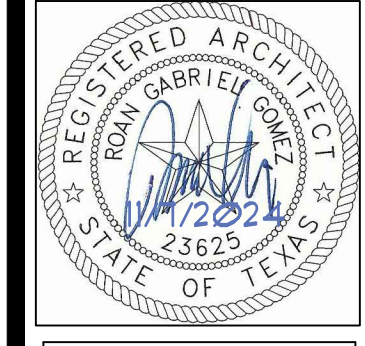


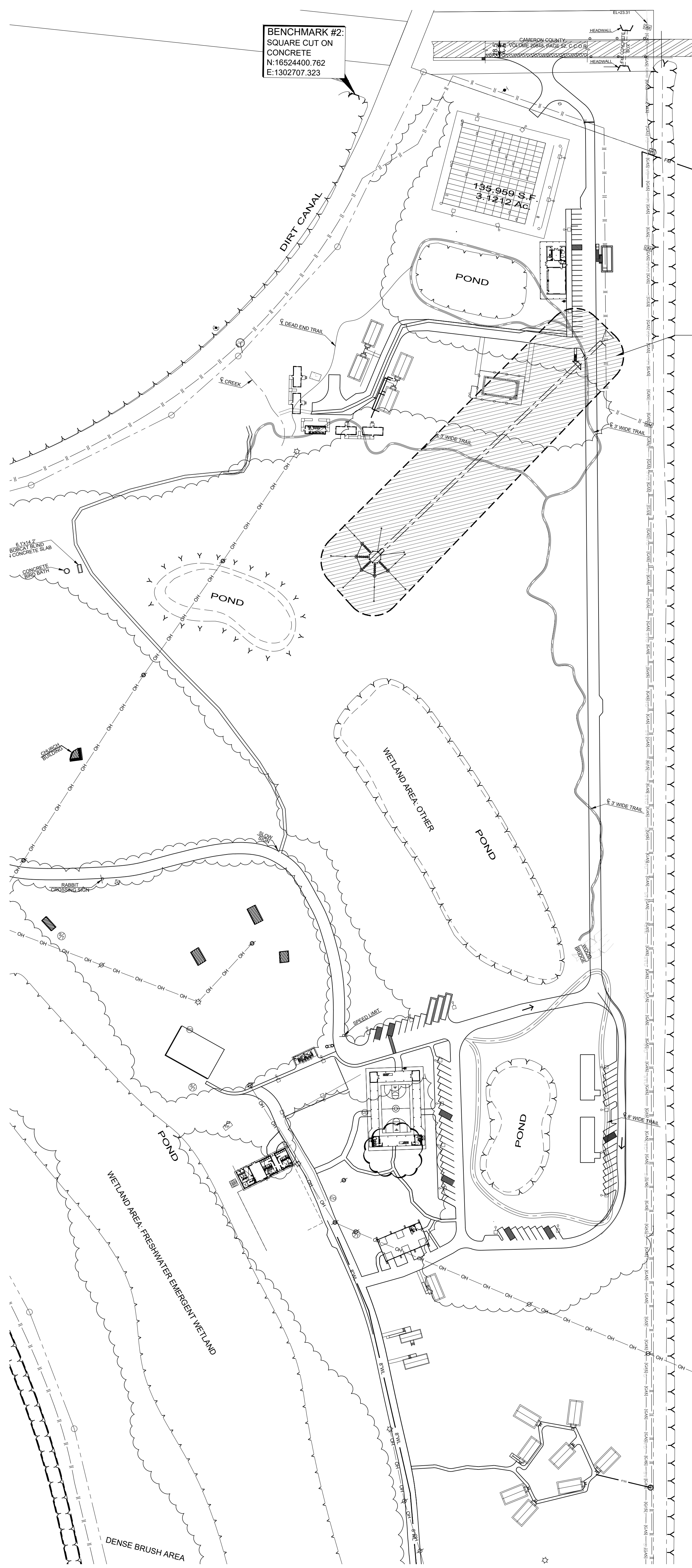
No.	REVISIONS	BY

GMS ARCHITECTS  
 1150 Paredes Line Rd.  
 Brownsville, TX 78526  
 (956) 546-0110  
 fax (956) 546-0196

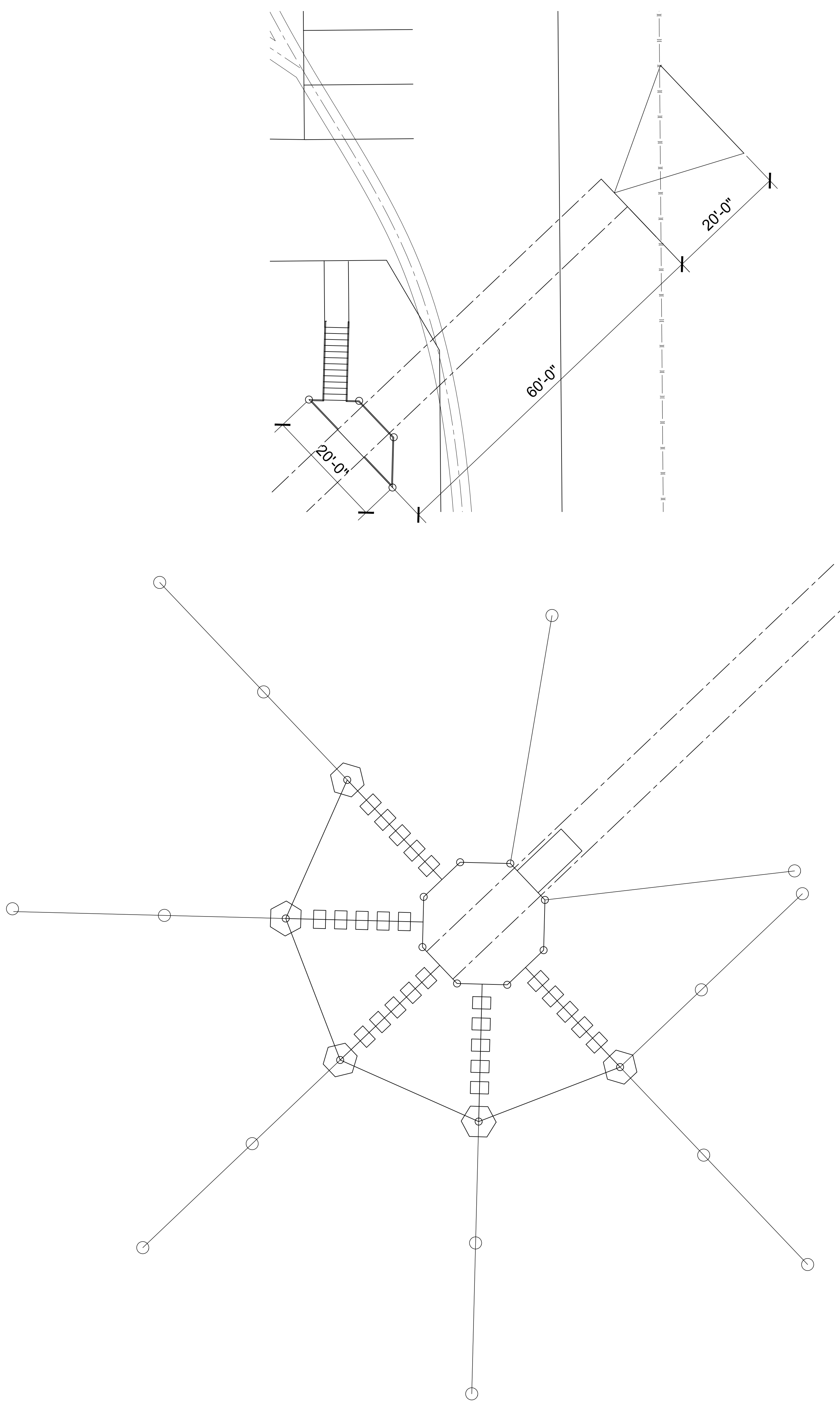
**IDEA PUBLIC SCHOOLS**  
**CAMP RIO ADVENTURE ROPES COURSE**  
 BROWNSVILLE, TEXAS



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 Gomez-Mendez Saenz Inc.  
 Architects-Planners  
 Interior Designers  
 Date: October 2024  
 Scale: As Noted  
 Project Architect: Roan Gomez, AIA  
 Drawn By: CG, RG  
 Job No: IDEA Camp Rio Ropes  
 Sheet:

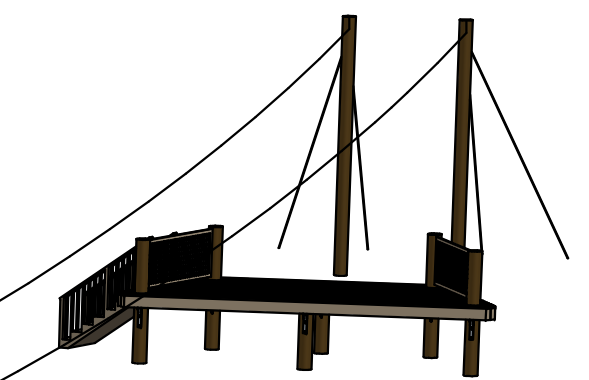


**01 OVERALL SITE PLAN**  
 SCALE: 1/2"=1'-0"





REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
B	SPECIFIED MFG AND PART NUMBERS FOR HARDWARE	11/12/24	DJH



**GENERAL NOTES:**

- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
- ALL WORK SHALL CONFORM TO THE FOLLOWING STANDARDS:  
2021 INTERNATIONAL BUILDING CODE  
AISC STEEL CONSTRUCTION MANUAL, 14TH EDITION  
2018 NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION  
AMERICAN WELDING SOCIETY, D11  
ACI 318-19 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE  
ANSI/ACCT-03 2019  
ASTM 2959
- CONTRACTOR SHALL CAREFULLY REVIEW THE DRAWINGS TO IDENTIFY THE EXTENT OF THE SCOPE OF WORK, VISIT THE SITE TO RELATE THE SCOPE OF WORK TO EXISTING CONDITIONS, AND DETERMINE THE EXTENT TO WHICH THOSE CONDITIONS AND PHYSICAL SURROUNDINGS WILL IMPACT THE WORK.
- THE CONTRACTOR SHALL RESOLVE ANY CONFLICTS ON THE CONSTRUCTION DOCUMENTS BEFORE PROCEEDING WITH THE WORK.
- ANY DEVIATION FROM THE APPROVED SET OF STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL BEFORE PROCEEDING WITH THE WORK. SUBSTITUTIONS OF PRODUCTS OR MATERIALS SPECIFIED ON THE CONSTRUCTION DOCUMENTS ARE NOT ALLOWED.
- THE CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE MEANS, METHOD, TECHNIQUES, SEQUENCE, AND PROCEDURE OF CONSTRUCTION AS REQUIRED.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SHORES, BRACES AND GUY CABLES REQUIRED TO SUPPORT ALL LOADS TO WHICH FOOTINGS, COMPONENTS, SOILS, OTHER STRUCTURES AND UTILITIES MAY BE SUBJECTED DURING CONSTRUCTION.
- CONTRACTOR SHALL REVIEW SHOP DRAWINGS FOR COMPLETENESS AND COMPLIANCE WITH CONTRACT DOCUMENTS.
- THE STRUCTURAL ENGINEER SHALL BE NOTIFIED IF DRAWINGS BY OTHERS REQUIRE MODIFICATIONS TO STRUCTURAL MEMBERS AS SHOWN IN THIS SET OF STRUCTURAL DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.

**CONSTRUCTION NOTES:**

- HORIZONTAL DIMENSIONS SHOWN FOR TIMBER FRAMING ARE APPROXIMATE AND WILL DEPEND ON THE SIZE OF THE TOWER POLES AND BEAMS AT EACH LOCATION. CONTRACTOR SHALL MAKE ADJUSTMENTS AS REQUIRED TO ENSURE THAT COMPLETED ASSEMBLIES ARE PLUMB, FLUSH, LEVEL, AND TIGHT AS SHOWN IN THE DRAWINGS.
- ALL TIMBER CONNECTIONS TO WOOD POLES SHALL USE OVERSIZED SQUARE WASHERS.
- BOLT AND THREADED ROD LENGTHS FOR ROUND MEMBERS WILL VARY DEPENDING ON THE SIZE OF THE MEMBERS BEING CONNECTED.
- ALL JOISTS SHALL BE HUNG TO BEAMS USING RATED JOIST HANGERS UNLESS LEDGER BEAMS ARE SPECIFICALLY NOTED.
- ALL GUY WIRES SHALL BE  $\phi$ 1/2 WIRE ROPE 1MIN BREAKING STRENGTH = 25,400 LBL.
- MINIMUM EDGE DISTANCE FOR  $\phi$ 5/8-11 BOLTS IS 2 1/2".

**CONCRETE AND FOUNDATION NOTES:**

- ALL CONCRETE IS REINFORCED AND CAST IN PLACE UNLESS OTHERWISE NOTED.
- ALL STRUCTURAL CONCRETE SHALL NORMAL WEIGHT CONCRETE AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT TWENTY-EIGHT (28) DAYS.
- CONCRETE MIXING OPERATION SHALL CONFORM TO ASTM C-94. PORTLAND CEMENT SHALL CONFORM TO ASTM C-150, TYPE I OR TYPE II, LOW ALKALI, NORMAL WEIGHT CONCRETE AGGREGATES SHALL CONFORM TO ASTM C-33.
- CONCRETE MIX DESIGN  
MAXIMUM WATER-CEMENT RATIO = 0.50  
CALCIUM CHLORIDE ADMIXTURES ARE PROHIBITED
- PLACEMENT OF CONCRETE SHALL CONFORM TO ACI 301 AND CONTRACT DOCUMENTS.
- ALL REINFORCING BARS, ANCHOR BOLTS AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE. EXPOSED PORTIONS OF ANCHOR ROD THREADS SHALL BE PROTECTED FROM CONCRETE DURING POURING.
- ONLY POUR CONCRETE IF LOW AND HIGH TEMPERATURES FOR ANY POINT UP TO FIVE (5) DAYS AFTER POURING ARE BETWEEN 35°F AND 85°F.

**STEEL, FABRICATION, AND MATERIAL NOTES:**

- MATERIALS SHALL CONFORM TO THE FOLLOWING STANDARDS:  
PLATE: ASTM A36  
ANGLES: ASTM A36  
PIPE: ASTM A53  
BOLTS: ASTM A307 UNLESS SPECIFIED OTHERWISE  
THREADED ROD: ASTM A193, GRADE B7  
NUTS: ASTM A563  
WASHERS: ASTM F436  
ANCHOR BOLTS: ASTM F-1554  
REINFORCING BARS: ASTM 615, GRADE 60  
TIMBER POLES: CLASS II SOUTHERN PINE  
DIMENSIONAL LUMBER NO. 2 SOUTHERN PINE  
WIRE ROPE: AS SPECIFIED
- ALL STEEL WELDMENTS SHALL BE PAINTED OR HOT-DIPPED GALVANISED.
- ALL HARDWARE SHALL BE RATED FOR USAGE AS PER MINIMUM WORKING LOAD LIMITS SPECIFIED.
- ALL CONNECTIONS, WIRE ROPE, WASHERS, AND STRUCTURAL COMPONENTS SHALL BE HOT DIP GALVANISED STEEL.
- ALL TIMBER POLES SHALL BE GRADED SOUTHERN PINE. ALL DIMENSIONAL LUMBER SHALL BE PRESSURE TREATED SOUTHERN YELLOW PINE AND GRADED FOR STRUCTURAL USAGE.

**USAGE NOTES:**

- ADVENTURE PARK AND ZIP LINE TO BE USED SOLELY BY CAMP RIO PATRONS AND TO BE OPERATED BY CAMP RIO STAFF MEMBERS WHO HAVE BEEN TRAINED IN ITS PROPER USAGE.
- MAXIMUM PARTICIPANT WEIGHT OF 250 LB.
- MAXIMUM OF ONE (1) PARTICIPANT AND ONE (1) RESCUER PER ELEMENT.
- STRUCTURE NOT TO BE USED WHEN WIND SPEEDS EXCEED 35 MPH.
- STRUCTURE AND ALL ASSOCIATED STEEL HARDWARE SHALL BE INSPECTED REGULARLY FOR WORN, CORRODED, OR DAMAGED COMPONENTS, WHICH SHALL BE REPLACED PRIOR TO USAGE. SPECIAL CARE SHALL BE TAKEN TO REVIEW COMPONENTS THAT DIRECTLY SUPPORT HUMAN LIFE AND MORE FREQUENT INSPECTIONS ARE RECOMMENDED TO ENSURE THAT ALL COMPONENTS ARE FREE OF DAMAGE AND SAFE FOR USE.
- PERFORM ALL INSPECTIONS AND MONITORING PER ACCT AND ASTM.

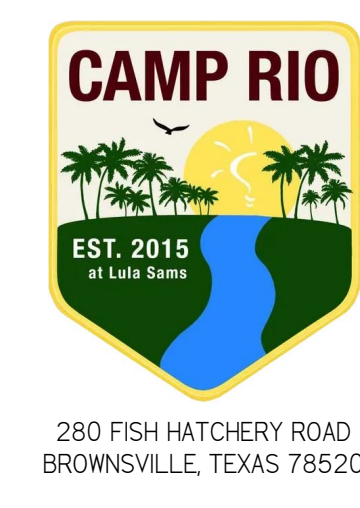
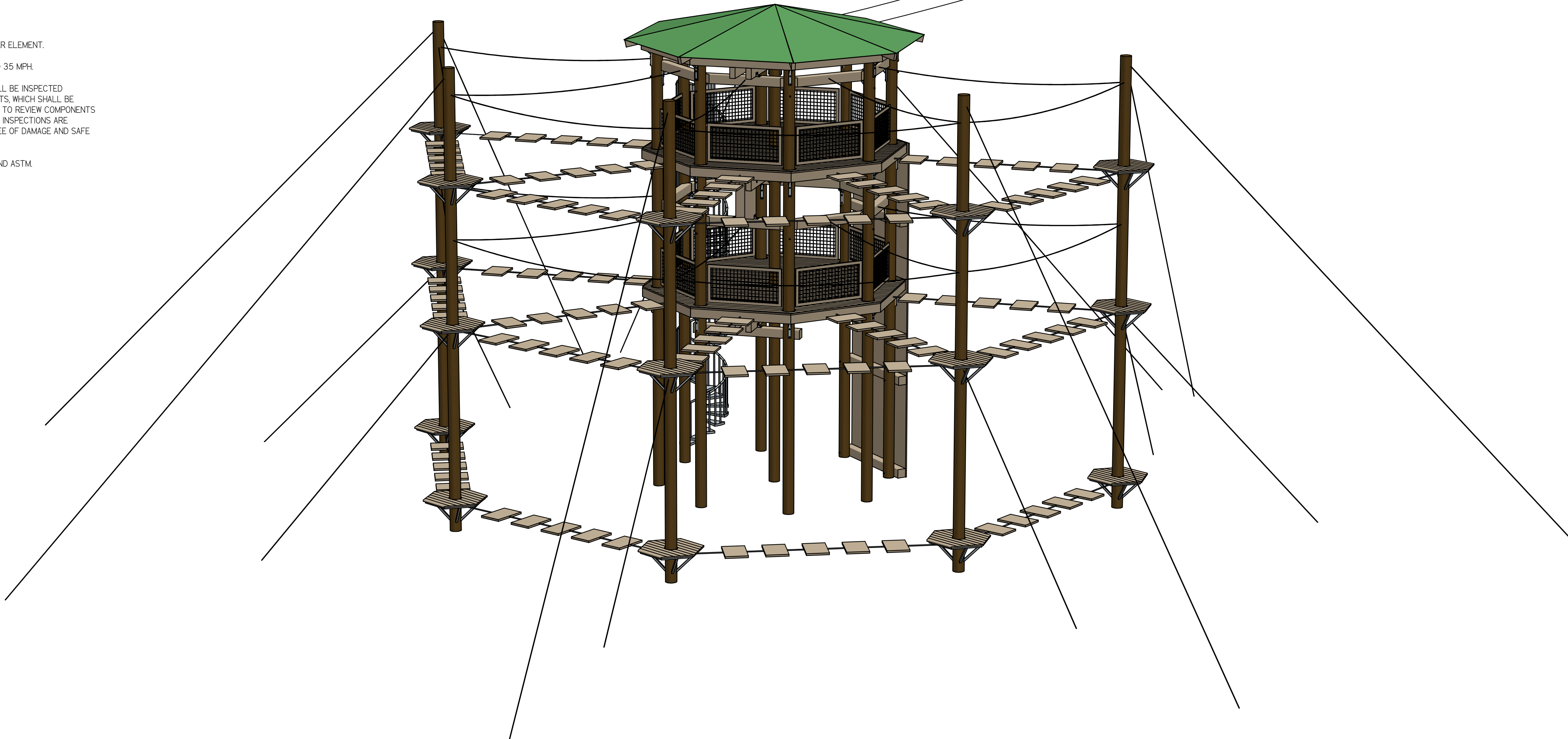
**LOADING NOTES:**

STRUCTURE IS DESIGNED ACCORDING TO FOLLOWING LOADS:

LIVE:  
60 PSF ON ALL PLATFORMS  
100 PSF ON STAIRS

WIND:  
143 MPH  
EXPOSURE CATEGORY "C"  
Kz = 0.94, Kd = 0.85  
qz = 41.8 PSF

SEISMIC:  
SEISMIC DESIGN CATEGORY "A"  
Ss = 0.038, Si = 0.013, Sms = 0.060  
Sm1 = 0.030 Sds = 0.040, Sd1 = 0.020  
LATERAL FORCE RESISTING SYSTEM IS GUYED POLES

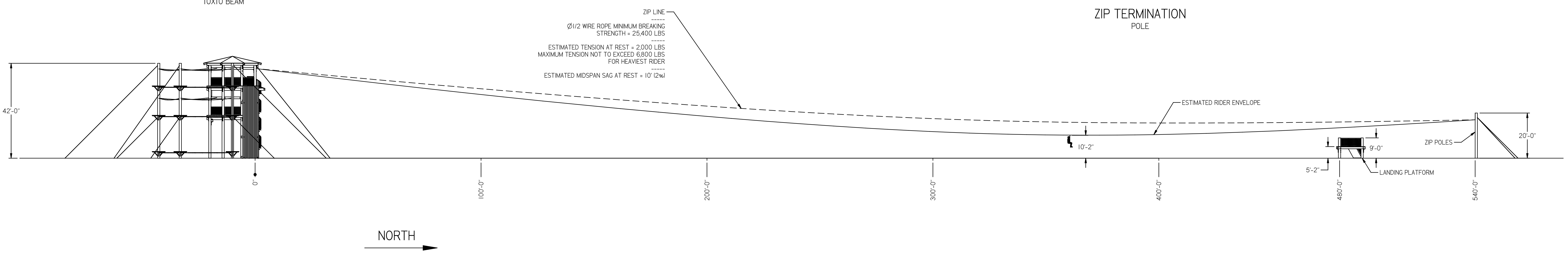
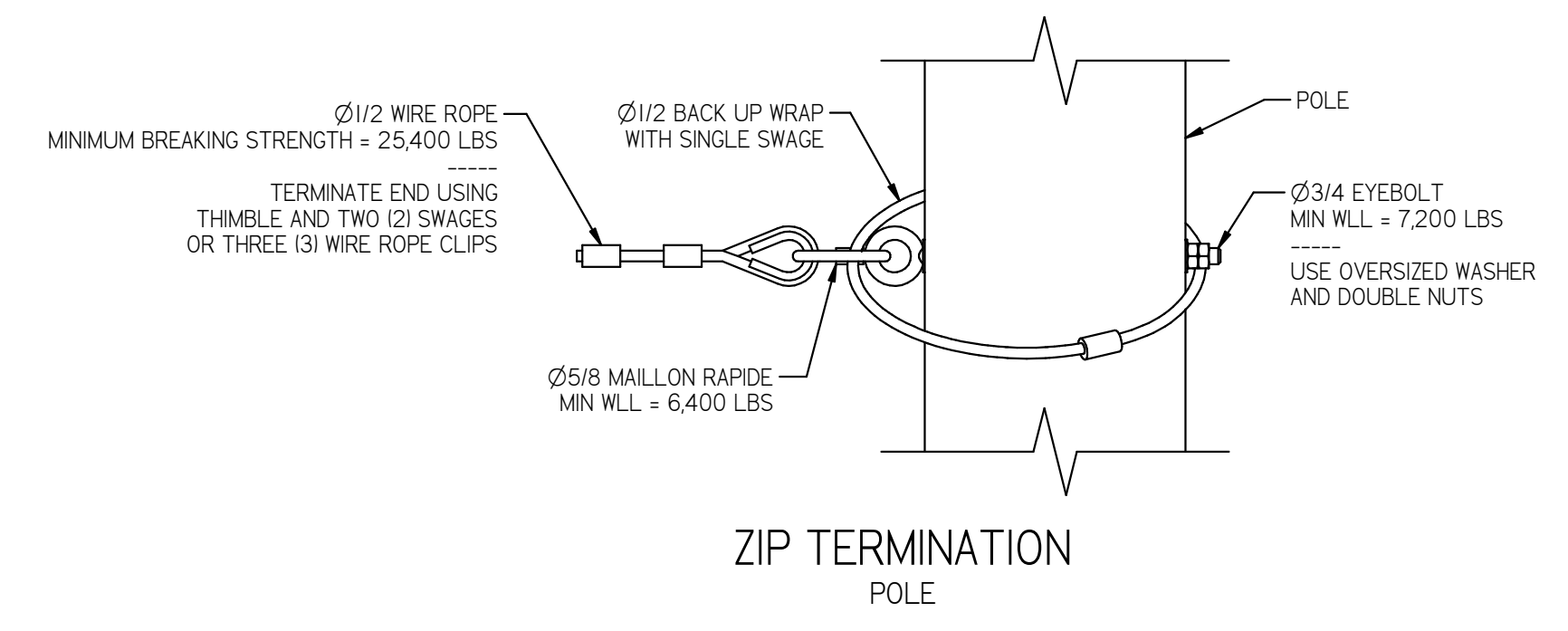
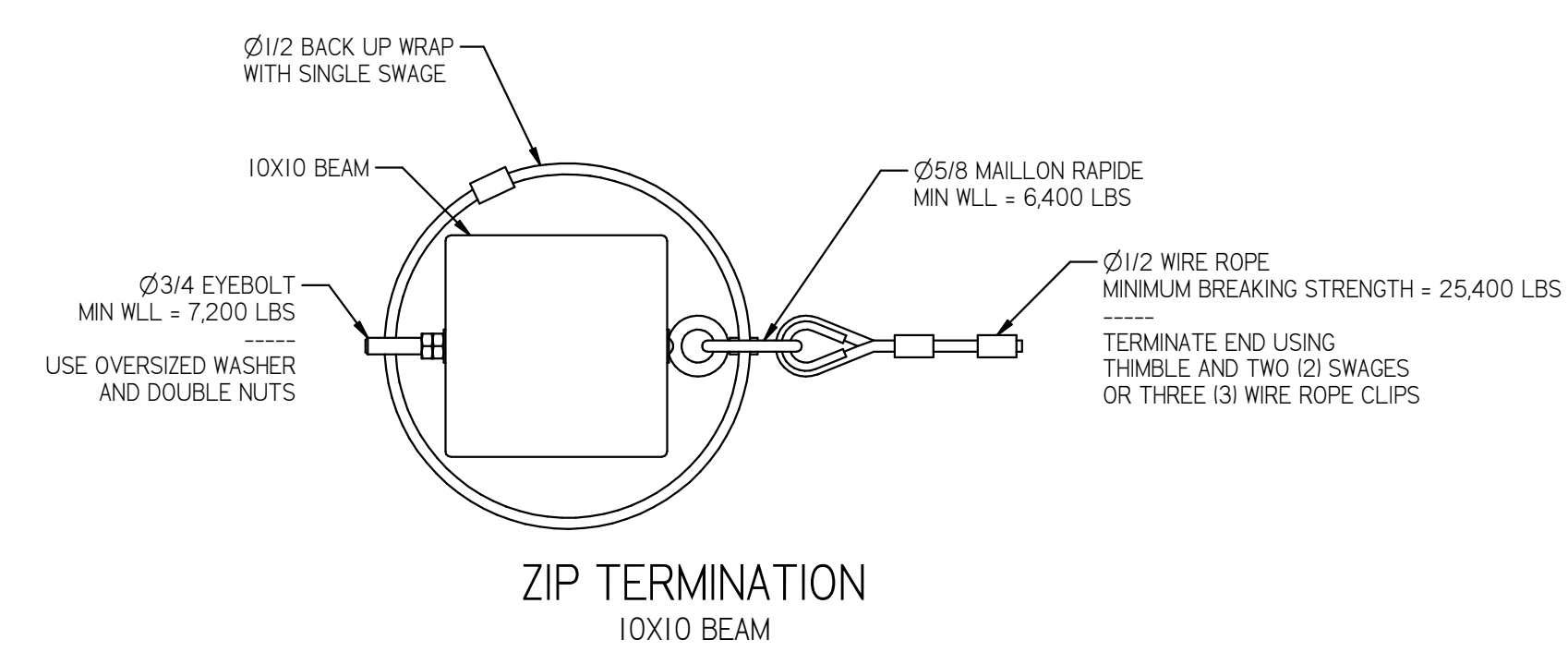
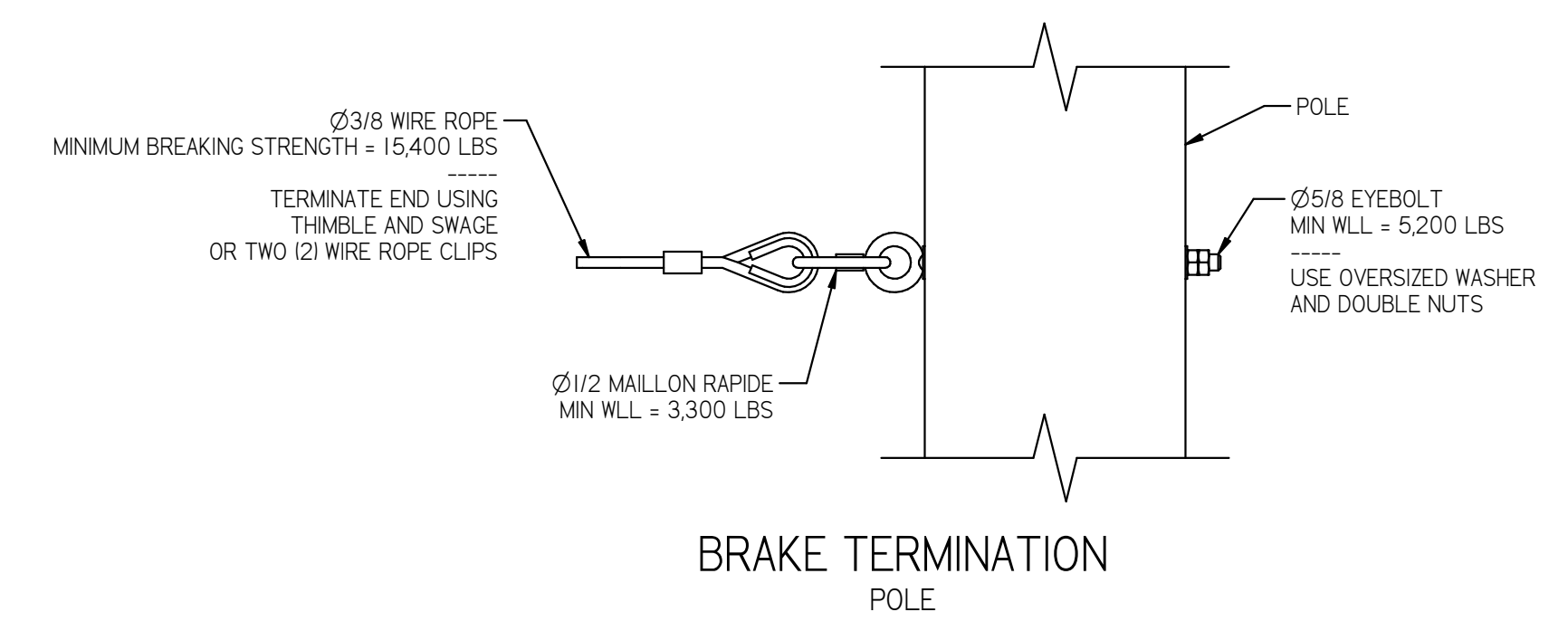
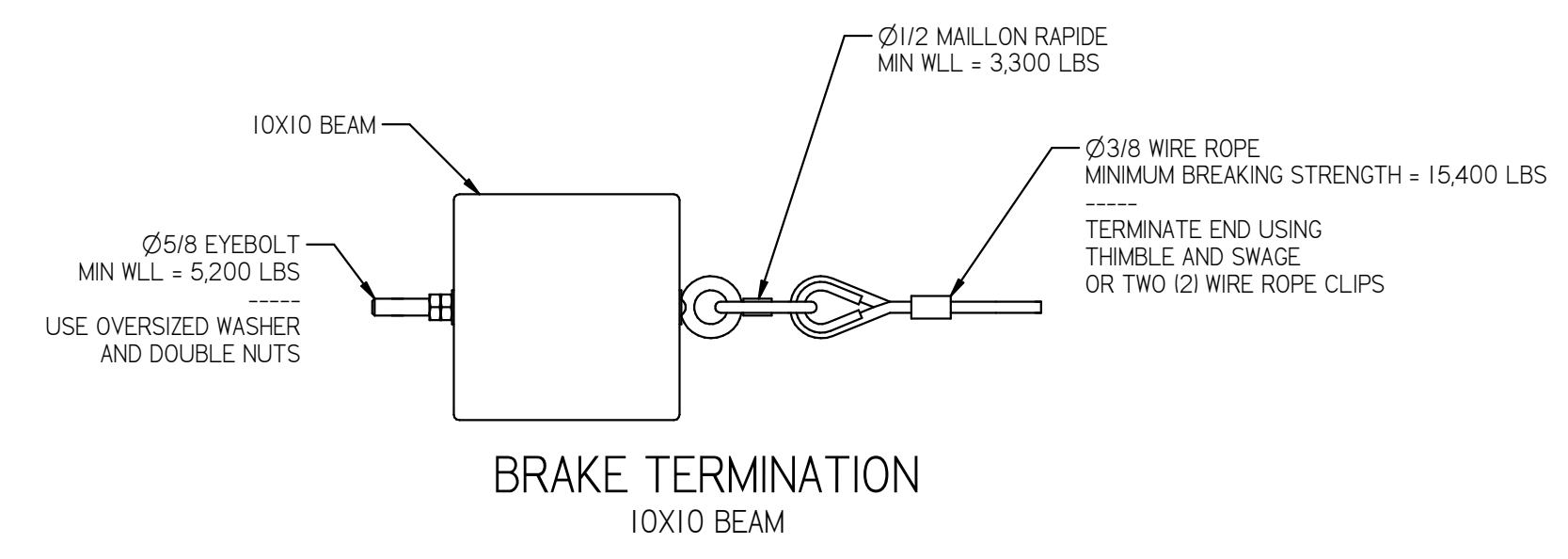


**OVERVIEW & NOTES**

DIMENSIONS IN INCHES UNLESS NOTED OTHERWISE		TOLERANCES		83 Oakdale Path Dallas, Georgia 30157 (404) 452-1364 www.davehodges.com	
1 PL	±0.1			<b>DAVID J. HODGES, P. E.</b> STRUCTURAL ENGINEERING & SOFTWARE SOLUTIONS <b>ZIP LINE ADVENTURE PARK</b>	
2 PL	±0.02				
3 PL	±0.005				
ANGLE	±1°				
FRACTION	±1/16				
DRAWN	DJH	DATE	10/21/24	DWG NO.	241258-1
CHECKED	DJH	DATE	11/12/24	SIZE	D
			SCALE	NONE	SHEET
					I OF 10
					REV
					B



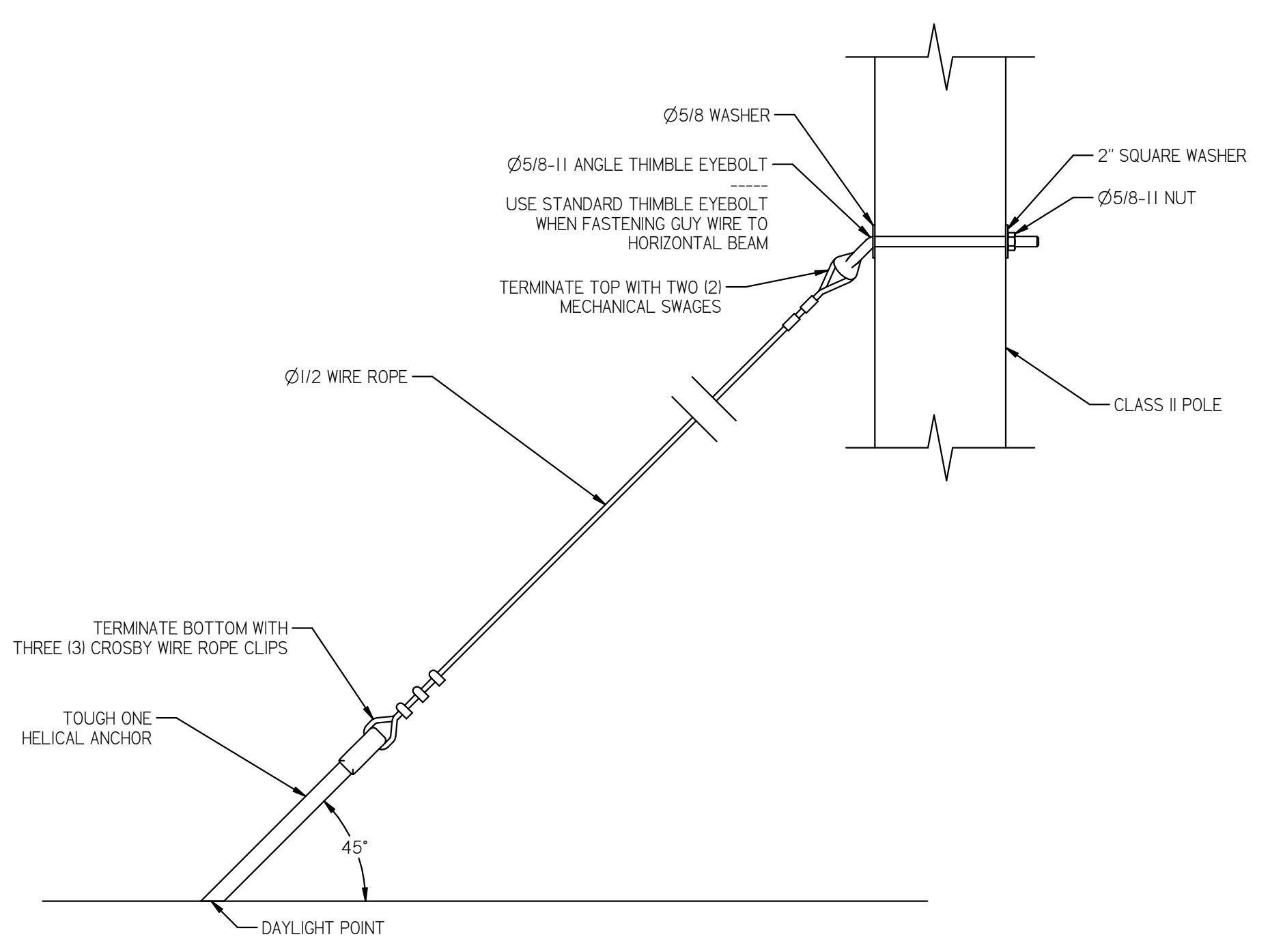
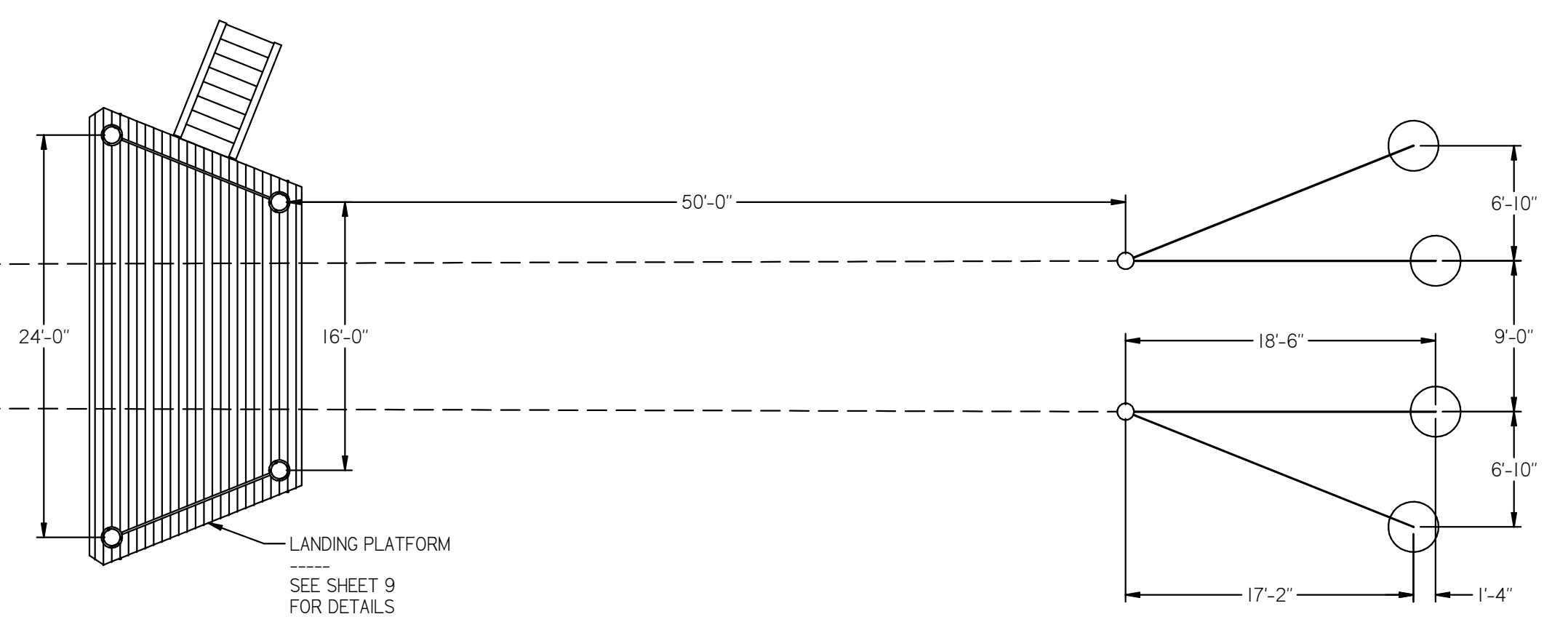
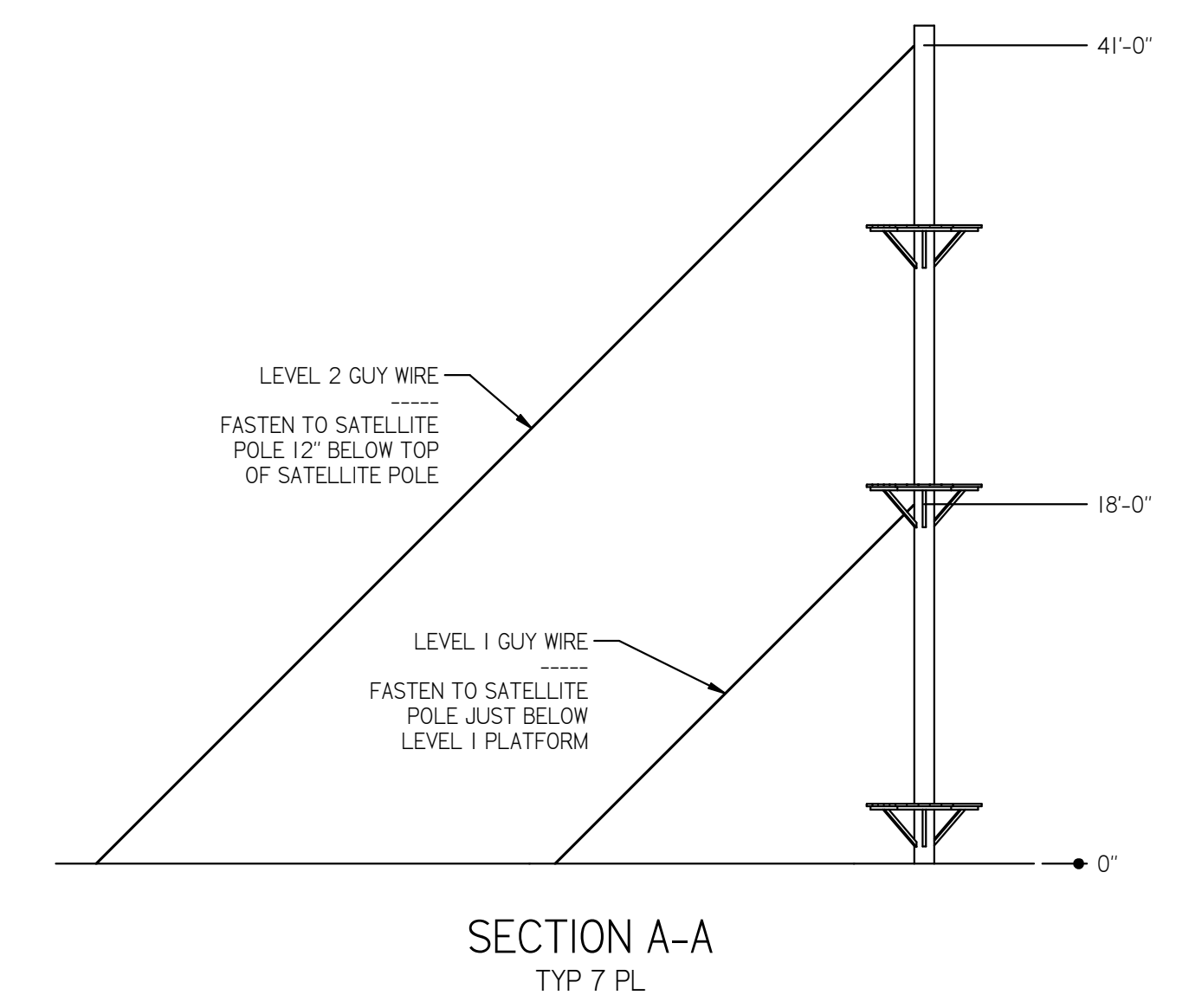
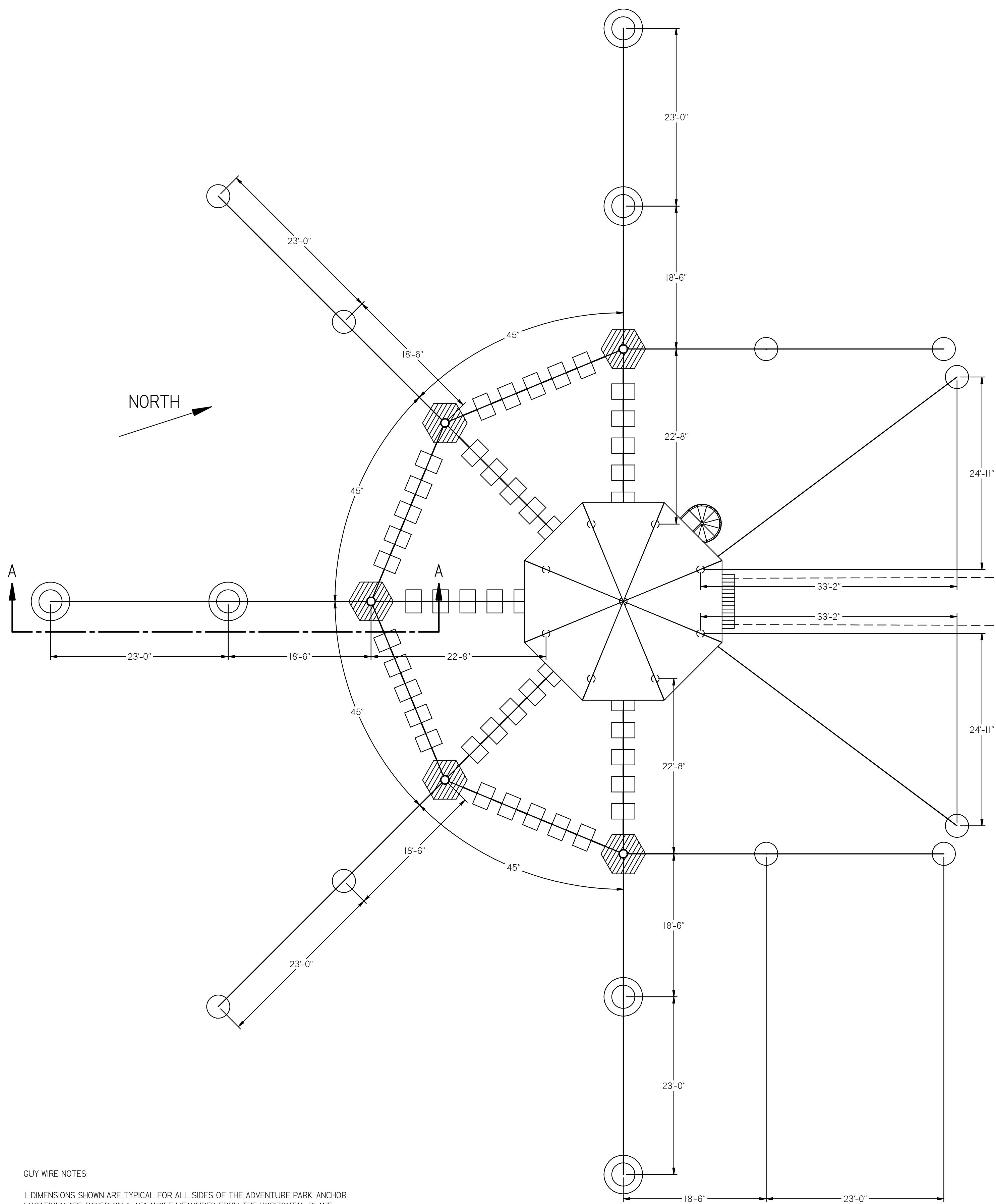
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
B	SPECIFIED MFG AND PART NUMBERS FOR HARDWARE	11/12/24	DJH



ZIP PROFILE

DIMENSIONS IN INCHES UNLESS NOTED OTHERWISE TOLERANCES 1 PL ±0.1 2 PL ±0.02 3 PL ±0.005 ANGLE ±1° FRACTION ±1/16		83 Oakdale Path Dallas, Georgia 30157 (404) 452-1364 www.davehodges.com	
<b>DAVID J. HODGES, P. E.</b> STRUCTURAL ENGINEERING & SOFTWARE SOLUTIONS			
<b>ZIP LINE ADVENTURE PARK</b>			
DRAWN	DATE	DWG NO.	REV
DJH	10/21/24	241258-1	B
CHECKED	DATE	SIZE	SCALE
DJH	11/12/24	D	NONE
		SHEET	2 OF 10

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
B	SPECIFIED MFG AND PART NUMBERS FOR HARDWARE	11/12/24	DJH



- GUY WIRE NOTES:**
- DIMENSIONS SHOWN ARE TYPICAL FOR ALL SIDES OF THE ADVENTURE PARK. ANCHOR LOCATIONS ARE BASED ON A 45° ANGLE MEASURED FROM THE HORIZONTAL PLANE. ANCHORS MAY BE MOVED ±5' IN ANY DIRECTION AS REQUIRED BASED ON TERRAIN.
  - ALL GUY WIRES ARE  $\varnothing 1/2$  WITH A MINIMUM BREAKING LOAD OF 25,400 LB.
  - GUY WIRES SHALL HAVE AN INITIAL TENSION OF 1,000 LBS.
  - GUY WIRES SHALL HAVE AN INITIAL TENSION OF 1,000 LBS.
  - GUY ANCHORS DENOTED WITH A SINGLE CIRCLE SHALL BE PULL TESTED TO MINIMUM 10,000 LBS. THOSE DENOTED WITH A DOUBLE CIRCLE SHALL BE PULL TESTED TO MINIMUM 20,000 LBS.
  - SEE DETAIL ON THIS SHEET FOR GUY TERMINATION DETAILS.



**GUY ANCHOR PLAN**

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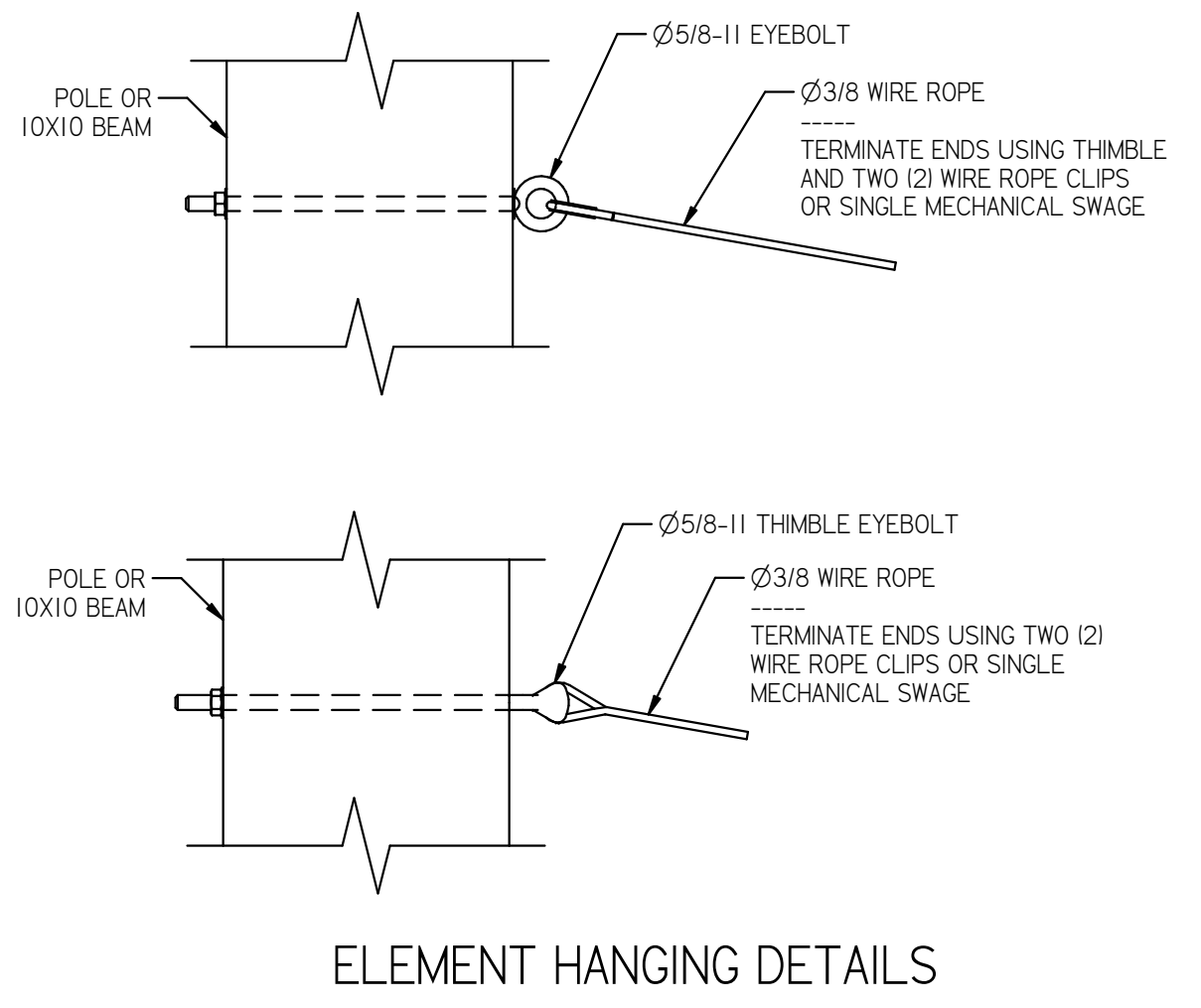
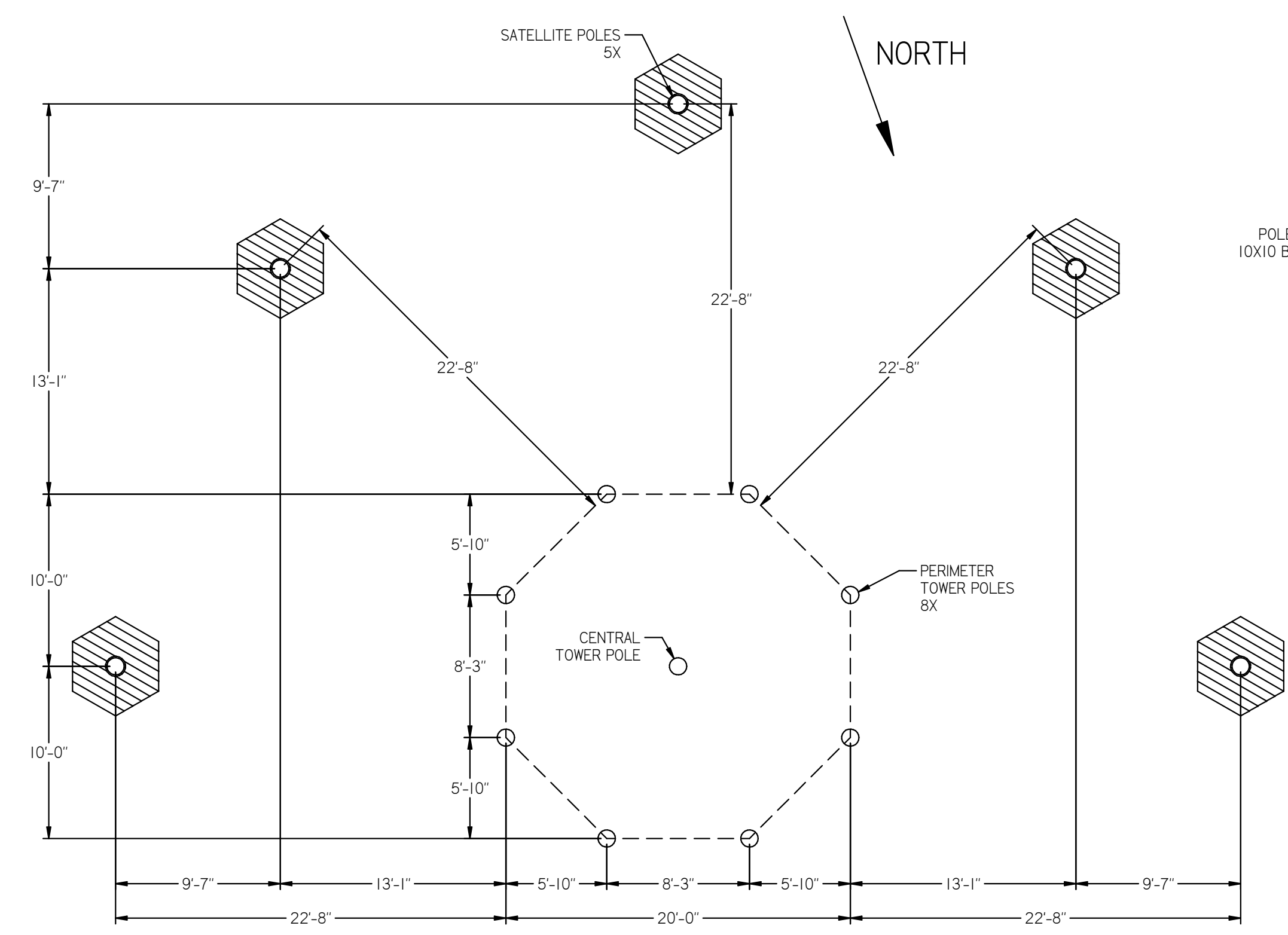
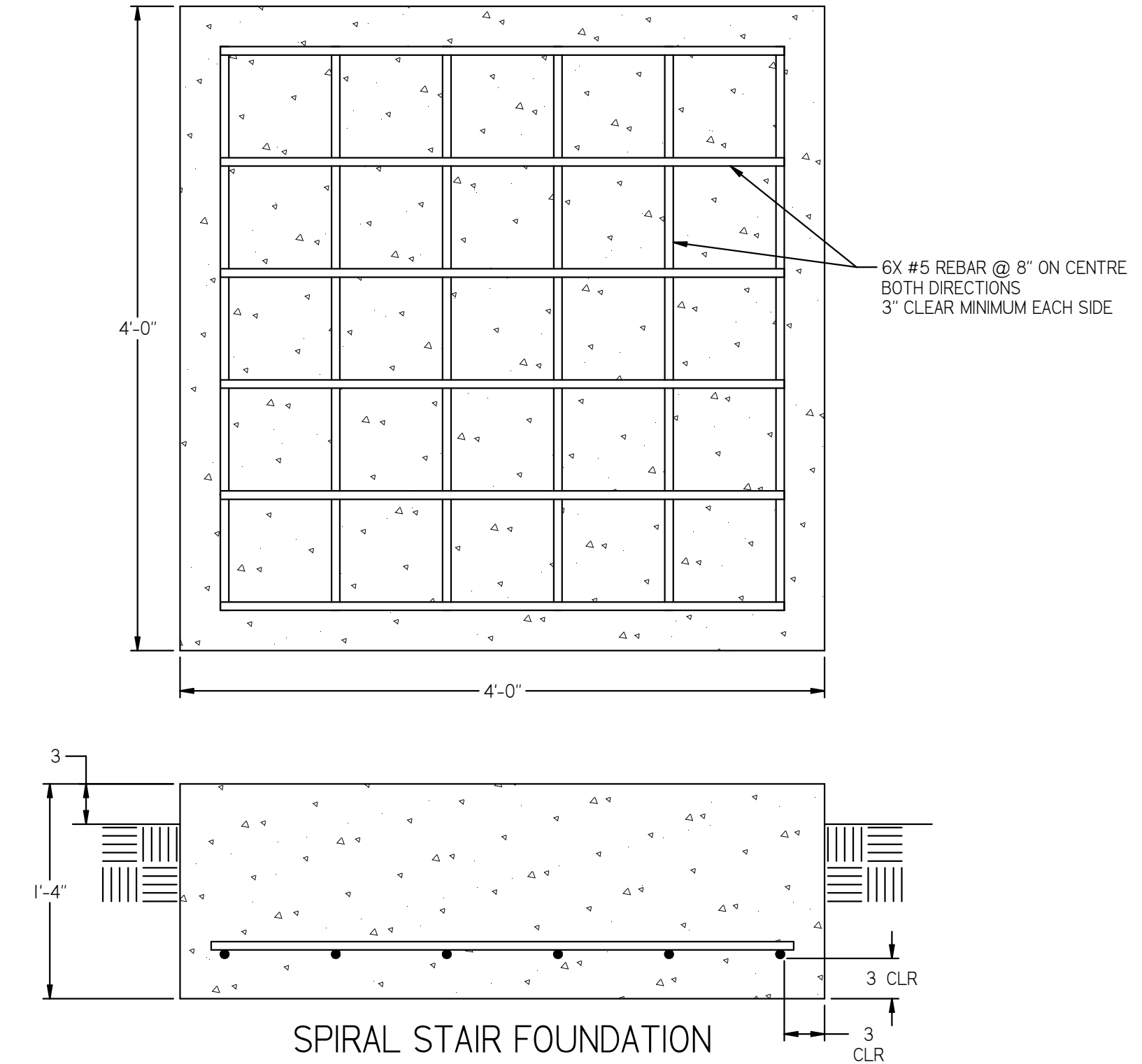
**DAVID J. HODGES, P.E.**  
STRUCTURAL ENGINEERING & SOFTWARE SOLUTIONS

DIMENSIONS IN INCHES UNLESS NOTED OTHERWISE		TOLERANCES	
1 PL	±0.1	ANGLE	±1°
2 PL	±0.02	FRACTION	±1/16
3 PL	±0.005		
DRAWN DJH		DATE 10/21/24	DWG NO. 241258-1
CHECKED DJH		DATE 11/12/24	SCALE NONE
		SIZE D	SHEET 3 OF 10
			REV B

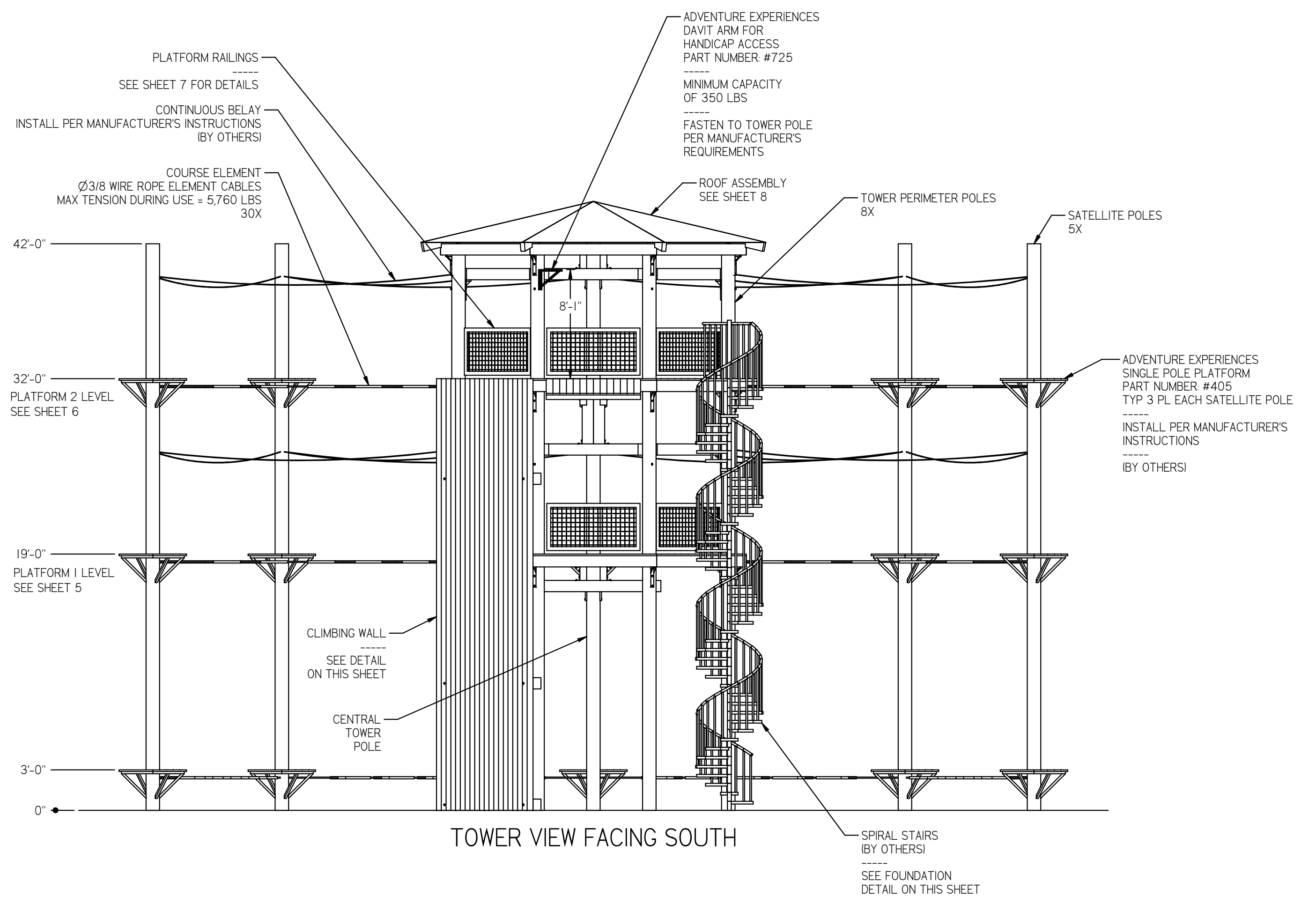
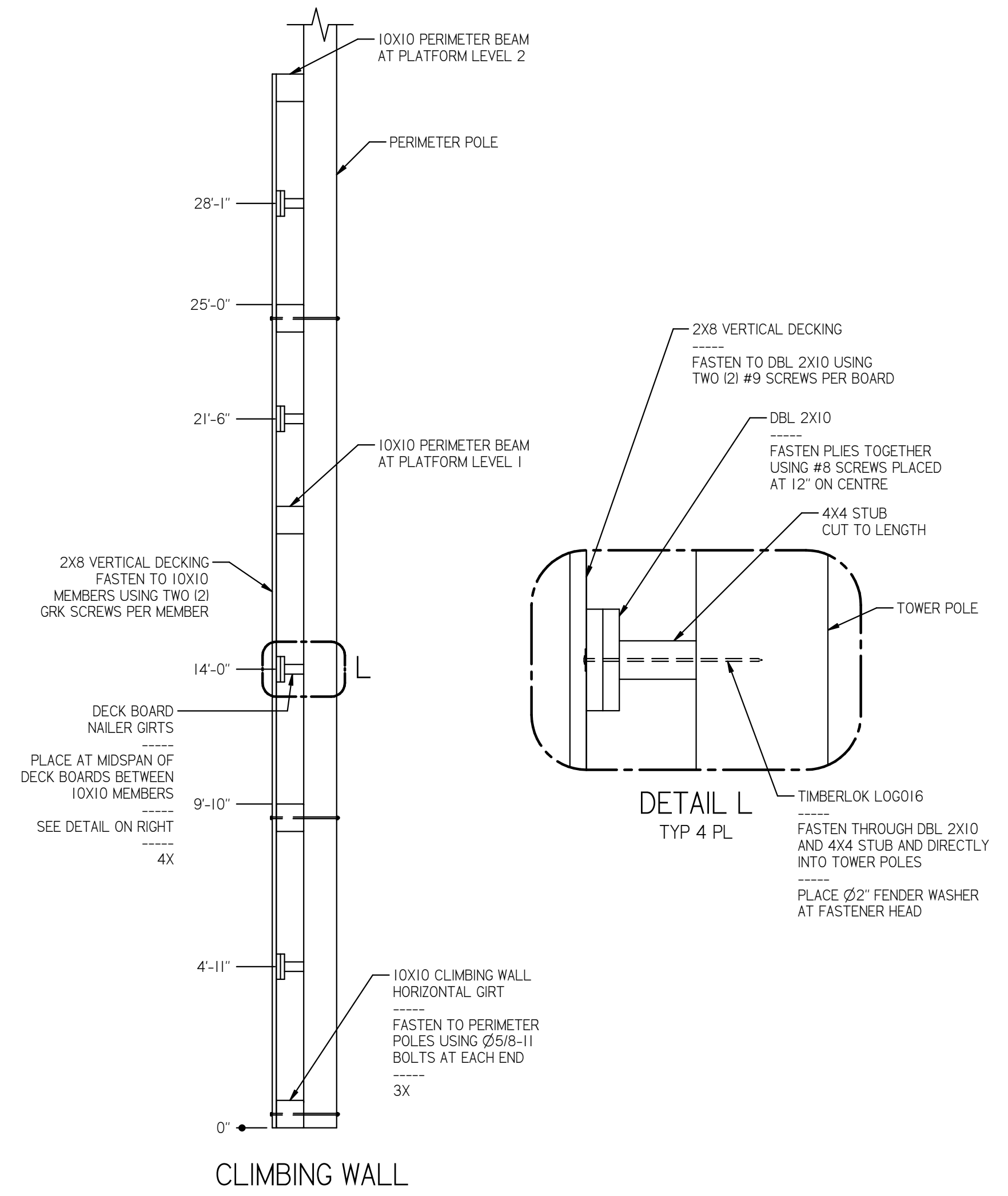
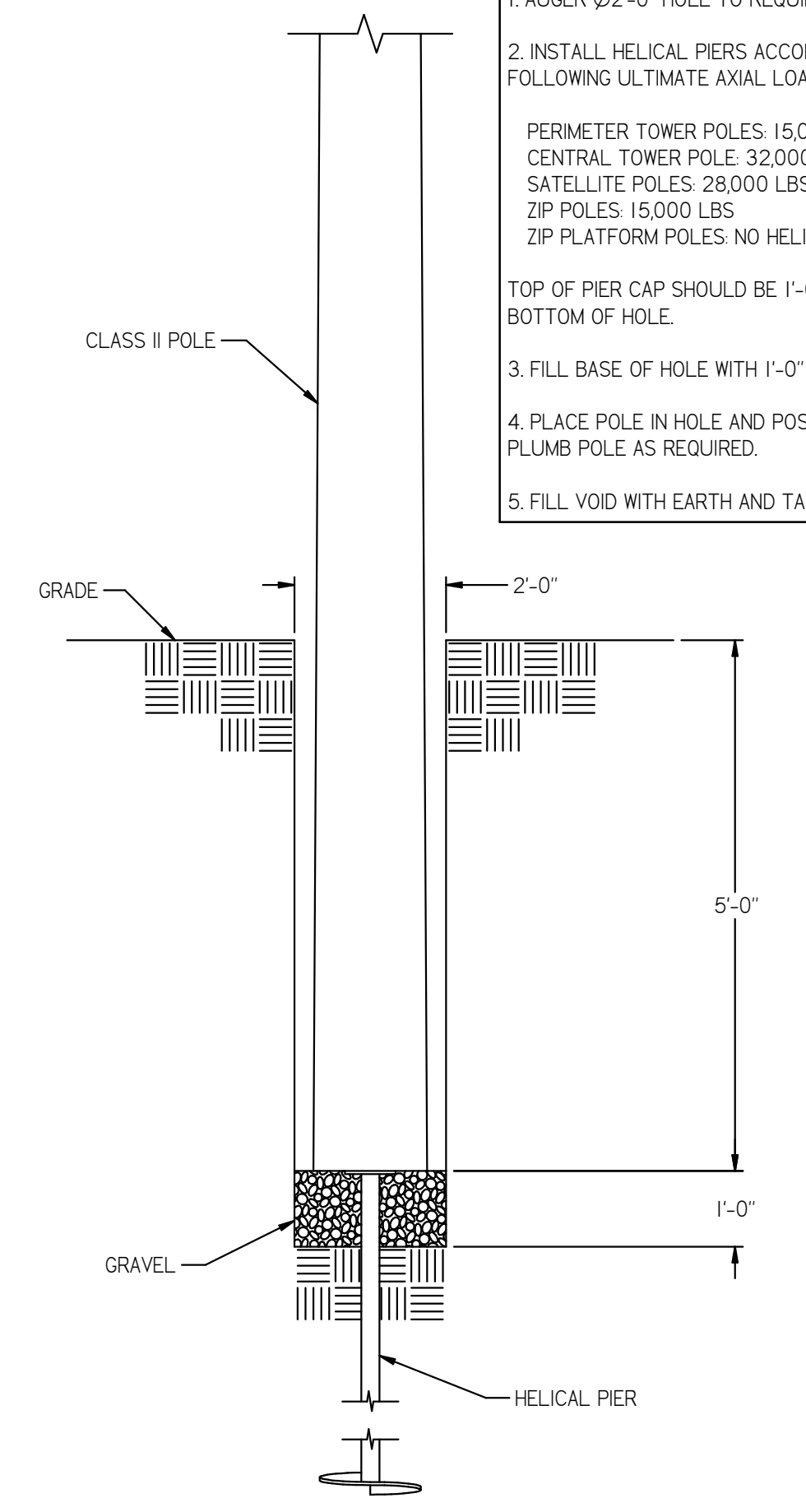
**ZIP LINE ADVENTURE PARK**



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
B	SPECIFIED MFG AND PART NUMBERS FOR HARDWARE	11/12/24	DJH



- STEPS:
- AUGER Ø2'-0" HOLE TO REQUIRED DEPTH.
  - INSTALL HELICAL PIERS ACCORDING TO THE FOLLOWING ULTIMATE AXIAL LOADS:  
 PERIMETER TOWER POLES: 15,000 LBS  
 CENTRAL TOWER POLE: 32,000 LBS  
 SATELLITE POLES: 28,000 LBS  
 ZIP POLES: 15,000 LBS  
 ZIP PLATFORM POLES: NO HELICAL REQUIRED  
 TOP OF PIER CAP SHOULD BE 1'-0" ABOVE BOTTOM OF HOLE.
  - FILL BASE OF HOLE WITH 1'-0" OF GRAVEL.
  - PLACE POLE IN HOLE AND POSITION AND PLUMB POLE AS REQUIRED.
  - FILL VOID WITH EARTH AND TAMP.



TOWER PLAN AND ELEVATION

DRAWN	DJH	DATE	10/21/24	DWG NO.	241258-1	REV	B
CHECKED	DJH	DATE	11/12/24	SIZE	D	SCALE	NONE
				SHEET	4	OF 10	

DIMENSIONS IN INCHES UNLESS NOTED OTHERWISE

TOLERANCES

1 PL ±0.1

2 PL ±0.02

3 PL ±0.005

ANGLE ±1°

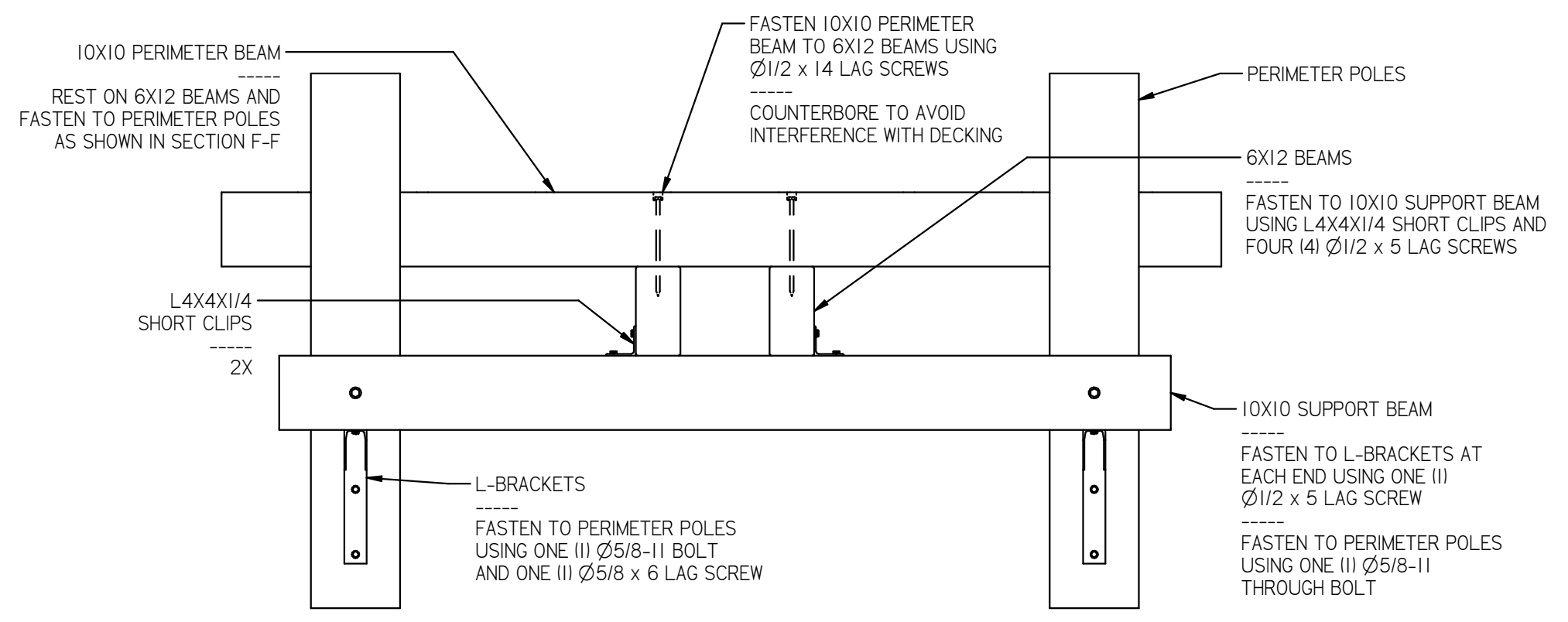
FRACTION ±1/16

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(404) 452-1364  
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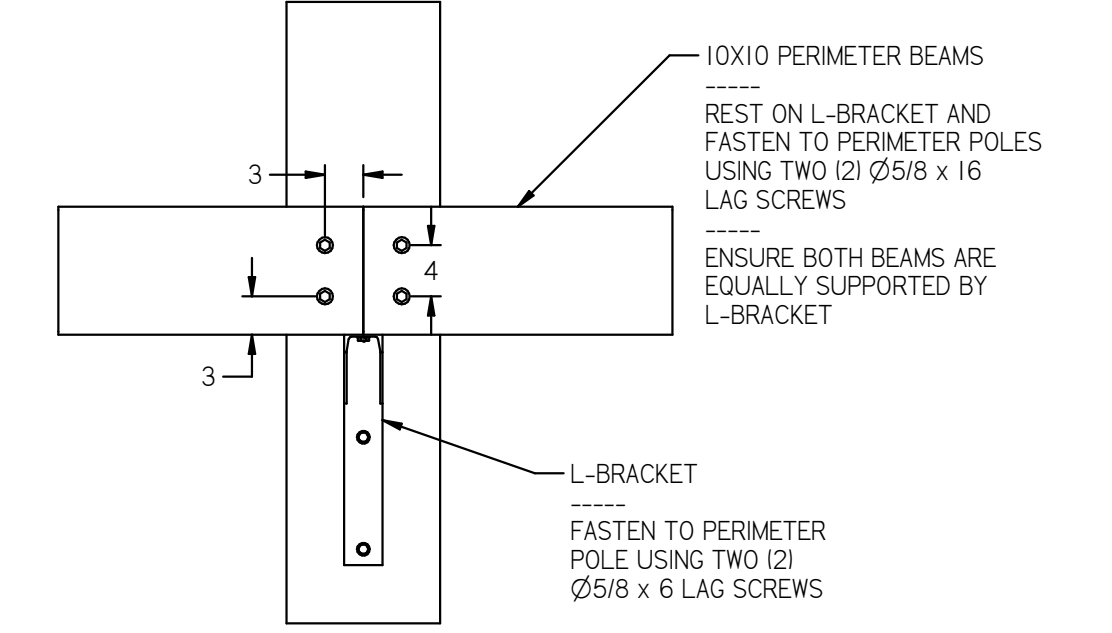
DAVID J. HODGES, P. E.  
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ZIP LINE ADVENTURE PARK

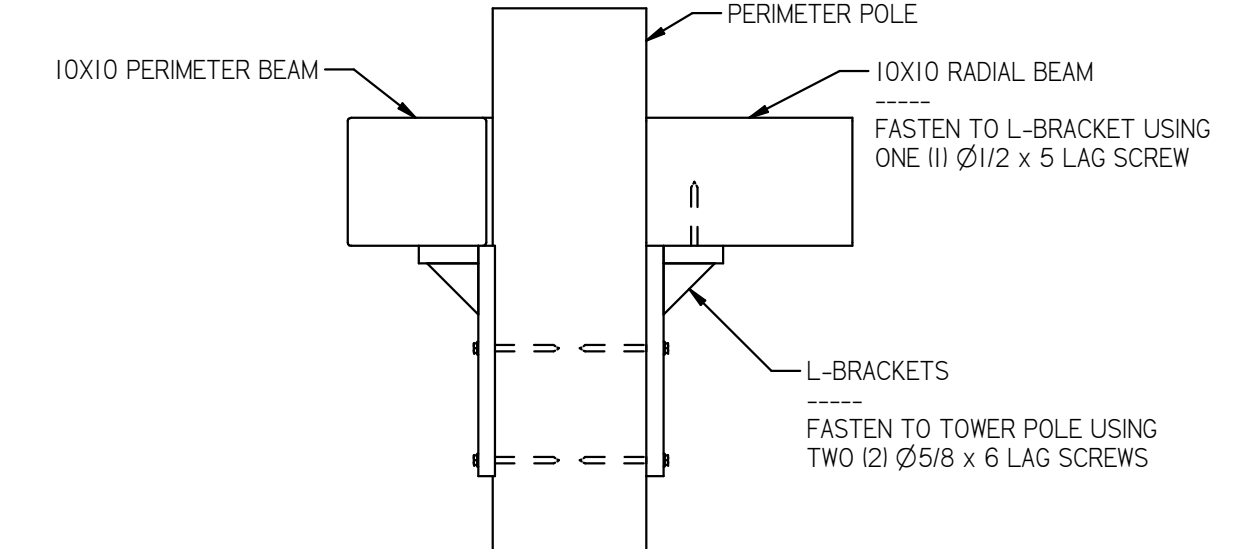
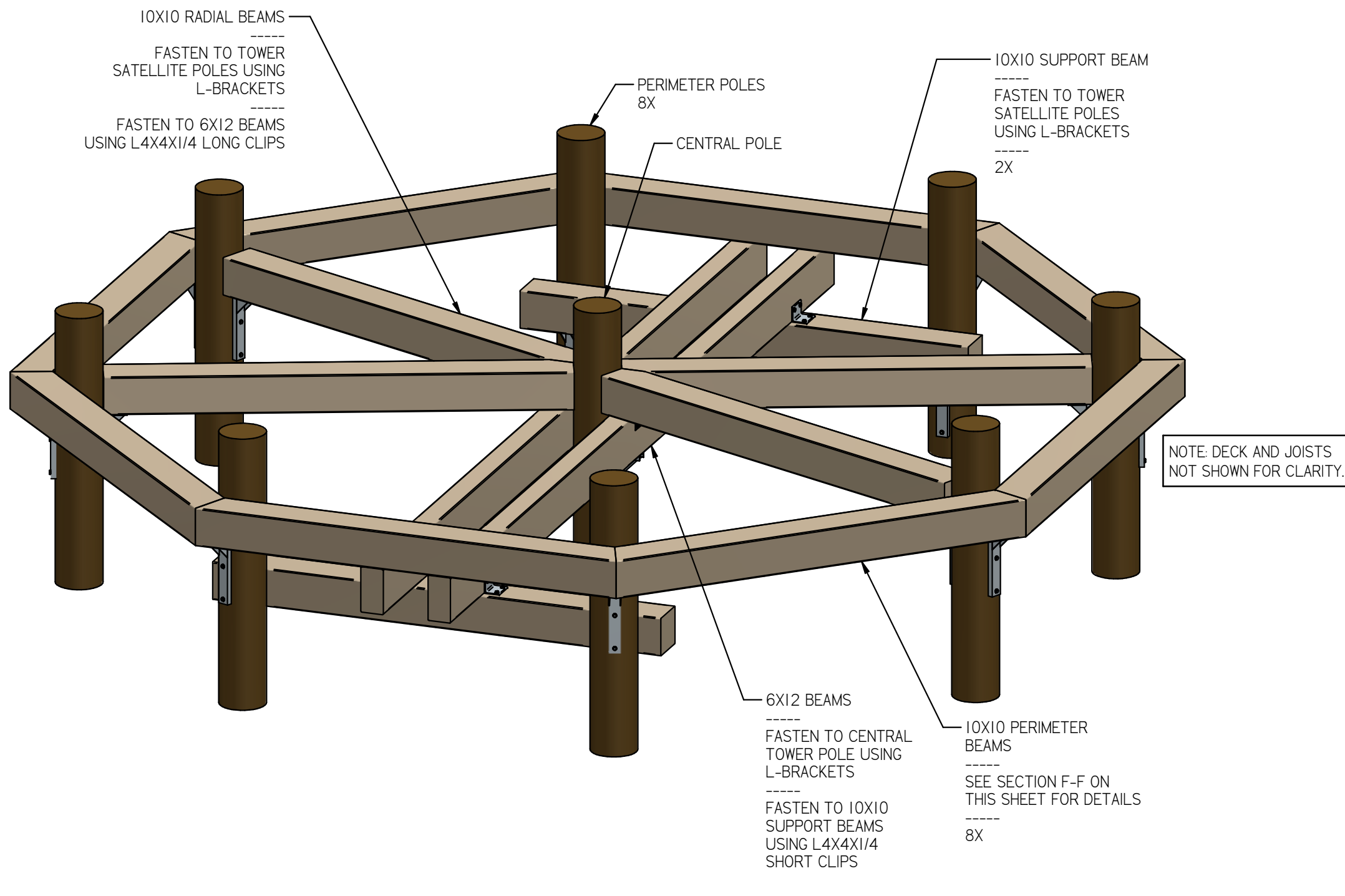
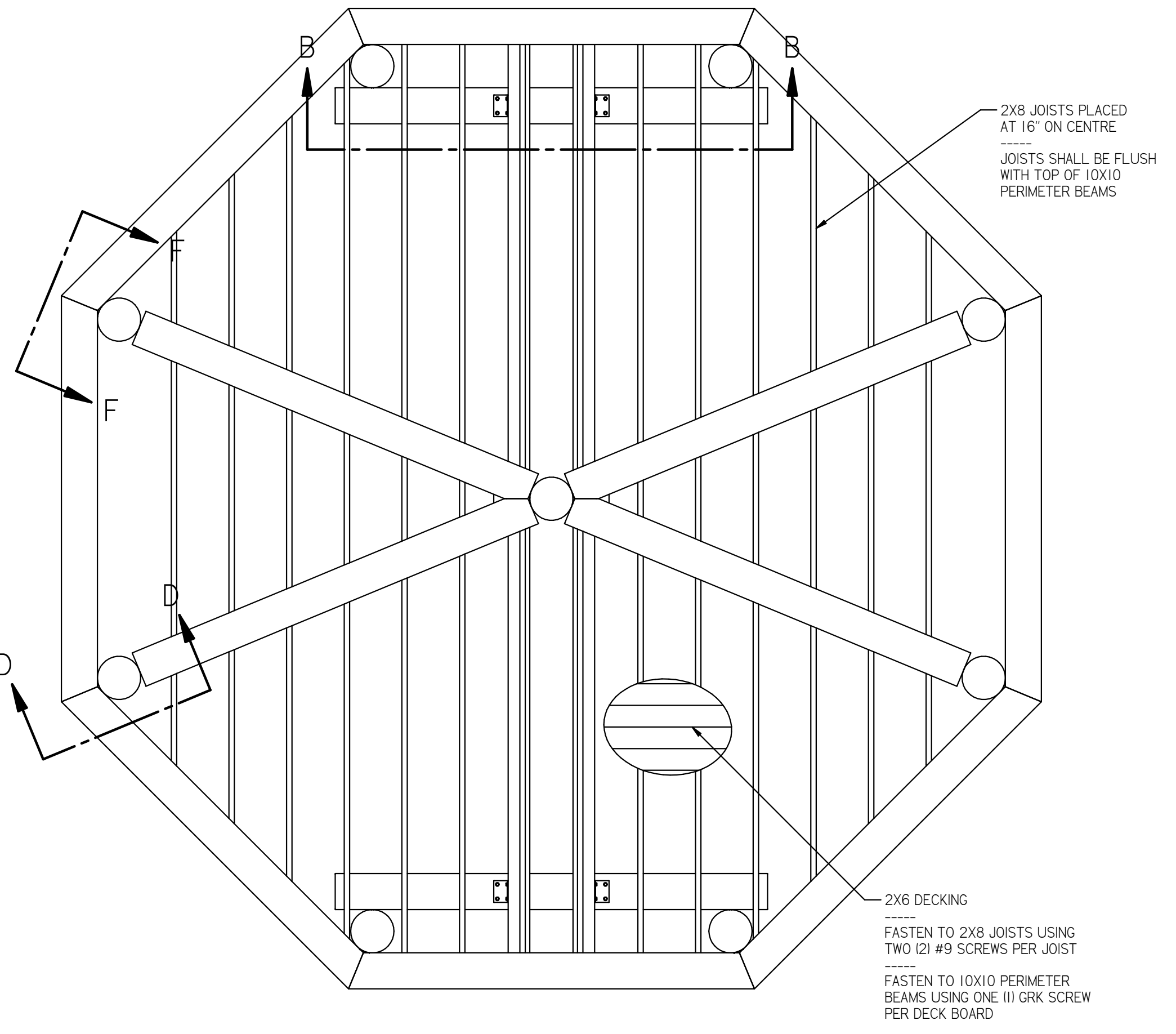
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
B	SPECIFIED MFG AND PART NUMBERS FOR HARDWARE	11/12/24	DJH



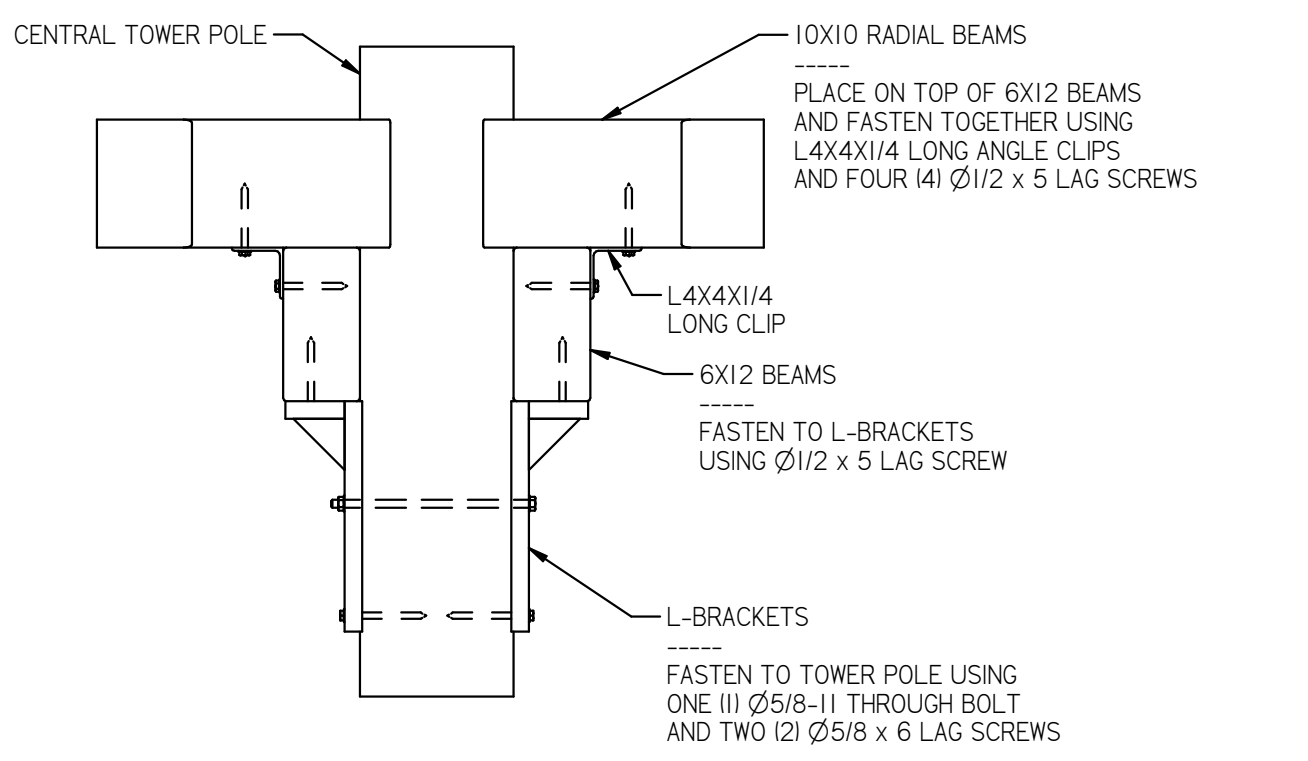
SECTION B-B



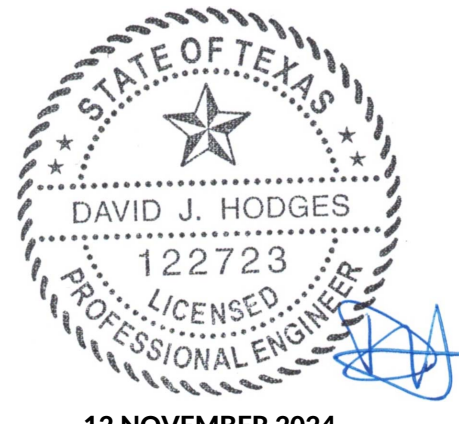
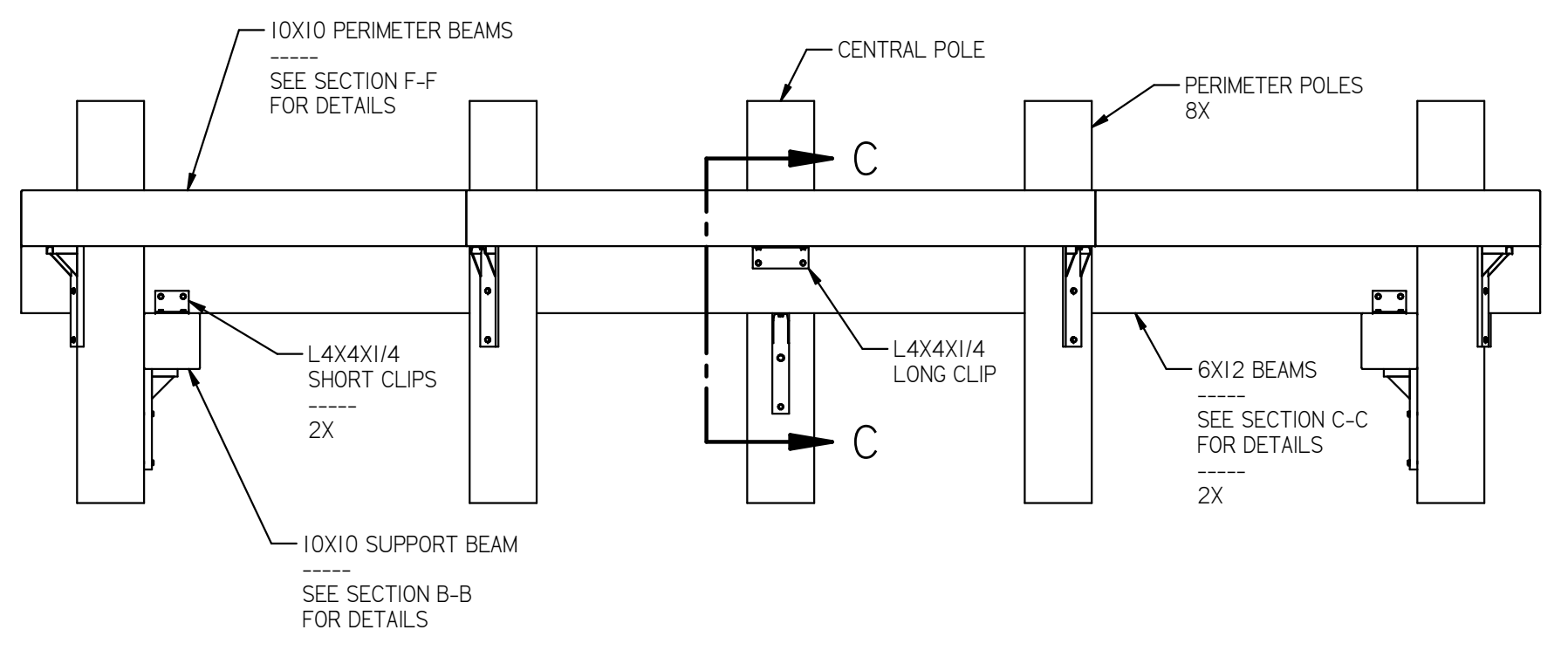
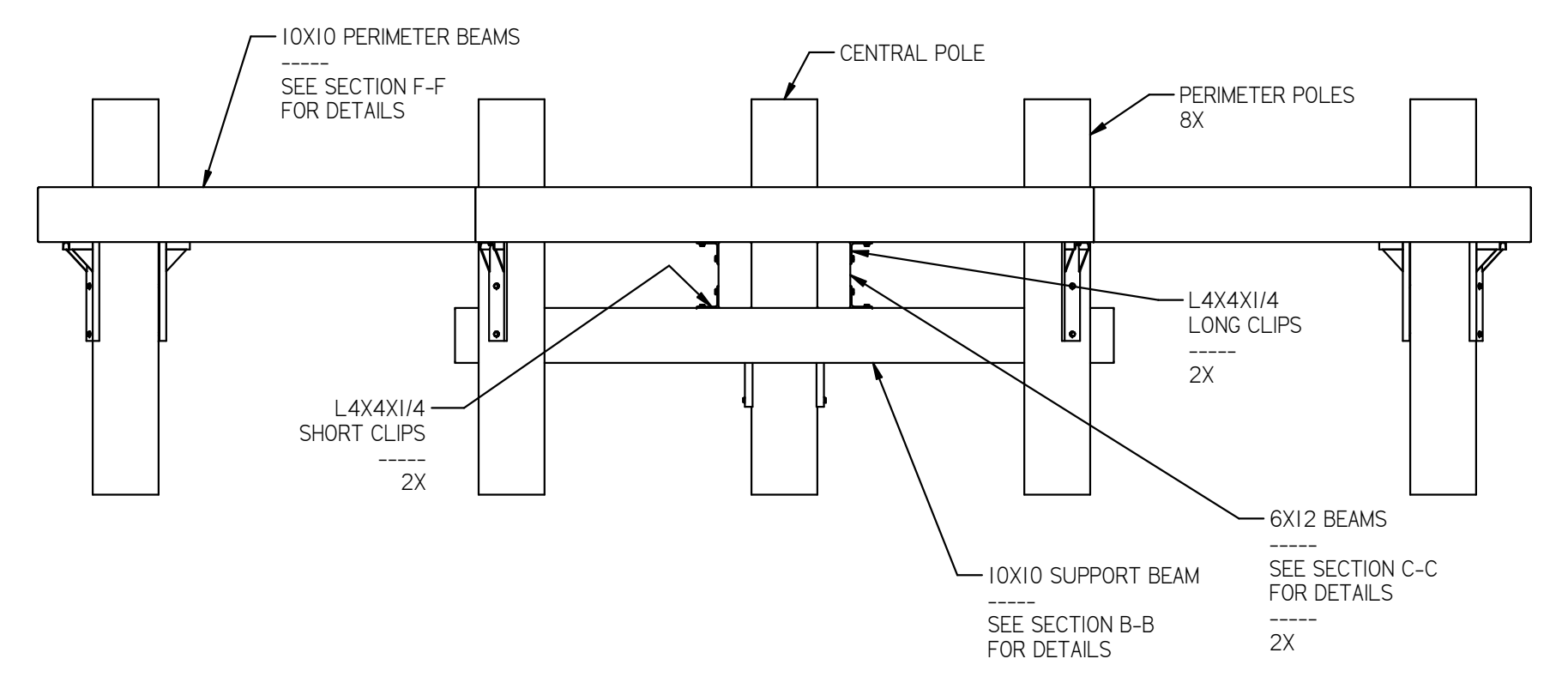
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SECTION D-D



SECTION C-C



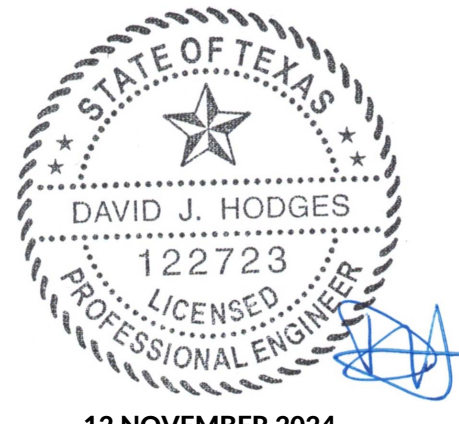
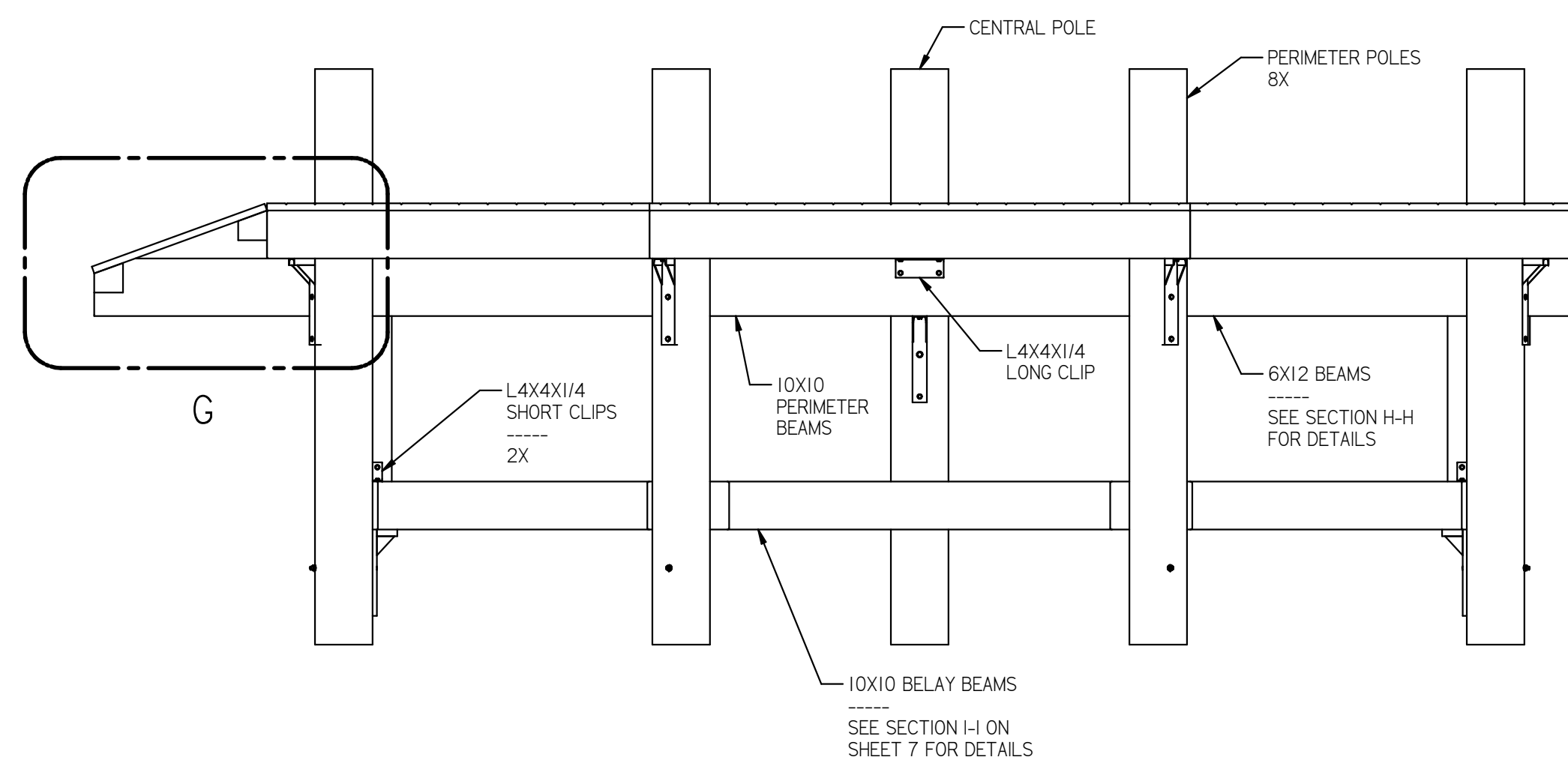
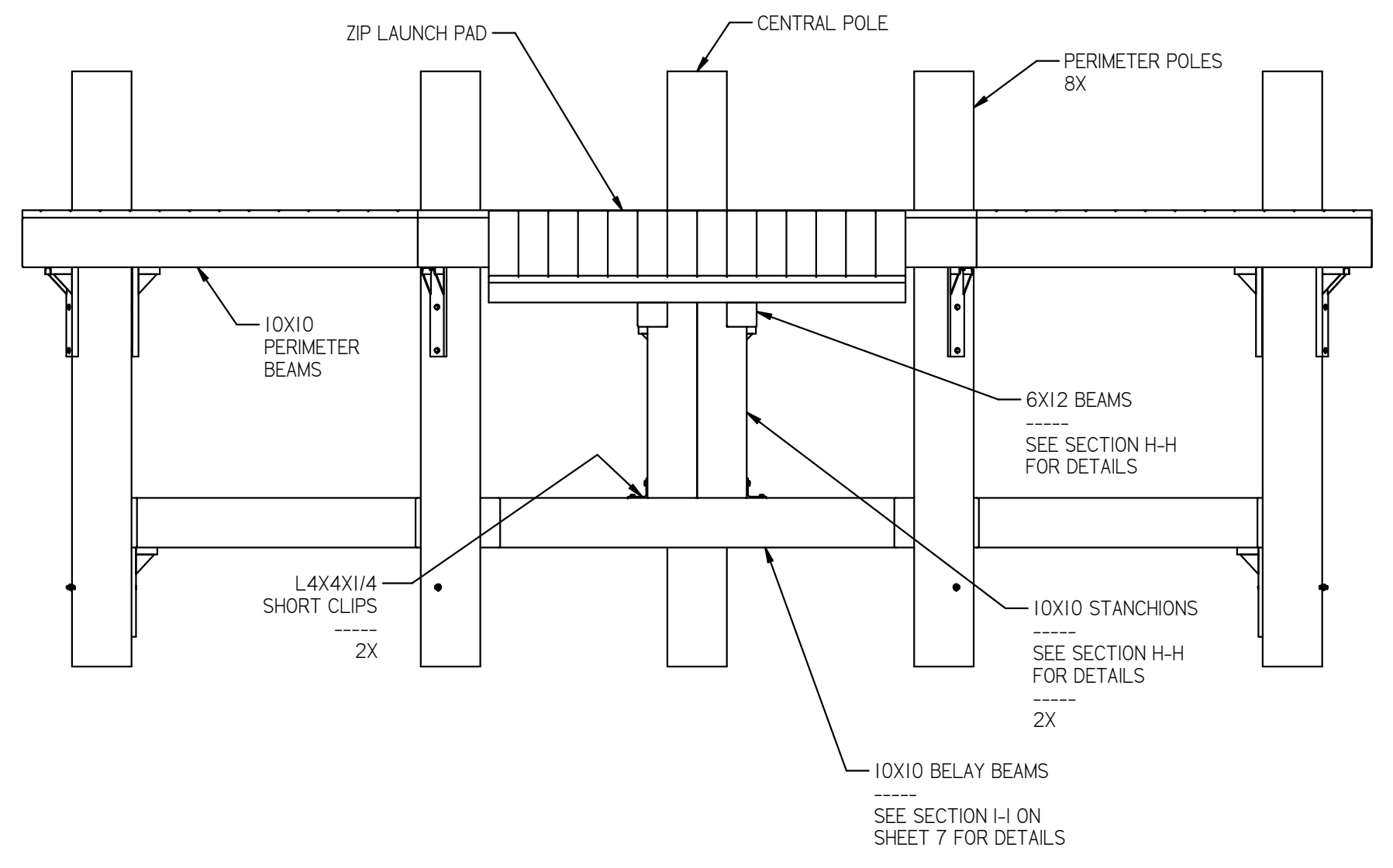
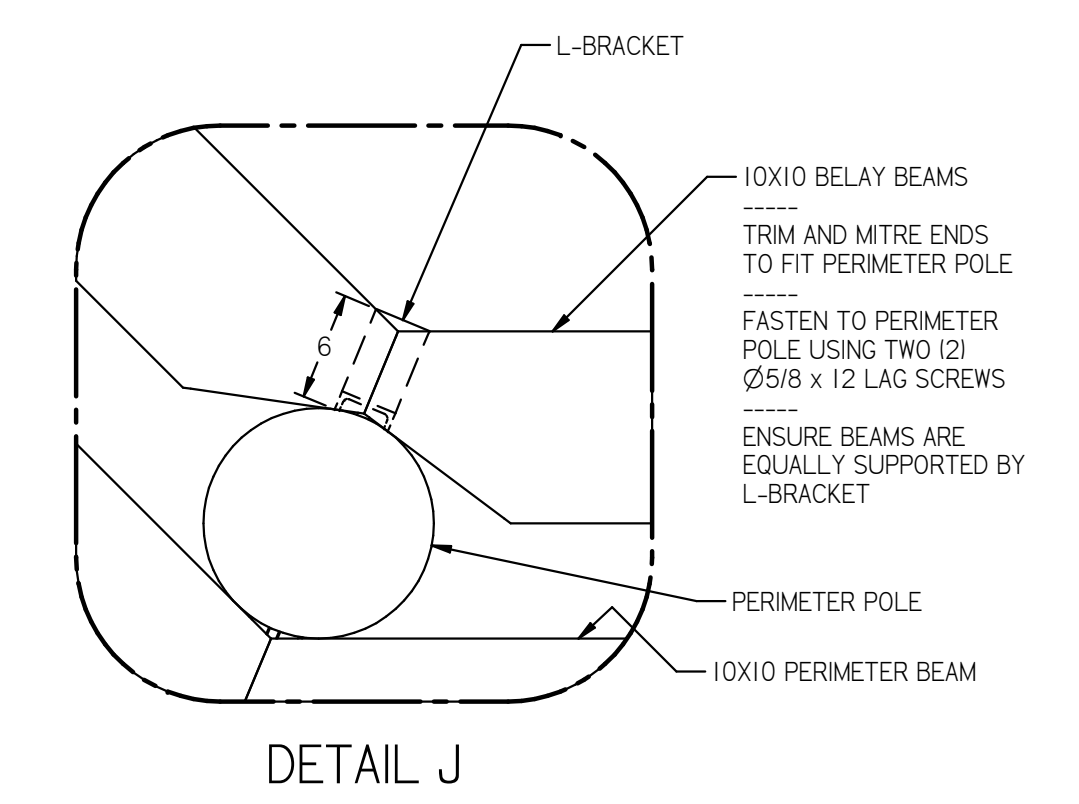
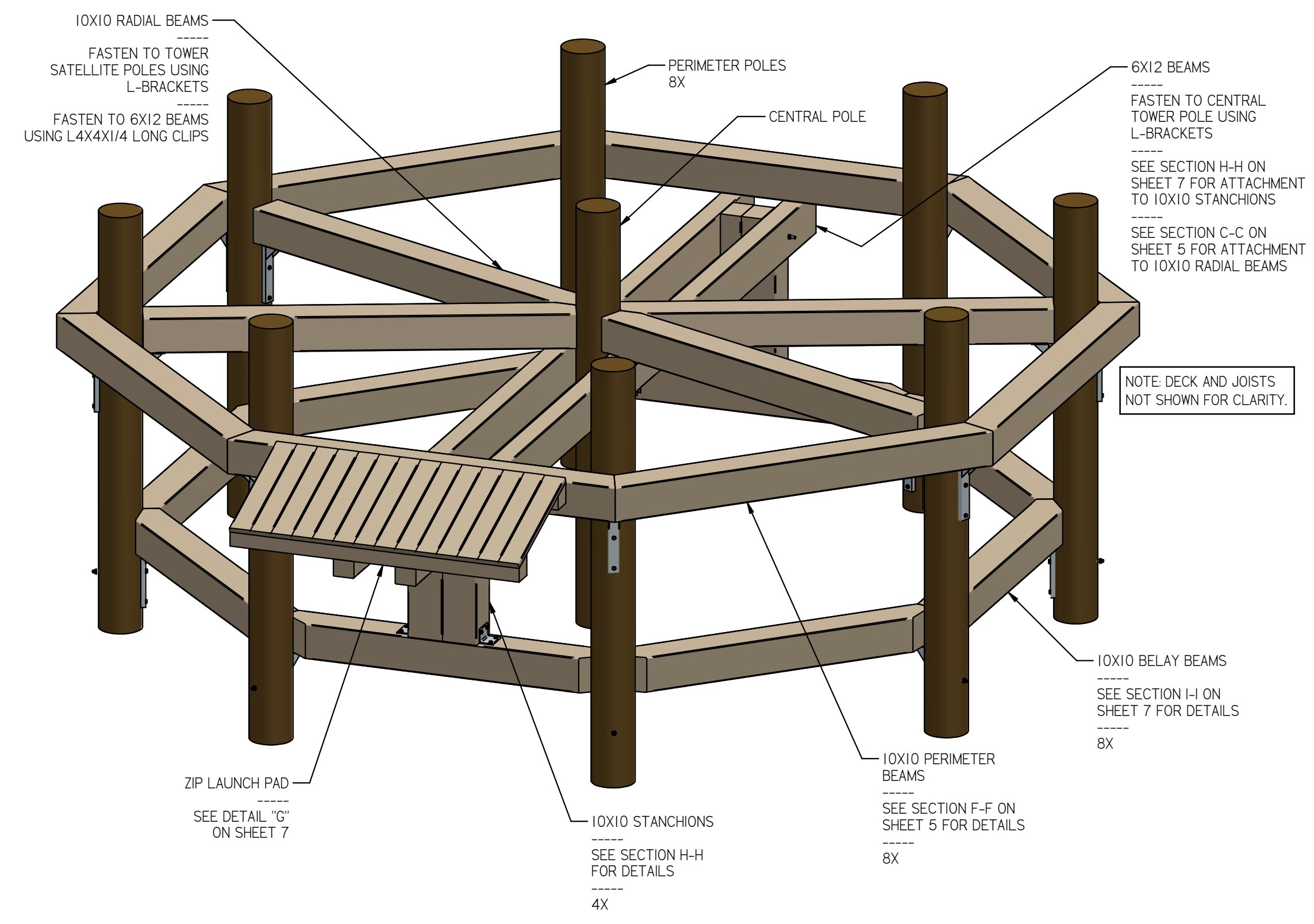
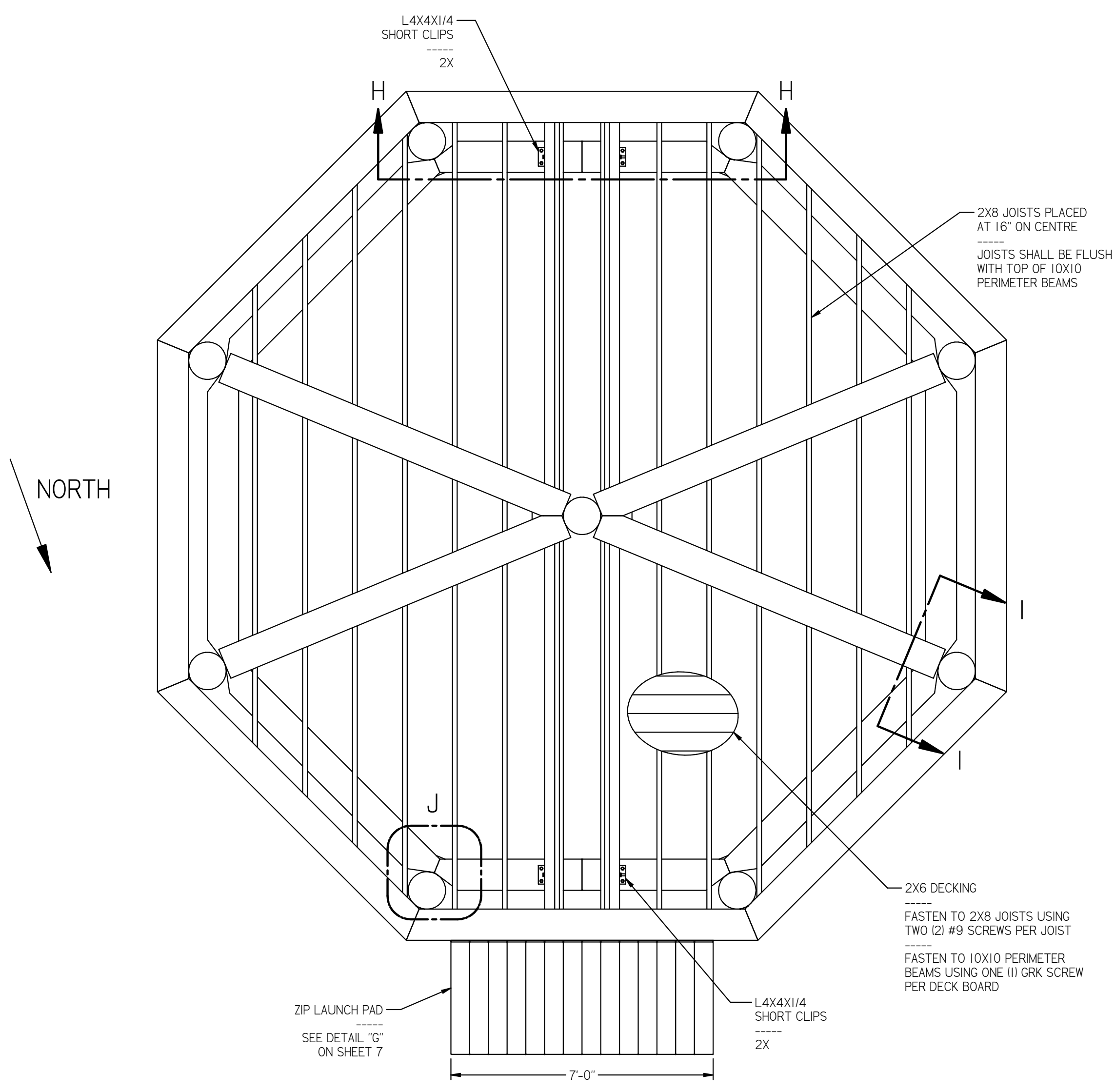
PLATFORM I ASSEMBLY 12 NOVEMBER 2024

DIMENSIONS IN INCHES UNLESS NOTED OTHERWISE		TOLERANCES		83 Oakdale Path Dallas, Georgia 30157 (404) 452-1364 www.davehodges.com	
1 PL	±0.1			<b>DAVID J. HODGES, P. E.</b> STRUCTURAL ENGINEERING & SOFTWARE SOLUTIONS LICENSED PROFESSIONAL ENGINEER 122723	
2 PL	±0.02				
3 PL	±0.005				
ANGLE	±1°				
FRACTION	±1/16				

DRAWN DJH		DATE 10/21/24	DWG NO. 241258-1	REV B
CHECKED DJH		DATE 11/12/24	SIZE D SCALE NONE	SHEET 5 OF 10



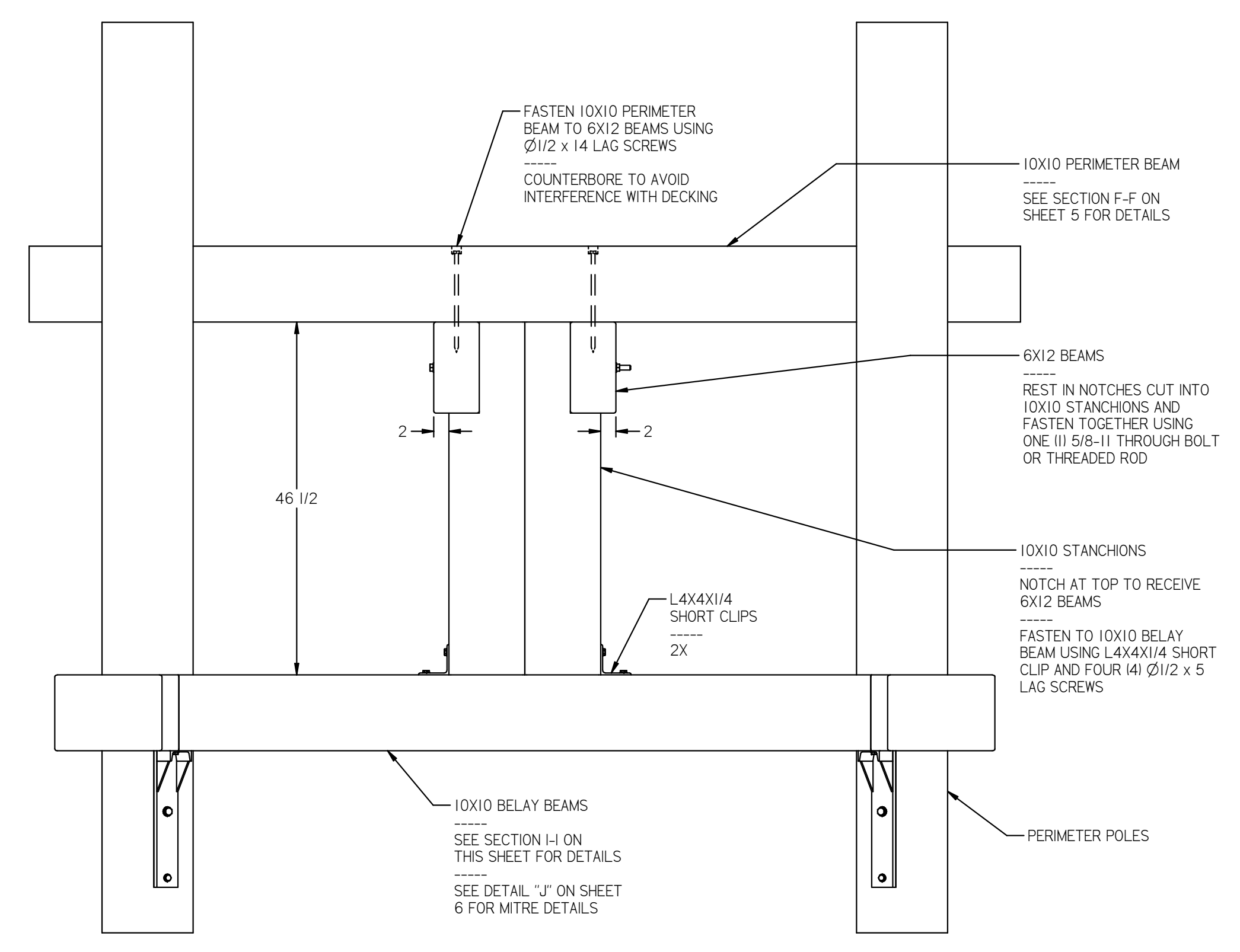
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
B	SPECIFIED MFG AND PART NUMBERS FOR HARDWARE	11/12/24	DJH



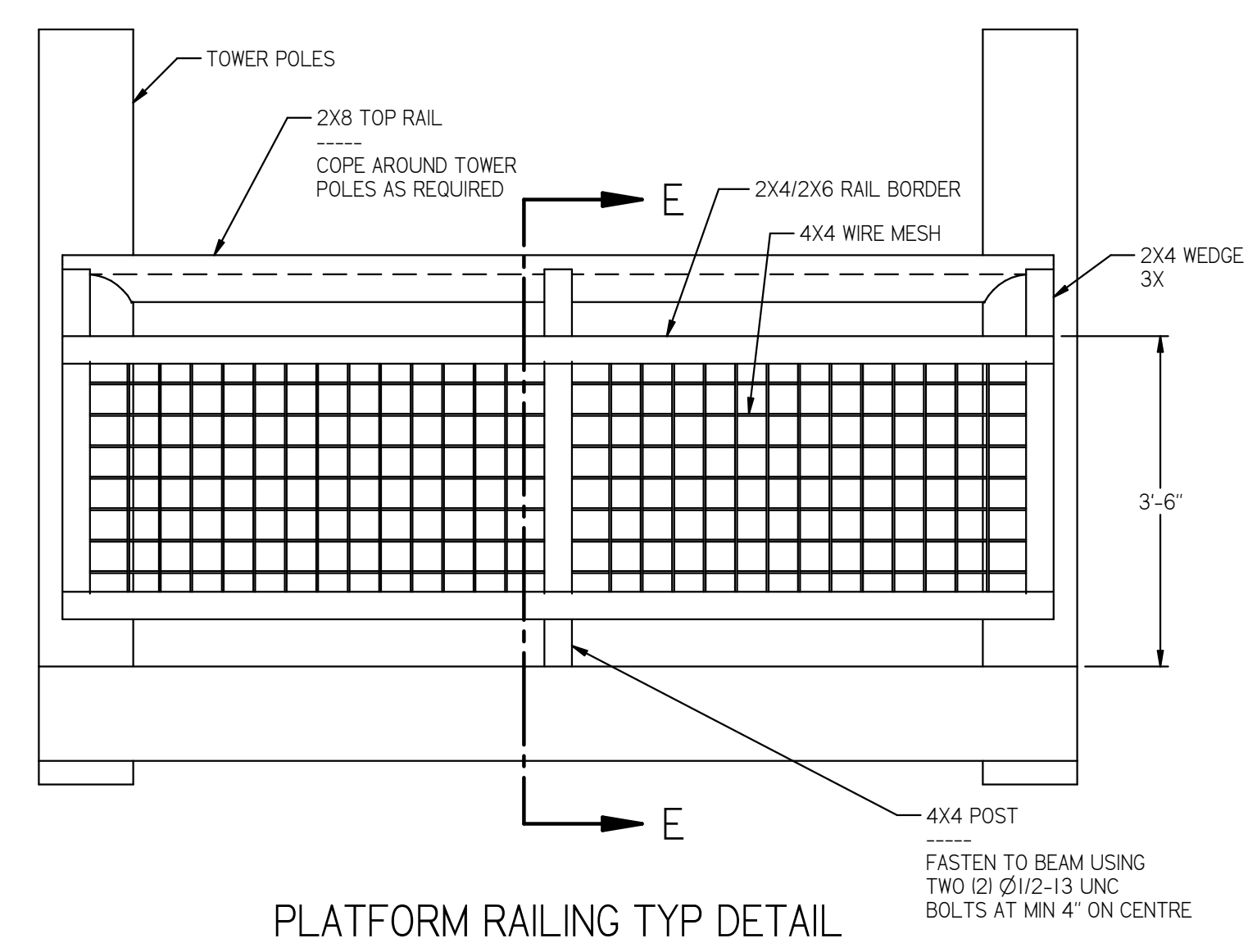
PLATFORM 2 ASSEMBLY 12 NOVEMBER 2024

DIMENSIONS IN INCHES UNLESS NOTED OTHERWISE TOLERANCES 1 PL ±0.1 2 PL ±0.02 3 PL ±0.005 ANGLE ±1° FRACTION ±1/16		<b>DAVID J. HODGES, P. E.</b> <small>STRUCTURAL ENGINEERING &amp; SOFTWARE SOLUTIONS</small> 83 Oakdale Path Dallas, Georgia 30157 (404) 452-1364 www.davehodges.com		
<b>ZIP LINE ADVENTURE PARK</b>				
DRAWN	DJH	DATE	10/21/24	
DWG NO.	241258-1		REV	B
CHECKED	DJH	DATE	11/12/24	
SIZE	D	SCALE	NONE	
SHEET		6 OF 10		

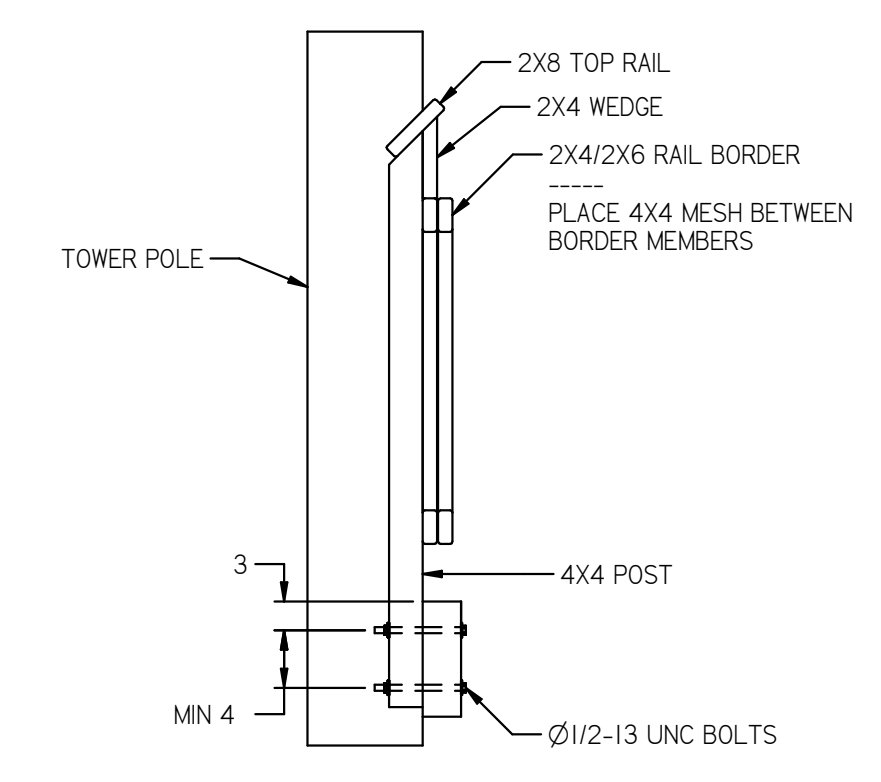
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REV	DESCRIPTION	DATE	APPROVED
B	SPECIFIED MFG AND PART NUMBERS FOR HARDWARE	11/12/24	DJH



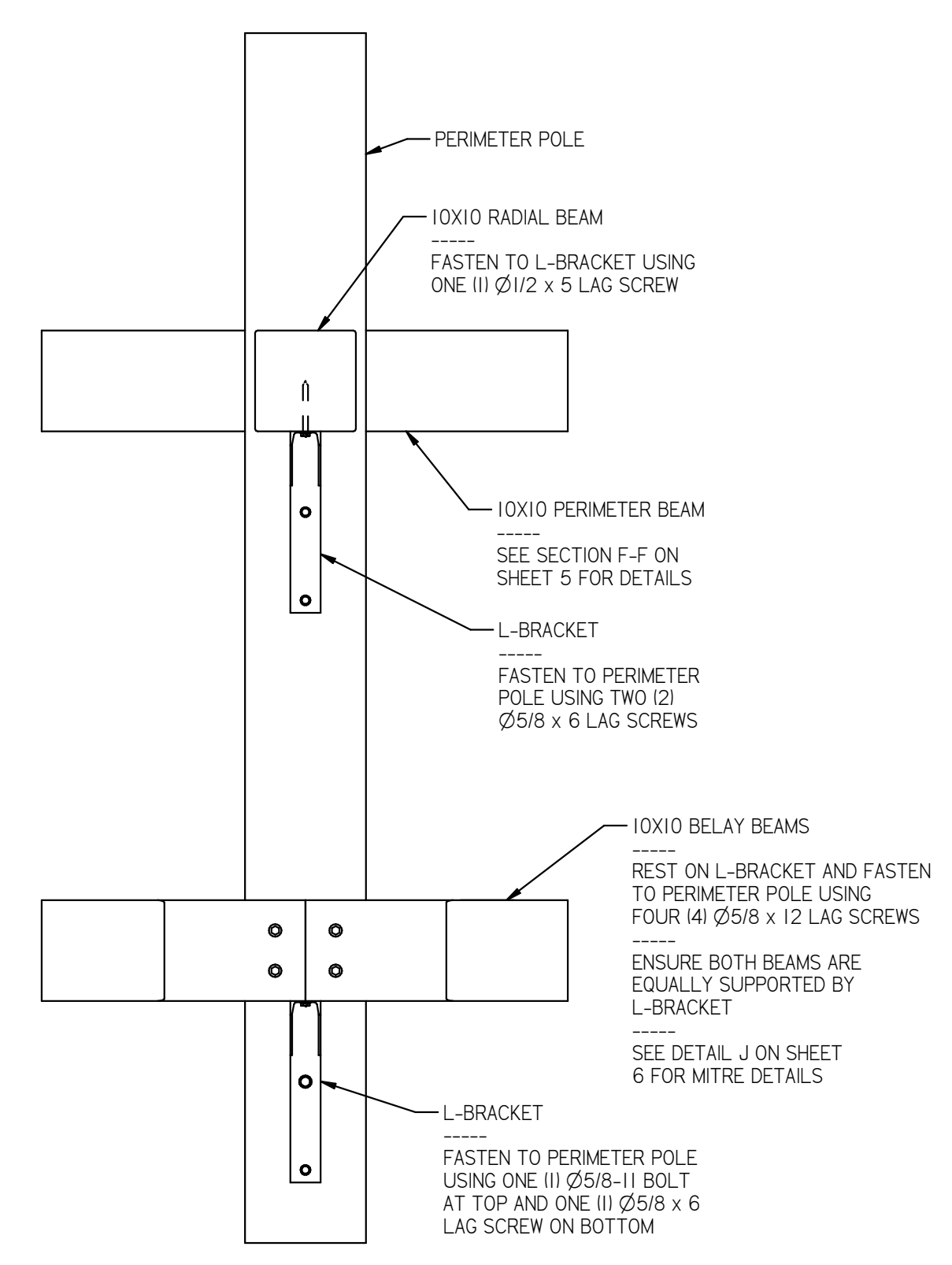
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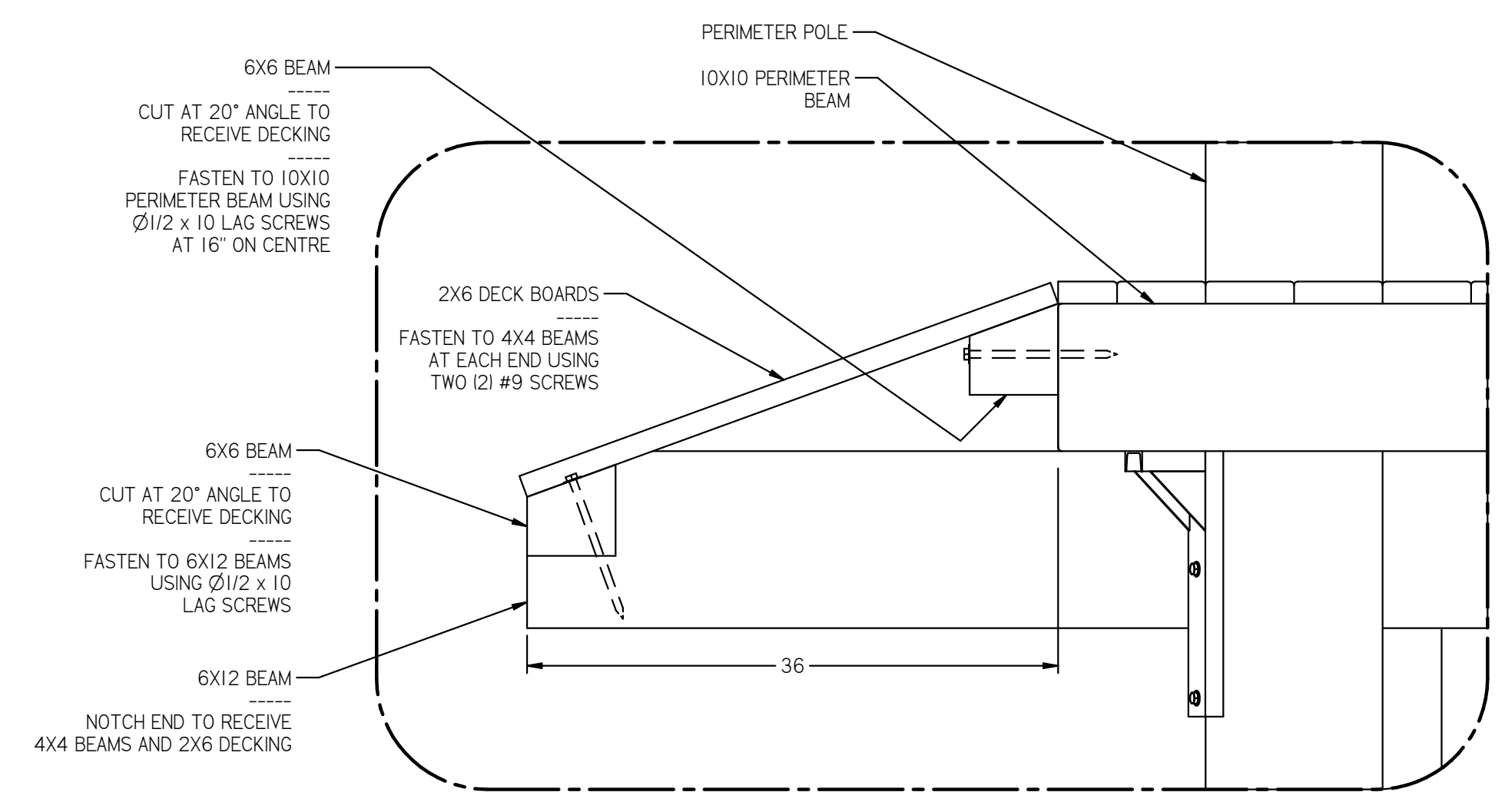
PLATFORM RAILING TYP DETAIL



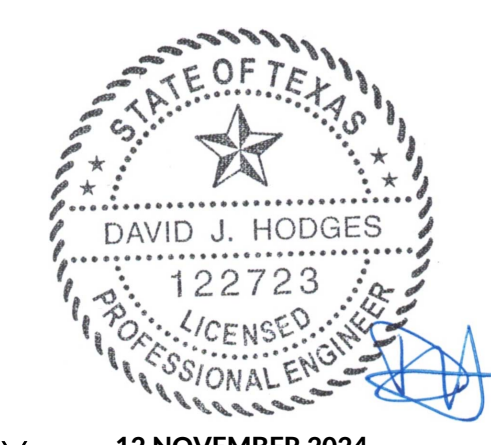
SECTION E-E



SECTION I-I



DETAIL G



PLATFORM 2 ASSEMBLY 12 NOVEMBER 2024

DRAWN DJH		DATE 10/21/24	DWG NO. 241258-1	REV B
CHECKED DJH		DATE 11/12/24	SIZE D	SCALE NONE
		SHEET 7	OF 10	

DIMENSIONS IN INCHES UNLESS NOTED OTHERWISE  
 TOLERANCES  
 1 PL ±0.1  
 2 PL ±0.02  
 3 PL ±0.005  
 ANGLE ±1°  
 FRACTION ±1/16

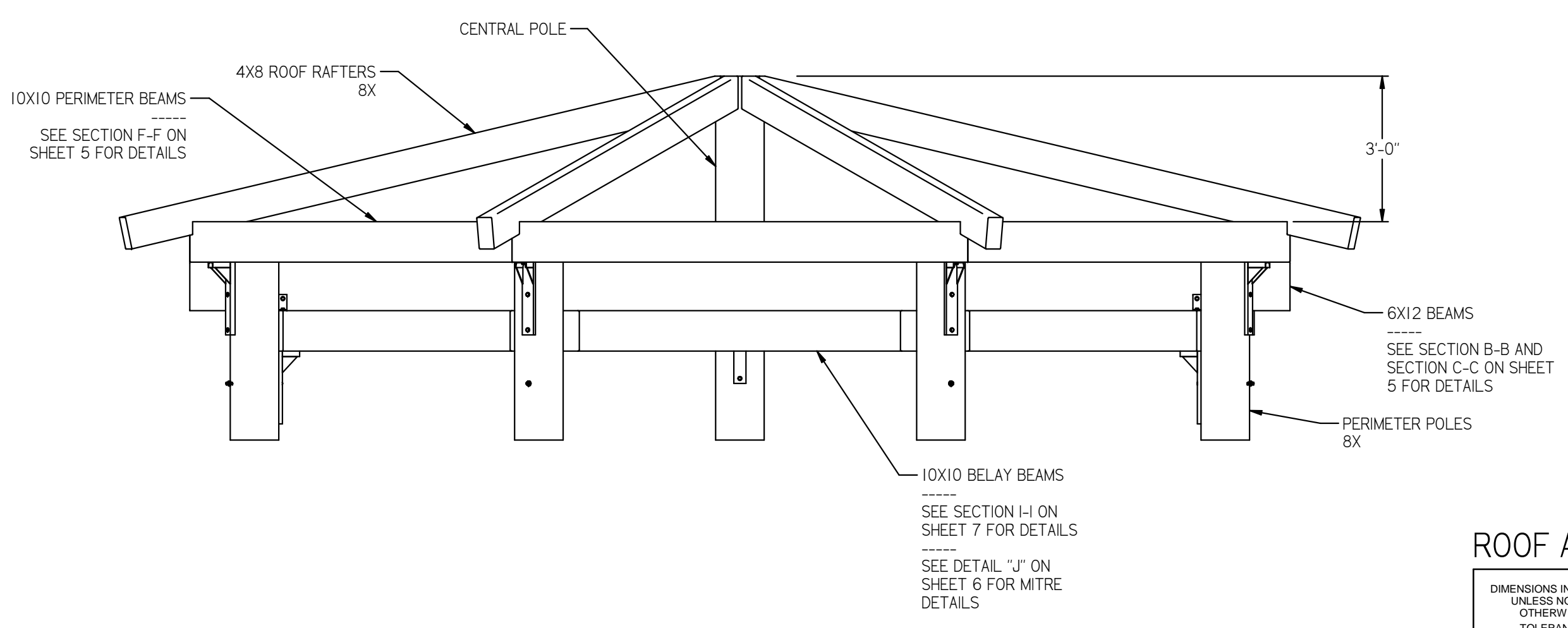
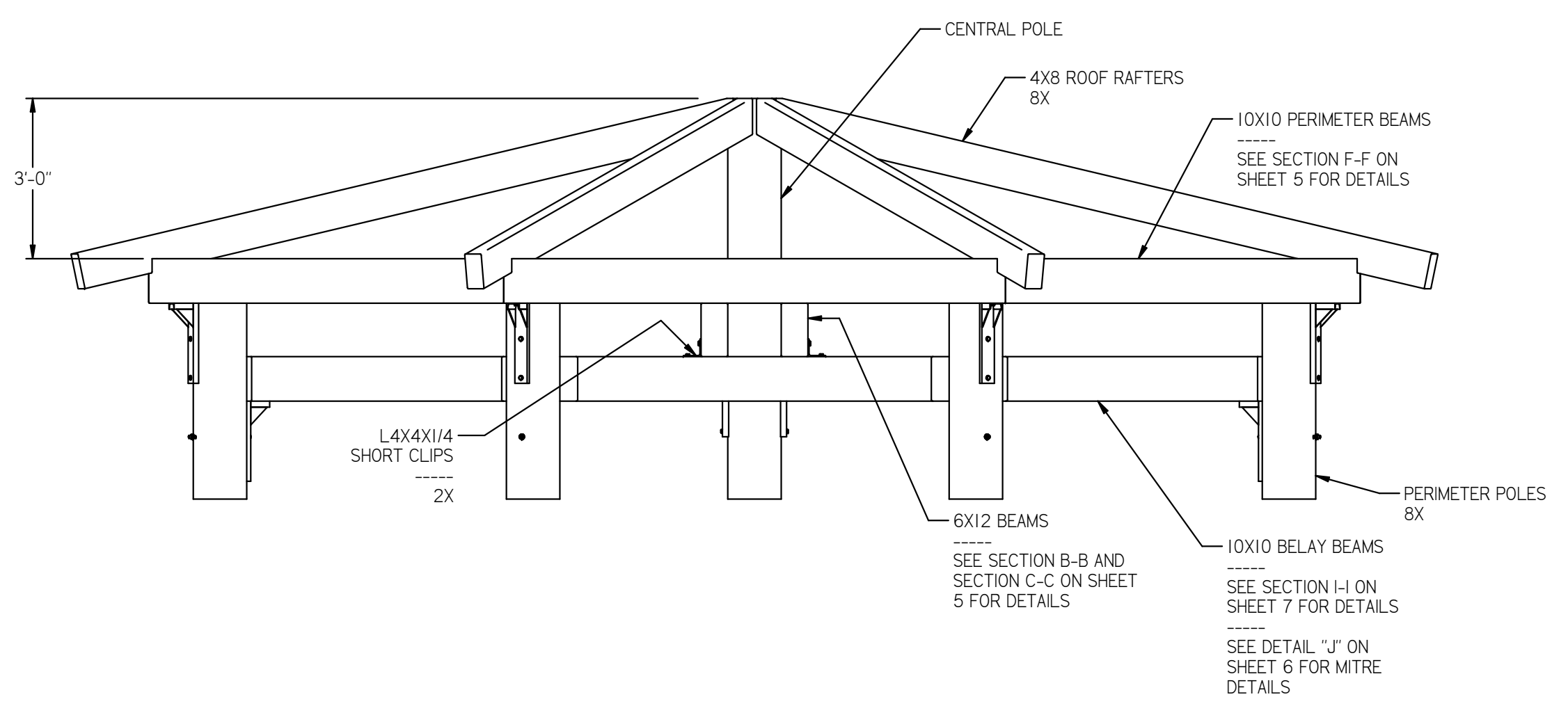
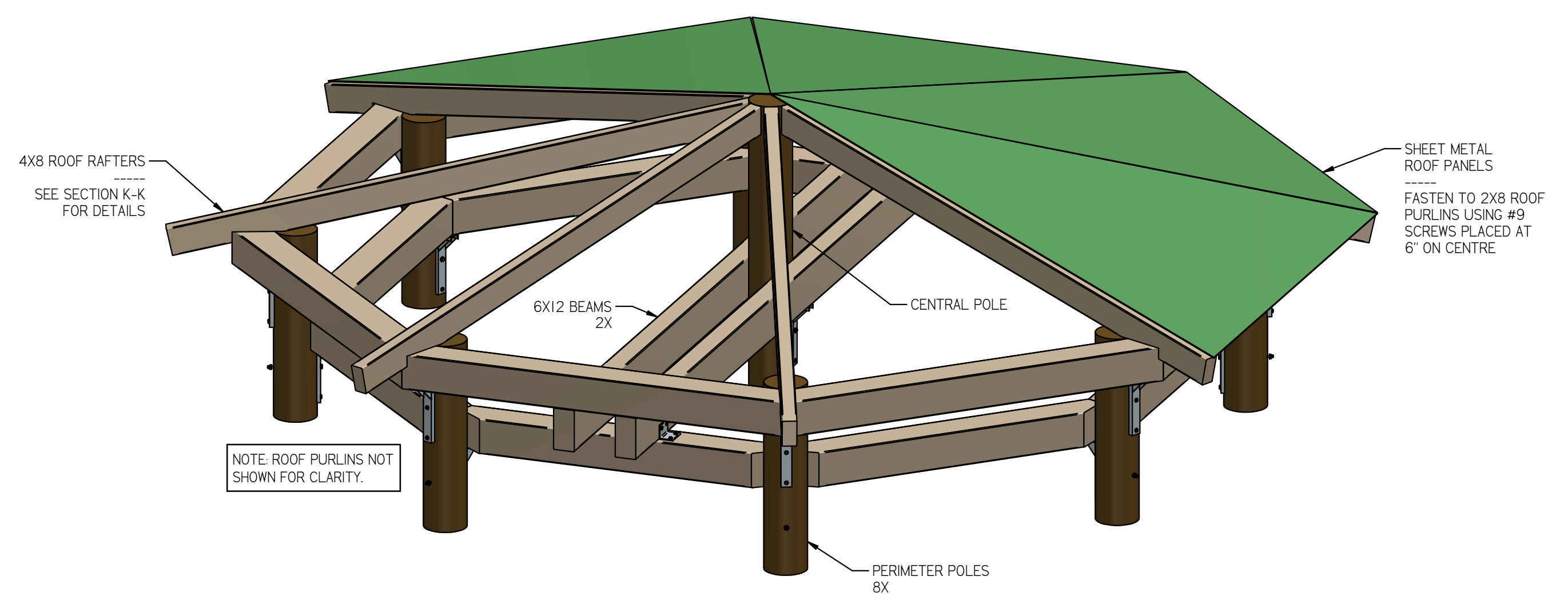
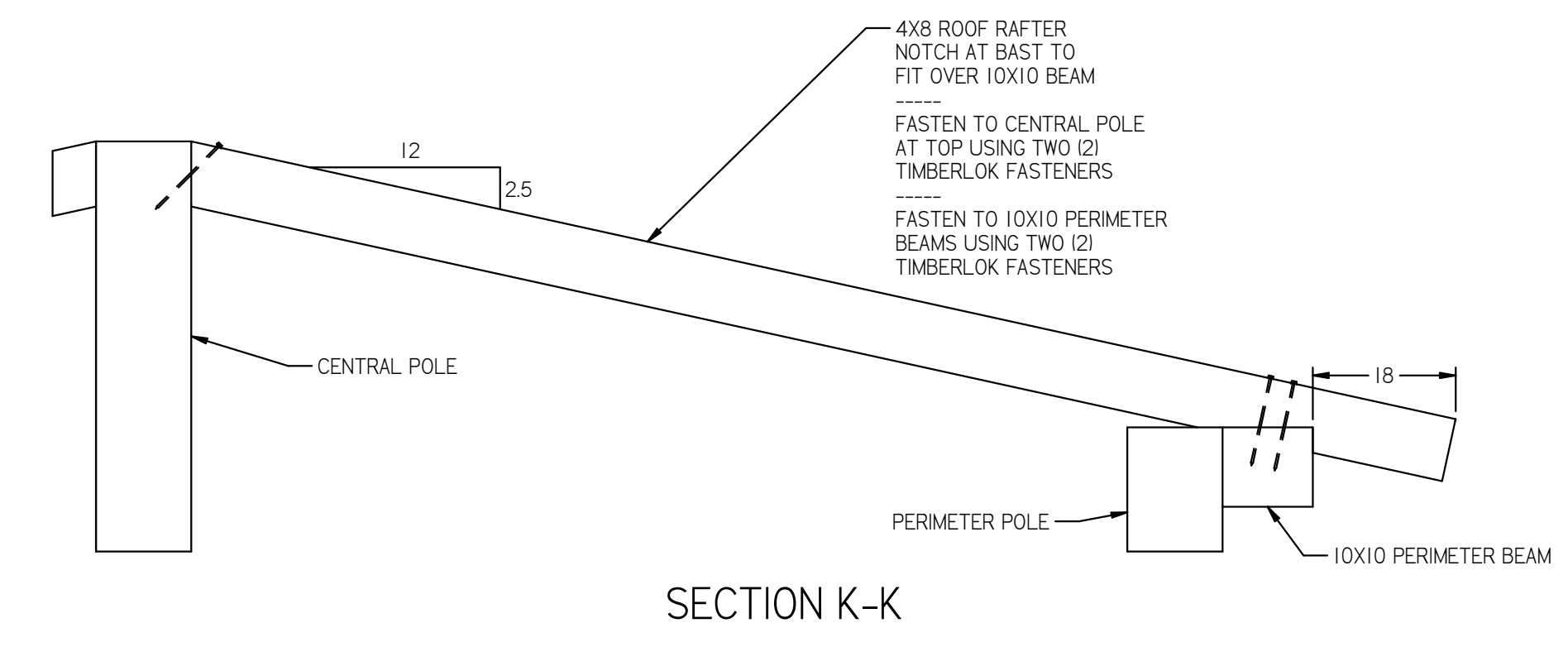
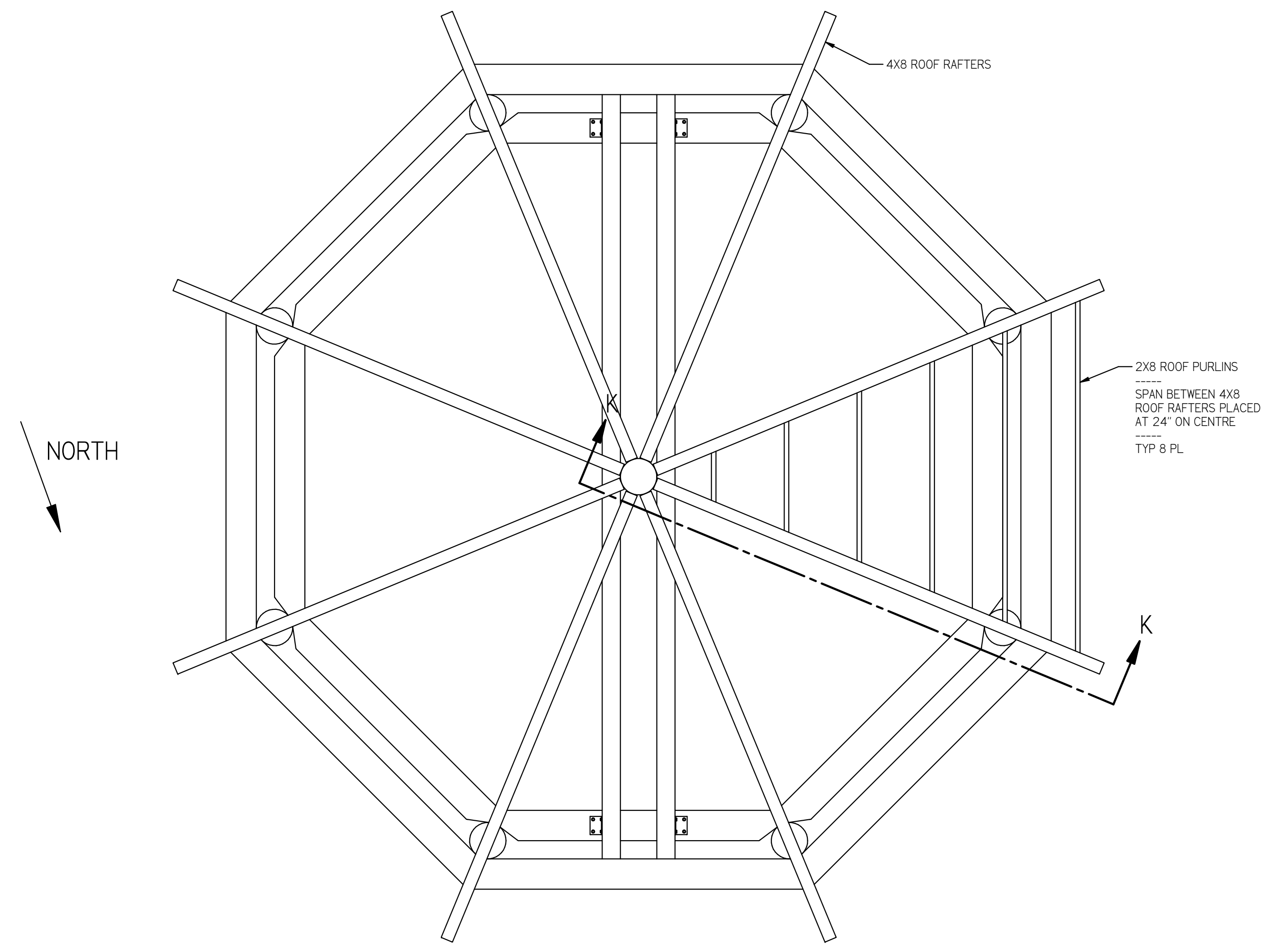
83 Oakdale Path  
 Dallas, Georgia 30157  
 (404) 452-1364  
 www.davehodges.com

**DAVID J. HODGES, P. E.**  
 STRUCTURAL ENGINEERING & SOFTWARE SOLUTIONS

ZIP LINE ADVENTURE PARK



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
B	SPECIFIED MFG AND PART NUMBERS FOR HARDWARE	11/12/24	DJH

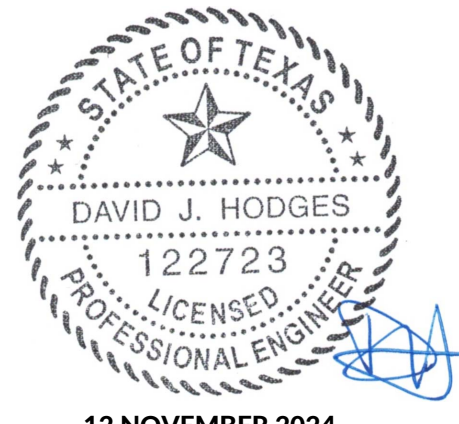
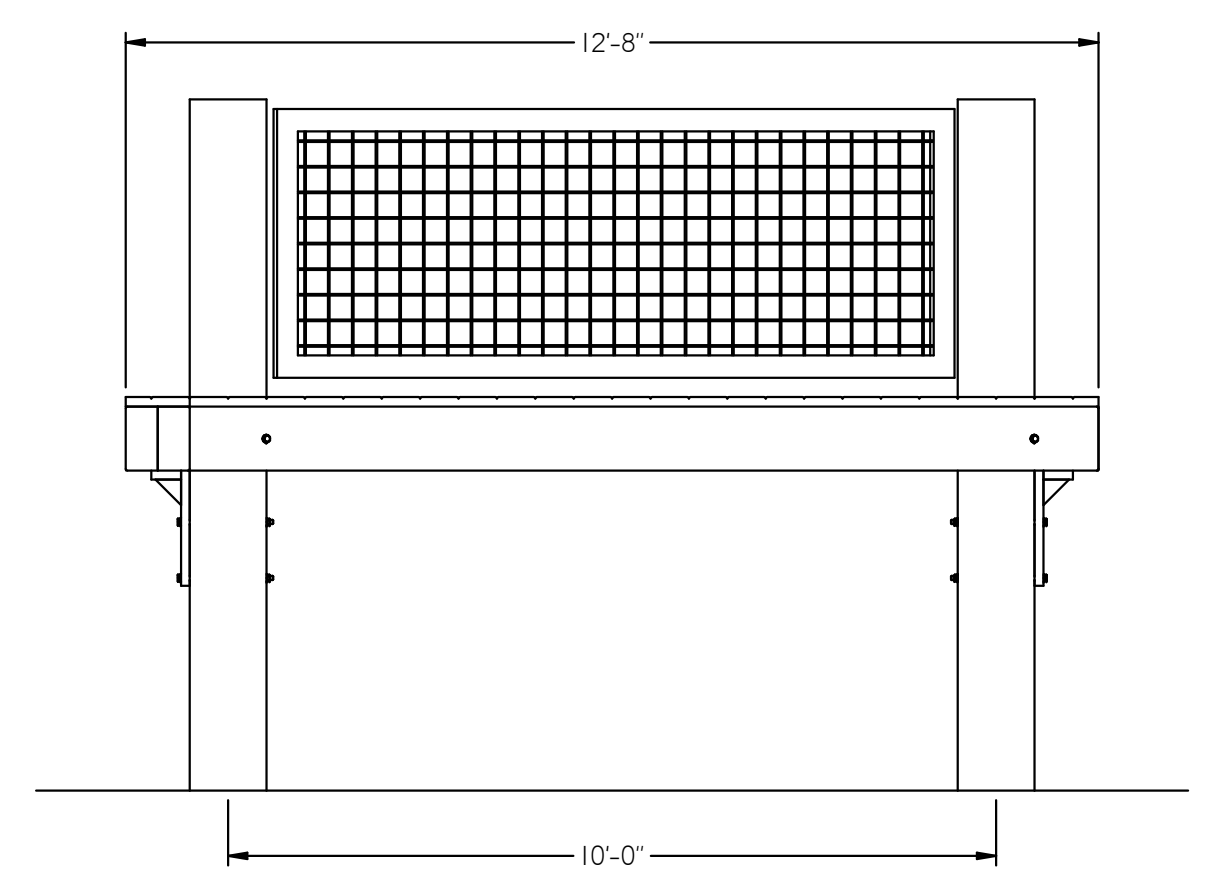
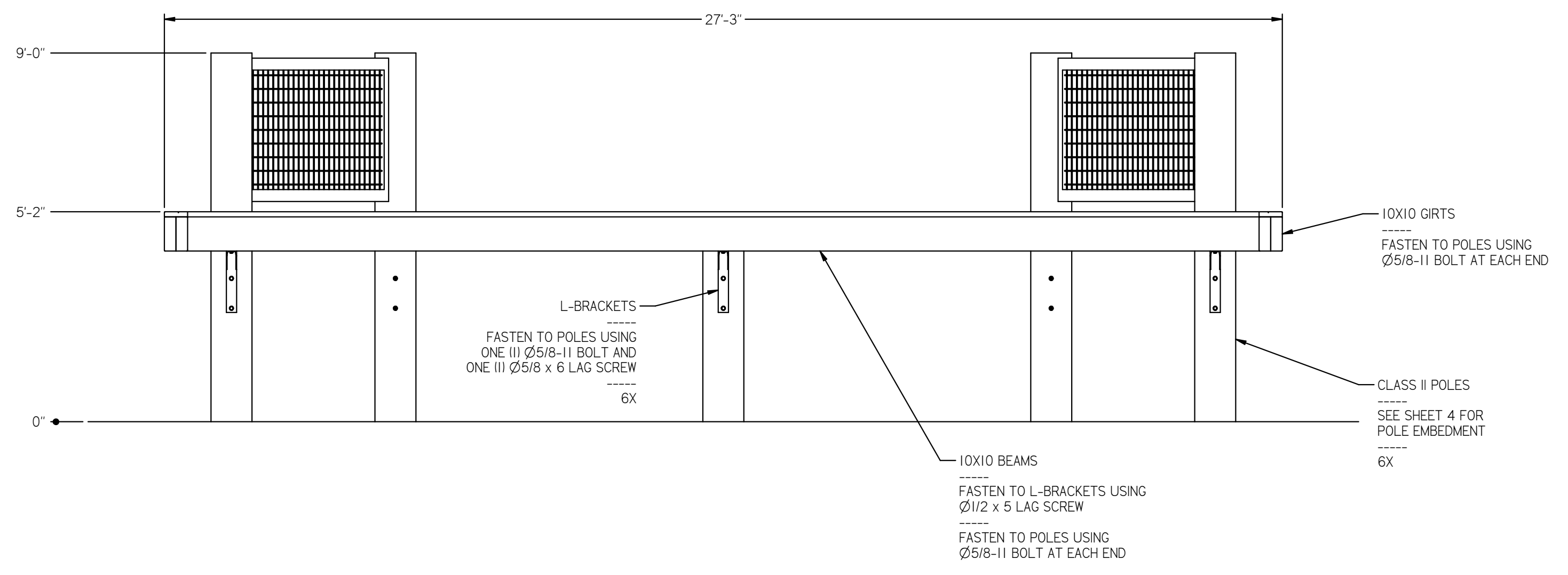
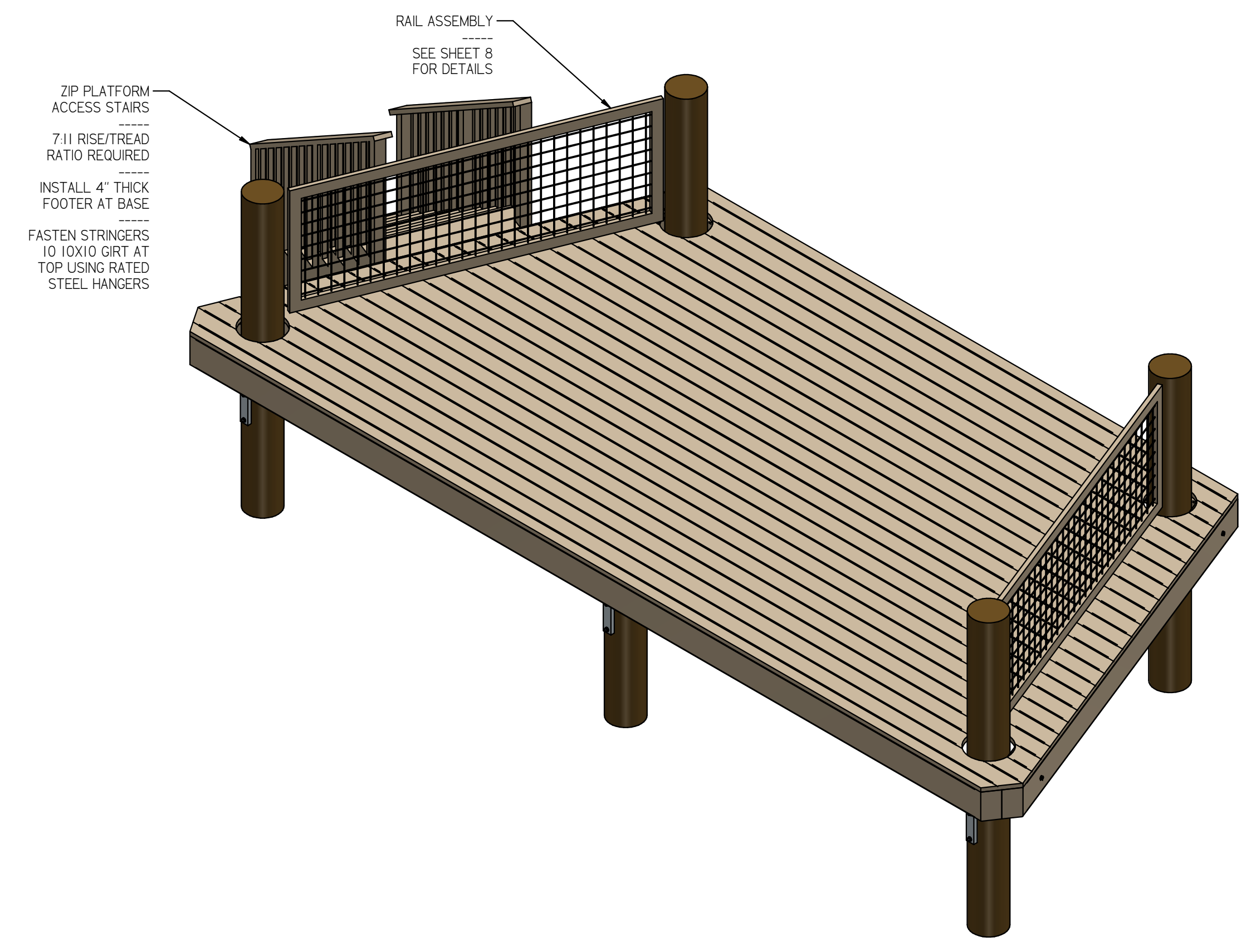
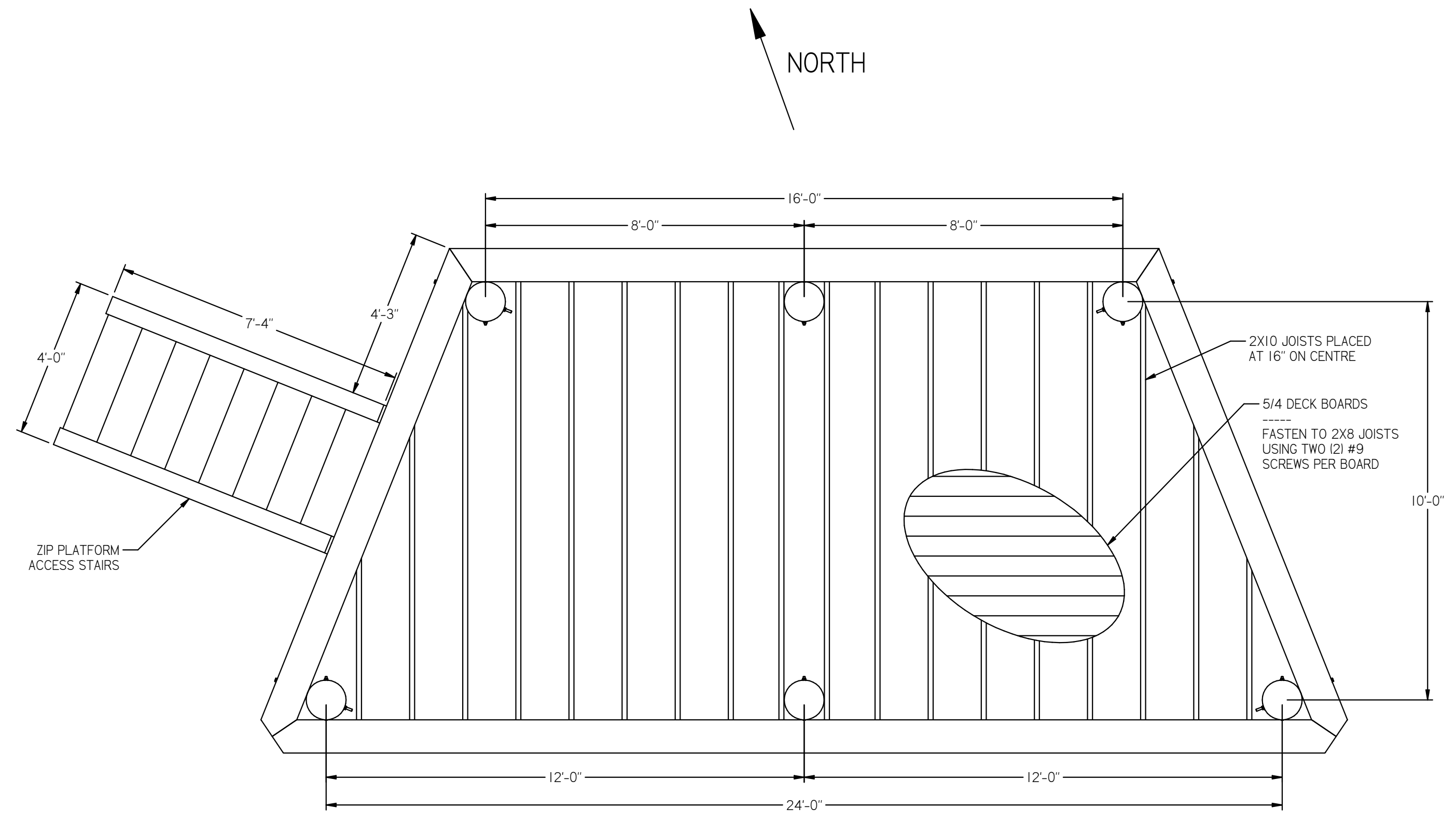


ROOF ASSEMBLY

DIMENSIONS IN INCHES UNLESS NOTED OTHERWISE		TOLERANCES		83 Oakdale Path Dallas, Georgia 30157 (404) 452-1364 www.davehodgespe.com	
1 PL	±0.1	2 PL	±0.02	<b>DAVID J. HODGES, P. E.</b> LICENSED PROFESSIONAL ENGINEER 122723 12 NOVEMBER 2024	
3 PL	±0.005	ANGLE	±1°		
FRACTION	±1/16				
				ZIP LINE ADVENTURE PARK	

DRAWN	DJH	DATE	10/21/24	DWG NO.	241258-1	REV	B
CHECKED	DJH	DATE	11/12/24	SIZE	D	SCALE	NONE
						SHEET	8 OF 10

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
B	SPECIFIED MFG AND PART NUMBERS FOR HARDWARE	11/12/24	DJH



ZIP LANDING PLATFORM 12 NOVEMBER 2024

DRAWN DJH		DATE 10/21/24		DWG NO. 241258-1		REV B	
CHECKED DJH		DATE 11/12/24		SIZE D	SCALE NONE	SHEET 9 OF 10	

DIMENSIONS IN INCHES UNLESS NOTED OTHERWISE  
TOLERANCES  
1 PL ±0.1  
2 PL ±0.02  
3 PL ±0.005  
ANGLE ±1°  
FRACTION ±1/16

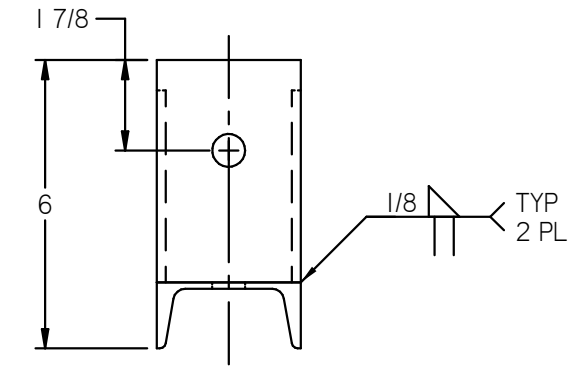
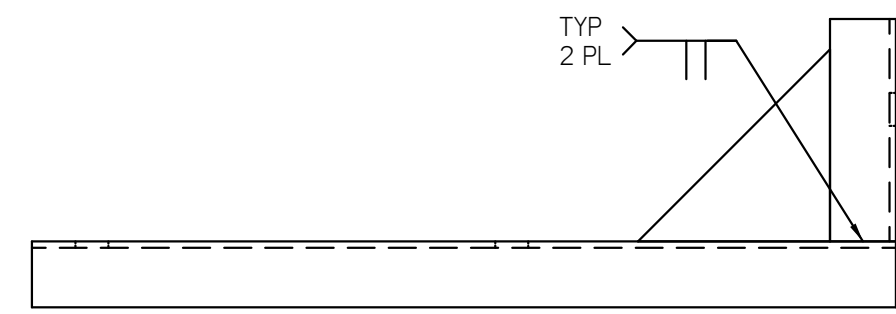
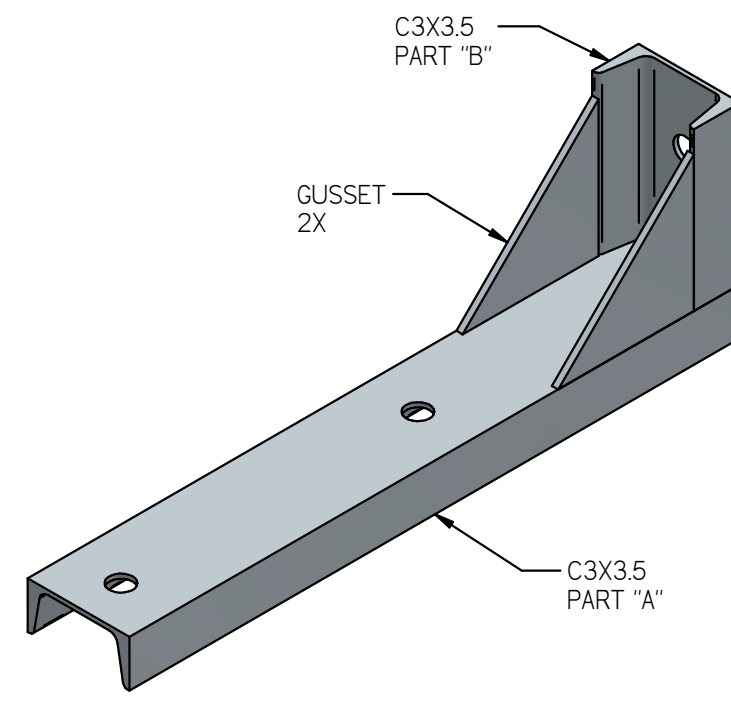
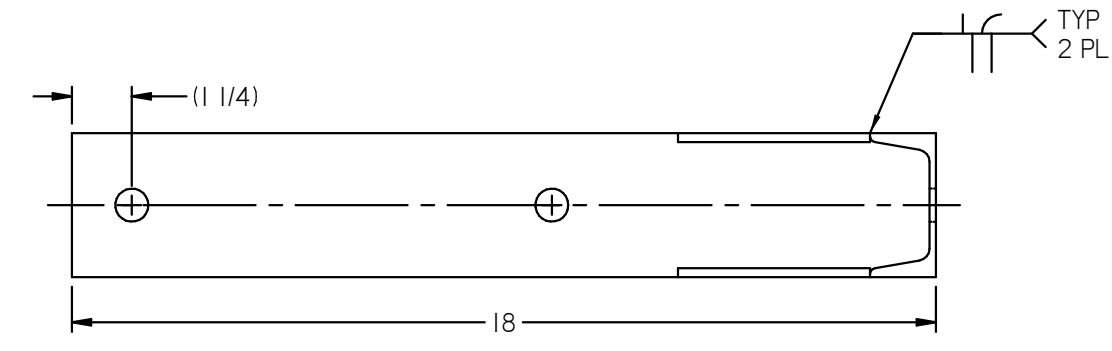
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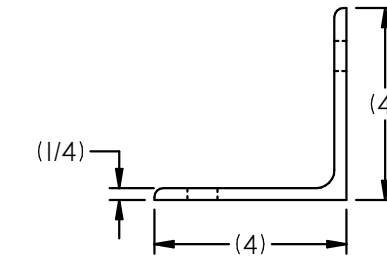
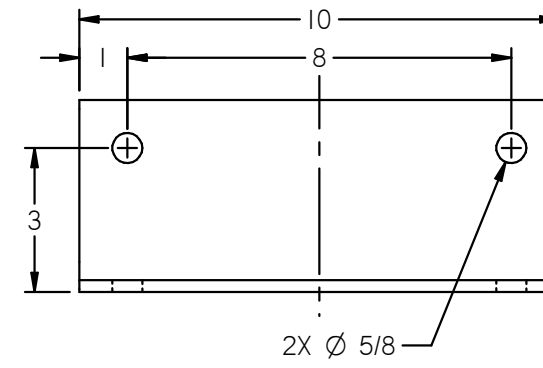
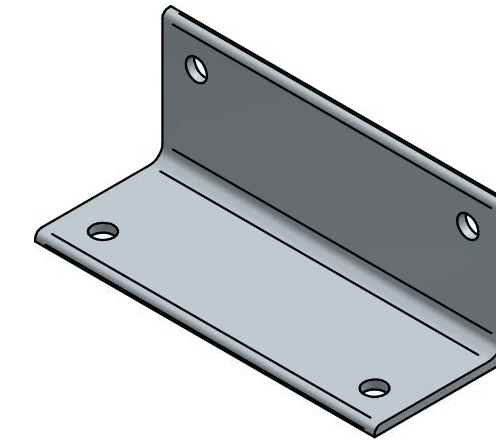
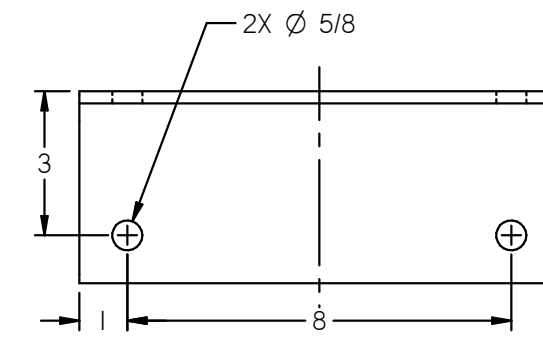
ZIP LINE ADVENTURE PARK



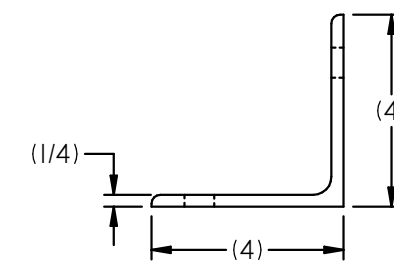
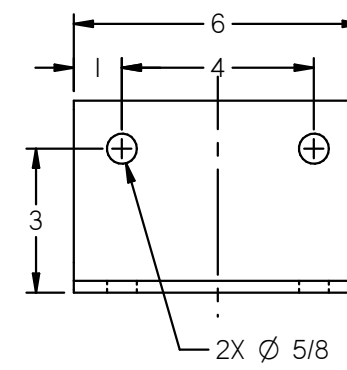
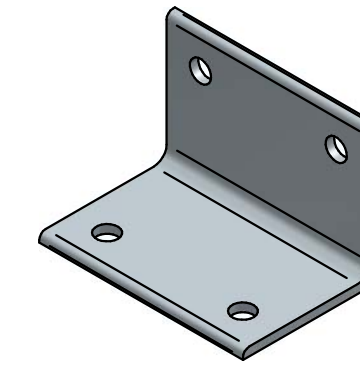
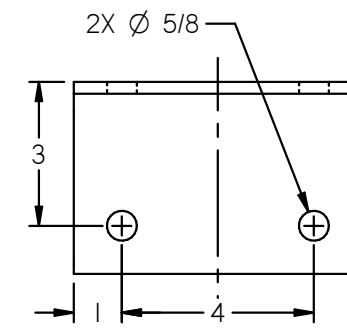
ADVENTURE EXPERIENCES L-BRACKET  
PART NUMBER #419  
QTY: 64



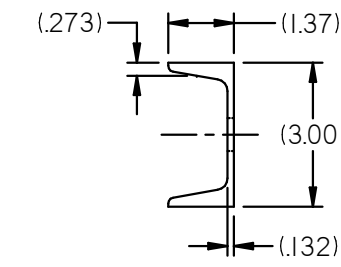
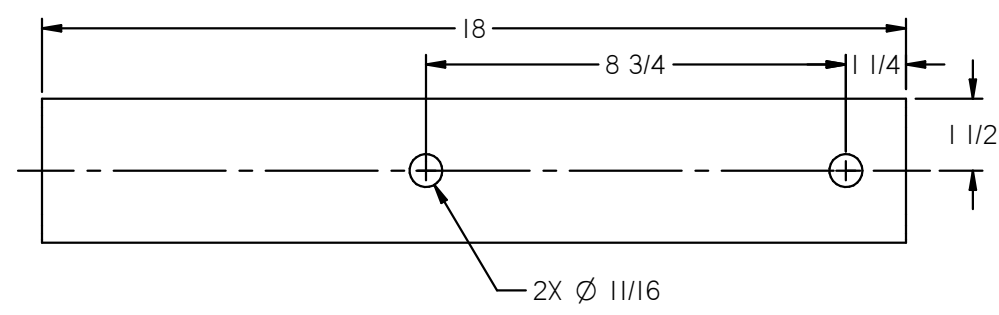
L4X4X1/4  
LONG CLIP  
QTY: 4



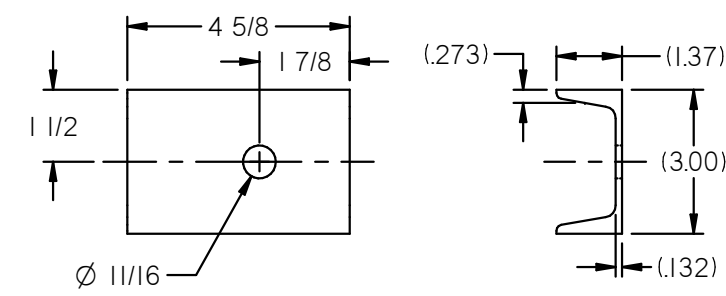
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SHORT CLIP  
QTY: 12



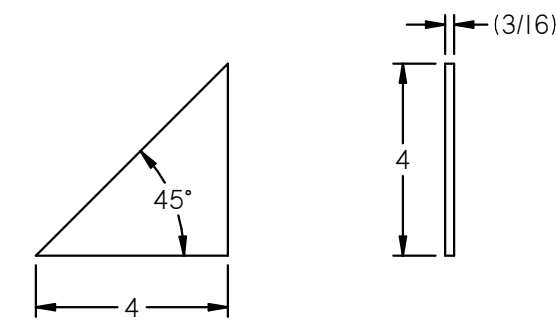
C3X3.5  
PART "A"  
QTY: 1 PER ASSY



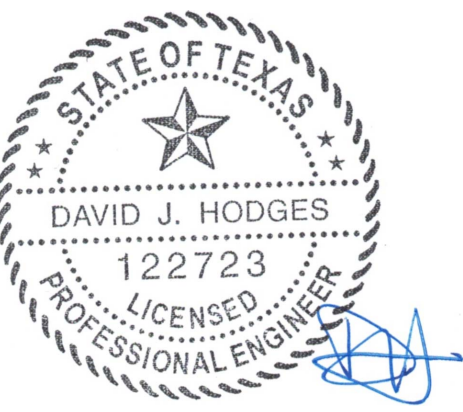
C3X3.5  
PART "B"  
QTY: 1 PER ASSY



GUSSET  
3/16 PL  
QTY: 2 PER ASSY



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
B	SPECIFIED MFG AND PART NUMBERS FOR HARDWARE	11/12/24	DJH



FABRICATION DETAILS

12 NOVEMBER 2024

DIMENSIONS IN INCHES UNLESS NOTED OTHERWISE		83 Oakdale Path Dallas, Georgia 30157 (404) 452-1364 www.davehodgespe.com	
TOLERANCES		DAVID J. HODGES, P. E. STRUCTURAL ENGINEERING & SOFTWARE SOLUTIONS	
1 PL	±0.1	ZIP LINE ADVENTURE PARK	
2 PL	±0.02		
3 PL	±0.005		
ANGLE	±1°		
FRACTION	±1/16		

DRAWN	DJH	DATE	10/21/24	DWG NO.	241258-1	REV	B
CHECKED	DJH	DATE	11/12/24	SIZE	D	SCALE	NONE
						SHEET	10 OF 10