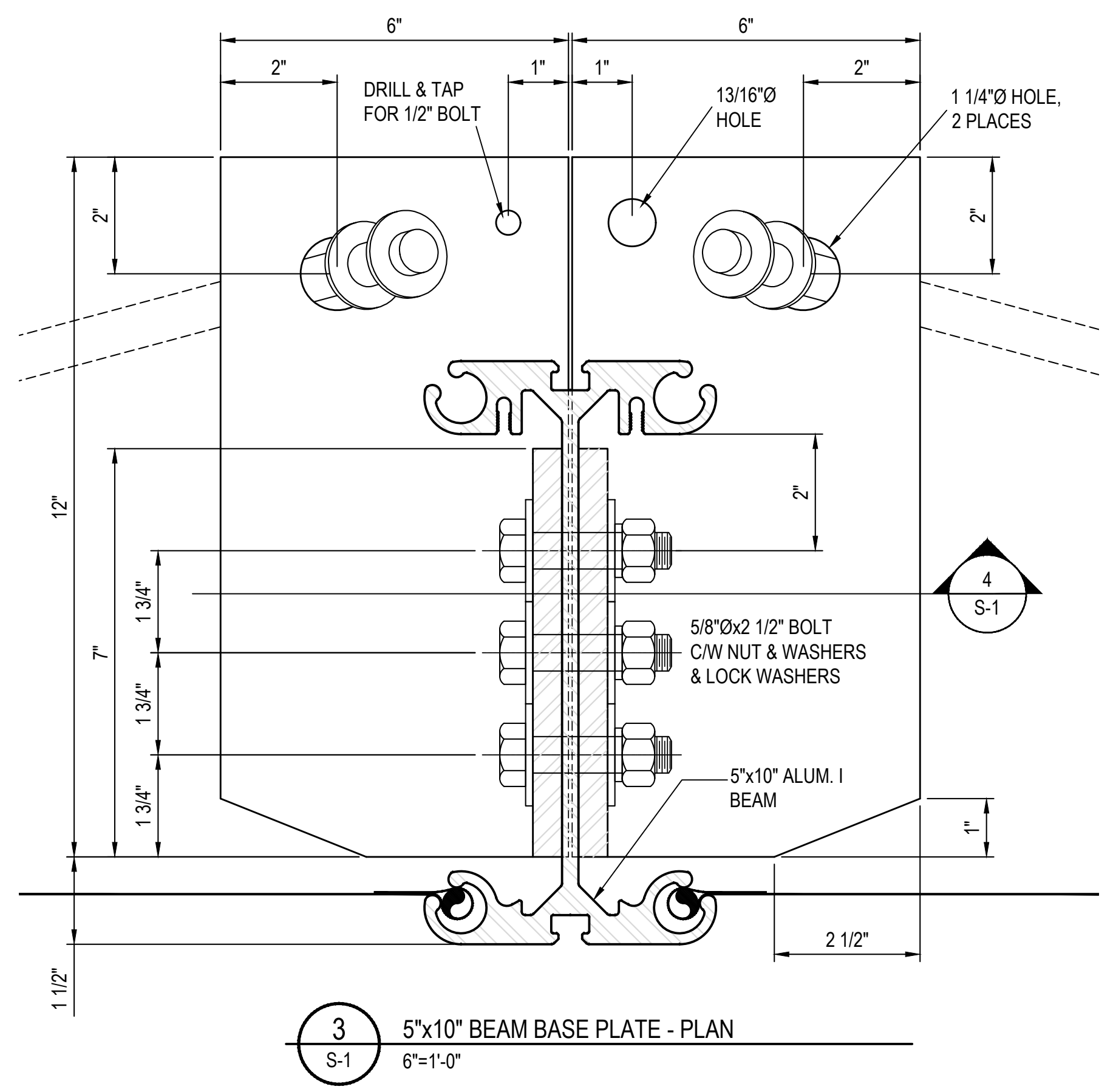
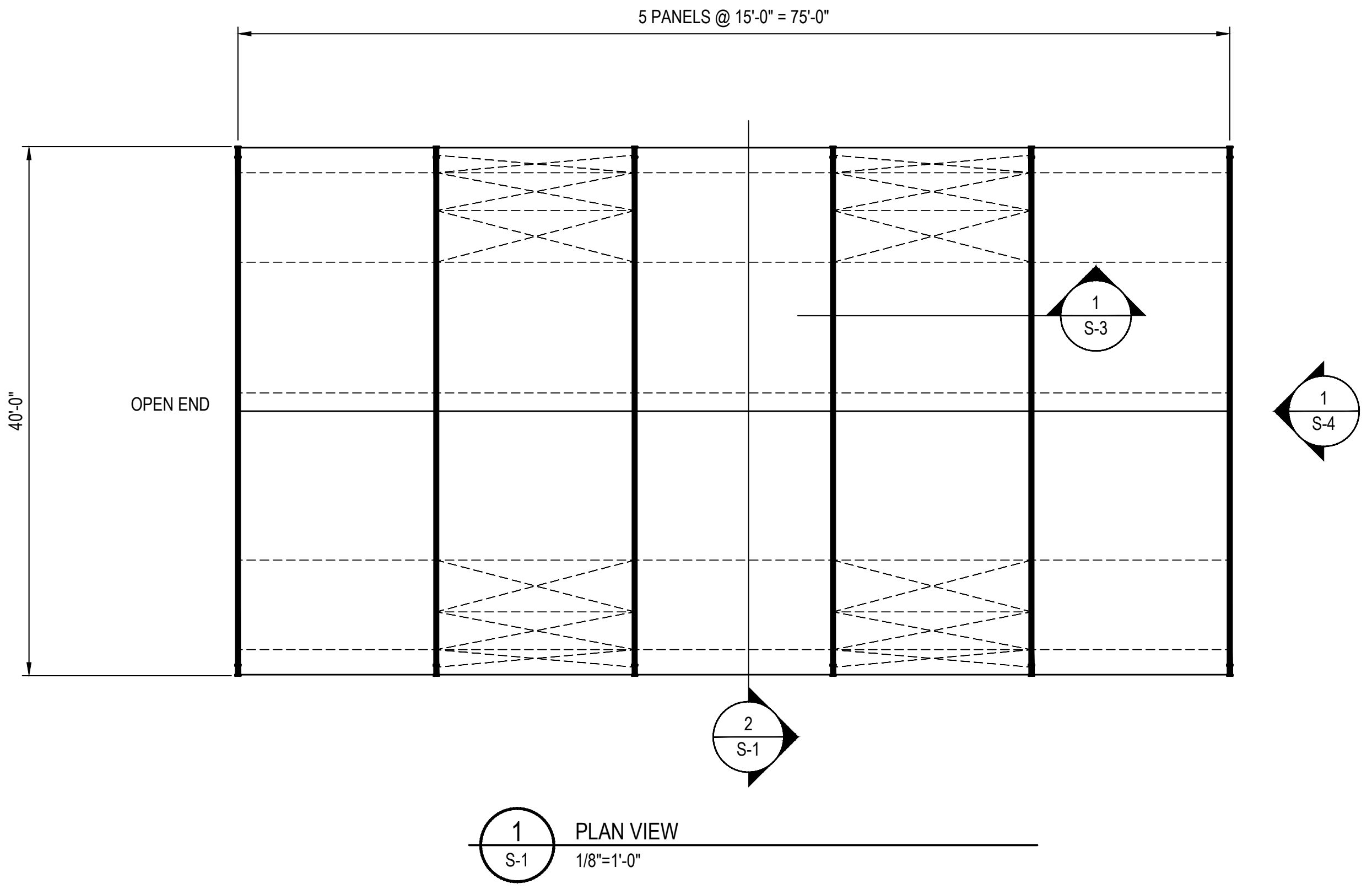
SECTION &  
BASE DETAILS

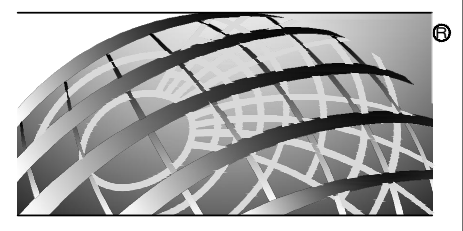
REV	MMDDYY	BY	DESCRIPTION
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DATE: 11/03/2023  
DRAWN BY: E. HAMPTON

S-1

SIGNATURE SERIES  
SPRUNG WO# 27004





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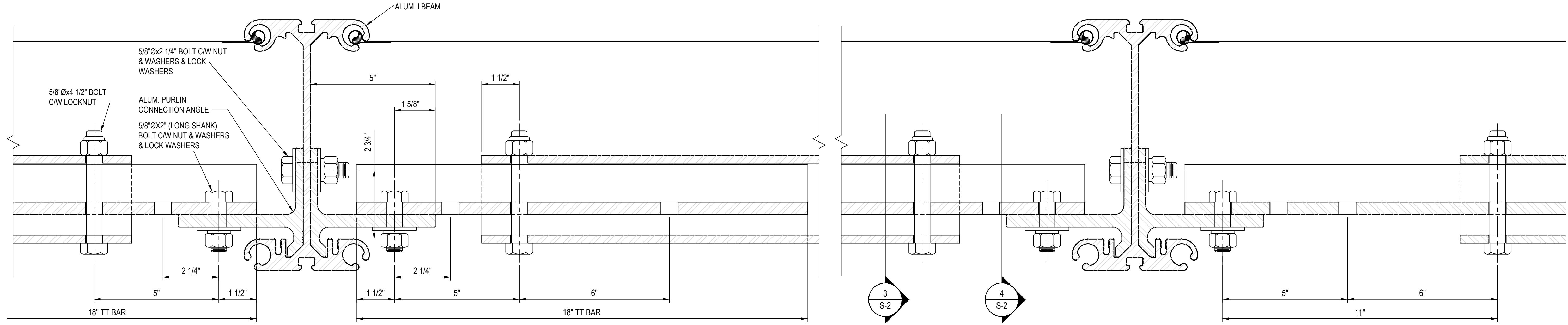
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SALT LAKE CITY, UTAH  
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info@canyonsstructural.com  
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**PINSHON PROPERTIES**  
LLC  
40'-0" x 75'-0"  
WAREHOUSE  
OGDEN, UTAH, UNITED STATES

REV	MMDDYY	BY	DESCRIPTION
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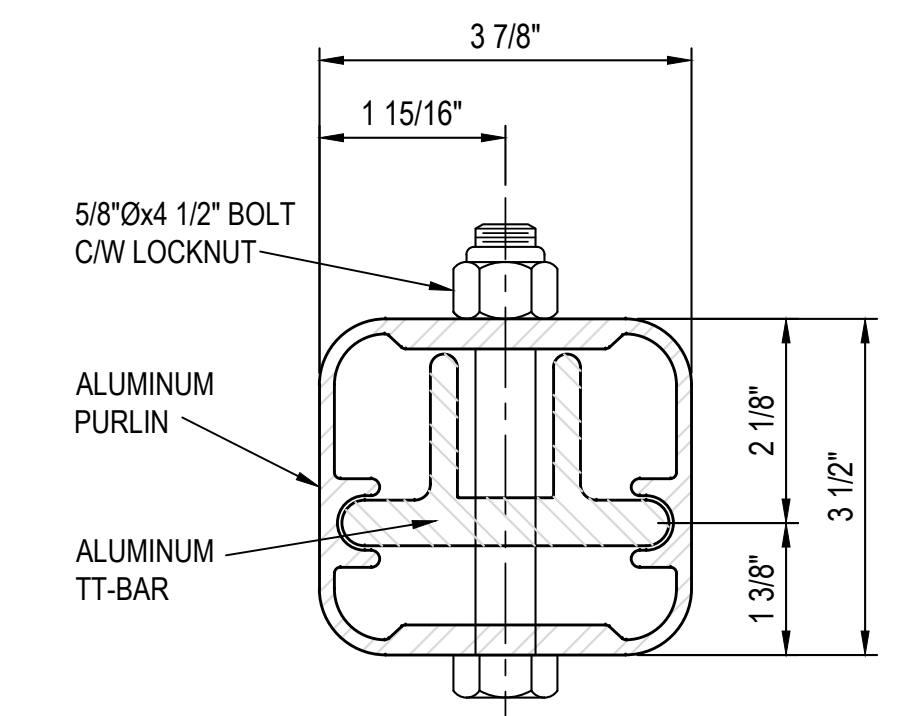
**PURLIN & SPLICE DETAILS**  
DATE: 11/03/2023 DRAWN BY: E. HAMPTON  
S-2

SIGNATURE SERIES SPRUNG WO# 27004

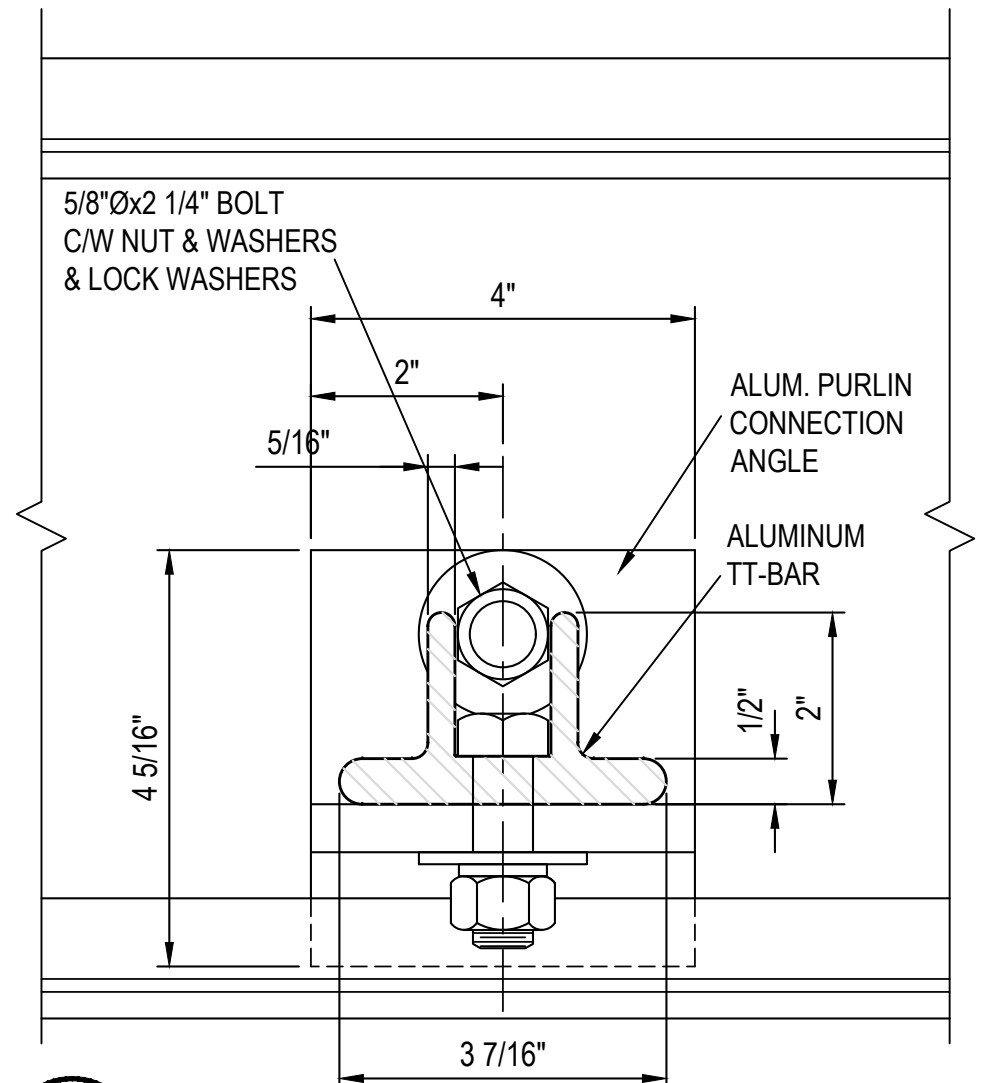


1 5"x10" PURLIN - ELEVATION  
S-2 6"=1'-0" (ERECTION CONDITION)

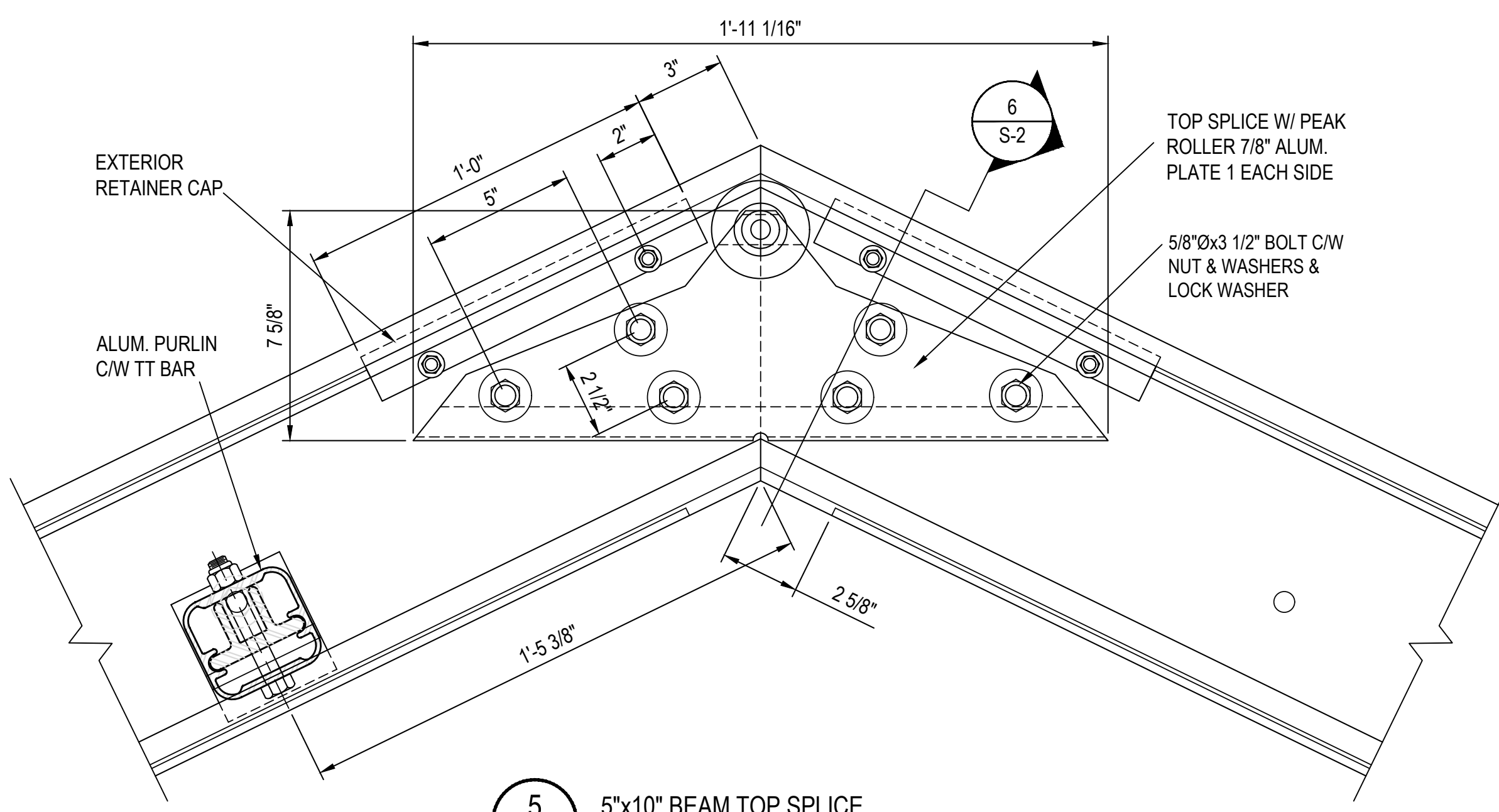
2 5"x10" PURLIN - ELEVATION  
S-2 6"=1'-0" (FINAL CONDITION)



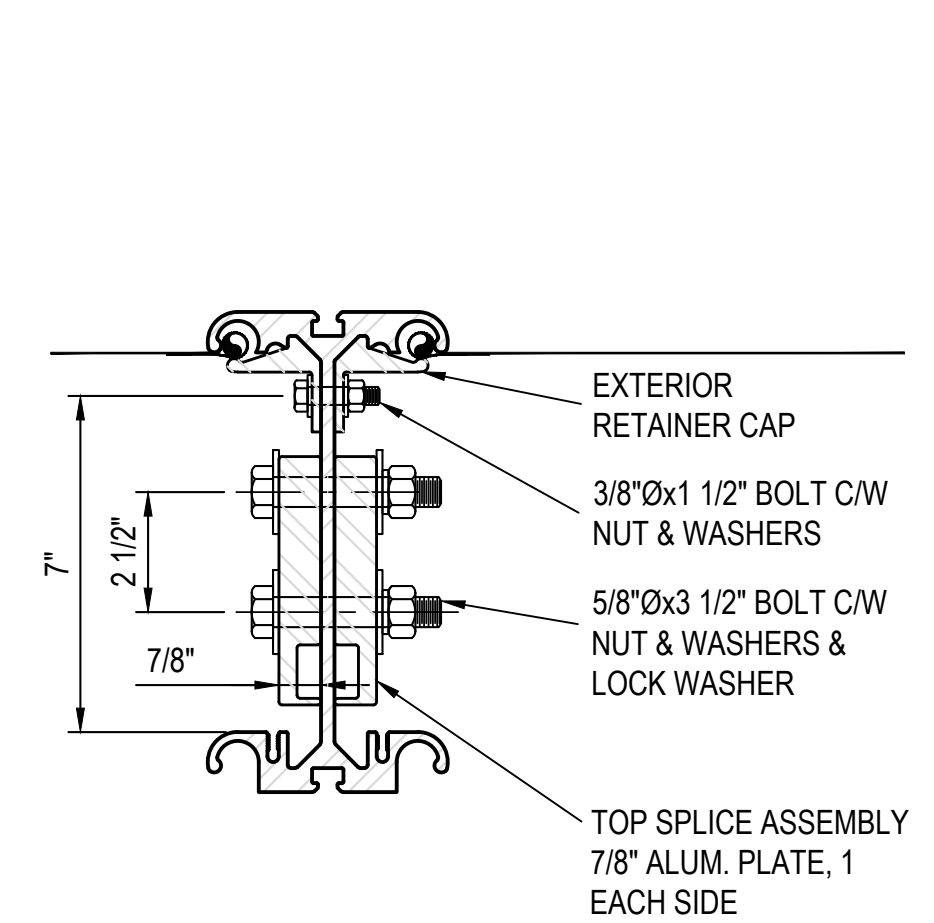
3 5"x10" PURLIN - SECTION  
S-2 6"=1'-0"



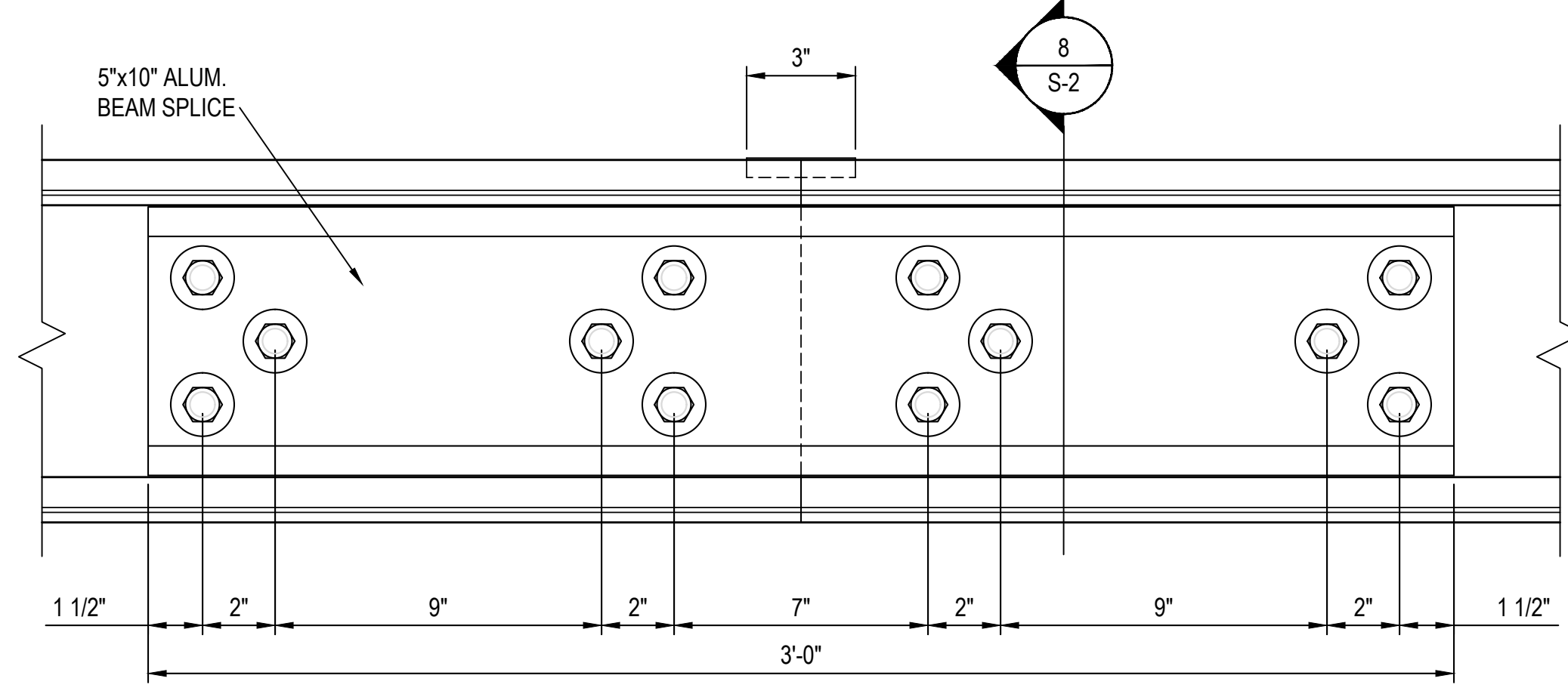
4 5"x10" TT-BAR - SECTION  
S-2 6"=1'-0"



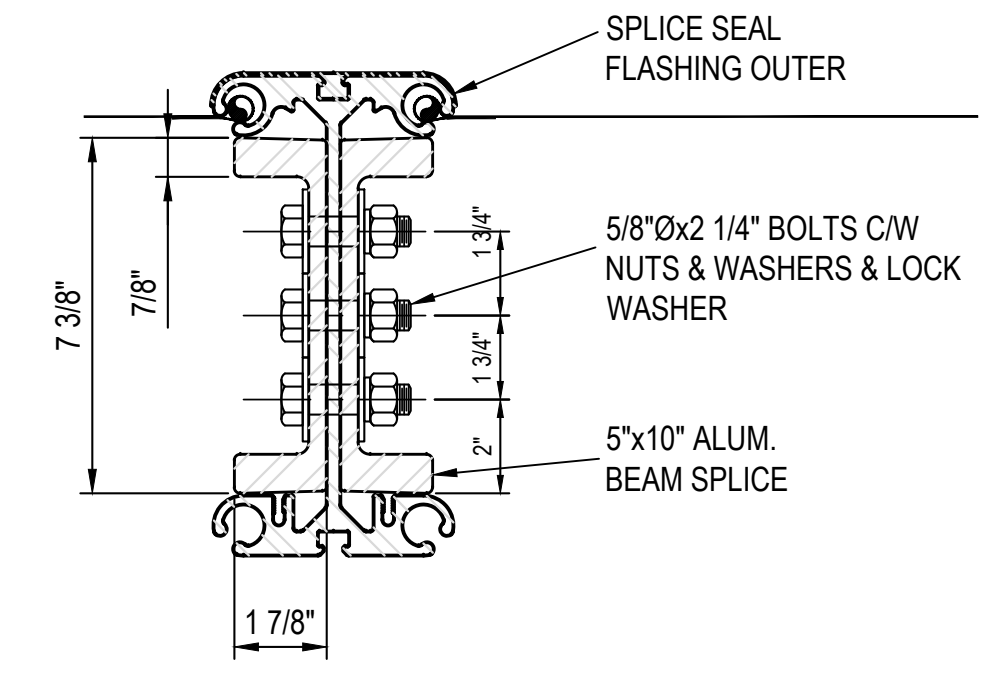
5 5"x10" BEAM TOP SPLICE  
S-2 3"=1'-0"



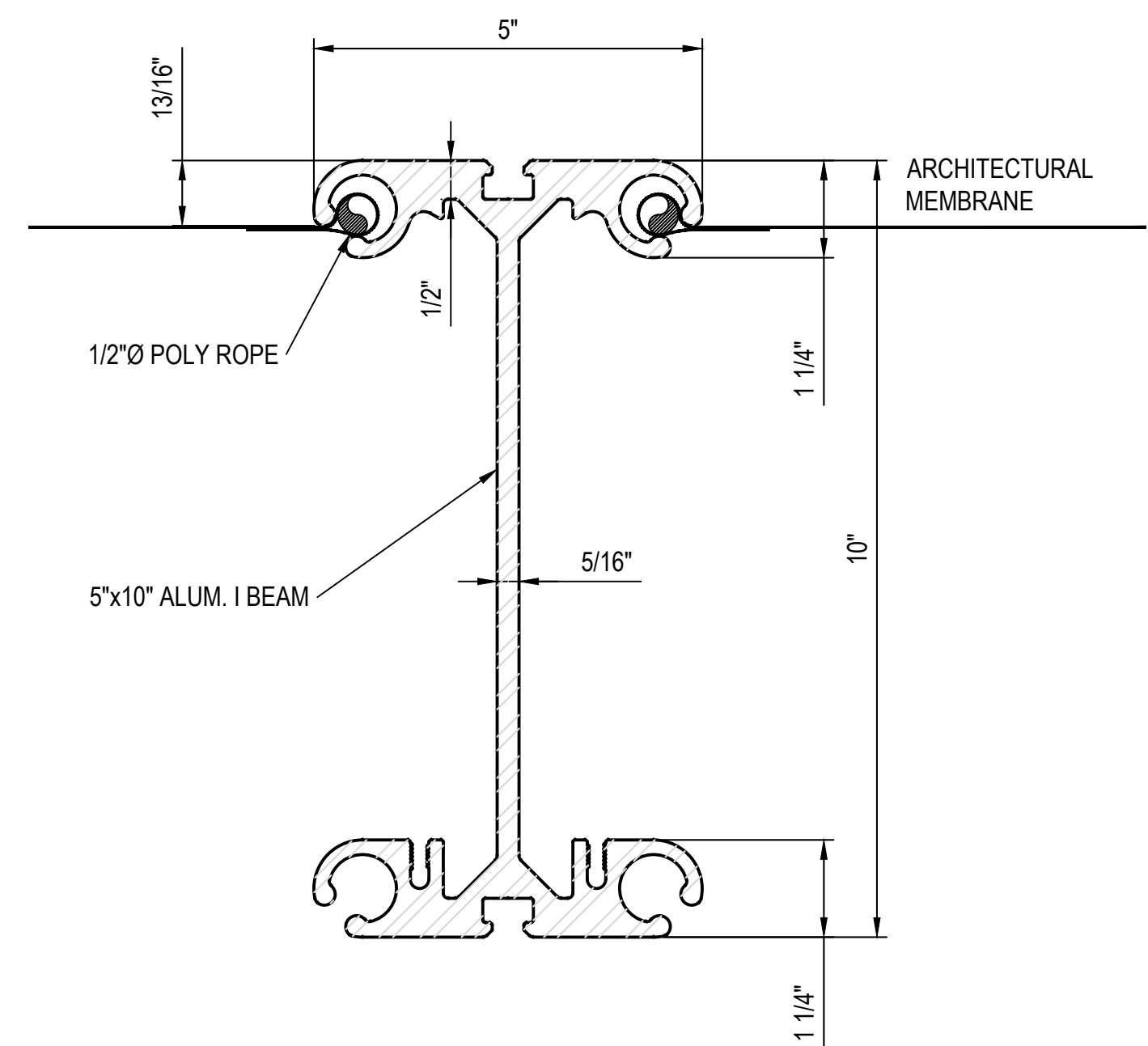
6 5"x10" TOP SPLICE - SECTION  
S-2 3"=1'-0"



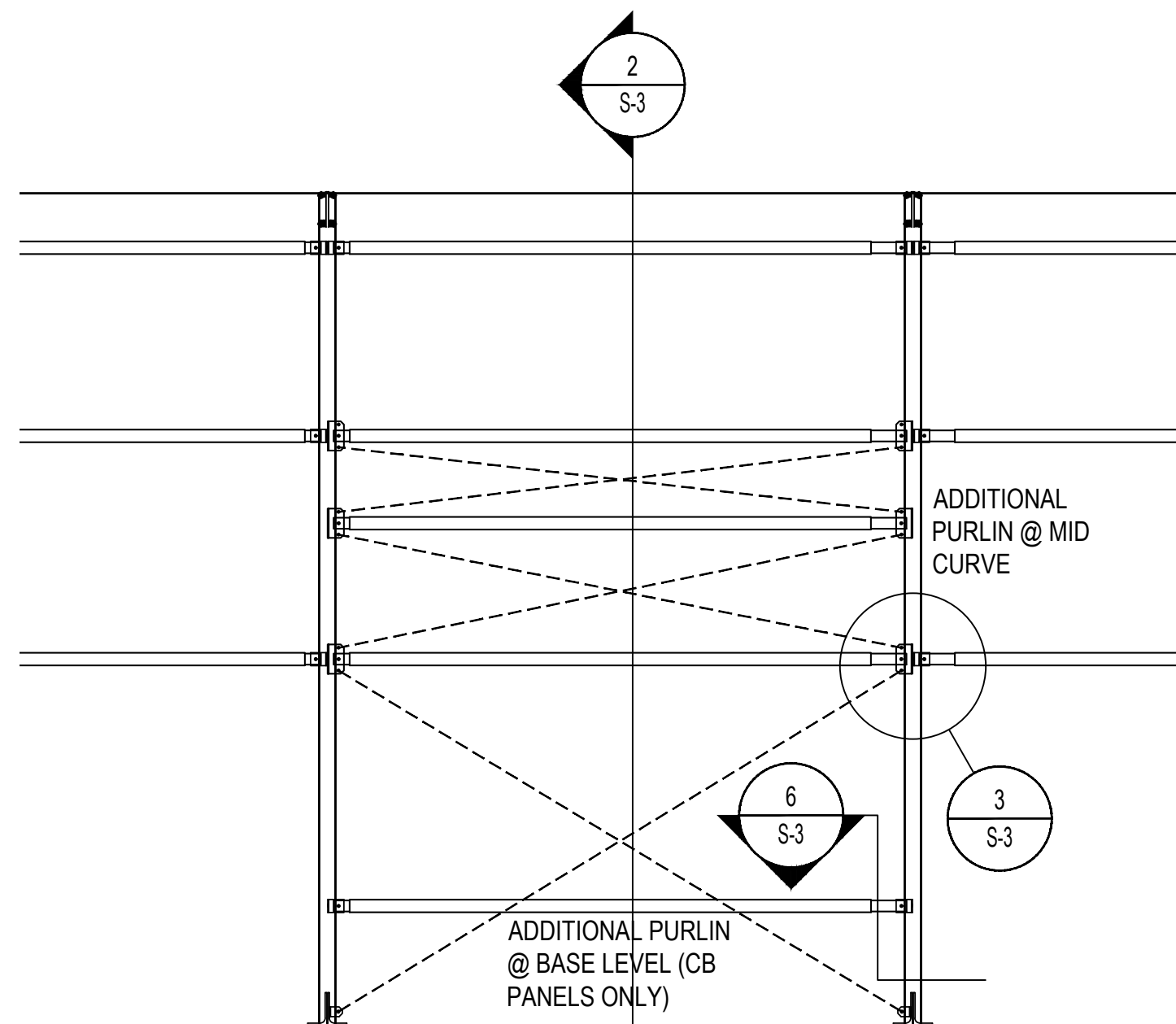
7 5"x10" BEAM SPLICE  
S-2 3"=1'-0"



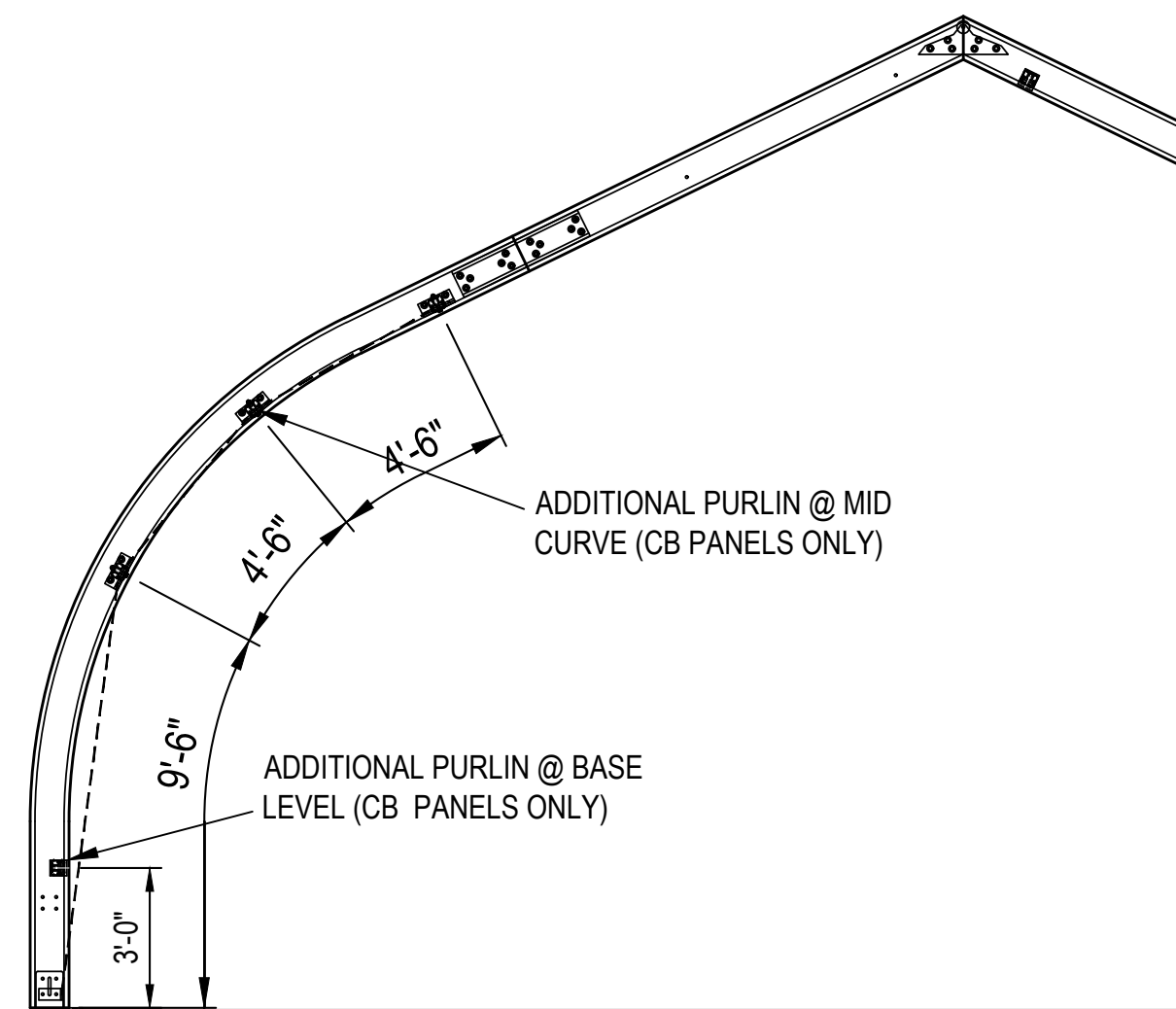
8 5"x10" BEAM SPLICE - SECTION  
S-2 3"=1'-0"



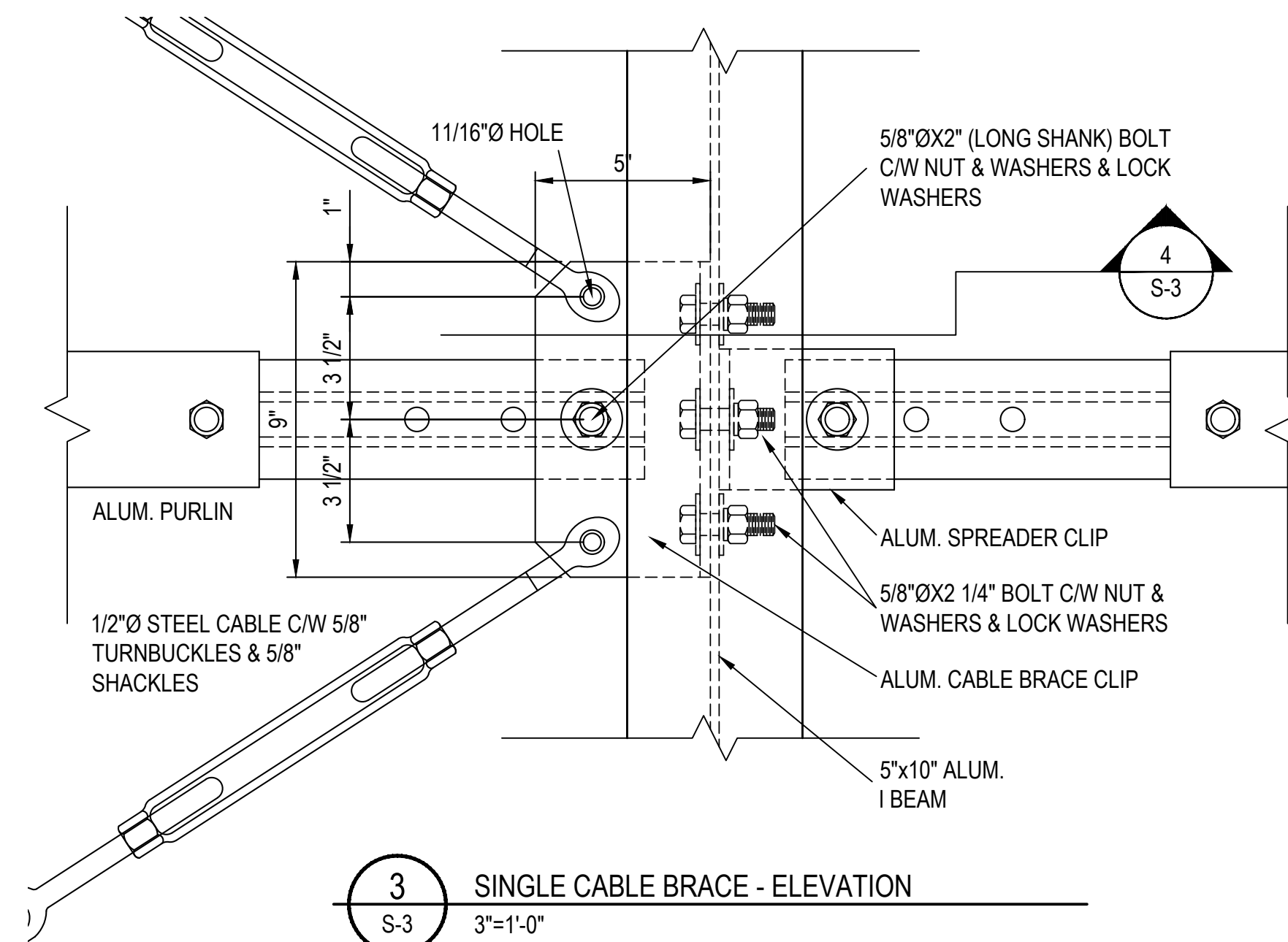
9 5"x10" BEAM - SECTION  
S-2 6"=1'-0"



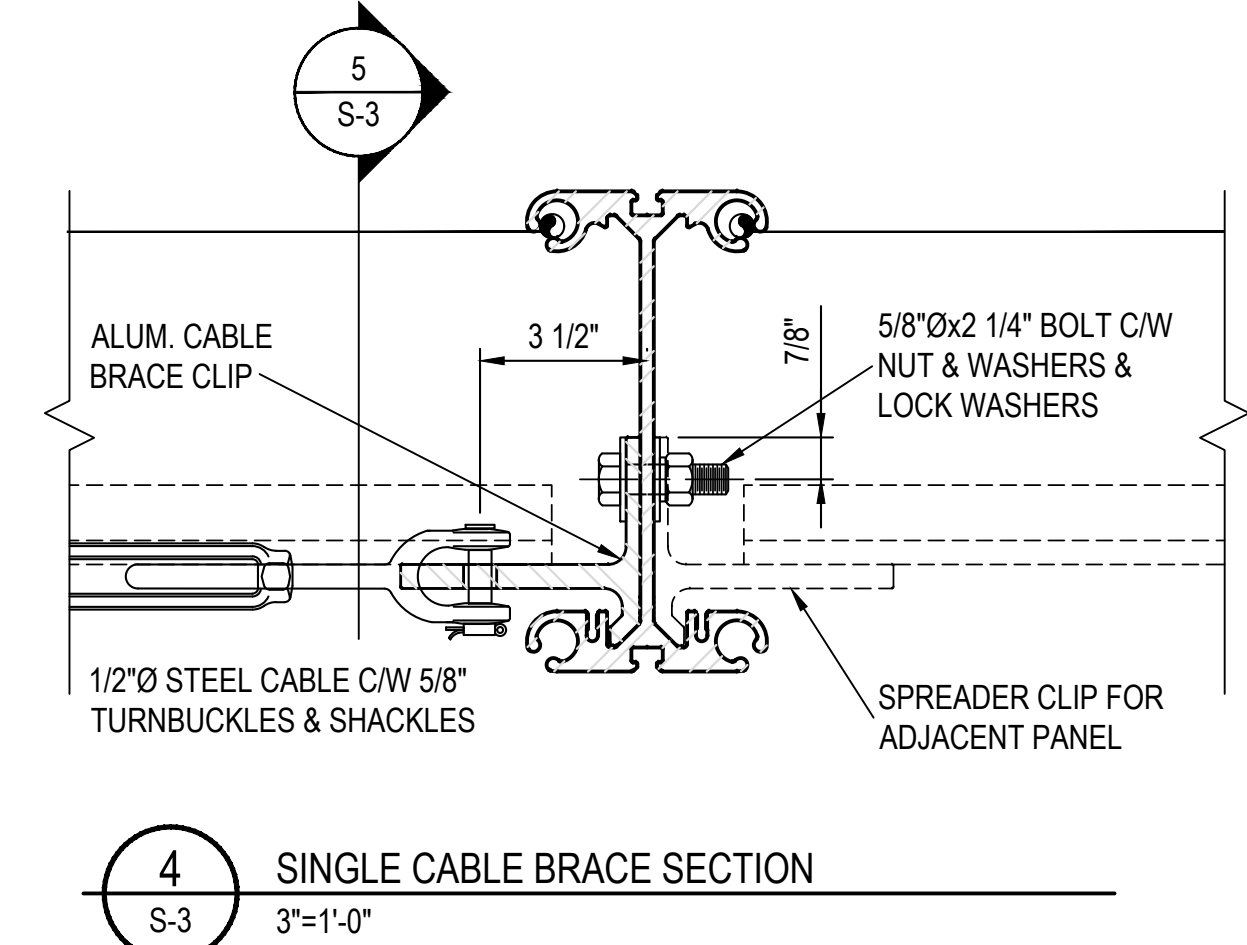
1 40'-0" PARTIAL CABLE BRACING - ELEVATION  
1/4"=1'-0"



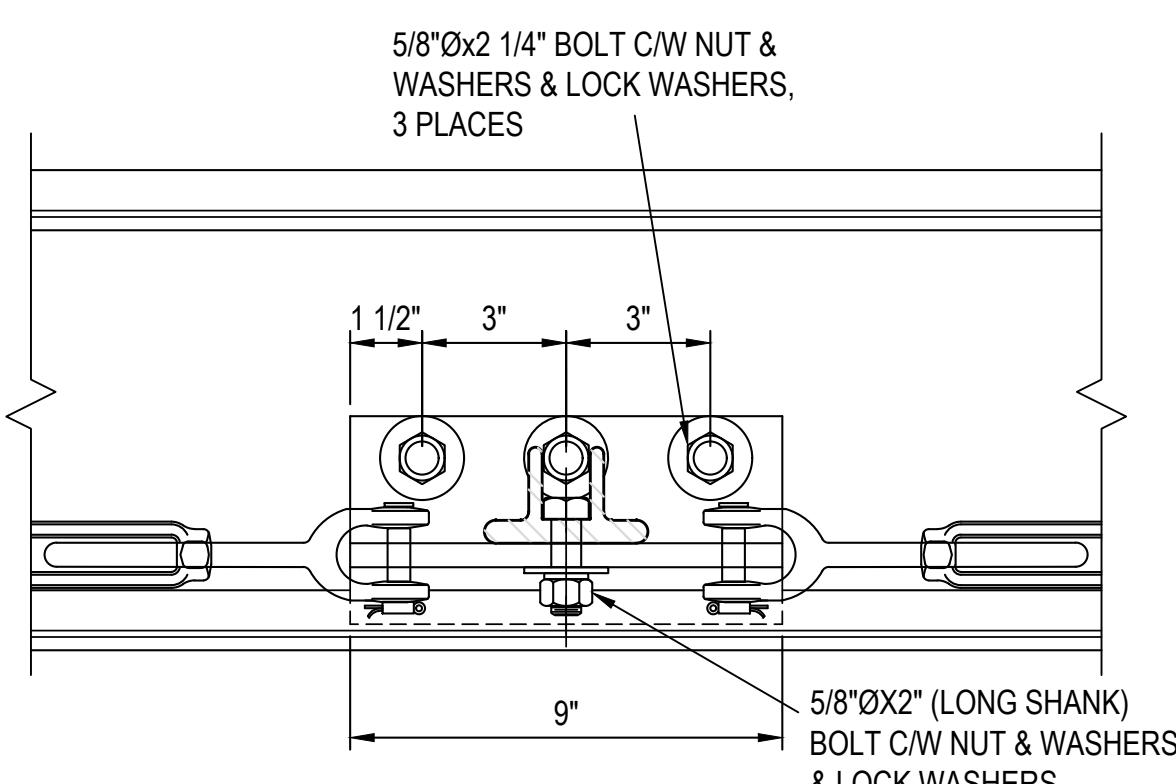
2 40'-0" PARTIAL CABLE BRACING - SECTION  
1/4"=1'-0"



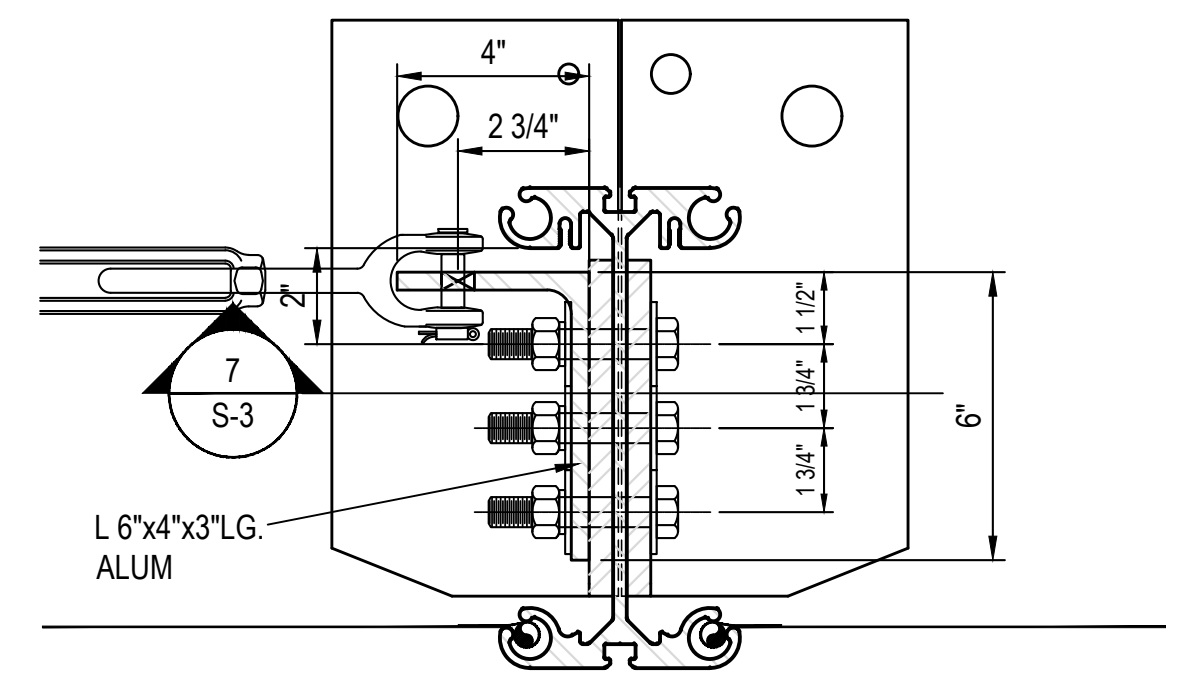
3 SINGLE CABLE BRACE - ELEVATION  
3"=1'-0"



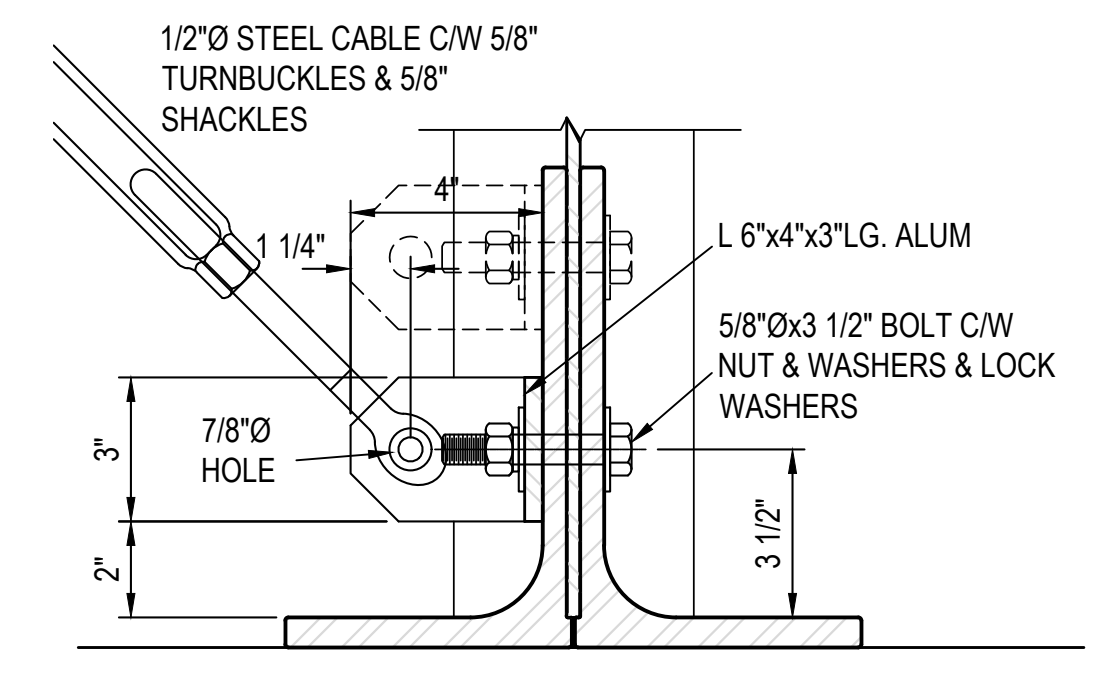
4 SINGLE CABLE BRACE SECTION  
3"=1'-0"



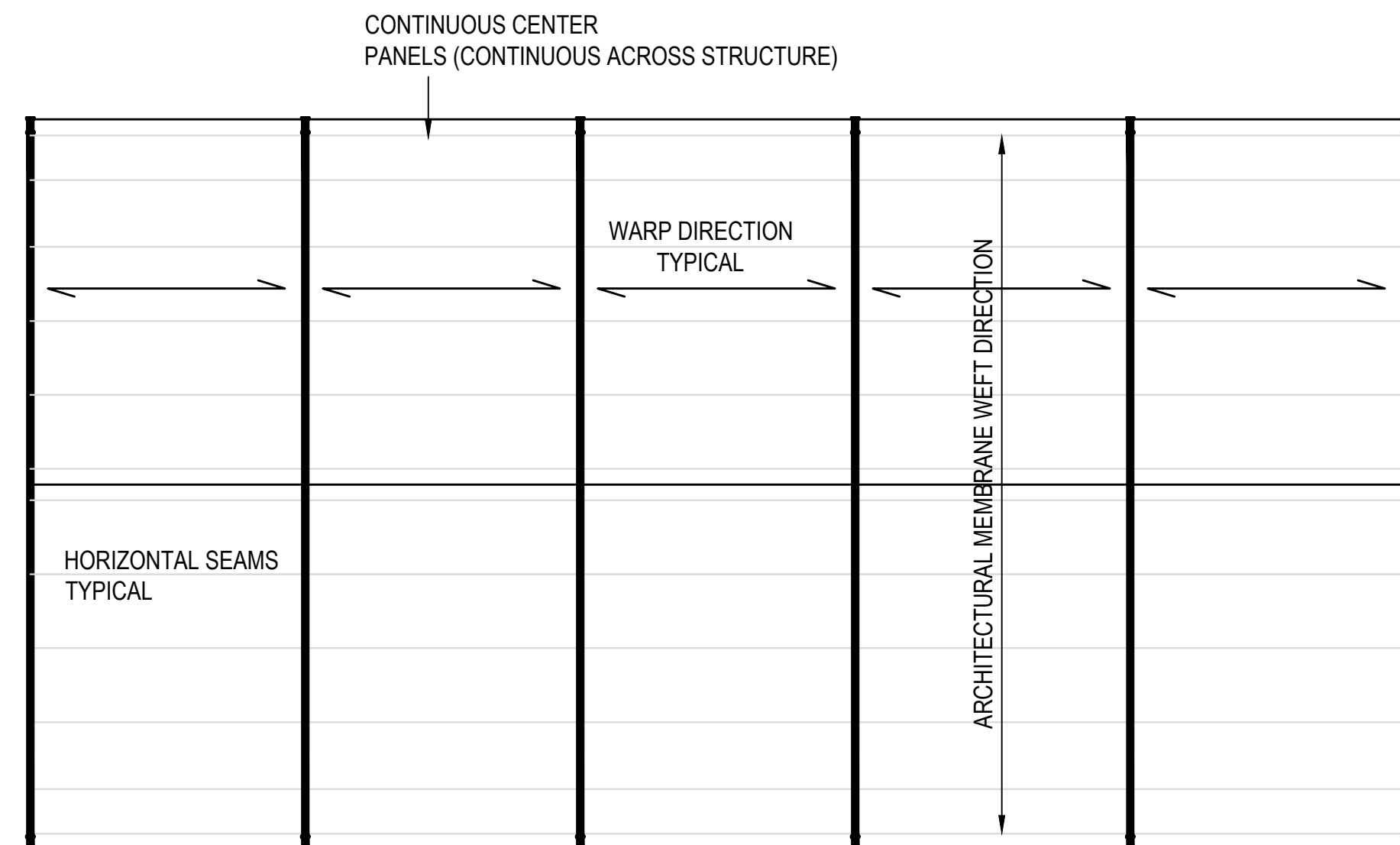
5 CABLE BRACE BRACKET ELEVATION  
3"=1'-0"



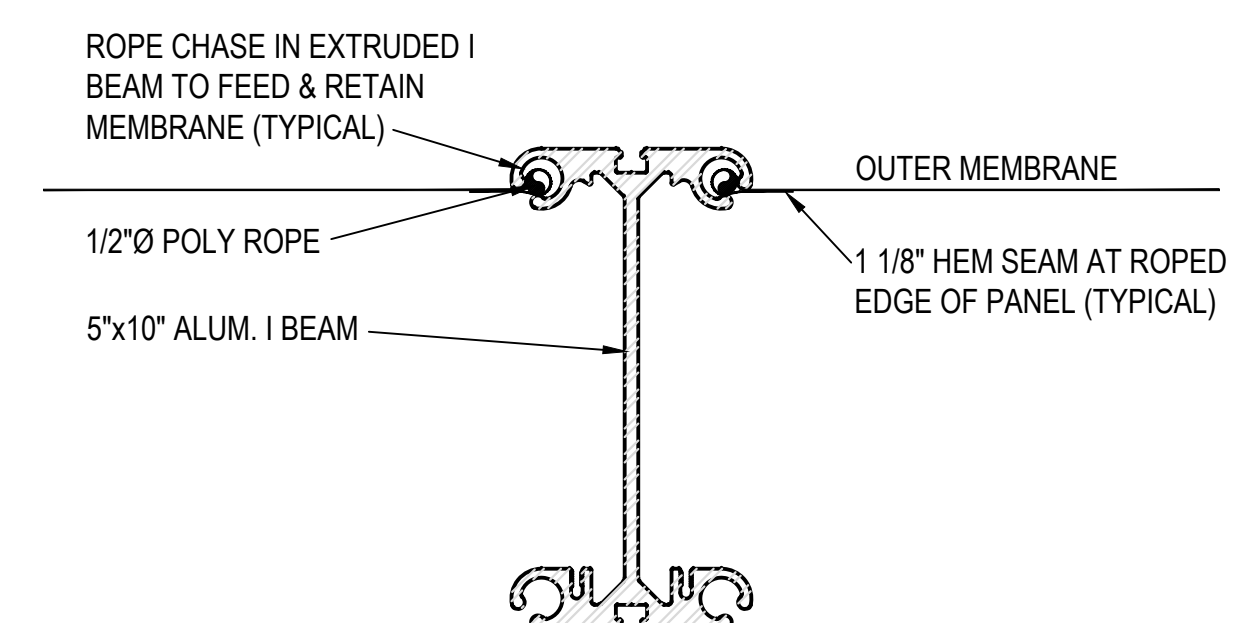
6 5'x10" CABLE PLATE - PLAN  
3"=1'-0"



7 5'x10" CABLE PLATE - ELEVATION  
3"=1'-0"

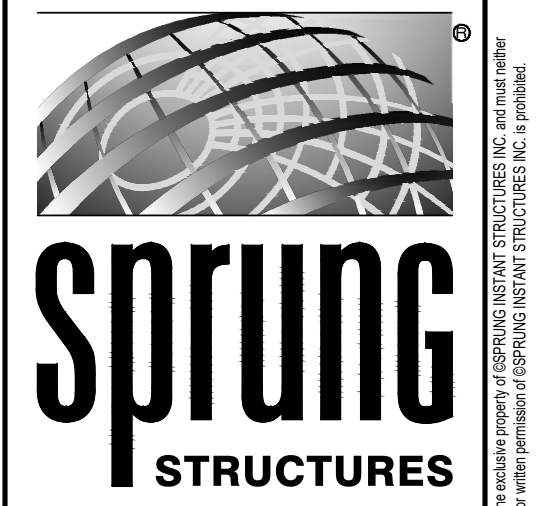


8 MEMBRANE LAYOUT  
1/8"=1'-0"



9 5'x10" BEAM SECTION - MEMBRANE  
3"=1'-0"

NOTES:  
 OUTER MEMBRANE:  
 HERCULITE EXCEL 18 C/W  
 POLYURETHANE TOP COAT  
 1. MEMBRANE STRENGTH:  
 WARP = 325 pli  
 FILL (WEFT) = 245 pli  
 2. PRESTRESS (COMPENSATION)  
 WARP = 1.1%  
 FILL (WEFT) = 0.5%  
 3. MEMBRANE - PVC COATED  
 POLYESTER SCRIM  
 WARP DIRECTION IS THE SPAN  
 DIRECTION FOR THE FABRIC  
 FOR THIS STRUCTURE.  
 ALL HORIZONTAL SEAMS = 1 INCH



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ARCHITECTURAL MEMBRANE  
 OUTER MEMBRANE:  
 HERCULITE EXCEL 18 ARCHITECTURAL  
 MEMBRANE W/POLYURETHANE TOP COAT  
 MEETS FIRE PROPAGATION CRITERIA OF:  
 • CALIFORNIA STATE FIRE MARSHALL  
 • NFPA 701  
 • ASTM-E-84  
 • CANULC-S-109  
 • CANULC-S-102



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PINSHON PROPERTIES  
 LLC  
 40'-0" x 75'-0"  
 WAREHOUSE  
 OGDEN, UTAH, UNITED STATES

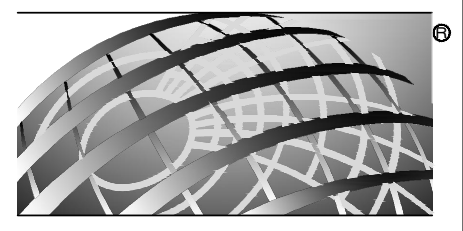
REV	MMDDYY	BY	DESCRIPTION
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CABLE BRACE &  
 MEMBRANE DETAILS

DATE: 11/03/2023 DRAWN BY: E. HAMPTON

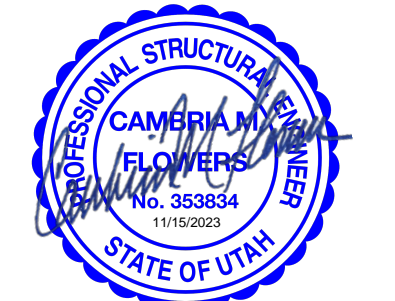
S-3 SPRUNG WO# 27004

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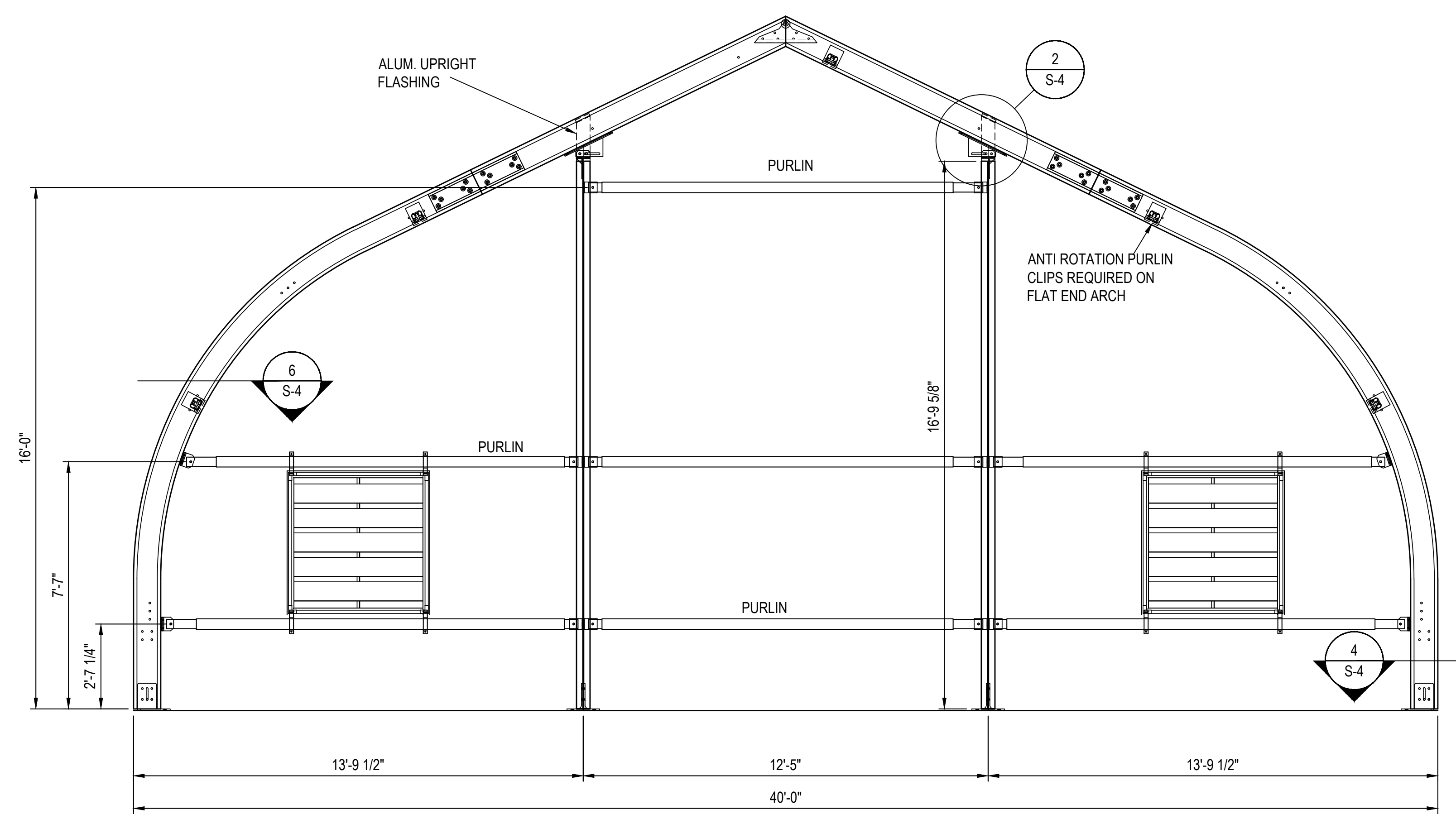
**PINSHON PROPERTIES LLC**  
**WAREHOUSE**  
40'-0" x 75'-0"  
OGDEN, UTAH, UNITED STATES

REV	MMDDYY	BY	DESCRIPTION
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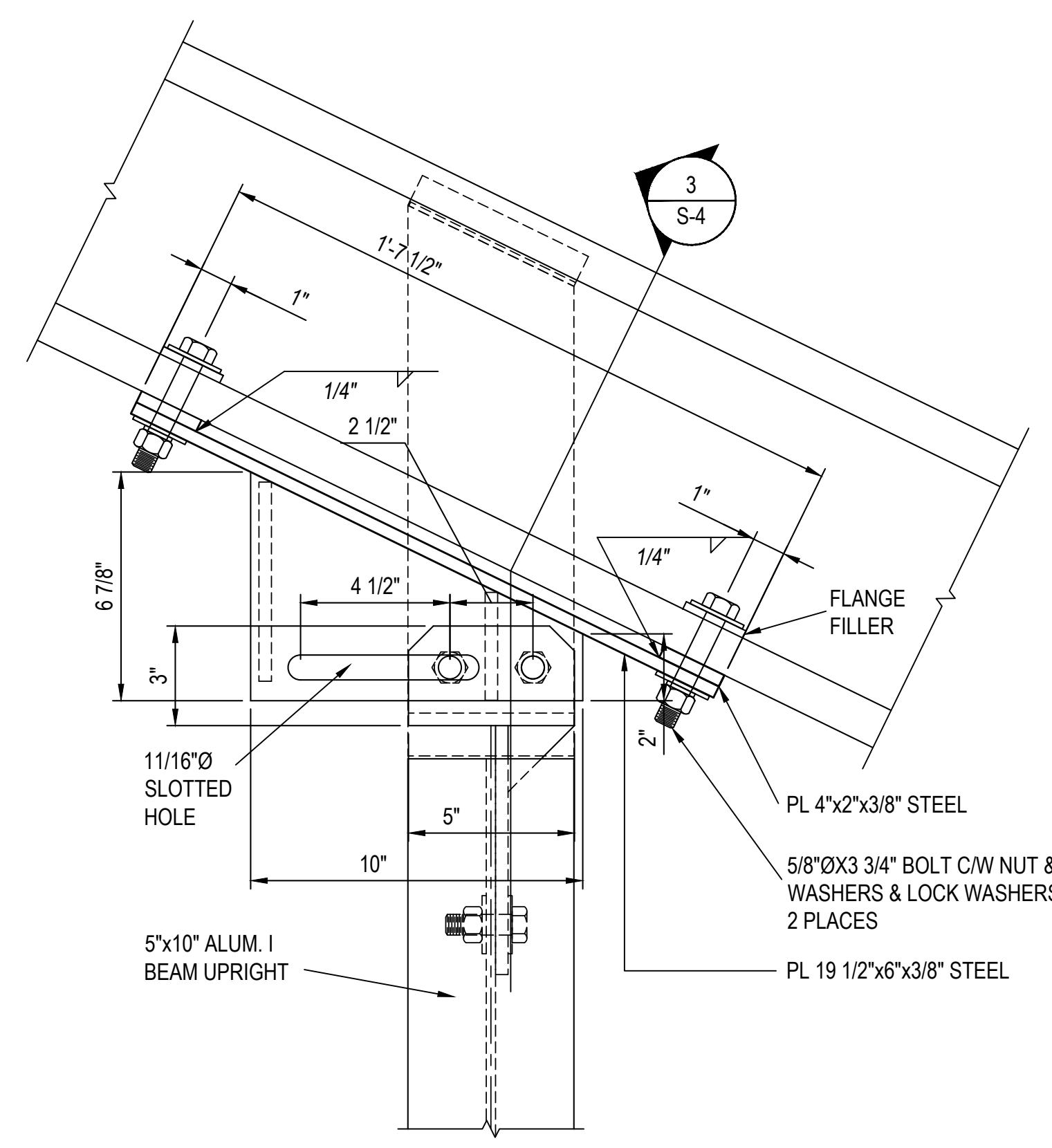
**FLAT END DETAILS**

DATE: 11/03/2023 DRAWN BY: E. HAMPTON  
S-4

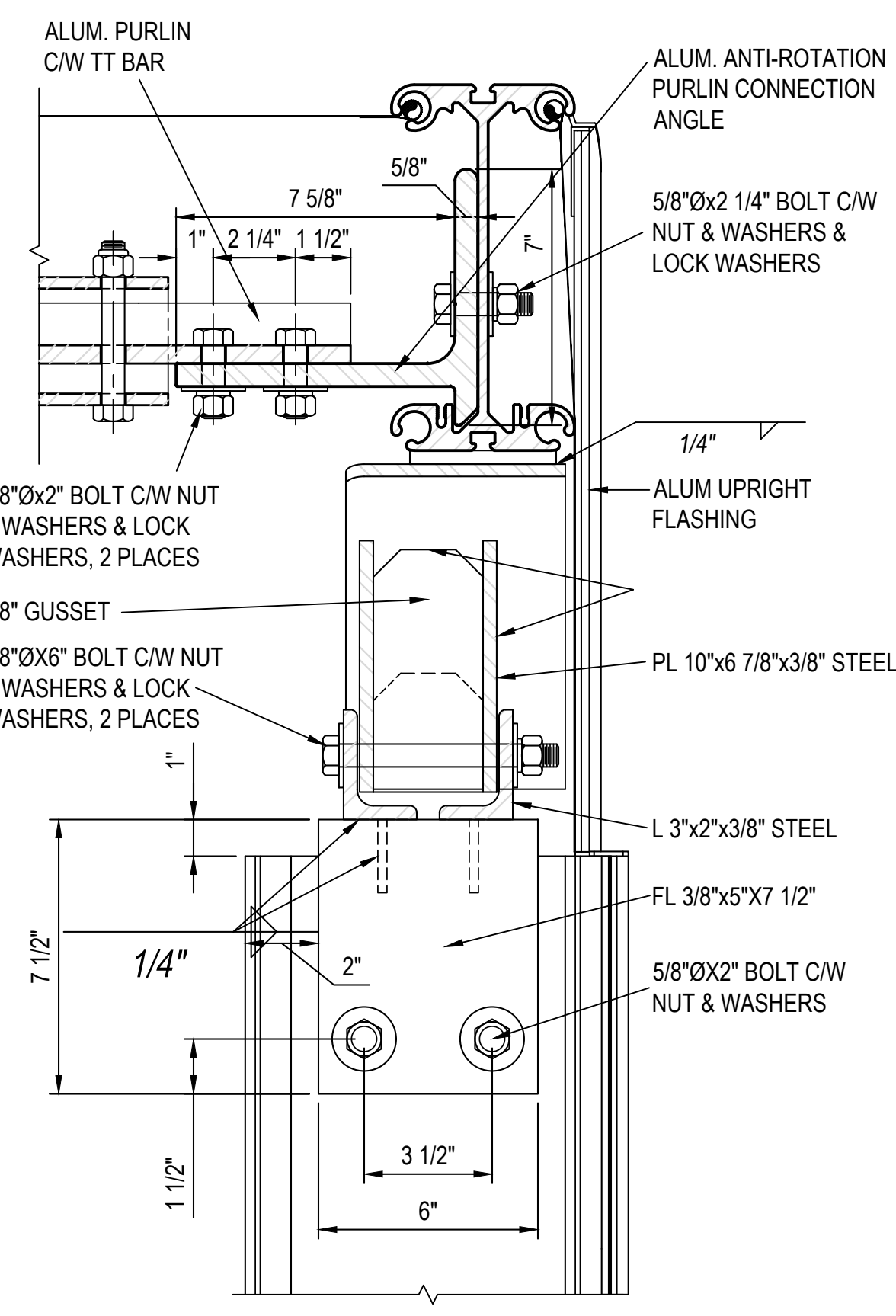
SIGNATURE SERIES SPRUNG WO# 27004



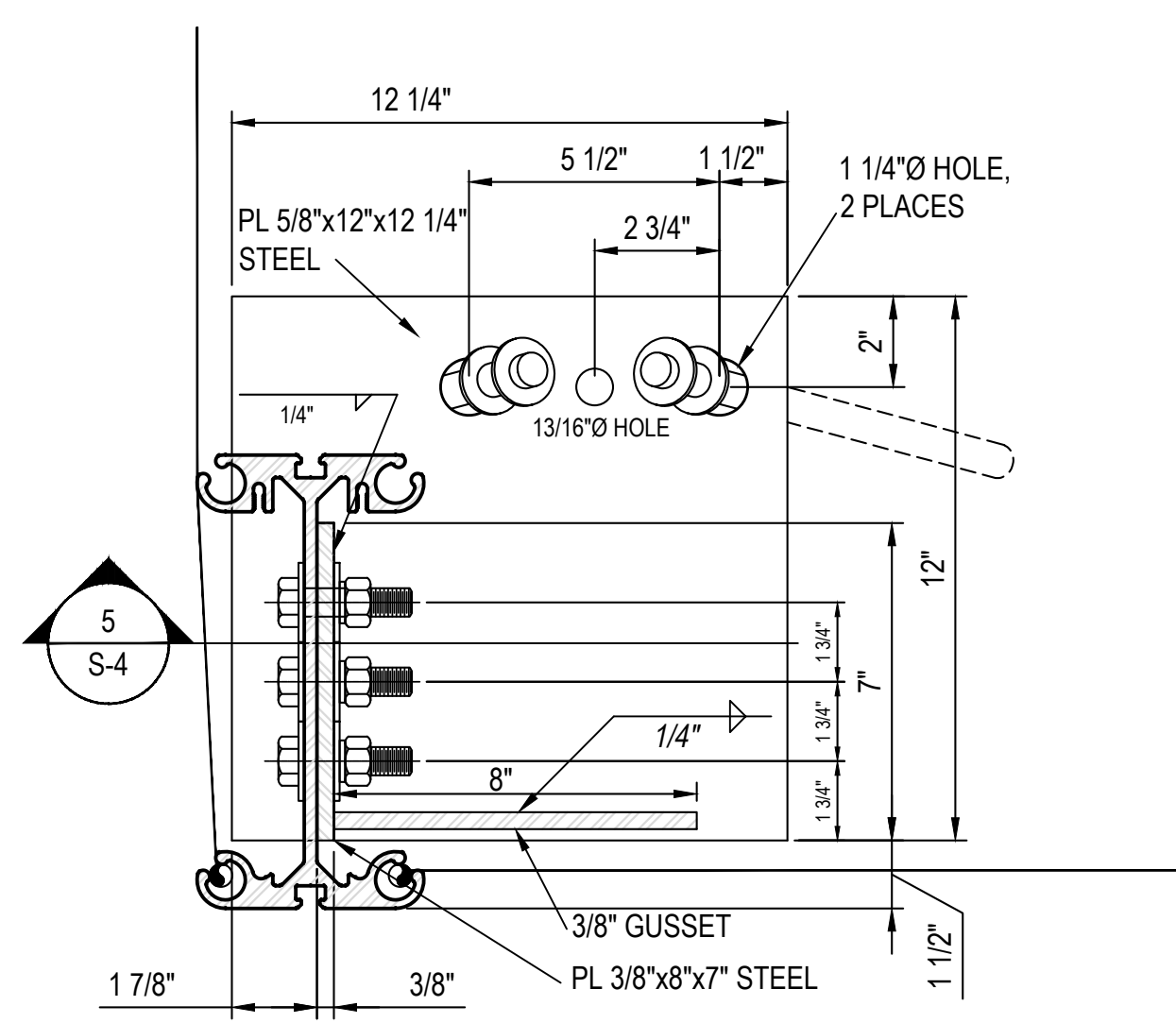
**1** FLAT END 40'-0" STRUCTURE  
S-4 3/8"=1'-0"



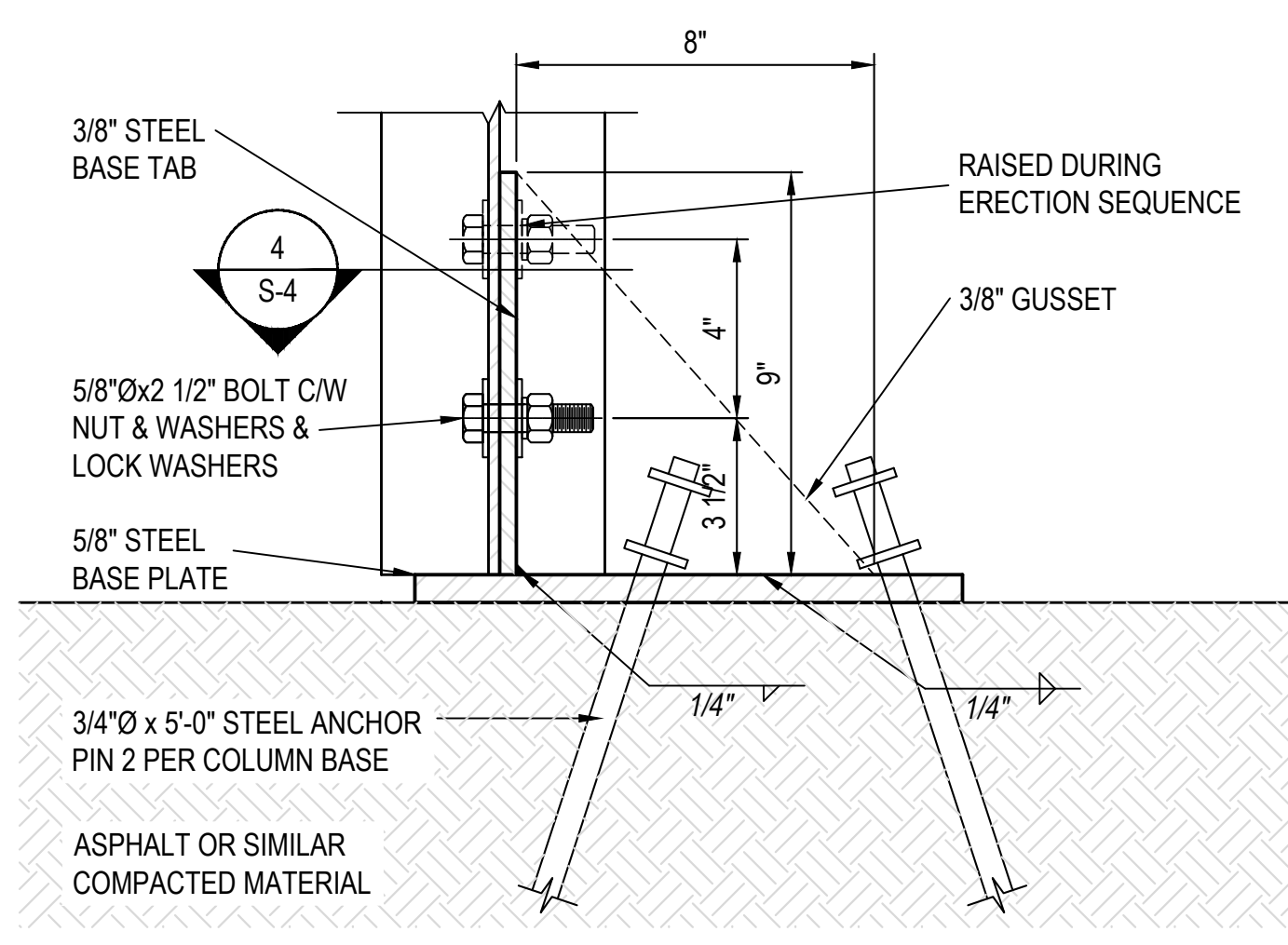
**2** FLAT END UPRIGHT BRACKET - ELEV.  
S-4 3/8"=1'-0"



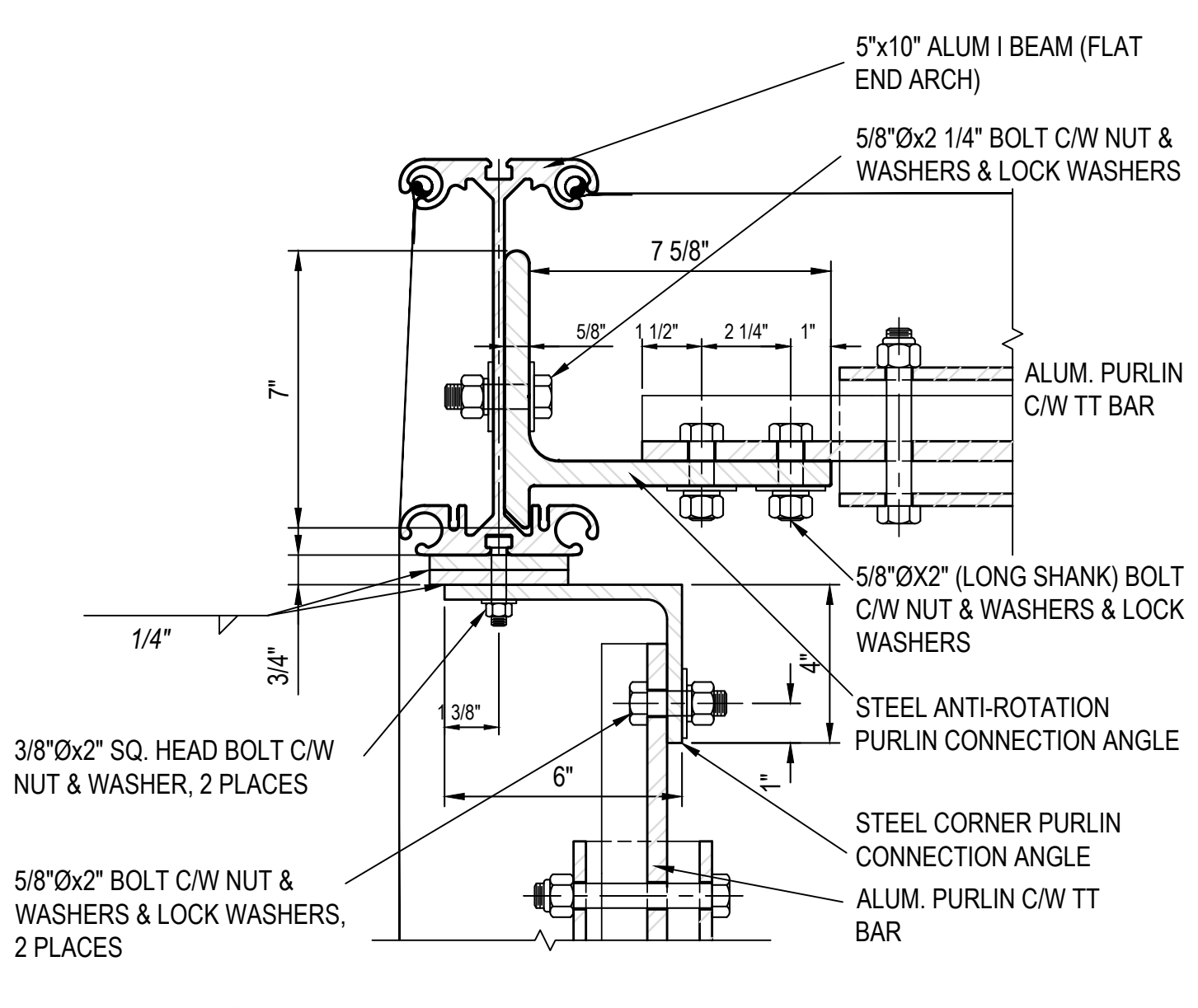
**3** FLAT END UPRIGHT BRACKET - SECTION  
S-4 3/8"=1'-0"



**4** 5"x10" CORNER BASE PLATE - PLAN  
S-4 3/8"=1'-0"



**5** 5"x10" CORNER BASE PLATE - SECTION  
S-4 3/8"=1'-0"



**6** 5"x10" CORNER PURLIN CONNECTION  
S-4 3/8"=1'-0"