

SNOWBASIN
3925 SNOW BASIN RD
HUNTSVILLE, UT 84317
PROJECT: ADVENTURE COURSES
SCHEMATIC PHASE
ISSUE DATE: 08/02/2018

CONTRACTOR
 **BONSAI**
201 South Ave.
Grand Junction, CO 81501
1-888-665-4697
970-255-7393

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2	CHALLENGE TOWERS
3	ZIP LANDING PLATFORM

0 CIVIL SHEETS

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0 ARCHITECTURAL...

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0 PROGRAMMATIC SHEETS

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0PR1	PROGRAMMATIC LAYOUT

GENERAL NOTES

- BONSAI DESIGN RESERVES & MAINTAINS THE SOLE RIGHT TO DETERMINE APPROPRIATE DESIGN THROUGH EITHER INTERNAL AND/OR EXTERNAL EXPERTISE PER BONSAI'S DISCRETION.
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PAGE NOTES

1	RUSSELL CRONIN	THADDEUS SHRADER	08/02/2018
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REVISION HISTORY

NO.	DATE	DESCRIPTION
1	3/30/2018	BEGIN SCHEMATIC PHASE

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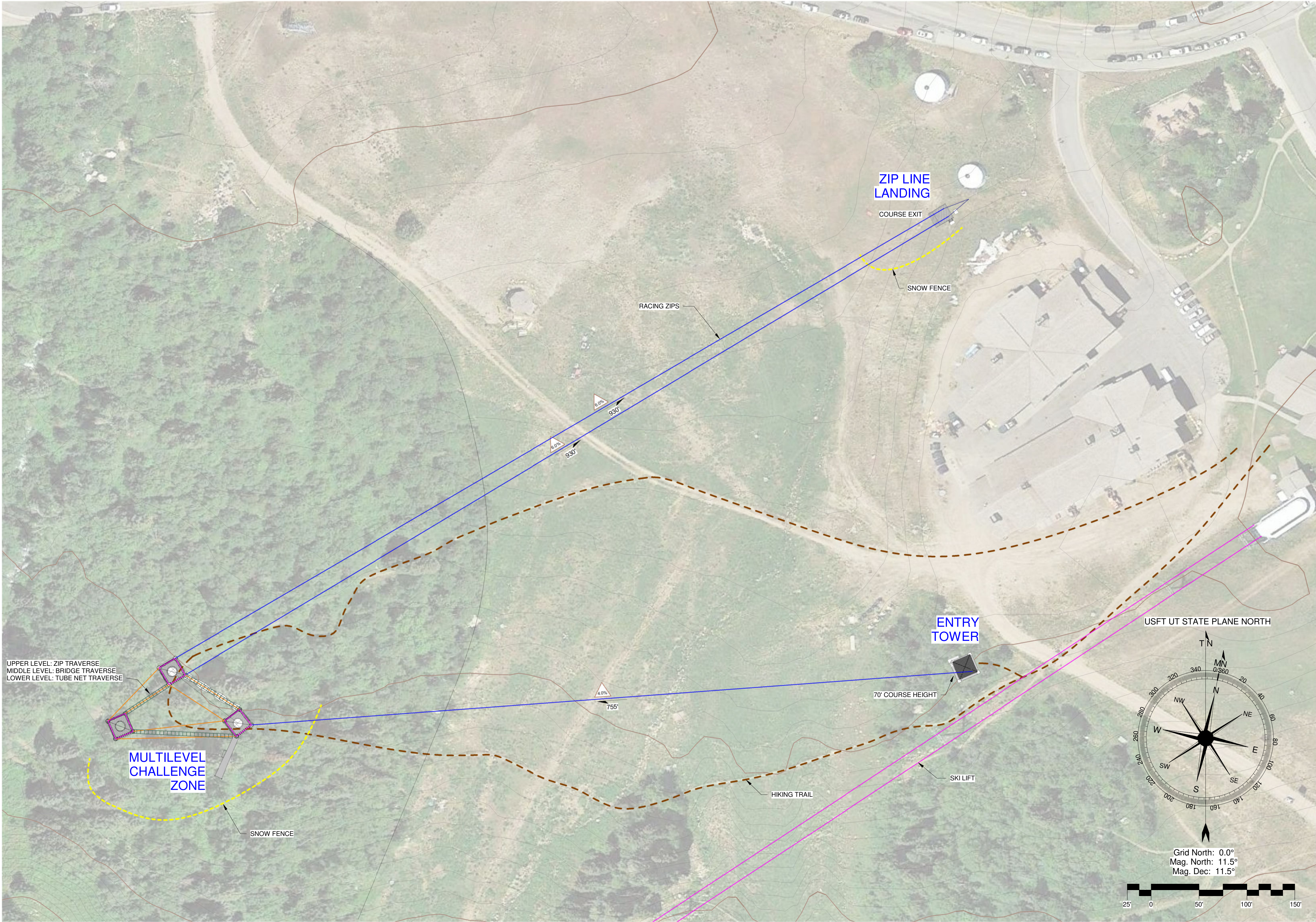
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COVER SHEET

ADVENTURE COURSES		SHEET
PROJECT	TIME	-
8/2/2018 4:55:23 PM	SCALE	
12" = 1'-0"		



1 SCHEMATIC COURSE LAYOUT
1" = 50'-0"

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PAGE NOTES

LAYOUT LEGEND

- SUSPENSION BRIDGE
- TUBE NETS
- HIKING TRAIL
- SNOW FENCE
- CHALLENGE ELEMENTS
- CHALLENGE LEVEL ZIP LINES
- MAIN ZIP LINES
- ZIP LINE PITCH AND SPAN

1	AARON DOVE	THADDEUS SHRADER	08/02/2018
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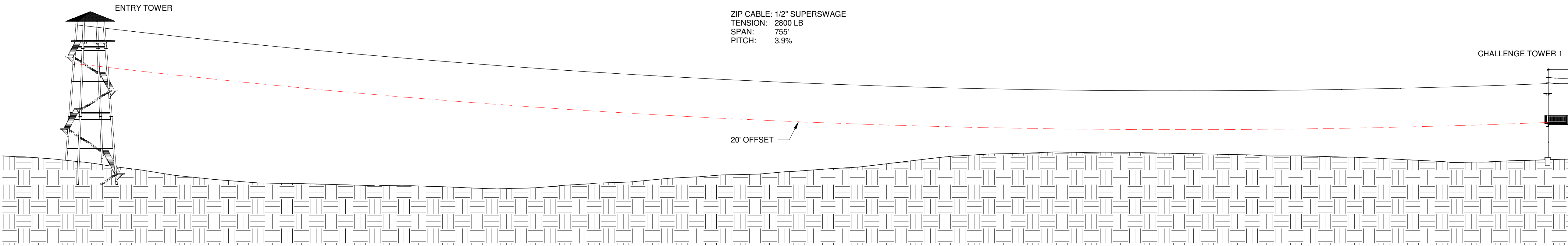
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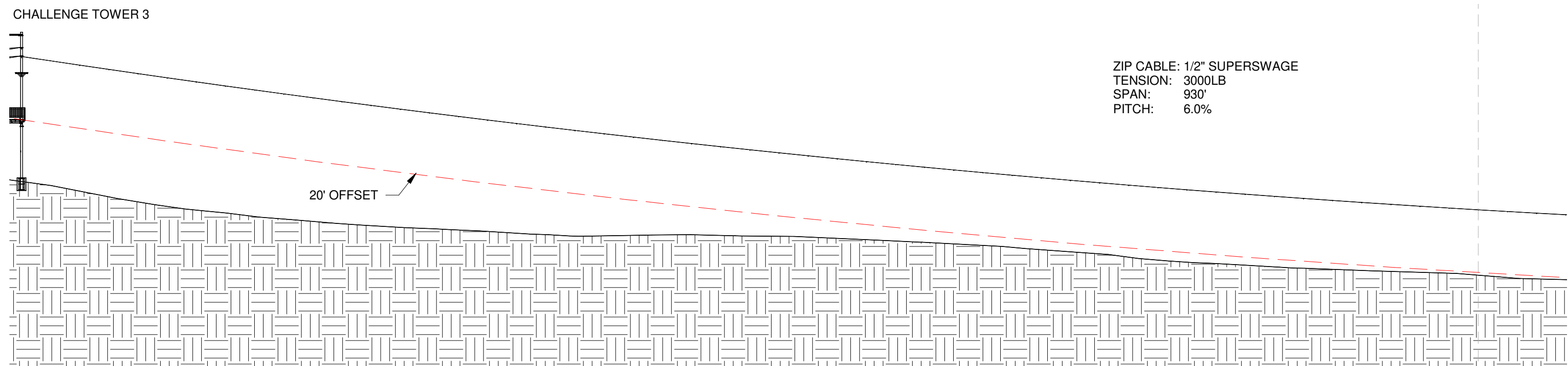
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SITE LAYOUT WITH AERIAL IMAGE

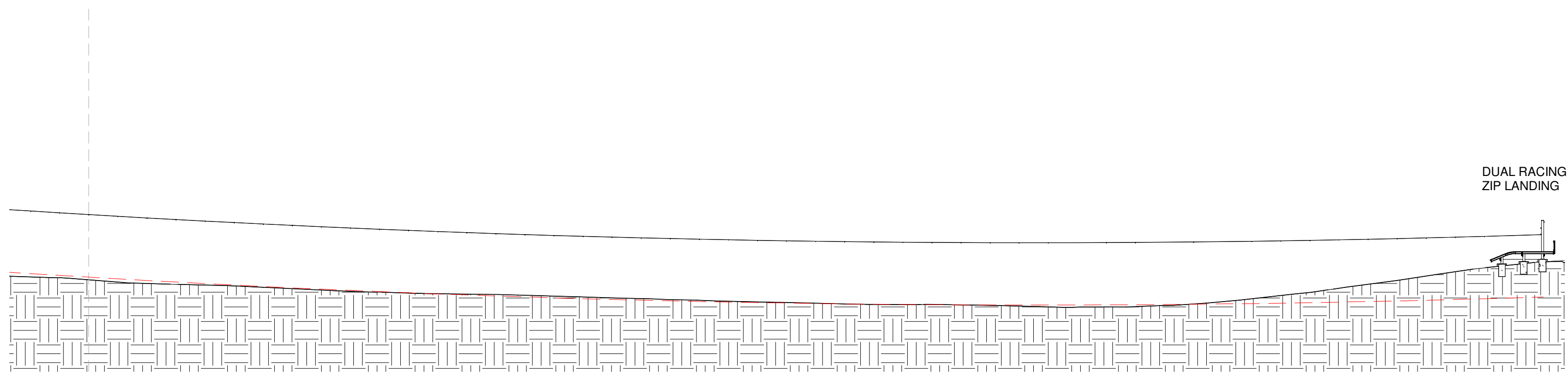
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TIME	8/2/2018 4:48:37 PM	0C1
SCALE	1" = 50'-0"	



1 ENTRY TOWER TO CHALLENGE TOWER ZIP PROFILE
1" = 30'-0"



2 DUAL RACING ZIP PROFILE - FIRST HALF
1" = 30'-0"



3 DUAL RACING ZIP PROFILE - SECOND HALF
1" = 30'-0"

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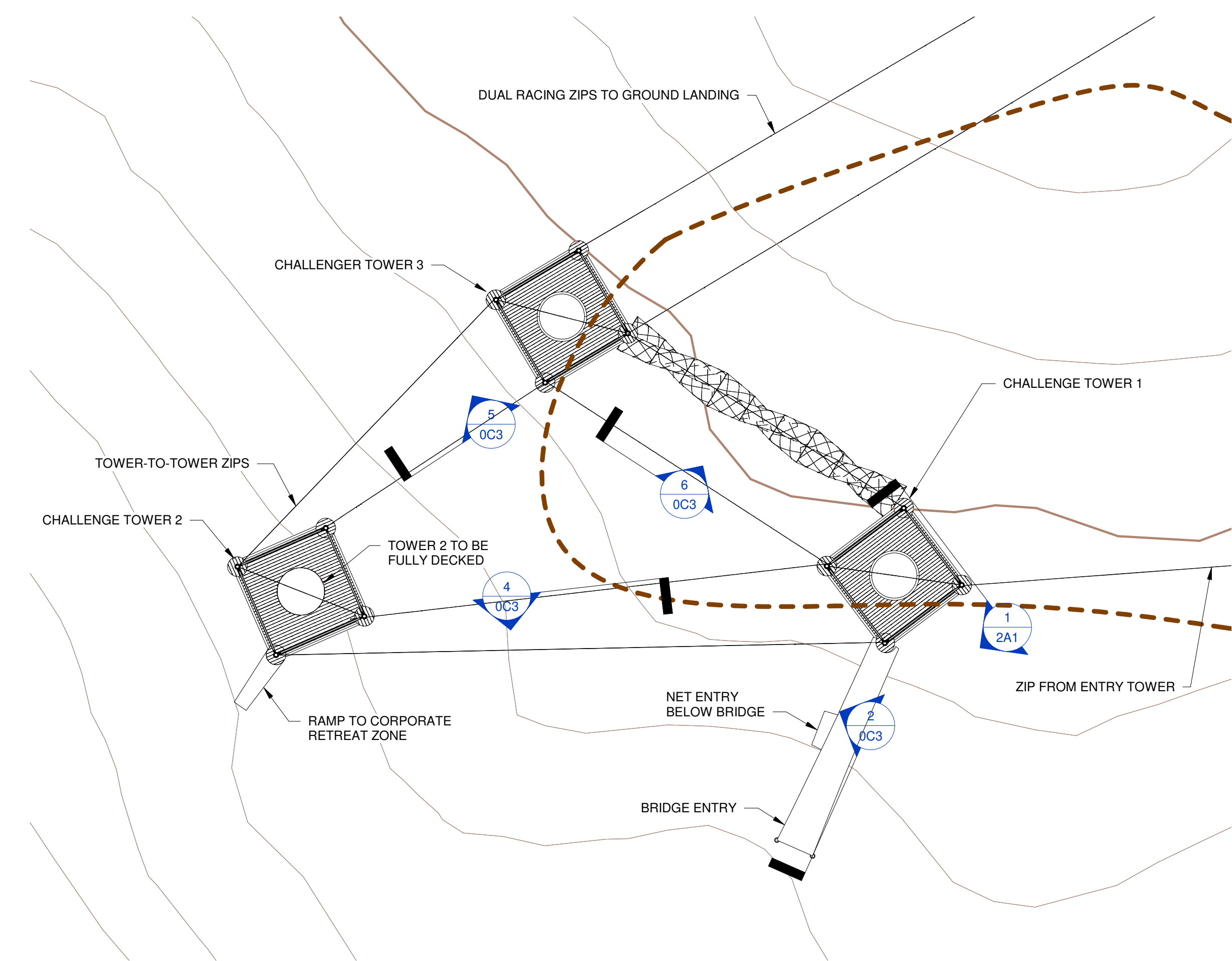
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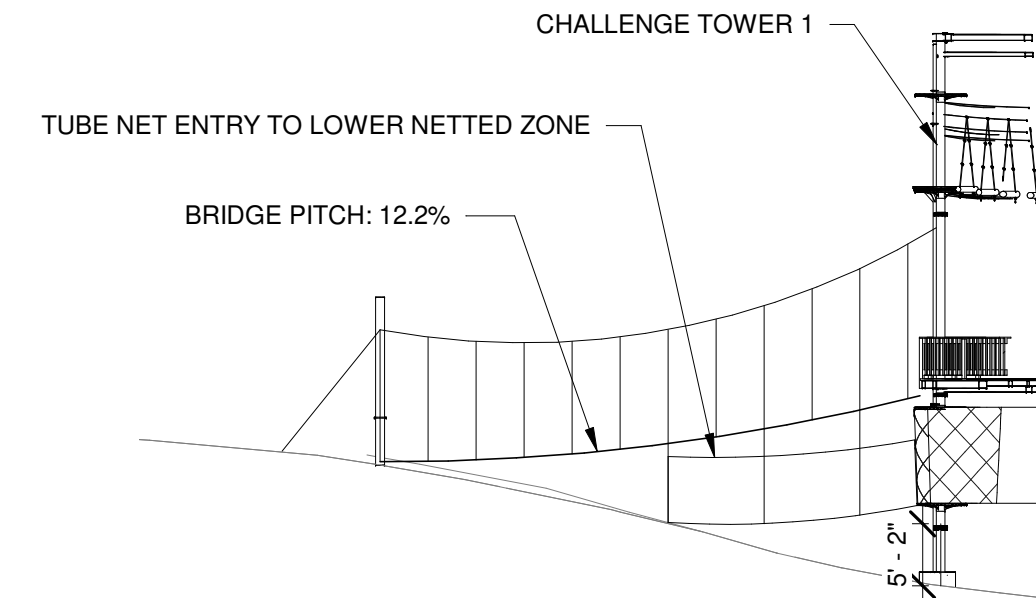
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ZIP PROFILES

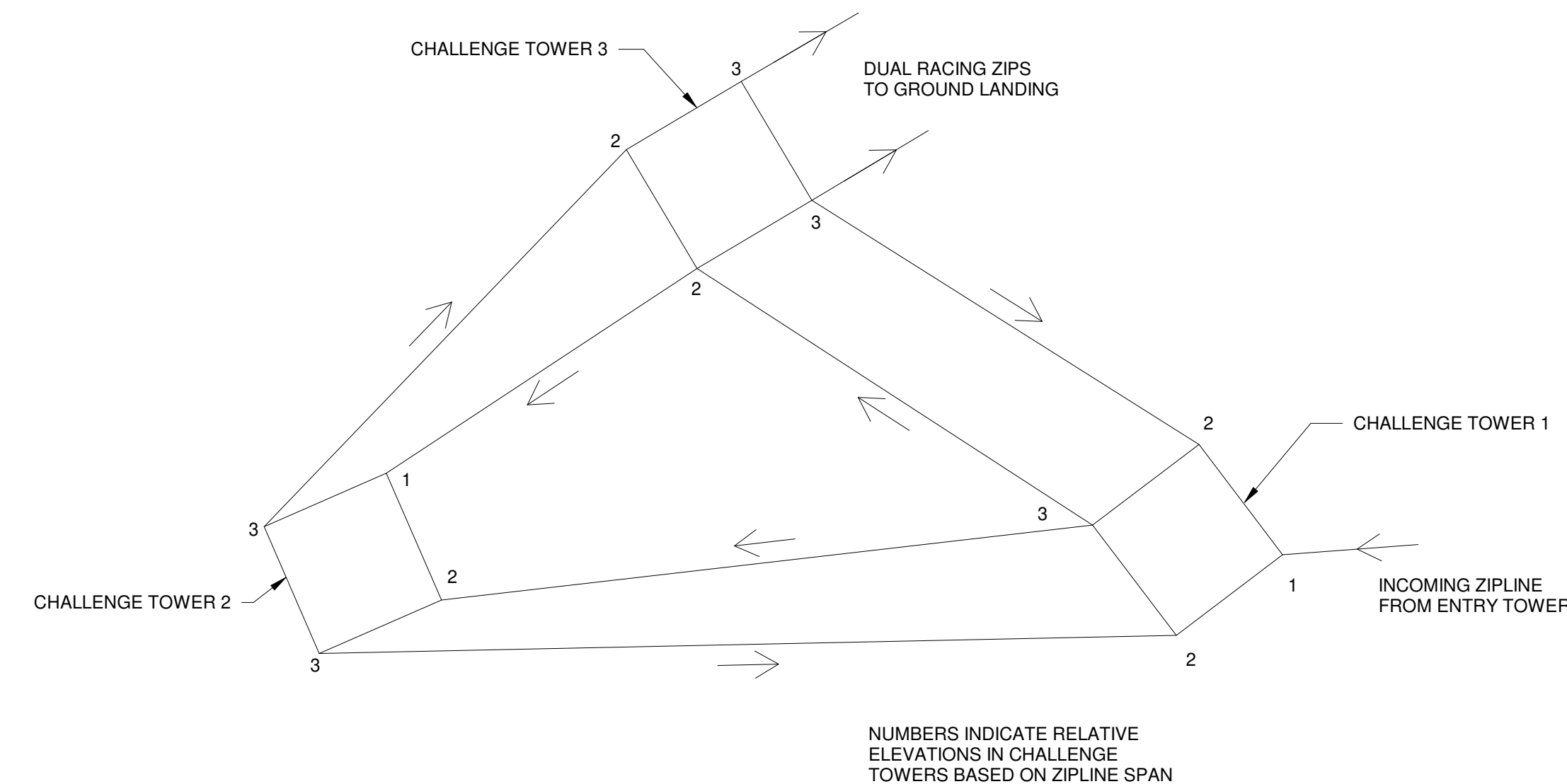
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PROJECT	TIME	0C2
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1" = 30'-0"		



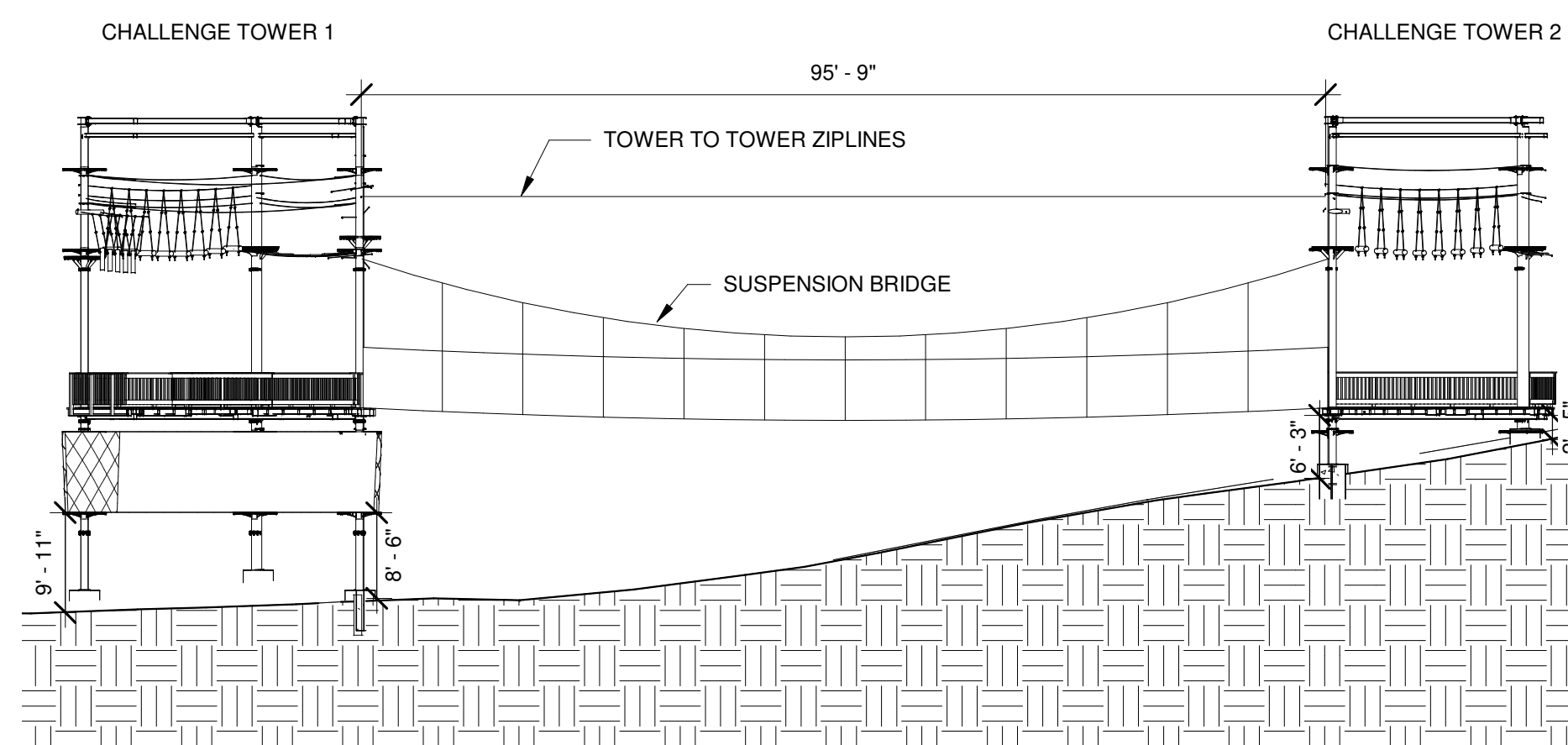
1 CHALLENGE TOWER TOUR
1" = 20'-0"



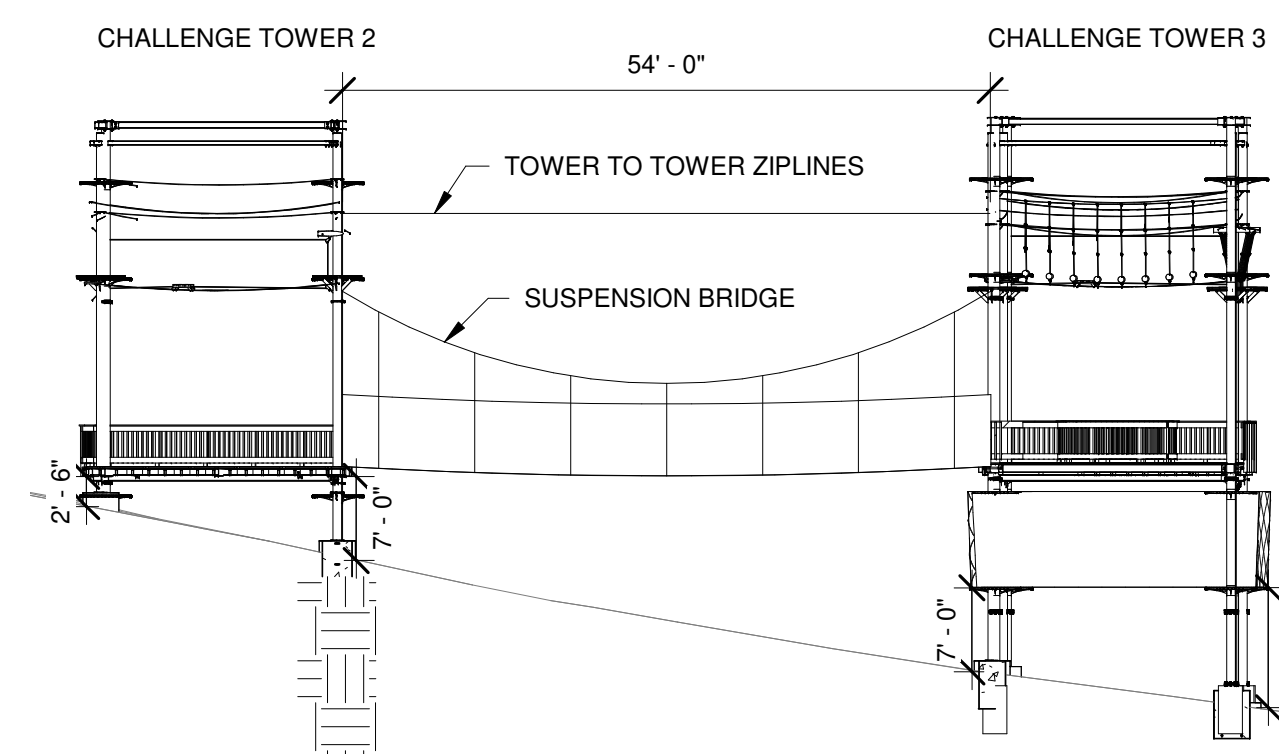
2 FOREST ENTRY TOWER
1/16" = 1'-0"



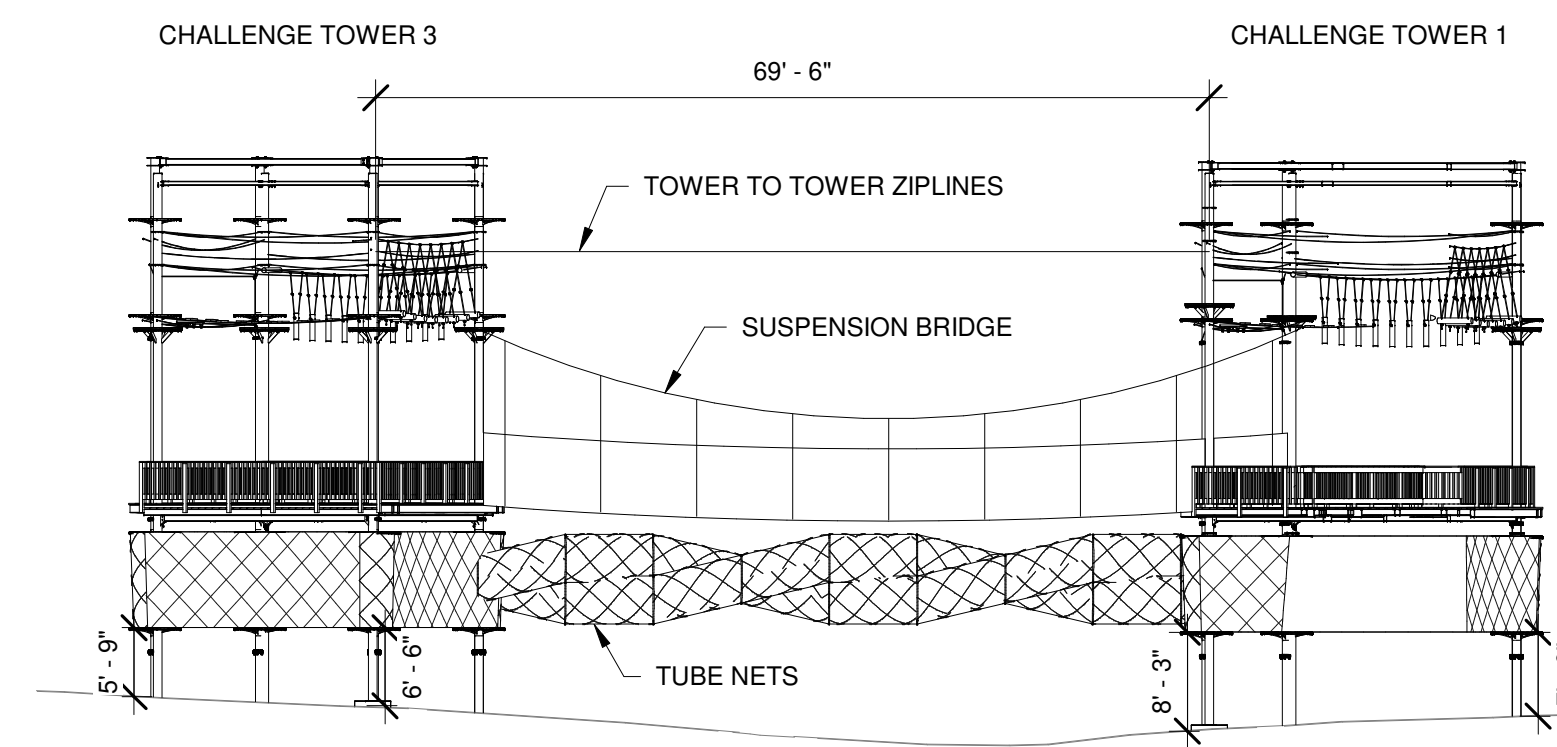
3 TOWER ZIPS
1" = 20'-0"



4 TOWERS 1 AND 2 PROFILE
1/16" = 1'-0"



5 TOWERS 2 AND 3 PROFILE
1/16" = 1'-0"



6 TOWERS 3 AND 2 PROFILE
1/16" = 1'-0"

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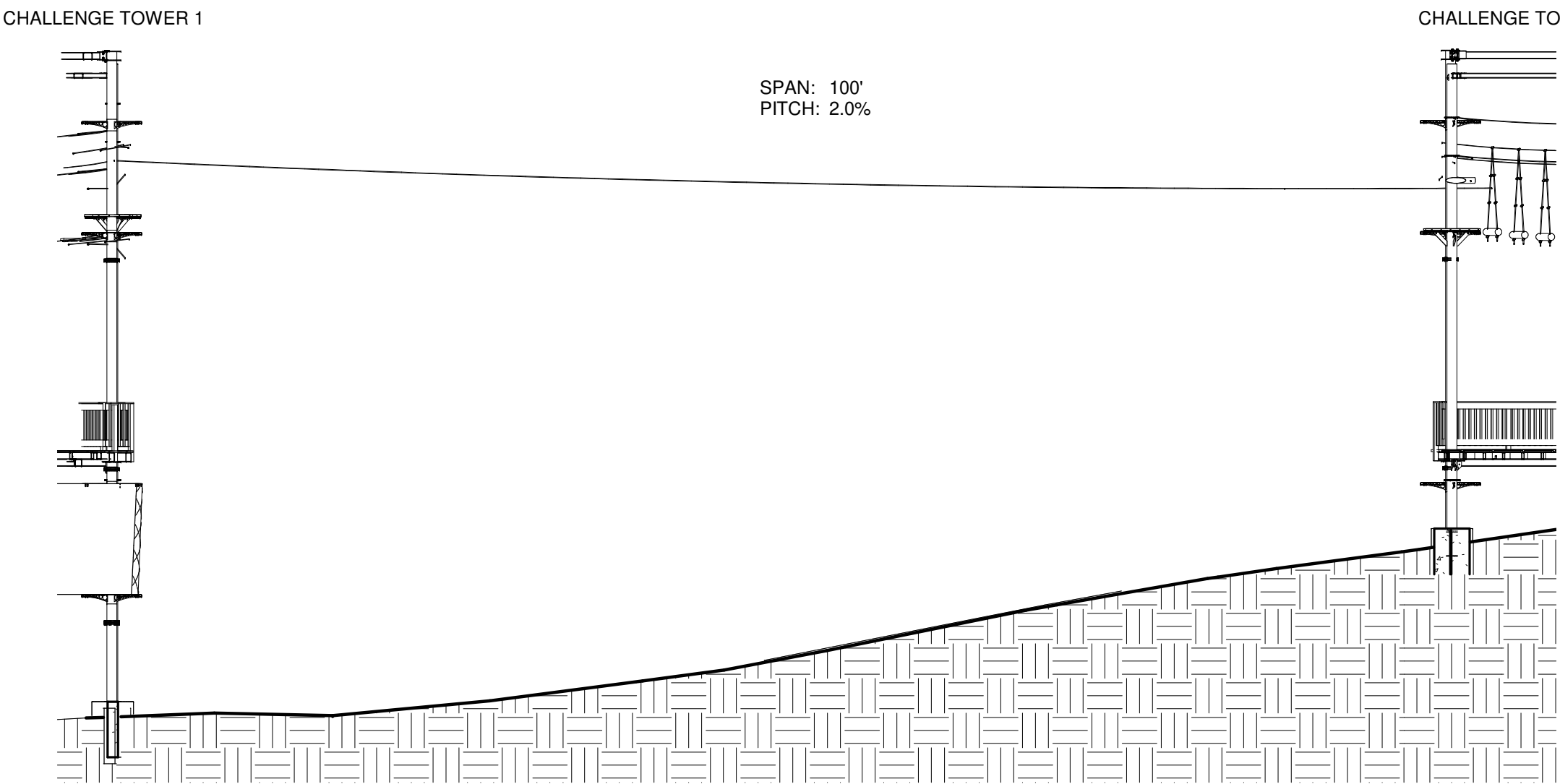
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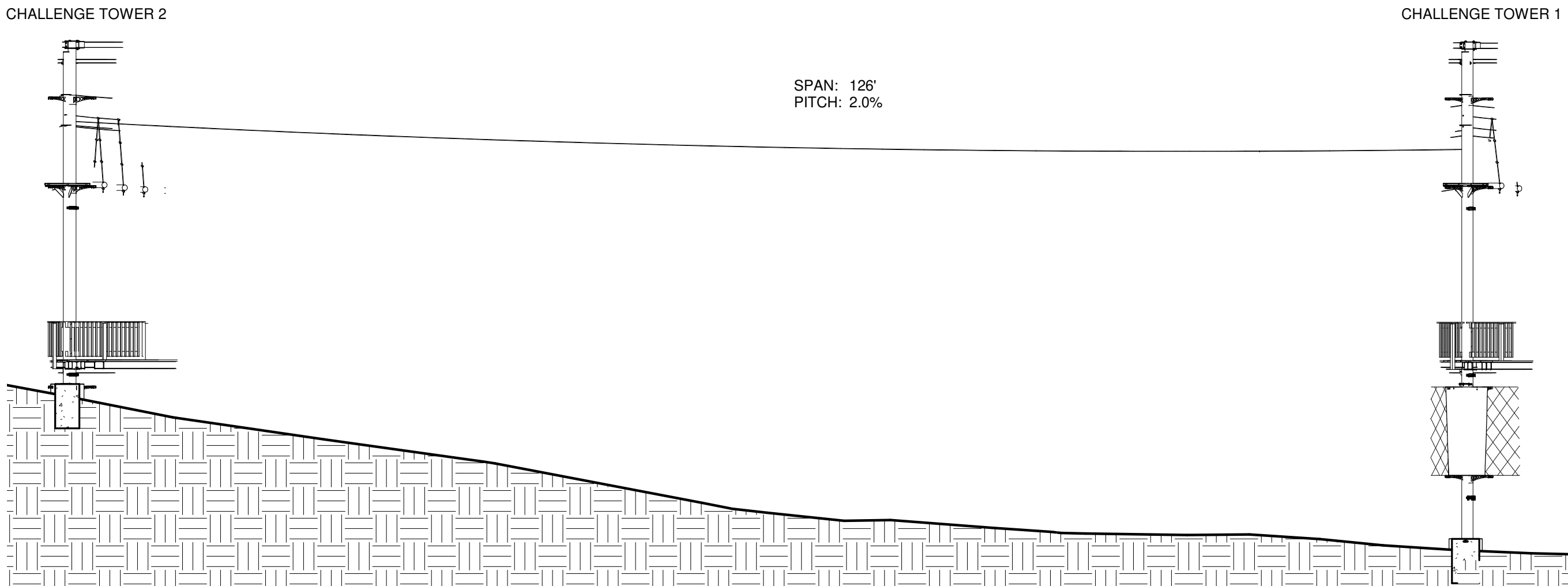
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CHALLENGE TOWER TOUR LAYOUT

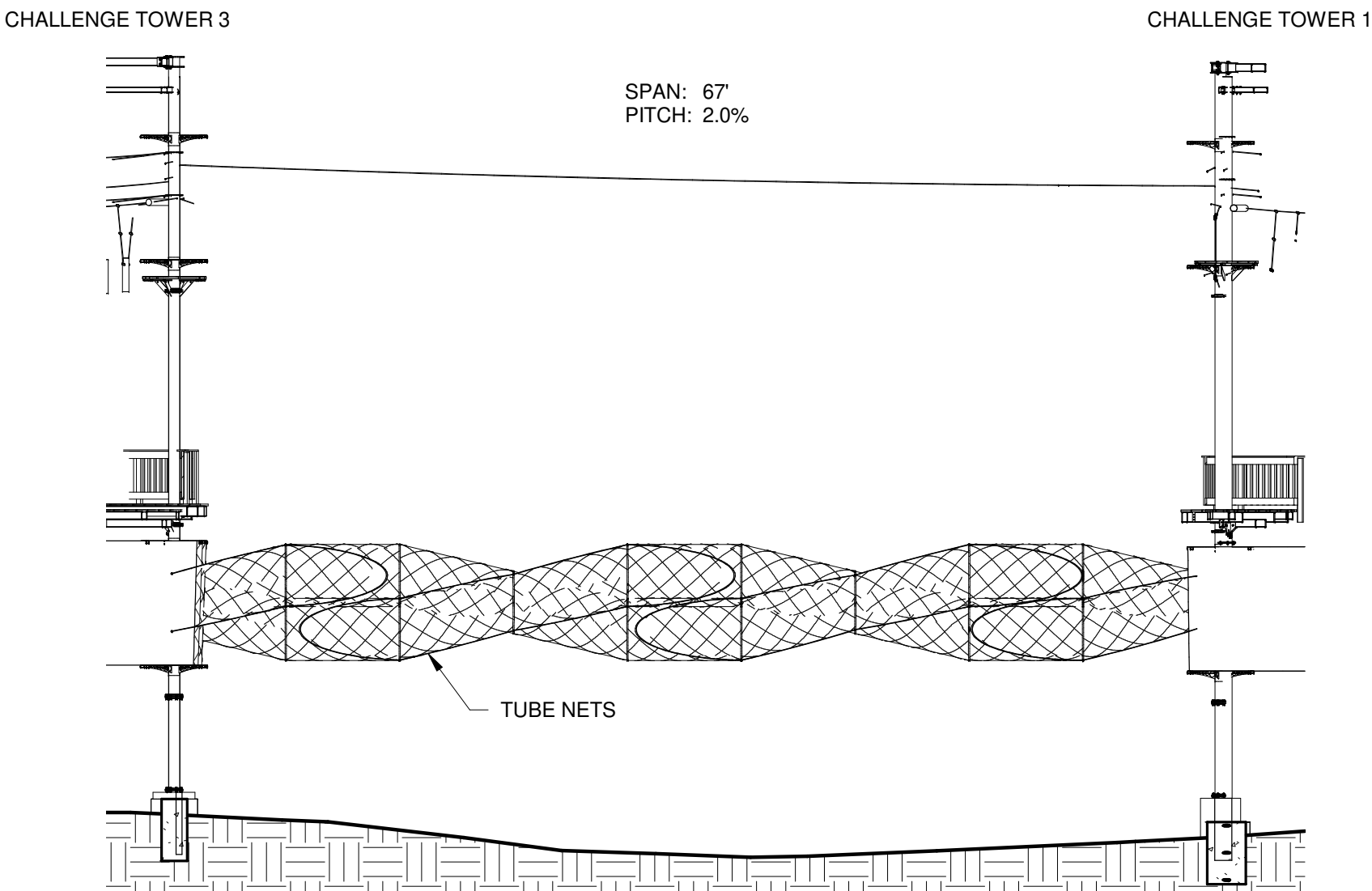
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TIME	8/2/2018 4:49:00 PM	0C3
SCALE	As indicated	



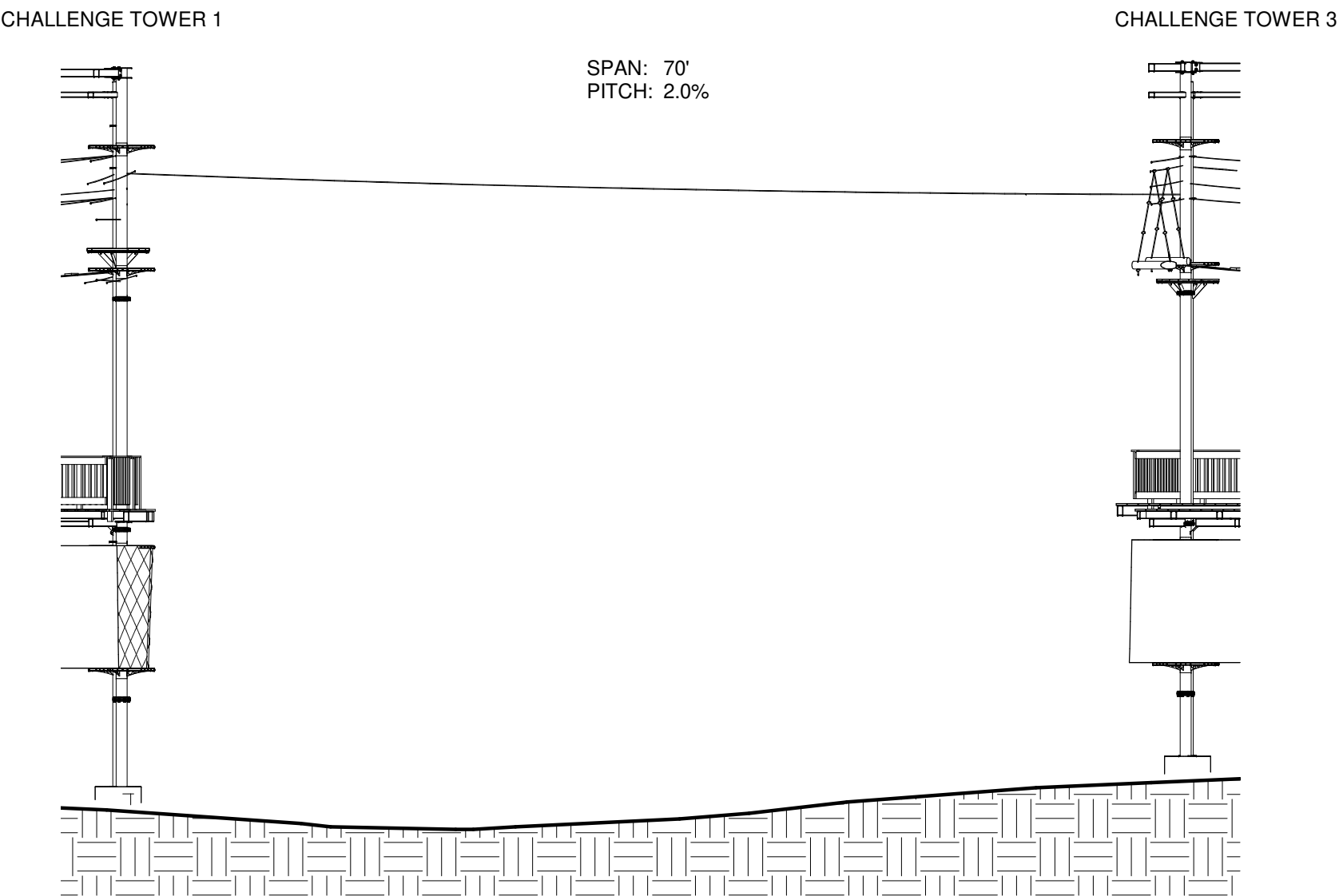
① ZIP FROM TOWER 1 TO TOWER 2
1" = 10'-0"



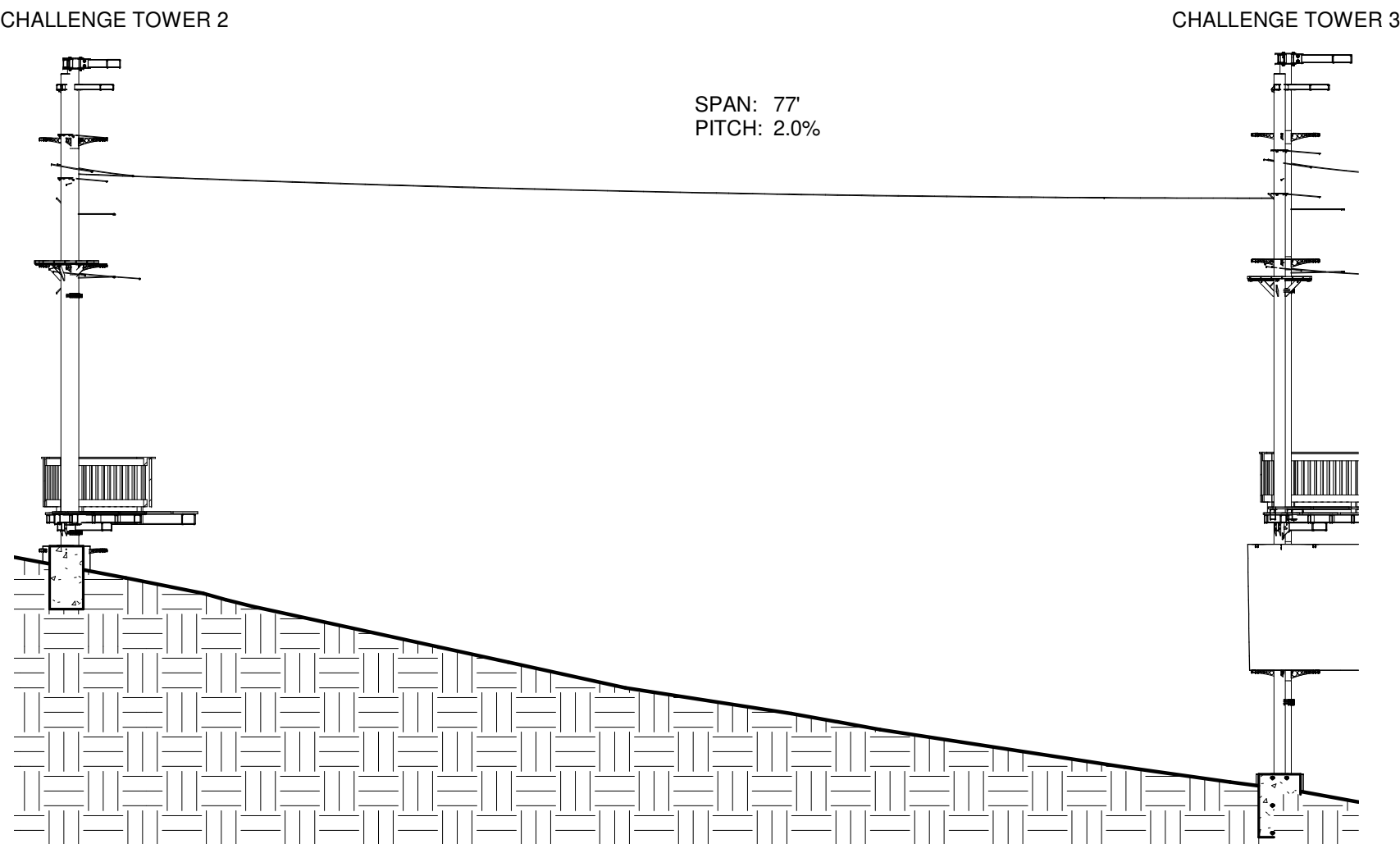
③ ZIP FROM TOWER 2 TO TOWER 1
1" = 10'-0"



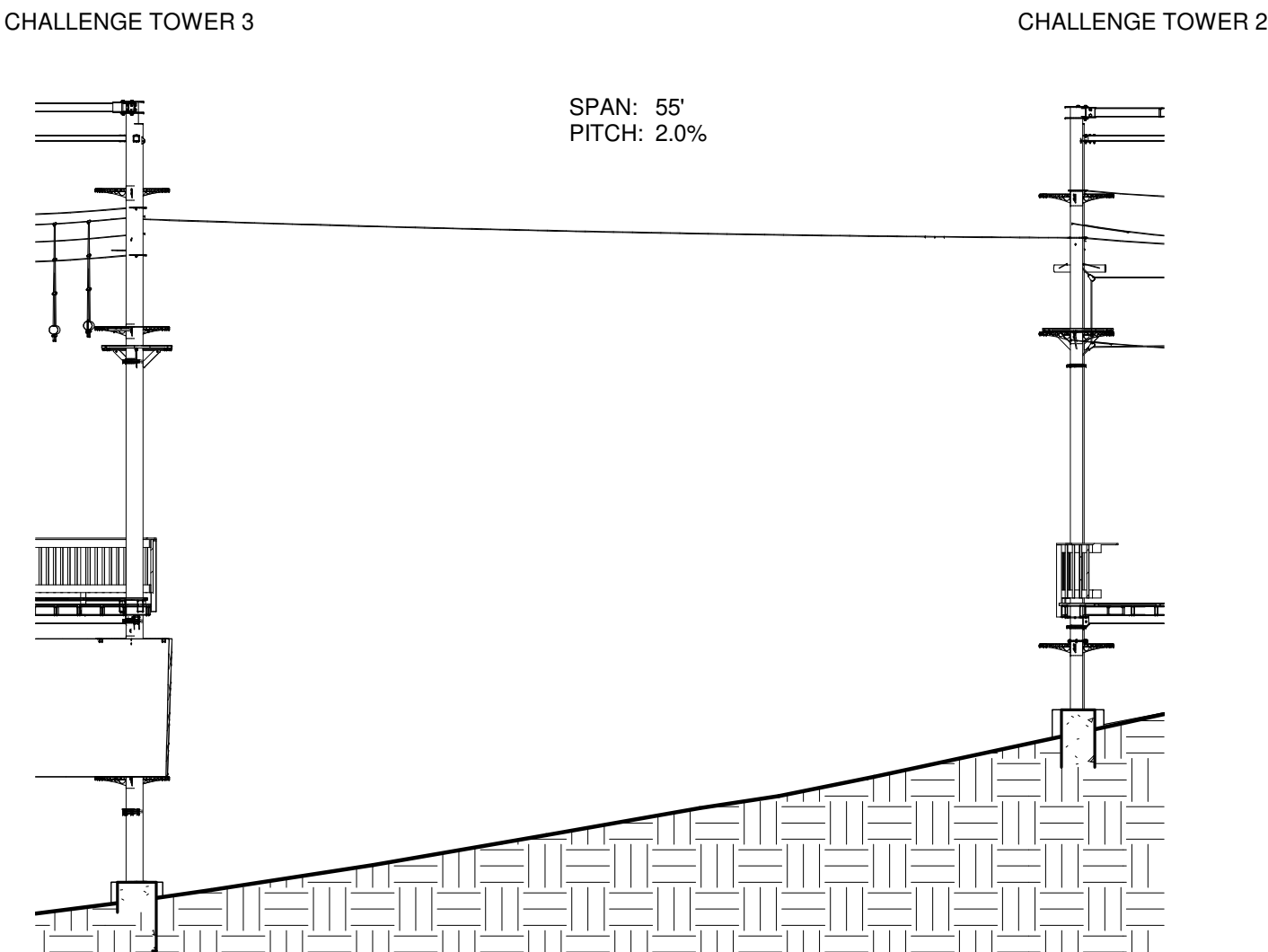
⑤ ZIP FROM TOWER 3 TO TOWER 1
1" = 10'-0"



② ZIP FROM TOWER 1 TO TOWER 3
1" = 10'-0"



④ ZIP FROM TOWER 2 TO TOWER 3
1" = 10'-0"



⑥ ZIP FROM TOWER 3 TO TOWER 2
1" = 10'-0"

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TOWER TO TOWER ZIP PROFILES

PROJECT	ADVENTURE COURSES	SHEET
TIME	8/2/2018 4:49:21 PM	0C4
SCALE	1" = 10'-0"	

ABBREVIATIONS

A.B	-ANCHOR BOLT
ADD'L	-ADDITIONAL
ADJ.	-ADJACENT
AFF.	-ABOVE FINISH FLOOR
A.I.S.C	-AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT.	-ALTERNATE
AN	-ANCHOR
ARCH.	-ARCHITECTURAL
A.S.T.M	-AMERICAN SOCIETY FOR TESTING &MATERIALS
BLDG.	-BUILDING
BM	-BEAM
B.O.	-BOTTOM OF
BOT.	-BOTTOM
BSMT.	-BASEMENT
BTWN.	-BETWEEN
CANT.	-CANTILEVER
CB	-CARDBOARD
CBL.	-CABLE
CH.	-CHAMFER
CJP	-CONTROL/CONSTRUCTION JOINT
CLR.	-COMPLETE JOINT PENETRATION
CLR.	-CLEAR, CLEARANCE
C.M.U.	-CONCRETE MASONRY UNIT
COL.	-COLUMN
CONC.	-CONCRETE
CONN.	-CONNECTION
CONST.	-CONSTRUCTION
CONT.	-CONTINUOUS
CONTR.	-CONTRACTOR
CS	-CABLE SAG
CTRD.	-CENTERED
C.W.	-CURTAIN WALL
DET.	-DETAIL
DIAG.	-DIAGONAL
DIAM.	-DIAMETER
DISCONT.	-DISCONTINUOUS
D.L.	-DEAD LOAD
DWG.	-DRAWING
EA.	-EACH
E.F.	-EACH FACE
EL.	-ELEVATION
ELECT.	-ELECTRICAL
ELEV.	-ELEVATOR
EQ.	-EQUAL
E.W.B.	-END WALL BARS
E.W.	-EACH WAY
EXIST.	-EXISTING
EXP. INT.	-EXPANSION JOINT
EXT.	-EXTERIOR
FDN.	-FOUNDATION
FG.	-FIST GRIP
FIN.	-FINISH
FLR.	-FLOOR
F.O.B.	-FRONT OF BRICK
F.O. CONC.	-FRONT OF CONCRETE
F.O.W.	-FACE OF WALL
FS	-FLAT SLAB
FT.	-FOOT
FTG.	-FOOTING
F.W.	-FILLET WELD
GA.	-GAUGE
GAL.	-GALVANIZED
GL.	-GLU-LAM
GR.	-GRADE
GR.BM.	-GRADE BEAM
H.A.S.	-HEADED ANCHOR STUD
H.D.G.	-HOT DIPPED GALVANIZED
HOR.	-HORIZONTAL
H.S.B.	-HIGH STRENGTH BEAM
HSS	-HOLLOW STRUCTURAL SEGMENT
I.D.	-INNER DIAMETER
I.F.	-INSIDE FACE
IN	-INCH
INT	-INTERIOR
JNT	-JOINT
K	-KIP (1,000 LBS.)
K.C.I	-KIP PER CUBIC INCH
LB.	-POUND
LIN. FT.	-LINEAR FEET
L.L.	-LIVE LOAD
L.L.V.	-LONG LEG VERTICAL
L.S.L.	-LAMINATED STRAND LUMBER
L.V.L.	-LAMINATED VENEER LUMBER
MAT'L	-MATERIAL
MAX.	-MAXIMUM
MECH.	-MECHANICAL
MID.	-MIDDLE
MIN.	-MINIMUM
MISC.	-MISCELLANEOUS
ML	-MULTILINE
MTL.	-METAL
N.I.C.	-NOT IN CONTACT
NO.	-NUMBER
NOM.	-NOMINAL
N.T.S.	-NOT TO SCALE
O.C.	-ON CENTER
O.F.	-OUTSIDE FACE
O.D.	-OUTER DIAMETER
O.H.	-OPPOSITE HAND
OPNG.	-OPENING
P.A.F.	-POWDER ACTUATED FASTENERS
PL	-PLATE
PR	-PRUSSIC
P.S.F	-POUNDS PER SQUARE FOOT
P.S.I.	-POUNDS PER SQUARE INCH
P.S.L.	-PARALLEL STRAND LUMBER
P.T.	-PRESSURE TREATED
R.	-RADIUS
REINF.	-REINFORCED
REQ'D	-REQUIRED
RM.	-ROOM
SCHED.	-SCHEDULE
SECT.	-SECTION
SHT.	-SHEET
S.D.L.	-SUPERIMPOSED DEAD LOAD
SIM.	-SIMILAR
S.L.V.	-SNOW LOAD
S.L.V.	-SHORT LEG VERTICAL
SPC.	-SPACE
SPEC	-SPECIFICATION
SQ.	-SQUARE
SS	-SERVING SLEEVE
STD.	-STANDARD
STIFF.	-STIFFENER
STL.	-STEEL
STOR.	-STORAGE
SYM.	-SYMMETRICAL
T	-TIMBER
T&B	-TOP & BOTTOM
THK.	-THICKNESS
T.O.	-TOP OF
TRN.	-TURNBUCKLE
TYP.	-TYPICAL
UN.O.	-UNLESS NOTED OTHERWISE
VAR.	-VARIES
VERT.	-VERTICAL
V.I.F.	-VERIFY IN FIELD
WT.	-WEIGHT

GENERAL NOTES:

- ANY ALTERATIONS TO THESE DRAWINGS PROPOSED IN THE FIELD FOR CONSTRUCTION SHALL BE PROMPTLY REPORTED TO THE PM/SUPER FOR APPROVAL PRIOR TO CONSTRUCTION.
- DO NOT SCALE DRAWINGS
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND LAYOUT DIMENSIONS IN THE FIELD. REPORT DISCREPANCIES TO THE PM/SUPER BEFORE STARTING CONSTRUCTION.
- NOTIFY LANDSCAPE ARCHITECT (IF APPLICABLE) OR PM/SUPER IMMEDIATELY IF CONFLICTS IN LAYOUT OF LANDSCAPE FEATURES ARISE DUE TO CHANGES TO ARCHITECTURAL PLANS.
- VERIFY LOCATIONS AND DEPTHS OF ALL UTILITIES IN THE FIELD AND NOTIFY PM/SUPER OF ANY CONFLICTS BETWEEN LAYOUT/GRADING AND UTILITIES PRIOR TO CONSTRUCTION.
- TRENCHING FOR UTILITIES WILL BE PERMITTED IN APPROVED LOCATIONS ONLY. CONTRACTOR MUST ALERT PM/SUPER PRIOR TO TRENCHING FOR LOCATION REVIEW AND APPROVAL.
- CONTRACTOR SHALL VERIFY ALL EXISTING GRADES IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE PM/SUPER.
- SLOPE GRADING AWAY FROM ALL STRUCTURES
- ACCESS TO AREAS OUTSIDE THE CONSTRUCTION FENCE INCLUDING BUT NOT LIMITED TO THE SOIL STOCKPILE SEPTIC DRAIN FIELD, AND ENTRANCE DRIVE AREAS WILL BE STAGED AND LIMITED TO PREVENT EXCESS SOIL EROSION, COMPACTION, AND ECOLOGICAL IMPACT. ONLY PERSONNEL, EQUIPMENT AND VEHICLES ASSOCIATED WITH THE WORK IN EACH AREA WILL BE PERMITTED IN THESE AREAS AND ONLY WHEN THE WORK IN AN AREA IS BEING PERFORMED.
- IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO REVIEW THE SITE CONDITIONS AND INFORM THE PM/SUPER OF ANY DISCREPANCIES IN SITE CONDITIONS OR EXISTING GRADES THAT ARE NOT DESCRIBED ON THE PLANS BEFORE COMMENCING WORK.
- THE CONTRACTOR SHALL ENSURE ALL WORK MEETS ALL APPLICABLE LOCAL AND NATIONAL BUILDING AND SAFETY CODES THAT PERTAIN TO THE PROJECT WORK. IF THERE ARE ANY DISCREPANCIES BETWEEN CODE AND THE CONTENT OF THE PLANS, THE CONTRACTOR IS TO CONSULT PM/SUPER BEFORE PROCEEDING.
- PRIOR TO PROJECT COMPLETION, THE SITE IS TO BE THOROUGHLY CLEANED OF ALL CONSTRUCTION DEBRIS, SIGNS, ETC... AND REVIEWED BY PM/SUPER AND OTHER RELEVANT CONSULTANTS.
- ARBORICULTURAL WORK: ANY ROOTS OR BRANCHES WHICH EXTEND BEYOND THE TREE PROTECTION ZONE(S) INDICATED ON THIS PLAN WHICH REQUIRE PRUNING MUST BE PRUNED BY QUALIFIED ARBORIST OR OTHER TREE PROFESSIONAL AS APPROVED BY THE PM/SUPER. ALL PRUNING OF TREE ROOTS AND BRANCHES MUST BE IN ACCORDANCE WITH APPROPRIATE ARBORICULTURAL STANDARDS. THE ARBORIST/TREE PROFESSIONAL MUST CONTACT THE PM/SUPER NO LESS THAN 48 HOURS PRIOR TO CONDUCTING ANY SPECIFIED WORK.
- CONTRACTORS MUST CLEAN ALL TRASH AND DEBRIS ON THE CONSTRUCTION SITE AT THE END OF EACH DAY. LIGHTWEIGHT MATERIALS, PACKAGING AND OTHER ITEMS MUST BE COVERED OR WEIGHTED DOWN TO PREVENT WIND FROM BLOWING SUCH MATERIALS OFF THE CONSTRUCTION SITE. CONTRACTORS ARE PROHIBITED FROM DUMPING, BURYING OR BURNING TRASH ANYWHERE ON THE SITE. DURING THE CONSTRUCTION PERIOD, THE CONSTRUCTION SITE MUST BE KEPT NEAT, CLEAN AND TIDY TO PREVENT IT FROM BECOMING AN EYESORE FOR SURROUNDING PROPERTY OWNERS. DIRT, MUD OR OTHER DEBRIS RESULTING FROM ACTIVITY ON SITE MUST BE PROMPTLY REMOVED FROM SURROUNDING ROADS ONCE PROJECT IS COMPLETE.
- IN ORDER TO RESPOND TO AND MONITOR HAZARDOUS MATERIAL (INCLUDING PETROLEUM PRODUCTS) USE AND/OR SPILLS THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING CRITERIA:
 - THE CONTRACTOR SHALL PROVIDE A CONTACT PERSON AND TELEPHONE NUMBER FOR A COMPANY EXPERIENCED IN EMERGENCY RESPONSE FOR CONTAINING HAZARDOUS MATERIAL SPILLS.
 - ABSORBENT SHEETS WILL BE USED FOR SPILL PREVENTION AND CLEAN UP. SEVERAL BOXES SHOULD BE LOCATED AT FUEL TRUCKS, STORAGE AREAS, AND IN MAINTENANCE VEHICLES. INVENTORIES MUST BE MAINTAINED AS NECESSARY.
 - A REPORTABLE SPILL IS DEFINED AS A SPILL OF ONE OR MORE GALLONS.
 - ALL RELEVANT ARCHITECTURAL, STRUCTURAL, POOL AND MEP REVIEWS.
 - CONCRETE FOUNDATION AND SLAB REVIEW DATES.
 - WOODWORK AND MASONRY REVIEW DATES.
 - LANDSCAPE PLANTING TREE LAYOUTS (WITH FLAGS) AND PLANT QUALITY REVIEW (BEFORE PLANTING)
 - FINAL PLANTING AND HARDSCAPE REVIEW
 - PROJECT COMPLETION
- CONTRACTOR SHALL CREATE A WORK SCHEDULE AND DISTRIBUTE TO OWNER, PM/SUPER, AND ARCHITECT PRIOR TO COMMENCEMENT OF WORK. THE SCHEDULE IS TO CLEARLY OUTLINE DATES FOR:
 - PRE-CONSTRUCTION MEETING TO REVIEW CONSTRUCTION FENCE, EROSION & SEDIMENT CONTROL MEASURES AND TREE PROTECTION MEASURES.
 - REVIEW OF MATERIAL MOCK-UPS (SEE MATERIAL NOTES)
 - REVIEW OF SITE AND ARCHITECTURAL LAYOUTS
 - ALL RELEVANT ARCHITECTURAL, STRUCTURAL, POOL AND MEP REVIEWS.
 - CONCRETE FOUNDATION AND SLAB REVIEW DATES.
 - WOODWORK AND MASONRY REVIEW DATES.
 - LANDSCAPE PLANTING TREE LAYOUTS (WITH FLAGS) AND PLANT QUALITY REVIEW (BEFORE PLANTING)
 - FINAL PLANTING AND HARDSCAPE REVIEW
 - PROJECT COMPLETION
- NOTIFICATION OF PROPOSED EXCAVATION, DEMOLITION OR ANY OTHER EARTH DISTURBING ACTIVITIES ARE REQUIRED TO BE PLACED TO CBYD NOT LESS THAN 48 BUSINESS HOURS BEFORE ANY SUCH WORK IS TO BEGIN. SEE WWW.DOM.COM/ABOUT/SAFETY/CALL-BEFORE-YOU-DIG.JSP FOR MORE INFORMATION.
- PROVIDE VERTICAL CURVES OR ROUNDINGS AT ABRUPT CHANGES IN GRADE UNLESS OTHERWISE NOTED. BLEND NEW EARTHWORK SMOOTHLY INTO EXISTING.
- BACKFILL AT RETAINING WALLS MUST BE FREE OF STONES AND BUILDING MATERIAL FOR A MINIMUM OF 24" BELOW FINISHED GRADE. COORDINATE WITH PM/SUPER.
- ALL CONCRETE TO BE 4000PSI, AIR-ENTRAINED (UNLESS OTHERWISE SPECIFIED).
- ALL WALL VENEER TO CONTINUE A MINIMUM OF 6" BELOW FINISH GRADE.
- ALL SITE WALLS TO BE MOCKED UP IN PLACE IN 6' RUN AND LAYOUT APPROVED BY PM/SUPER BEFORE FURTHER PROGRESSION.
- ANY MATERIALS NOT SPECIFIED IN PLANS SHOULD BE REVIEWED WITH AND APPROVED BY PM/SUPER PRIOR TO CONSTRUCTION.
- ALL BONSAI DESIGNS MEET OR EXCEED ASTM F2959-16 STANDARD PRACTICE FOR SPECIAL REQUIREMENTS FOR AERIAL ADVENTURE COURSES.

SUB-STRUCTURE FRAMING:

- USE OF SEALANT, TREATMENT, FINISH, ETC. IS RECOMMENDED FOR ANY UNTREATED LUMBER OR STEEL BEING EXPOSED TO OUTDOOR ELEMENTS.
- SEE STRUCTURAL DRAWINGS FOR CONNECTIONS, DETAILS, SCHEDULES & SPECS WHEN APPLICABLE.
- MEMBERS W/O DIMENSION TYPICALLY ARE EQUALLY SPACED BETWEEN DIMENSIONED MEMBERS. (SIZING & MATERIAL MAY VARY)
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING A FINISHED SLAB EDGE WHICH IS STRAIGHT AND TRUE AND ACCURATELY LOCATED IN RELATION TO DIMENSIONS DEPICTED IN DRAWINGS.
- SCHEDULE ERECTION SEQUENCE AND/OR PROVIDE ADDITIONAL TEMPORARY VERTICAL BRACING SO THAT ALL PORTIONS OF THE STRUCTURAL FRAME ARE BRACED FOR LATERAL LOADS AT ALL TIMES.

FRAMING:

- TYPICAL JOIST SPACING SHALL BE 1' - 4" O.C UNLESS OTHERWISE SPECIFIED
- ALL INTERIOR FLOOR JOISTS ARE LOCATED VIA O.C DIMENSIONS
- ALL FLOOR JOISTS BEING LOCATED NEAR OR AT THE RIM OF STRUCTURE WILL BE LOCATED VIA DIMENSION FROM CENTERLINE OF INTERIOR JOIST TO OUTSIDE EDGE OF STRUCTURE OR RIM.
- ALL FLOOR JOISTS SHALL BE COMPRISED OF PRESSURE TREATED 2X MATERIAL. DEPTH OF JOISTS MAY VARY. SEE KEYNOTE LEGEND FOR FLOOR JOIST SPECS.
- IN THE EVENT OF STEEL SUB-FRAMING BEING USED, 2X PRESSURE TREATED SILL PLATES MUST BE UTILIZED. WIDTH OF SILL PLATE MAY VARY. SEE KEYNOTE LEGEND FOR SPEC.
- ALL HARDWARE SHALL BE HD GALVANIZED UNLESS OTHERWISE DENOTED.
- SEE STRUCTURAL DRAWINGS FOR STRUCTURAL ATTACHMENT DETAILS & SECTIONS
- GALVANIZED "L" BRACKETS SHALL BE USED WHERE NECESSARY IF BEARING IS INSUFFICIENT.
- ALL HARDWARE SHALL BE ATTACHED TO STRUCTURE VIA WEATHER RESISTANT SCREWS, BOLTS, NAILS, ALL-THREAD, ETC. TYPE OF HARDWARE MAY VARY.

DECKING:

- ALL DECKING SHALL CONSIST OF 2X6 ROUGH SAWN REDWOOD OR EQUIVALENT UNLESS OTHERWISE DENOTED.
- ALL DECKING SHALL HAVE 0.5" REVEAL BETWEEN EACH PLANK.
- ALL PLANK REVEALS SHALL BE APPROXIMATELY EQUAL
- DECKING SHALL BE FLUSH WITH OUTSIDE FACE OF FASCIA BOARD UNLESS OTHERWISE SPECIFIED BY DESIGNER.
- ALL DECKING SHALL BE ATTACHED TO FRAMING VIA WEATHER RESISTANT SCREWS.
- WIDTH OF STAIR STRINGERS WILL VARY PER PROJECT AND WILL BE DENOTED ON PLANS.
- ALL SECTION, DETAILS & ENLARGED VIEWS SHALL BE REFERENCED FROM THIS PLAN.
- ALL DECKING WILL NEED TO BE CUT AND CONTOURED TO THE POLES. A REVEAL CONSISTENT WITH DECK BOARD REVEALS SHALL ALSO BE APPLIED.

ELEVATION & VERTICAL SECTION VIEWS:

- ALL DIMENSIONS ARE LOCATING SPECIFIC ELEMENTS VERTICALLY.
- ELEVATIONS ARE NOT TO BE SCALED IN FIELD. RELY ON DIMENSIONS ONLY. IN THE CASE OF DISCREPANCIES BETWEEN DIMENSIONS, PLEASE CONTACT DESIGNER FOR CLARIFICATION.
- SECTION VIEWS, DETAILS VIEWS AS WELL AS PLAN VIEWS WHICH DEPICT LARGER SCALE SHALL GOVERN OVER THOSE OF SMALLER SCALE.
- GRADE IS REPRESENTED AS AN APPROXIMATION. ALL MEASUREMENTS MUST BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF POLES, FRAMING, ELEMENTS, ETC. CONTACT COURSE DESIGNER FOR CLARIFICATION IF NECESSARY.
- ALL ELEVATIONS ARE SUBJECT TO CHANGE FOR FIELD FIT CALIBRATION

ASTM A325 BOLT TORQUE SPECS

Bolt Size	TPI	Tension		Tightening Torque Range (ft lbs) (Min - Max)	
		Min	Max	Galv+Waxed	Plain
1/2	13	12,000	14,000	50 - 58	100 - 117
3/8	11	19,000	23,000	99 - 120	198 - 240
1/4	10	28,000	34,000	175 - 213	350 - 425
7/8	9	39,000	47,000	284 - 343	569 - 685
1	8	51,000	61,000	425 - 508	850 - 1,017
1 1/8	7	56,000	67,000	525 - 625	1,050 - 1,256
1 1/4	7	71,000	85,000	740 - 885	1,479 - 1,771
1 1/8	6	85,000	102,000	974 - 1,169	1,948 - 2,338
1 1/2	6	103,000	124,000	1,288 - 1,550	2,575 - 3,100

ASTM A307 BOLT TORQUE SPECS

Bolt Size	TPI	Proof Load	Clamp Load	Tightening Torque (ft lbs)		
		(lbs)1	(lbs)2	Galv+Waxed	Galv	Plain
1/4	20	1,145	859	2	4	4
5/16	18	1,886	1,415	4	9	7
3/8	16	2,790	2,093	7	16	13
1/2	14	3,827	2,870	10	26	21
3/2	13	5,108	3,831	16	40	32
9/16	12	6,552	4,914	23	58	46
5/8	11	8,136	6,102	32	79	64
3/4	10	10,204	9,018	56	141	113
7/8	9	15,200	11,400	83	208	166
1	8	20,000	15,000	125	313	250
1 1/8	7	25,200	18,900	177	443	354
1 1/4	7	32,000	24,000	250	625	500
1 1/8	6	38,100	28,575	327	819	655
1 1/2	6	46,400	34,800	435	1,088	870
1 3/4	5	68,400	51,300	748	1,870	1,496
2	4 1/2	90,000	67,500	1,125	2,813	2,250
2 1/4	4 1/2	117,000	87,750	1,645	4,113	3,291
2 1/2	4	144,000	108,000	2,250	5,625	4,500
2 3/4	4	177,480	133,110	3,050	7,626	6,101
3	4	214,920	161,190	4,030	10,074	8,060
3 1/4	4	255,600	191,700	5,192	12,980	10,384
3 1/2	4	299,880	224,910	6,560	16,400	13,120
3 3/4	4	347,760	260,820	8,151	20,377	16,301
4	4	398,880	299,160	9,972	24,930	19,944

PROJECTED ZIP LINE PATH:

- ALL REPORTED TENSIONS AND ELEVATIONS OF ZIP LINE WIRE ARE ESTIMATES. VERIFY ALL PATRON CLEARANCES IN FIELD FOR ELEMENT SAFETY.
- ALL REPORTED TENSIONS AND SAFETY FACTORS ARE STANDING LOAD TENSION ONLY, AND DO NOT INCLUDE THE WEIGHT OF ANY PATRON OR STAFF ON THE LINE.
- ALL REPORTED SLOPE AND ELEMENT DROP DIMENSIONS ARE SUBJECT TO CHANGE AS THE PM SEES FIT IN ORDER TO IMPROVE PATRON SAFETY ENVELOPE CLEARANCE AND RIDE ENJOYMENT.
- ALL TENSIONS ARE SUBJECT TO CHANGE IN ORDER TO IMPROVE RIDE CHARACTERISTICS.

FOOTING & POLE LOCATIONS:

- IN THE INSTANCE THERE ARE DISCREPANCIES BETWEEN GENERAL NOTES, SPECIFICATIONS, PLAN/DETAILS OR REFERENCES, THE PM/SUPER/ENGINEER SHALL DETERMINE WHICH SHALL GOVERN. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER/ENGINEER BEFORE PROCEEDING WITH WORK.
- STRUCTURAL STEEL FOR THIS PROJECT IS DESIGNED IN ACCORDANCE WITH AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATIONS.

BOLT TORQUE TABLE

1/2" BOLTS, TORQUE 40 FT./LBS.
5/8" BOLTS, TORQUE 79 FT./LBS.
3/8" FIST GRIPS, TORQUE 45 FT./LBS.
1/2" FIST GRIPS, TORQUE 65 FT./LBS.
5/8" FIST GRIPS, TORQUE 130 FT./LBS.
3/4" FIST GRIPS, TORQUE 225 FT./LBS.
1/2" SET SCREWS, TORQUE 52 FT./LBS.
5/8" SET SCREWS, TORQUE 109 FT./LBS.

PATRON CLEARANCE ENVELOPE:

- THE PATRON REACH ENVELOPE IS DESIGNED FOR MAXIMUM PARTICIPANT HEIGHT OF 6'-6" - CAUTIONARY USE BY TALLER PARTICIPANTS AT OPERATOR DISCRETION WITH ADDITIONAL TRAINING
- THE PATRON CLEARANCE ENVELOPE IS 3" BEYOND THE REACH OF THE PARTICIPANT (THE MAXIMUM REACH IS 4')
- FALL WILL BE LIMITED TO LESS THAN 3 FEET
- STANDARD LANYARD WITHOUT ENERGY ABSORBER IS ACCEPTABLE

MAX ELEMENT TENSIONS WHEN LOADED WITH 250 LBS:

ELEMENT SPAN	MAX TENSION
1-10 FT	1246 LBS
11-20 FT	1246 LBS
21-30 FT	1246 LBS
31-40 FT	1234 LBS
41-50 FT	1222 LBS

GENERAL NOTES

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PAGE NOTES

NOTES CONTAINED ON THIS SHEET ARE INTENDED TO BE GENERAL INFORMATION TO COVER A VARIETY OF BONSAI DESIGN PRODUCTS AT A VARIETY OF LOCATIONS.

ALL NOTES ARE "AS APPLICABLE" TO THIS PROJECT AND INFORMATION CONTAINED ELSEWHERE IN THIS PLAN SET SHALL GOVERN OVER NOTES ON THIS SHEET

	RUSSELL CRONIN	THADDEUS SHRADER	08/02/2018
REV #	DRAWN BY	DESIGN BY	DATE

REVISION HISTORY

NO.	DATE	DESCRIPTION
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CLIENT NAME AND ADDRESS

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BONSAI BOILER PLATE NOTES

ADVENTURE COURSES		SHEET
PROJECT	8/2/2018 4:48:20 PM	0A2
DATE	As indicated	

16mm RAPID LINK



14mm RAPID AND DELTA LINK



12mm RAPID AND DELTA LINK



10mm RAPID AND DELTA LINK



5/8" SHACKLE



SMC RA 2" PULLEY



1/2" CABLE CLIP AND FIST GRIP



1/2" DUCTILE IRON SUSPENSION CLAMP A.K.A STOPLIGHT HANGER



SINGLE SWAGED THIMBLE EYE TERMINATION IN 1/2" GAC



FIST GRIP THIMBLE EYE TERMINATION IN 1/2" GAC



TAN 5/8" MULTILINE ROPE



WHITE 5/8" MULTILINE ROPE



BLACK 11mm KMIII ROPE



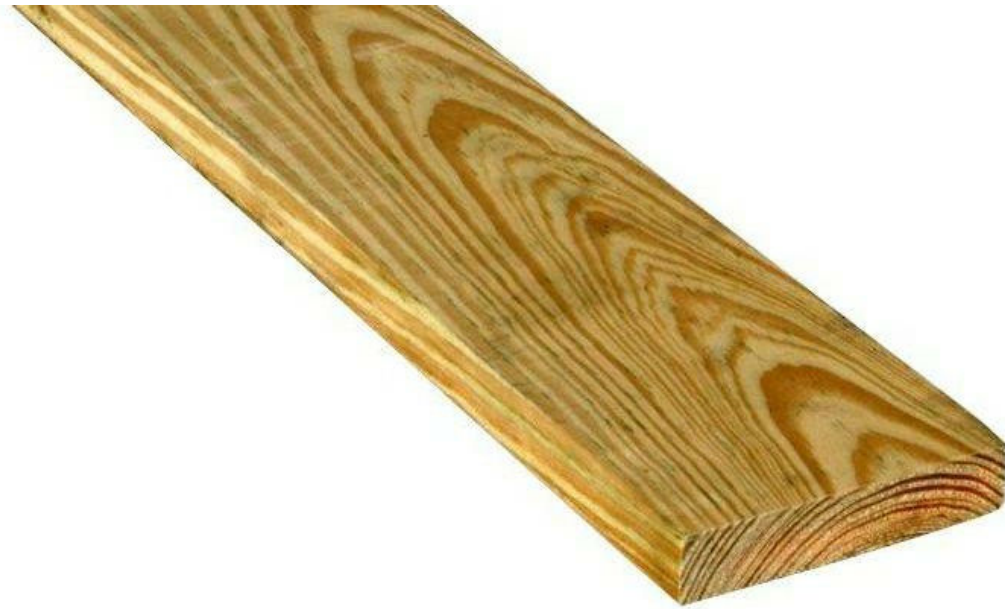
RED 5mm ACCESSORY CORD



SHERWIN WILLIAMS PAINT SAMPLE:
BLACK BEAN (SW 6006)



PRESSURE TREATED PINE



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PAGE NOTES

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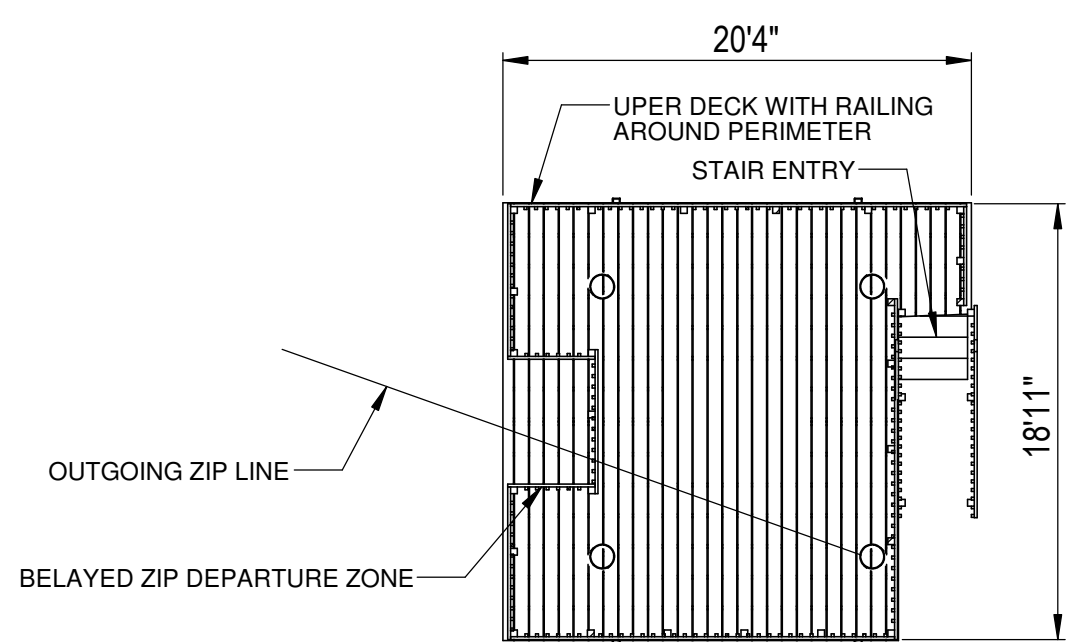
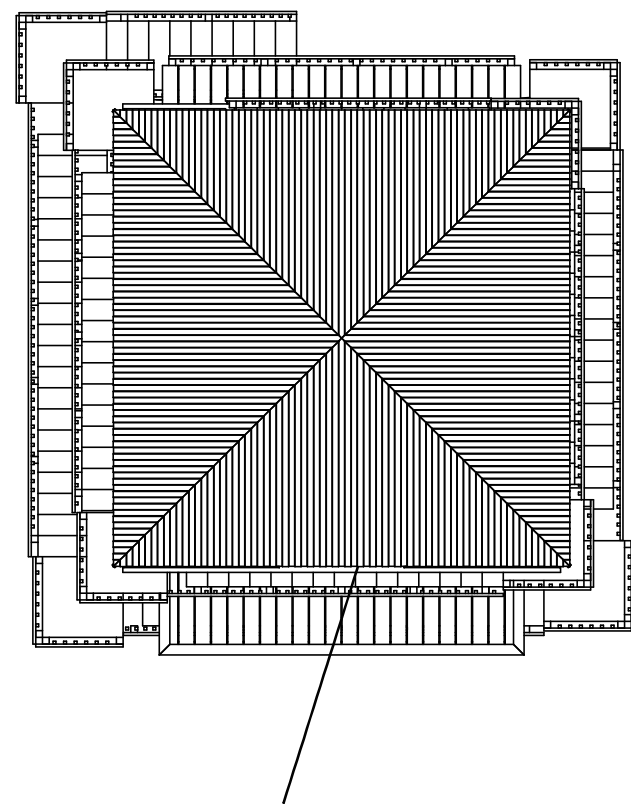
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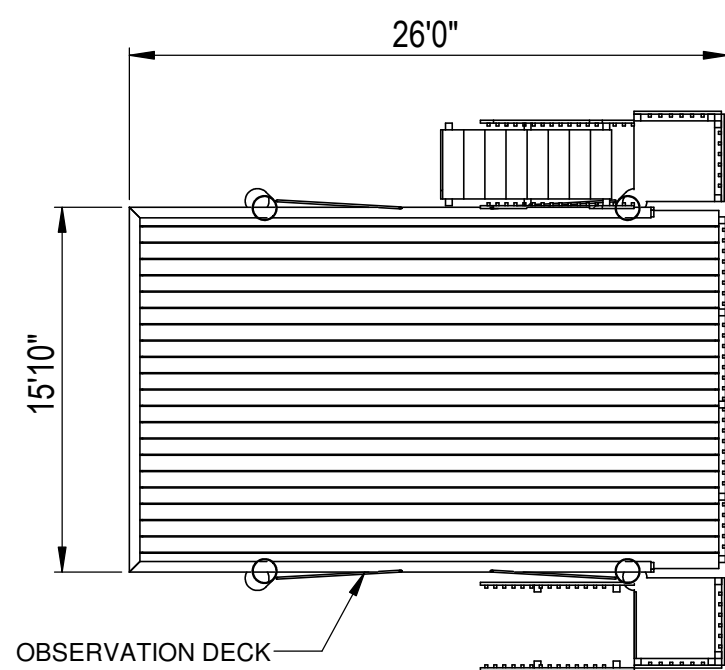
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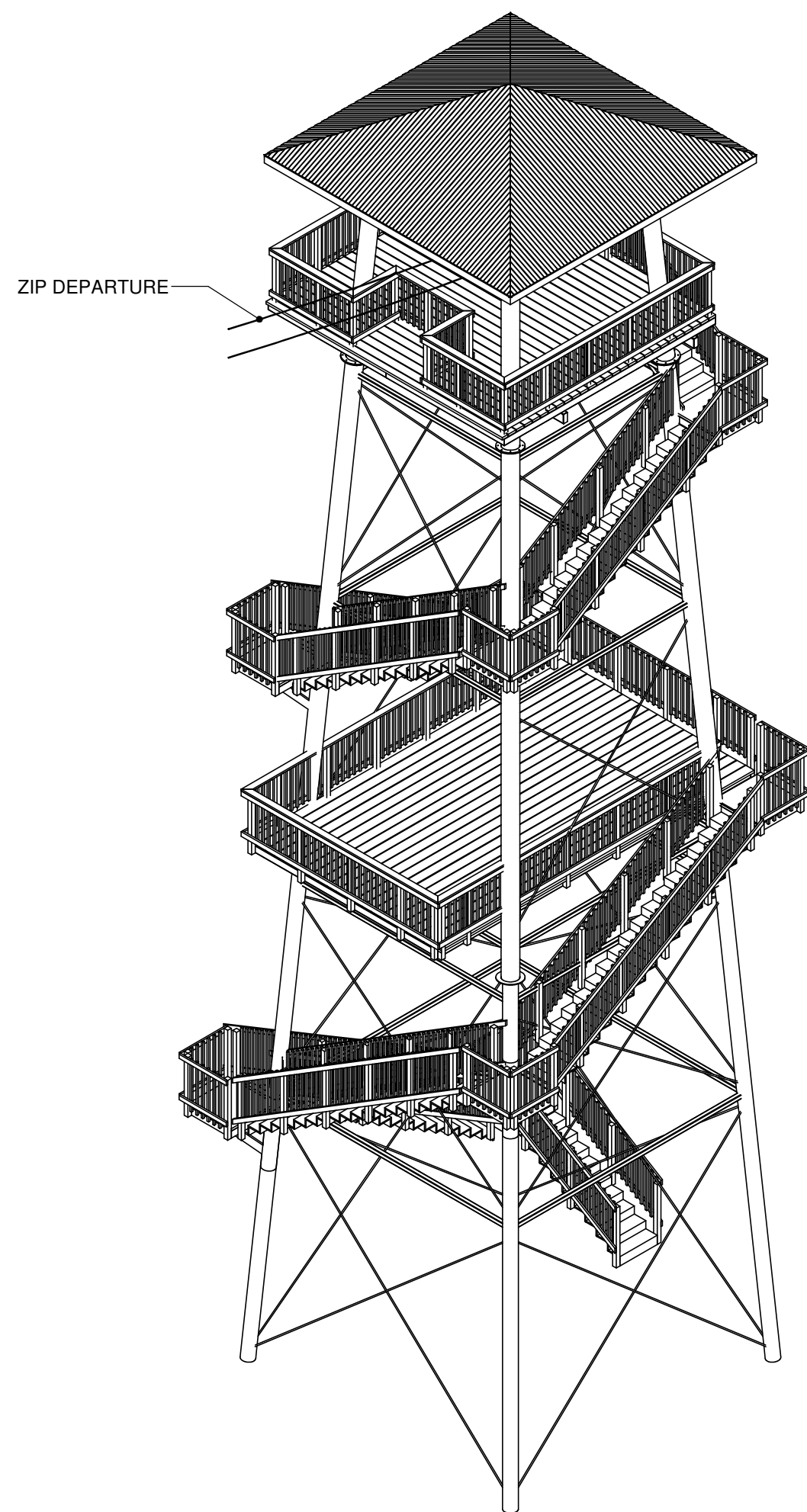
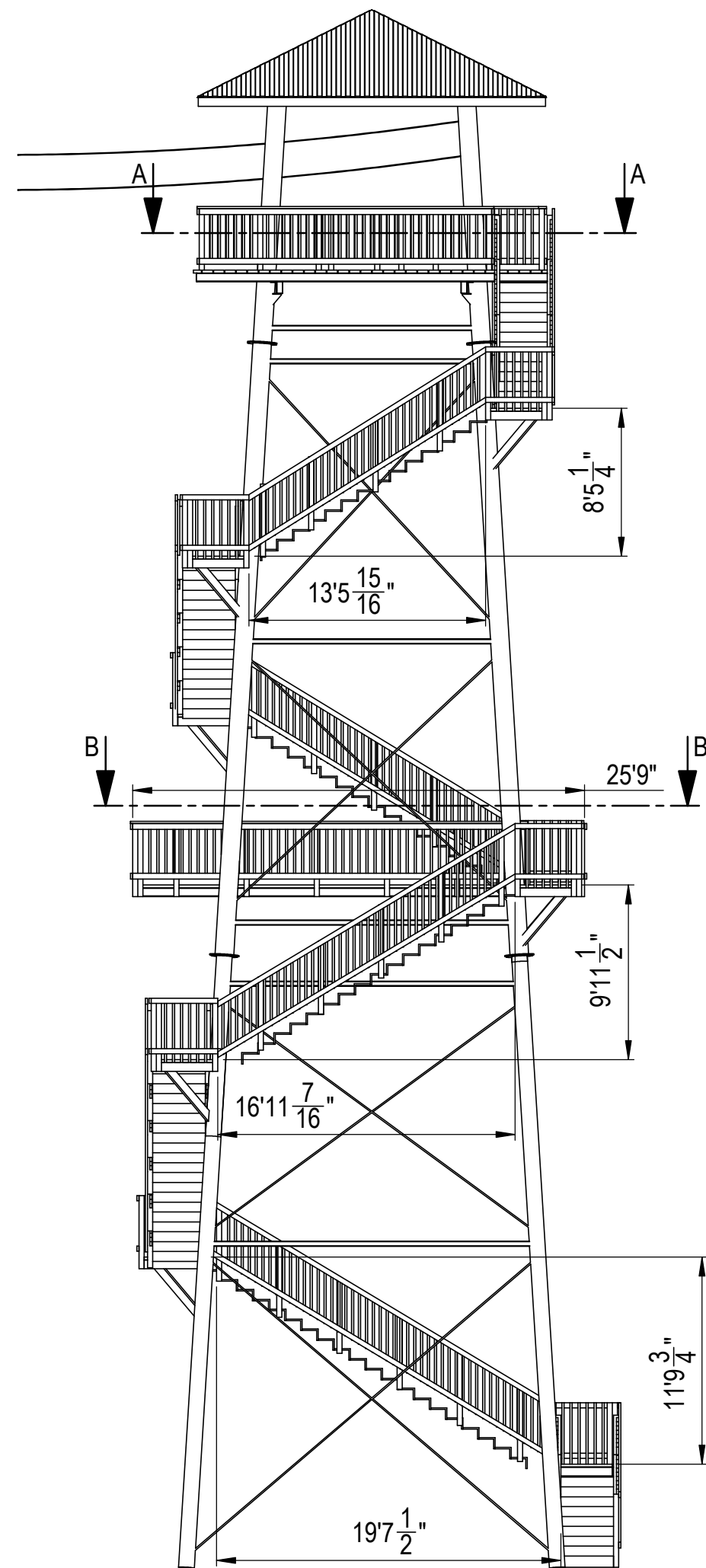
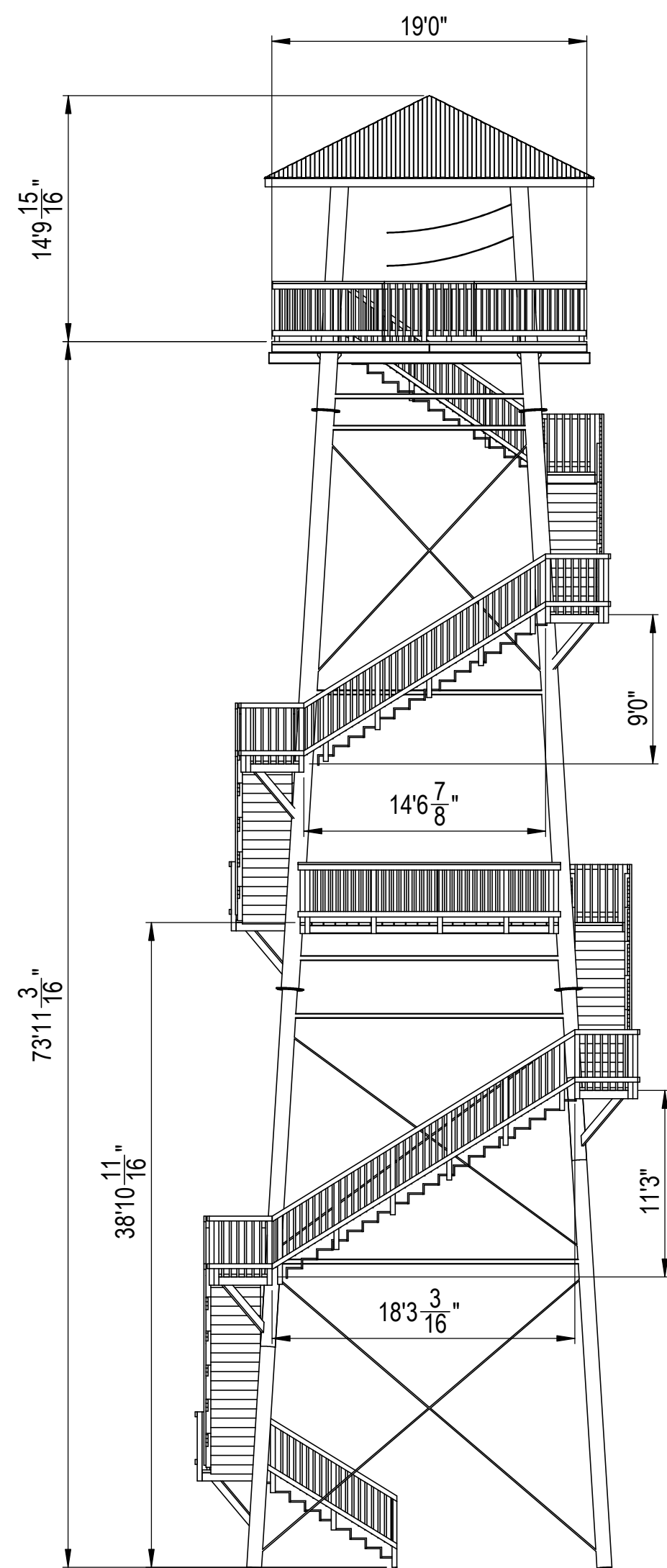
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TIME	8/2/2018 4:48:22 PM	0A3
SCALE	6" = 1'-0"	



SECTION A-A
SCALE 1 : 100



SECTION B-B
SCALE 1 : 100



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PAGE NOTES

DESIGNER	THADDEUS SHRADER
ENGINEER OF RECORD	[ENGINEER]

REVISION HISTORY

NO.	DRAWN BY	DATE	DESCRIPTION
1	AARON DOVE	3/30/2018	BEGIN SCHEMATIC PHASE
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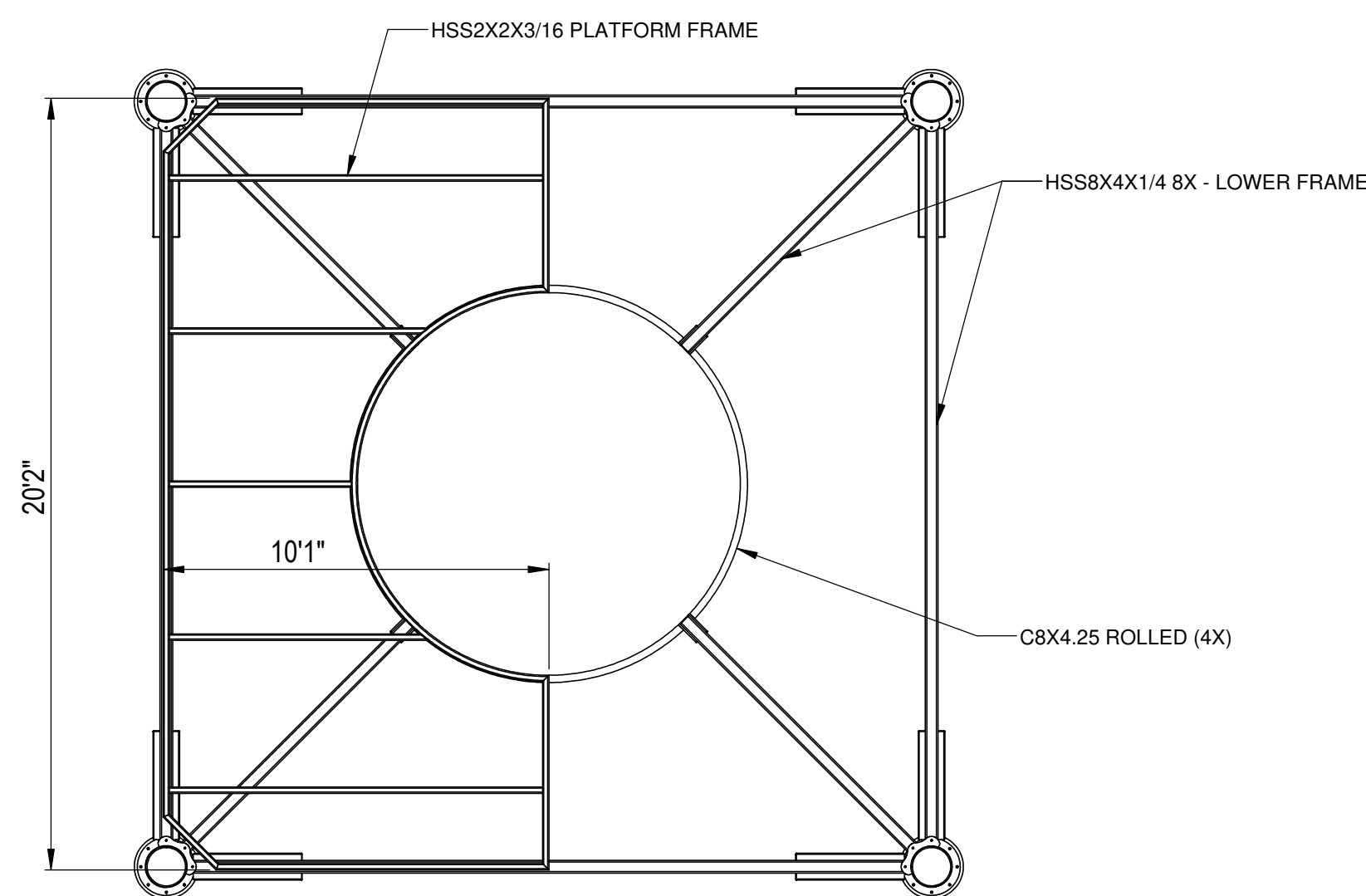
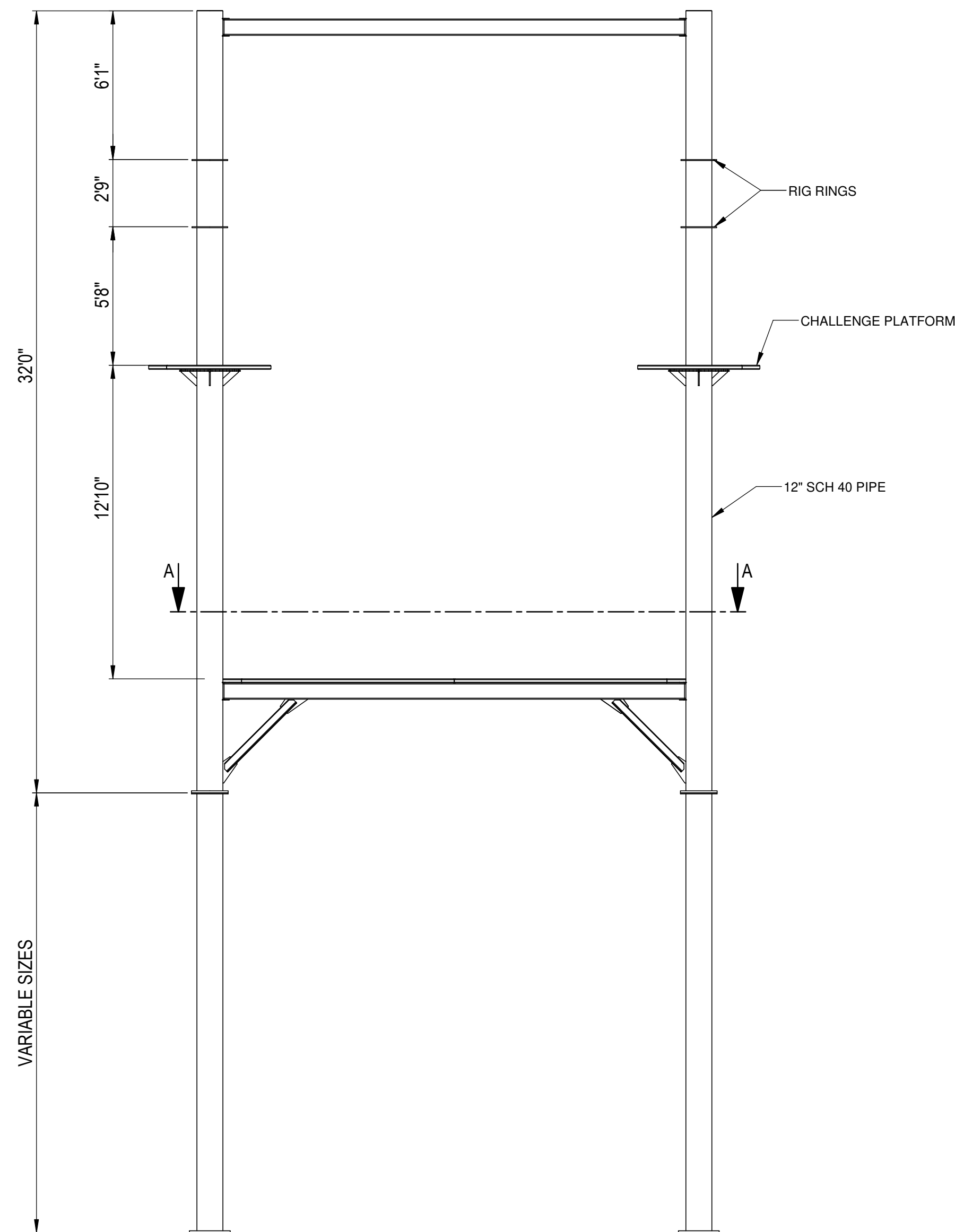
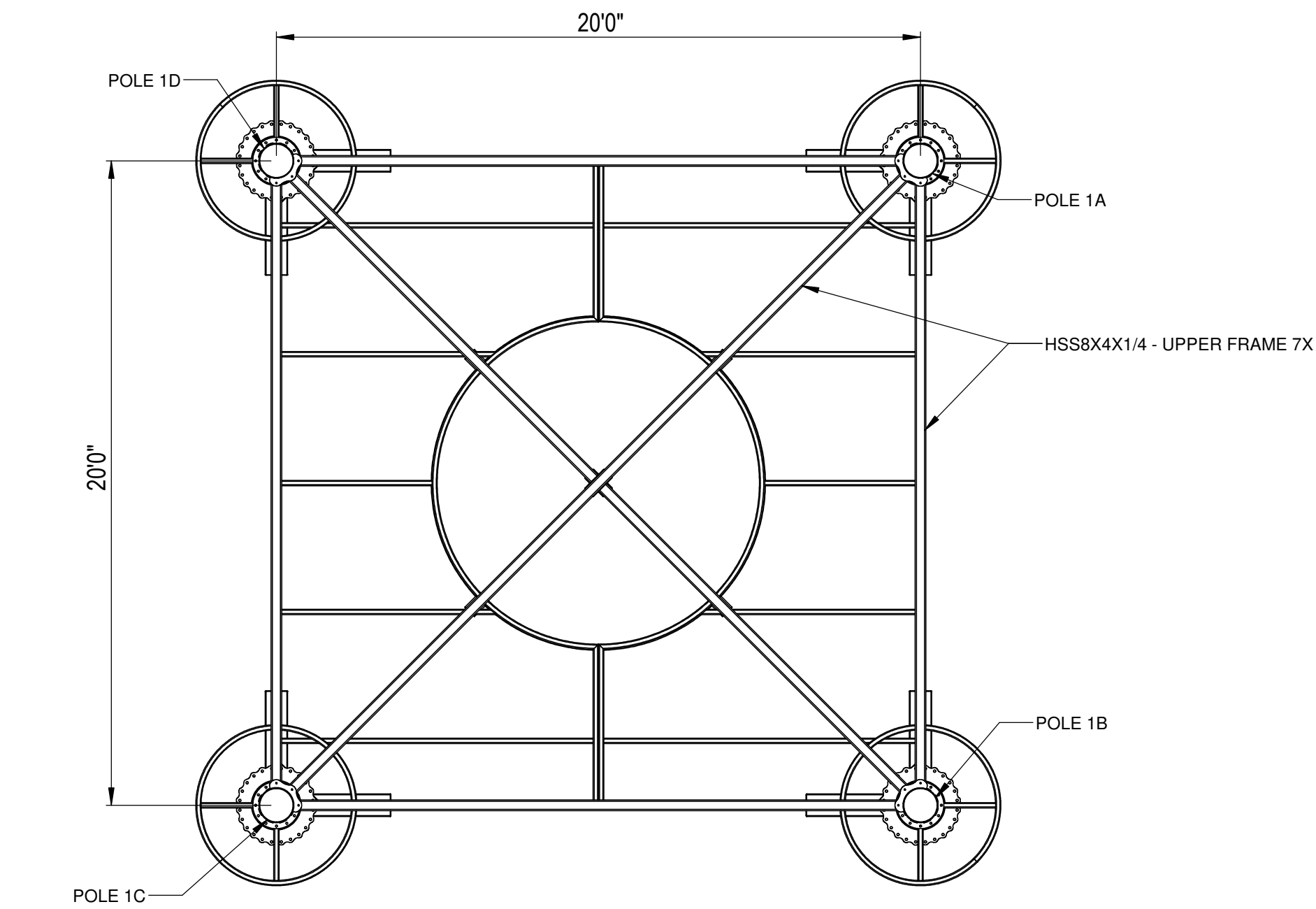
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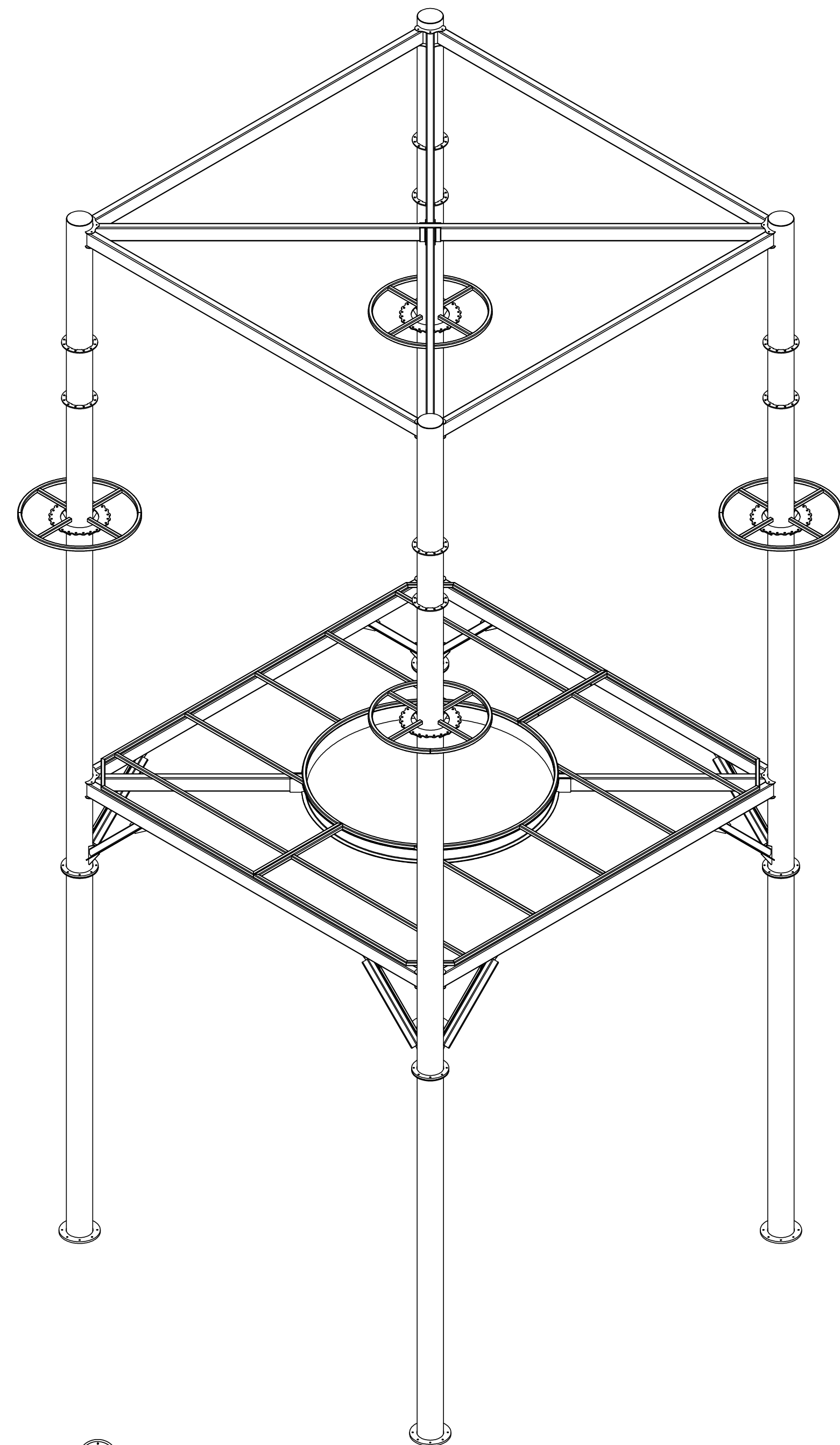
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ENTRY TOWER OVERVIEW

PROJECT	ADVENTURE COURSES	SHEET
TIME	8/2/2018	0A4
SCALE	AS SHOWN	



SECTION A-A
SCALE 1 : 50



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PAGE NOTES

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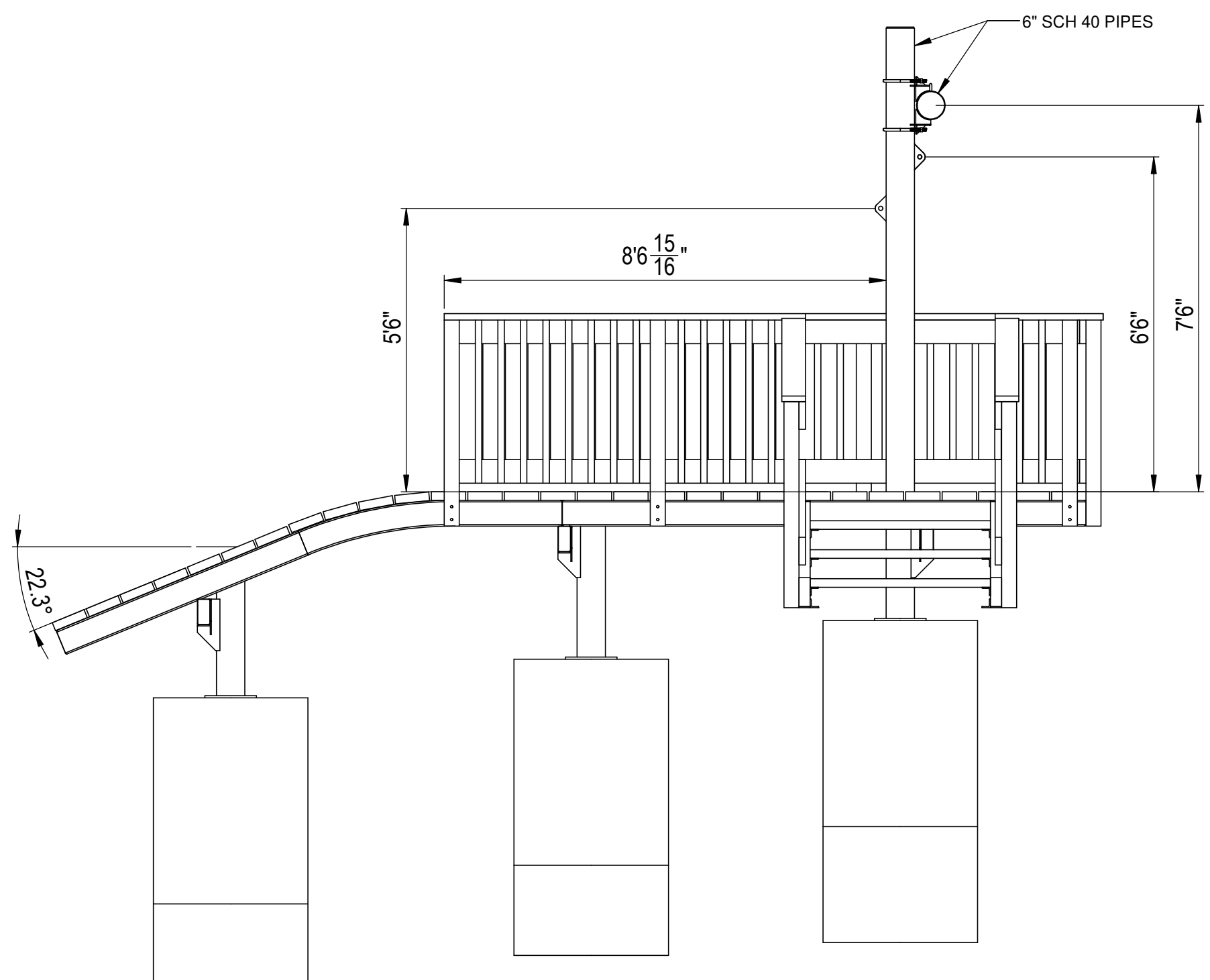
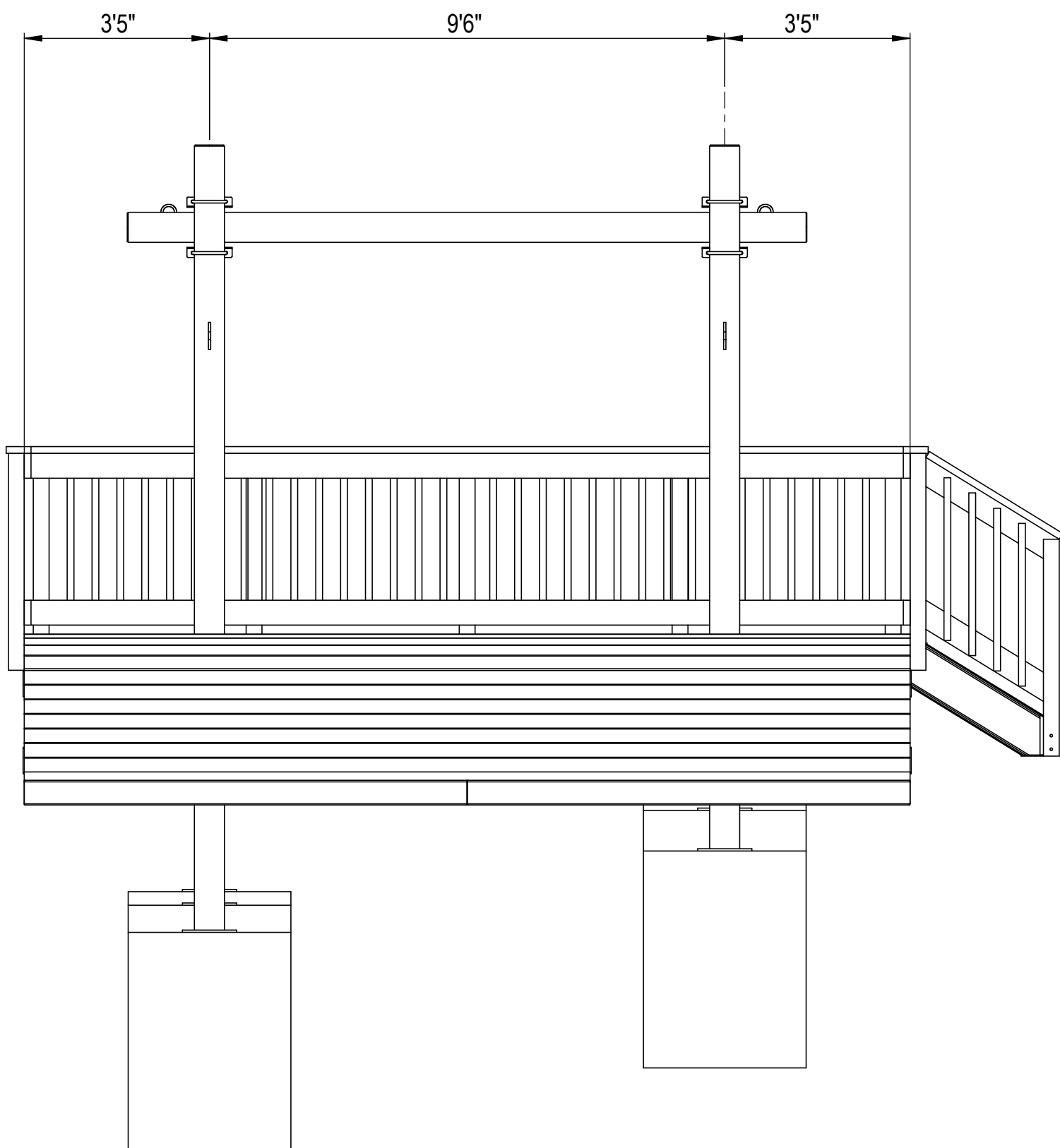
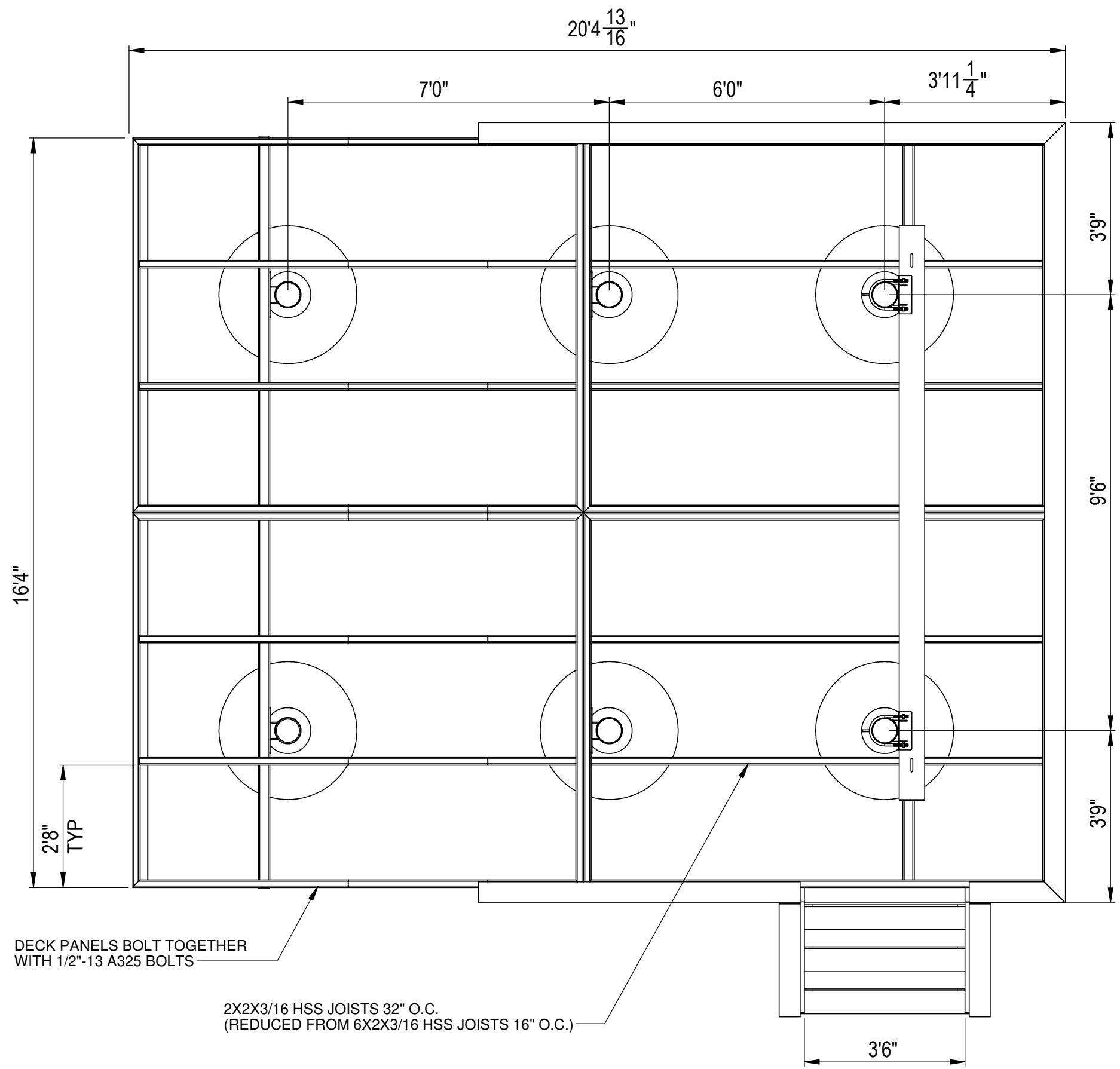
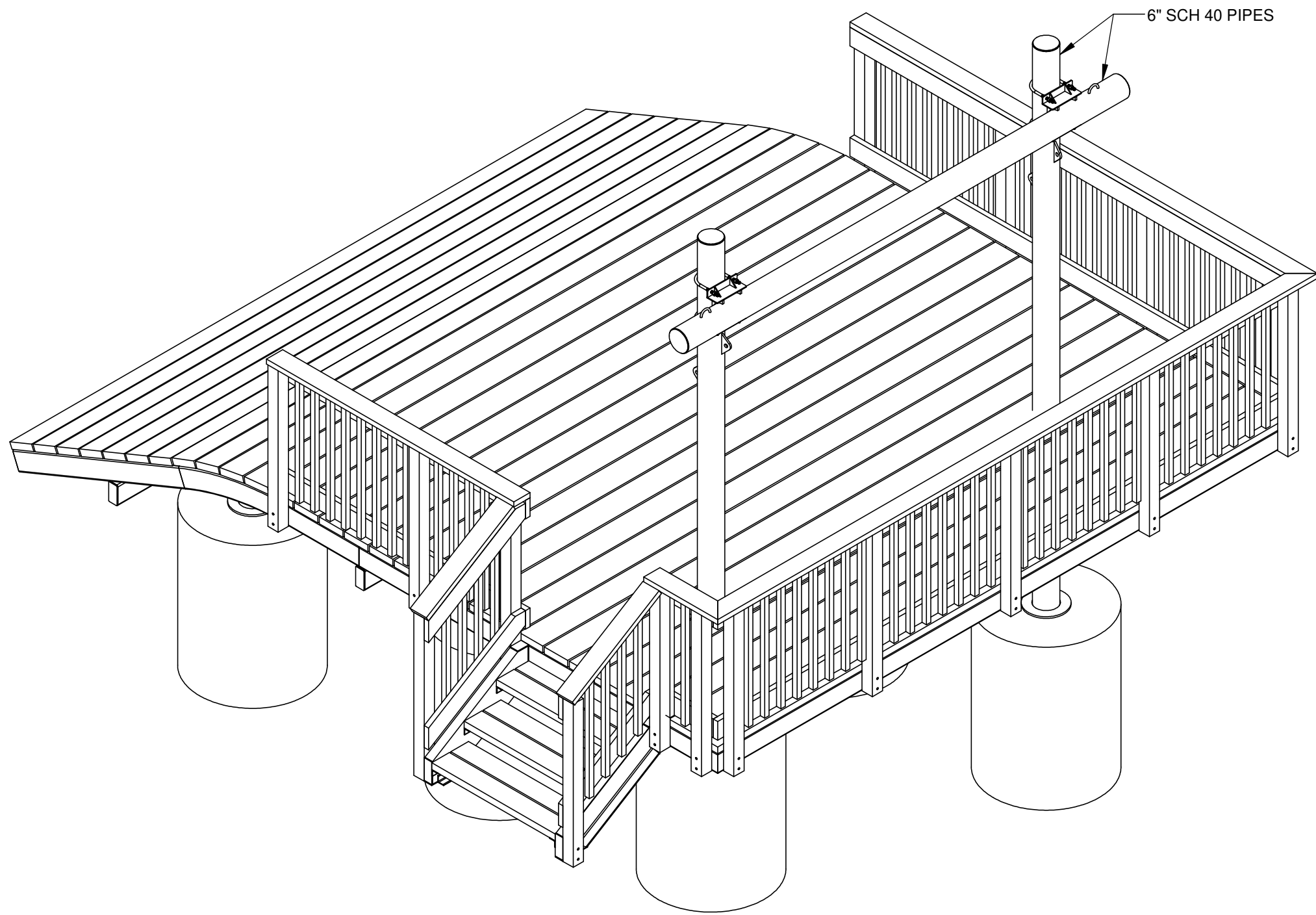
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TYP CHALLENGE TOWER OVERVIEW

PROJECT		SHEET	
ADVENTURE COURSES		0A5	
TIME	8/2/2018		
SCALE	AS SHOWN		



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PAGE NOTES

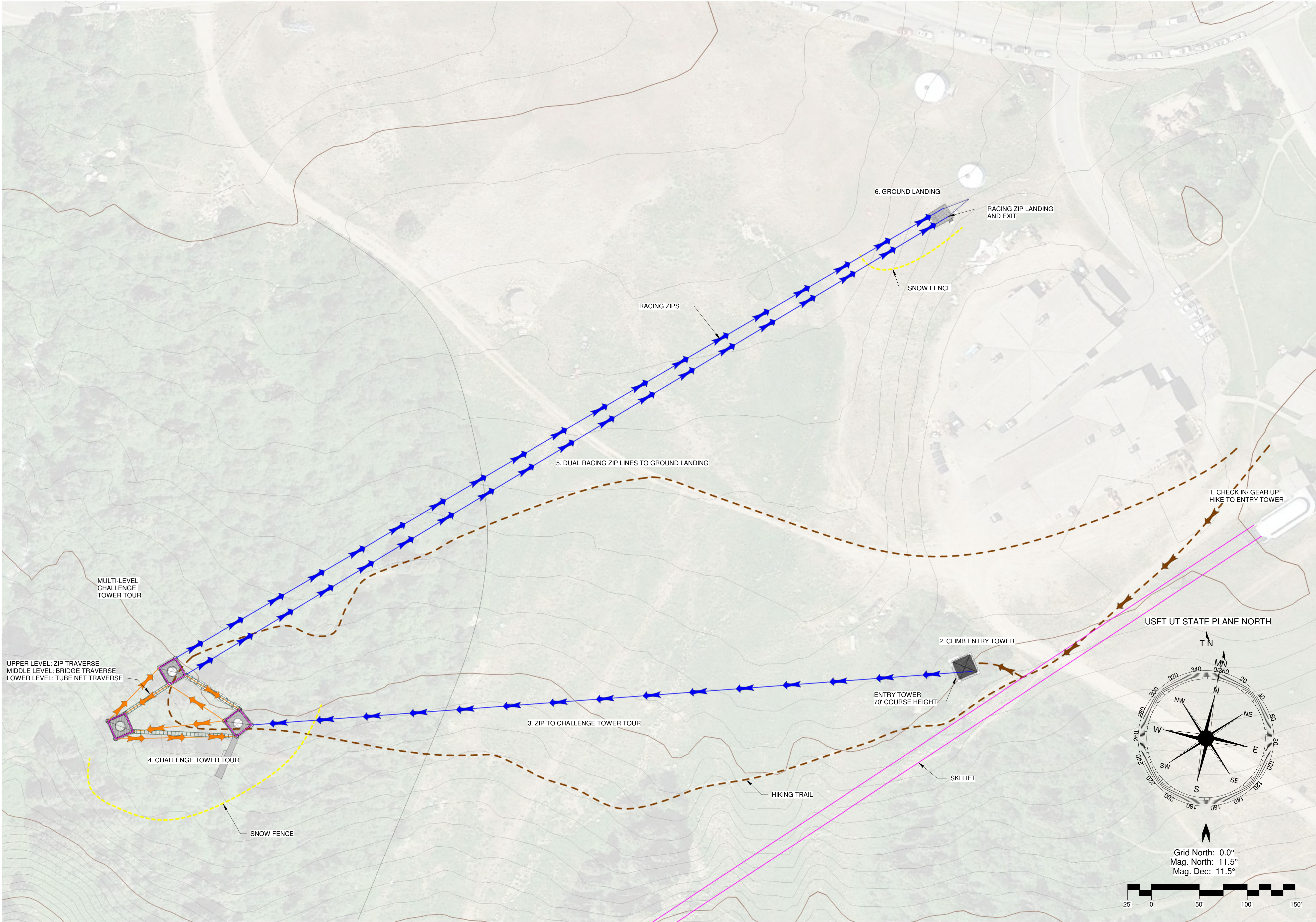
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ENGINEER OF RECORD	[ENGINEER]

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ZIP LANDING OVERVIEW		
PROJECT	ADVENTURE COURSES	SHEET
TIME	8/2/2018	0A6
SCALE	AS SHOWN	



1 PROGRAMMATIC LAYOUT
1" = 50'-0"

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PAGE NOTES

- COURSE TRAILS
- INDEX CONTOURS 5'
- GROUND PATH
- ZIP LINE
- TOWER-TO-TOWER ZIP
- CHALLENGE ELEMENT
- SKYBRIDGE
- TUBE NET

REV #	AARON DOVE	THADDEUS SHRADER	08/02/2018
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PROGRAMMATIC LAYOUT

PROJECT	ADVENTURE COURSES	SHEET
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