STRUCTURAL GENERAL NOTES

GOVERNING CODE: 2021 INTERNATIONAL BUILDING CODE (IBC) AND ALL LOCAL AMENDMENTS.

GOVERNING JURISDICTION: ROUTT COUNTY
SITE LOCATION: STEAMBOAT SKI RESORT
SITE ELEVATION: 7250 FT

DESIGN LOADS:
1. RISK CATEGORY: II
2. ROOF SNOW LOADS:
   A. GROUND SNOW LOAD (P_G): 210 PSF
   B. ICE LOAD (P_{ICE}): 2.5 PSF
3. LIVE LOADS:
   A. RAILING LINE LOAD: 50 PLF
4. WIND LOADS:
   A. BASIC WIND SPEED, 3-SECOND GUST (V): 115 MPH
   B. ALLOWABLE STRESS DESIGN WIND SPEED (V): 89.1 MPH
   C. INTERNAL PRESSURE COEFFICIENT (GC_{PI}): ±0.0
   D. WIND EXPOSURE: C
   E. OPEN SIGN LOADING (OPENINGS >30% OF GROSS AREA) 33.2 PSF
      a. TYPICAL MEMBER WIDTH: 5"
      b. % OF OPEN AREA: 50%
      c. WIND DIRECTIONALITY FACTOR (Kd): 0.85
   F. NOTE: ALL REPORTED PRESSURES ARE BASIC PRESSURES. TO CONVERT TO ALLOWABLE STRESS DESIGN PRESSURES, MULTIPLY BASIC PRESSURES BY 0.6.

FOUNDATION DESIGN:
1. GEOTECHNICAL INFORMATION:
   A. FOUNDATION DESIGN IS IN ACCORDANCE WITH RECOMMENDATIONS CONTAINED IN SOILS INVESTIGATION REPORT NUMBER 21-12413, BY NORTHWEST COLORADO CONSULTANTS, INC. DATED DECEMBER 7, 2021.
   B. SOIL CONDITIONS SHALL BE VERIFIED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF FORMWORK OR CONCRETE. IF DIFFERENT SOIL CONDITIONS EXIST THE STRUCTURAL ENGINEER SHALL BE NOTIFIED TO RE-EVALUATE THE FOUNDATION DESIGN AT ADDITIONAL EXPENSE TO THE OWNER.
2. SLOPE FINAL GRADES DOWN AND AWAY FROM FOUNDATION WALLS A MINIMUM OF 6 INCHES IN FIRST 10 FEET PER IBC.
3. FOOTINGS:
   A. FOOTINGS, SELECTED BY THE OWNER SHALL BEAR ON THE NATURAL, UNDISTURBED SOILS, OR APPROVED COMPACTED STRUCTURAL FILL.
   B. EXTERIOR FOOTINGS SHALL BEAR BELOW FROST DEPTH
      a. MINIMUM FROST DEPTH SHALL BE 4'-0" BELOW ADJACENT EXTERIOR FINISHED GRADE.
   C. DESIGN OF FOOTINGS IS BASED ON:
      a. MAXIMUM ALLOWABLE BEARING PRESSURE: 3500 PSF
      b. MINIMUM DEAD LOAD PRESSURE: 1000 PSF
4. EARTH RETAINING STRUCTURES:
   A. EARTH EQUIVALENT FLUID LATERAL PRESSURE:
      a. AT REST PRESSURE: 60 PCF
      b. ACTIVE PRESSURE: 50 PCF
      c. PASSIVE PRESSURE: 275 PCF
      d. COEFFICIENT OF SLIDING FRICTION: 0.4

REINFORCED CONCRETE:
1. CONCRETE DESIGN IS BASED ON THE AMERICAN CONCRETE INSTITUTE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318) AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE" (ACI 301).
2. STRUCTURAL CONCRETE SHALL HAVE THE FOLLOWING PROPERTIES (NORMAL WEIGHT CONCRETE UNLESS NOTED OTHERWISE):
   A. CEMENT TYPE: IL
   B. MAXIMUM AGGREGATE SIZE: 3/4"
   C. MINIMUM 28 DAY COMPRESSIVE STRENGTH (f'_c) AS FOLLOWS:

	f'c	w/cm (MAX)	ENTRAINED AIR %	SLUMP
a. FOOTINGS:	3,500 PSI	0.52	1.5% (± 1.5%)	5 INCHES (± 1")
b. PIERS, COLUMNS:	4,000 PSI	0.45	3.0% (± 1.5%)	4 INCHES (± 1")

3. REINFORCING STEEL SHALL BE FABRICATED AND PLACED IN ACCORDANCE WITH ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT."
4. WHEN COLD WEATHER CONDITIONS EXIST, PLACE AND CURE CONCRETE IN ACCORDANCE WITH ACI 306.
5. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
6. DEFORMED REINFORCEMENT SHALL BE DOMESTIC NEW BILLET STEEL CONFORMING TO ASTM A615, GRADE 60 INCLUDING STIRRUPS AND TIES, EXCEPT THAT REINFORCING WHICH IS REQUIRED TO BE WELDED SHALL CONFORM TO ASTM A706.
7. EPOXY COATED REINFORCING BARS SHALL CONFORM TO ASTM A775.
8. ZINC COATED (GALVANIZED) REINFORCING BARS SHALL CONFORM TO ASTM A767.
9. UNLESS OTHERWISE NOTED ON THE STRUCTURAL DRAWINGS, LAP BARS 50 DIAMETERS (50*BAR DIAMETER MINIMUM).
10. REINFORCING AT ALL ABUTTING CONCRETE (INCLUDING FOOTINGS) SHALL BE CONTINUOUS THROUGH OR AROUND ALL CORNERS AND INTERSECTIONS, OR USE MATCHING CORNER BARS OF EQUAL SIZE AND SPACING TO REINFORCING IN THE ABUTTING MEMBERS.
11. IN CONTINUOUS MEMBERS, SPLICE TOP BARS AT MID-SPAN BETWEEN SUPPORTS AND SPLICE BOTTOM BARS OVER SUPPORTS.
12. FORM INTERMITTENT SHEAR KEYS AT ALL CONSTRUCTION JOINTS AND AS SHOWN ON THE STRUCTURAL DRAWINGS.
13. UNLESS OTHERWISE NOTED ON THE DRAWINGS, MINIMUM CONCRETE COVER OVER REINFORCING SHALL BE AS FOLLOWS:
   A. UNFORMED SURFACE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
   B. FORMED SURFACE EXPOSED TO EARTH OR WEATHER:
      a. #6 THROUGH #18 BARS 2"
      b. #5 BAR, W31 OR D31 WIRE, AND SMALLER 1 1/2"
   C. FORMED SURFACE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
      a. SLABS, WALLS, JOISTS: #11 BARS AND SMALLER 3/4"
   D. BEAMS AND COLUMNS:
      a. PRIMARY REINFORCEMENT 1 1/2"
      b. STIRRUPS, TIES, SPIRALS 1 1/2"
14. INSTALL CHAIRS, BOLSTERS, ADDITIONAL REINFORCEMENT, AND ACCESSORIES NECESSARY TO SUPPORT REINFORCEMENT AT POSITION SHOWN ON DRAWINGS. SUPPORT OF REINFORCEMENT ON WOOD, BRICK, OR OTHER UNACCEPTABLE MATERIALS SHALL NOT BE PERMITTED.
15. KEEP REINFORCEMENT CLEAN AND FREE OF DIRT AND OIL. OIL FORMS PRIOR TO PLACING REINFORCEMENT.
16. FIBER ADMIXTURE SHALL BE 100% VIRGIN POLYPROPYLENE, FIBRILLATED FIBERS, TYPE III 4.1.3, PERFORMANCE LEVEL ONE, PER ASTM C1116.
17. PROPERLY PLACE, ACCURATELY POSITION AND MAINTAIN SECURELY IN PLACE ALL EMBEDDED ITEMS PRIOR TO AND DURING CONCRETE PLACEMENT.
18. ANCHOR BOLTS AND RODS FOR BEAM AND COLUMN-BEARING PLATES SHALL BE PLACED WITH SETTING TEMPLATES.
19. UNLESS OTHERWISE SHOWN IN THE ARCHITECTURAL DRAWINGS, PROVIDE 3/4" CHAMFERS AT ALL COLUMN, WALL, SLAB OR BEAM EDGES THAT ARE EXPOSED TO VIEW IN THE FINISHED STRUCTURE.

STRUCTURAL STEEL:
1. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" (AISC 360) AND THE "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES (AISC 303) BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC).
2. ALL STRUCTURAL STEEL SHALL CONFORM TO THE ASTM STANDARDS AND GRADES INDICATED BELOW, UNLESS NOTED OTHERWISE ON THE DRAWINGS OR DETAILS.
   A. OTHER ROLLED SHAPES, INCLUDING PLATES, CHANNELS, AND ANGLES: ASTM A36, 36 KSI YIELD
   B. HOLLOW STRUCTURAL SECTION (HSS) RECTANGULAR SHAPES: ASTM A500, GRADE C, 50 KSI YIELD
   C. HSS ROUND SHAPES: ASTM A500, GRADE B, 42 KSI YIELD
   D. PIPE SHAPES: ASTM A53, GRADE B, 35 KSI YIELD
   E. ADJUSTABLE PIPE COLUMNS:
      a. 3" DIAMETER 11 GAUGE, SHALL BE CERTIFIED BY THE MANUFACTURER FOR A SAFE LOAD CAPACITY OF 13,500 LBS AT 7'-6".
      b. 3" DIAMETER "HEAVY DUTY" SCHEDULE 40 SHALL BE CERTIFIED FOR A SAFE LOAD CAPACITY OF 28,000 LBS AT 7'-6".
3. UNLESS OTHERWISE NOTED, FRAMED BEAM CONNECTIONS SHALL BE BEARING-TYPE WITH 3/4" DIAMETER, SNUG TIGHT, ASTM F3125 GRADE A325N BOLTS WITH ASTM A563 NUTS, DETAILED IN CONFORMANCE WITH THE STRUCTURAL DRAWINGS AND THE "STEEL CONSTRUCTION MANUAL" (AISC 325).
4. WASHERS ARE REQUIRED FOR SNUG-TIGHTENED JOINTS AT SLOPING SURFACES OR SLOTTED HOLES. WASHERS SHALL CONFORM TO ASTM F463.
5. INSTALL BOLTS IN ACCORDANCE WITH "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS" (AISC 348).
6. ALL BEAMS SHALL HAVE FULL DEPTH WEB STIFFENERS EACH SIDE OF WEBS ABOVE AND BELOW COLUMNS (1/4" PLATE OR AS NOTED).
7. ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE 55 AS NOTED ON THE STRUCTURAL DRAWINGS WITH WELDABILITY SUPPLEMENT S1.
8. HEADED ANCHOR STUDS (HAS) SHALL CONFORM TO ASTM A108 AND SHALL BE CONNECTED TO STRUCTURAL STEEL WITH EQUIPMENT APPROVED BY THE STUD MANUFACTURER ACCORDING TO THE STUD MANUFACTURER'S RECOMMENDATIONS.
9. WELDING SHALL BE DONE BY A CERTIFIED WELDER IN ACCORDANCE WITH THE AISC DOCUMENTS LISTED ABOVE, AND THE AMERICAN WELDING SOCIETY (AWS) D1.1: STRUCTURAL WELDING CODE, AND THE RECOMMENDATIONS FOR USE OF E70XX ELECTRODES. WHERE NOT SPECIFICALLY NOTED, MINIMUM WELD SHALL BE 3/16" FILLET BY LENGTH OF CONTACT EDGE.
10. ALL POST-INSTALLED ANCHORS SHALL HAVE CURRENT INTERNATIONAL CODE COUNCIL EVALUATION SERVICE (ICC-ES) REPORTS AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.
11. EXPANSION ANCHORS SHALL BE APPROVED "WEDGE" TYPE UNLESS SPECIFICALLY NOTED TO BE "SLEEVE" TYPE AS NOTED ON THE STRUCTURAL DRAWINGS.
12. CHEMICAL ANCHORS SHALL BE APPROVED EPOXY OR SIMILAR ADHESIVE TYPE AS APPROPRIATE FOR INSTALLATION IN SOLID AND NON-SOLID BASE MATERIALS.

SPECIAL INSPECTIONS:
1. THE FOLLOWING SPECIAL INSPECTIONS AND TESTING SHALL BE PERFORMED BY A QUALIFIED SPECIAL INSPECTOR, RETAINED BY THE OWNER, IN ACCORDANCE WITH THE FOLLOWING SECTIONS OF IBC CHAPTER 17:
   A. SECTION 1705 SPECIAL INSPECTIONS AND THE FOLLOWING SUB-SECTIONS:
      a. 1705.2 STEEL CONSTRUCTION INCLUDING 1705.2.1 STRUCTURAL STEEL, 1705.2.2 STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL
      b. 1705.3 CONCRETE CONSTRUCTION
   B. SECTION 1706 DESIGN STRENGTHS OF MATERIALS
   C. SECTION 1707 ALTERNATIVE TEST PROCEDURES
   D. SECTION 1708 TEST SAFE LOAD
   E. SECTION 1709 IN-SITU LOAD TESTS
   F. SECTION 1710 PRECONSTRUCTION LOAD TESTS
   G. SECTION 1711 MATERIAL AND TEST STANDARDS
2. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
3. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR SHALL BE TO INSPECT AND/OR TEST THE WORK OUTLINED ABOVE AND WITHIN THE STATEMENT OF SPECIAL INSPECTIONS IN ACCORDANCE WITH CHAPTER 17 OF THE IBC FOR CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.
4. PER SECTION 1704.2.4 THE SPECIAL INSPECTOR SHALL FURNISH REGULAR REPORTS TO THE BUILDING OFFICIAL AND THE STRUCTURAL ENGINEER. PROGRESS REPORTS FOR CONTINUOUS INSPECTION SHALL BE FURNISHED WEEKLY. INDIVIDUAL REPORTS OF PERIODIC INSPECTIONS SHALL BE FURNISHED WITHIN ONE WEEK OF INSPECTION DATES. THE REPORTS SHALL NOTE UNCORRECTED DEFICIENCIES, CORRECTION OF PREVIOUSLY REPORTED DEFICIENCIES, AND CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS AUTHORIZED BY THE STRUCTURAL ENGINEER OF RECORD.
5. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT WITHIN 10 DAYS OF THE FINAL SPECIAL INSPECTION STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC. WORK NOT IN CONFORMANCE SHALL BE NOTED IN THE REPORT.
6. THE CONTRACTOR SHALL SUBMIT A STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON A MAIN WIND- OR SEISMIC-FORCE-RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM OR A WIND-OR SEISMIC-RESISTING COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS PER SECTION 1704.2.3.
7. EXCEPT AS NOTED, THE SPECIAL INSPECTIONS OUTLINED ABOVE ARE IN ADDITION TO, AND BEYOND THE SCOPE OF, PERIODIC STRUCTURAL OBSERVATIONS AS DEFINED IN SECTION 1704.5. STRUCTURAL OBSERVATIONS ARE INCLUDED IN THE STRUCTURAL ENGINEERING DESIGN AND CONSTRUCTION ADMINISTRATION SERVICES PROVIDED BY THE STRUCTURAL ENGINEER.

CONSTRUCTION ADMINISTRATION:
1. SHOP DRAWINGS:
   A. THE STRUCTURAL DRAWINGS ARE COPYRIGHTED AND SHALL NOT BE COPIED FOR USE AS ERECTION PLANS OR SHOP DETAILS. USE OF ANTHEM'S ELECTRONIC FILES AS THE BASIS FOR SHOP DRAWINGS REQUIRES PRIOR APPROVAL BY ANTHEM, A SIGNED RELEASE OF LIABILITY BY THE GENERAL CONTRACTOR AND/OR HIS SUBCONTRACTORS, AND DELETION OF ANTHEM'S NAME AND LOGO FROM ALL SHEETS SO USED.
   B. THE GENERAL CONTRACTOR SHALL SUBMIT IN WRITING ANY REQUESTS TO MODIFY THE STRUCTURAL DRAWINGS OR PROJECT SPECIFICATIONS.
   C. ALL SHOP AND ERECTION DRAWINGS SHALL BE CHECKED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMISSION FOR STRUCTURAL ENGINEER'S REVIEW; SHOP DRAWING SUBMITTALS NOT CHECKED BY THE GENERAL CONTRACTOR PRIOR TO SUBMISSION TO THE STRUCTURAL ENGINEER WILL BE RETURNED WITHOUT REVIEW.
   D. FURNISH TWO (2) PRINTS OF SHOP AND ERECTION DRAWINGS TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION FOR:
      a. REINFORCING STEEL,
      b. STRUCTURAL STEEL,
   E. SUBMIT IN A TIMELY MANNER TO PERMIT 10 WORKING DAYS FOR REVIEW BY THE STRUCTURAL ENGINEER.
   F. SHOP DRAWINGS SUBMITTED FOR REVIEW DO NOT CONSTITUTE "REQUEST FOR CHANGE IN WRITING" UNLESS SPECIFIC SUGGESTED CHANGES ARE CLEARLY MARKED. IN ANY EVENT, CHANGES MADE BY MEANS OF THE SHOP DRAWING SUBMITTAL PROCESS BECOME THE RESPONSIBILITY OF THE ONE INITIATING THE CHANGE.
2. REQUESTS FOR INFORMATION (RFI):
   A. SUBMIT IN A TIMELY MANNER TO PERMIT 5 WORKING DAYS FOR REVIEW BY THE STRUCTURAL ENGINEER.
3. FIELD OBSERVATIONS:
   A. CONTRACTOR SHALL PROVIDE 5 WORKING DAYS ADVANCE NOTICE FOR ALL FIELD OBSERVATIONS.

FIELD VERIFICATION OF EXISTING CONDITIONS:
1. THE GENERAL CONTRACTOR SHALL THOROUGHLY INSPECT AND SURVEY THE EXISTING STRUCTURE TO VERIFY CONDITIONS THAT AFFECT THE WORK SHOWN ON THE DRAWINGS.
2. THE GENERAL CONTRACTOR SHALL REPORT ANY VARIATIONS OR DISCREPANCIES TO THE ARCHITECT AND STRUCTURAL ENGINEER BEFORE PROCEEDING.

STRUCTURAL ERECTION AND BRACING REQUIREMENTS:
1. THE STRUCTURAL DRAWINGS ILLUSTRATE AND DESCRIBE THE COMPLETED STRUCTURE WITH ELEMENTS IN THEIR FINAL POSITIONS, PROPERLY SUPPORTED, CONNECTED, AND/OR BRACED.
2. THE STRUCTURAL DRAWINGS ILLUSTRATE TYPICAL AND REPRESENTATIVE DETAILS TO ASSIST THE GENERAL CONTRACTOR. DETAILS SHOWN APPLY AT ALL SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED. ALTHOUGH DUE DILIGENCE HAS BEEN APPLIED TO MAKE THE DRAWINGS AS COMPLETE AS POSSIBLE, NOT EVERY DETAIL IS ILLUSTRATED AND NOT EVERY EXCEPTIONAL CONDITION IS ADDRESSED.
3. ALL PROPRIETARY CONNECTIONS AND ELEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS.
4. ALL WORK SHALL BE ACCOMPLISHED IN A WORKMANLIKE MANNER AND IN ACCORDANCE WITH THE APPLICABLE CODES AND LOCAL ORDINANCES.
5. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL WORK, INCLUDING LAYOUT AND DIMENSION VERIFICATION, MATERIALS COORDINATION, SHOP DRAWING REVIEW, AND THE WORK OF SUBCONTRACTORS. ANY DISCREPANCIES OR OMISSIONS DISCOVERED IN THE COURSE OF THE WORK SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR RESOLUTION. CONTINUATION OF WORK WITHOUT NOTIFICATION OF DISCREPANCIES RELIEVES THE ARCHITECT AND STRUCTURAL ENGINEER FROM ALL CONSEQUENCES.
6. UNLESS OTHERWISE SPECIFICALLY INDICATED, THE STRUCTURAL DRAWINGS DO NOT DESCRIBE METHODS OF CONSTRUCTION.
7. THE GENERAL CONTRACTOR, IN THE PROPER SEQUENCE, SHALL PERFORM OR SUPERVISE ALL WORK NECESSARY TO ACHIEVE THE FINAL COMPLETED STRUCTURE, AND TO PROTECT THE STRUCTURE, WORKMEN, AND OTHERS DURING CONSTRUCTION. SUCH WORK SHALL INCLUDE, BUT NOT BE LIMITED TO TEMPORARY BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR EXCAVATION, FORMWORK, SCAFFOLDING, SAFETY DEVICES AND PROGRAMS OF ALL KINDS, SUPPORT AND BRACING FOR CRANES AND OTHER ERECTION EQUIPMENT.
8. DO NOT BACKFILL AGAINST BASEMENT OR RETAINING WALLS UNTIL SUPPORTING SLABS AND FLOOR FRAMING ARE IN PLACE AND SECURELY ANCHORED, UNLESS ADEQUATE TEMPORARY BRACING IS INSTALLED.
9. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FLOORS, WALLS, ROOFS AND ANY OTHER SUPPORTING ELEMENTS ARE IN PLACE.
10. THE ARCHITECT AND STRUCTURAL ENGINEER BEAR NO RESPONSIBILITY FOR THE ABOVE ITEMS, AND OBSERVATION VISITS TO THE SITE DO NOT IN ANY WAY INCLUDE INSPECTIONS OF THESE ITEMS.
11. THESE PLANS HAVE BEEN ENGINEERED FOR CONSTRUCTION AT ONE SPECIFIC BUILDING SITE. BUILDER ASSUMES ALL RESPONSIBILITY FOR USE OF THESE PLANS AT ANY OTHER BUILDING SITE. PLANS SHALL NOT BE USED FOR CONSTRUCTION AT ANY OTHER BUILDING SITE WITHOUT SPECIFIC REVIEW BY THE ENGINEER.

PRECAUTIONARY NOTES ON STRUCTURAL BEHAVIOR:
1. INTERIOR ARCHITECTURAL FINISH DETAILING MUST ACCOMMODATE THE RELATIVE DIFFERENTIAL MOVEMENTS OF SUPPORTING STRUCTURAL ELEMENTS.
2. WHERE THE ROOF FRAMING ELEMENT SPANS ARE LONG, APPLIED LOADING WILL NATURALLY CAUSE SUBSTANTIAL DEFLECTION. INTERIOR ELEMENTS HUNG FROM THE ROOF STRUCTURE WILL DEFLECT WITH THE ROOF.
3. THE FLOOR IS A FLOATING CONCRETE SLAB ON GRADE AND MAY EXPERIENCE MOVEMENTS INDEPENDENT OF THE STRUCTURAL FOUNDATIONS. INTERIOR ELEMENTS SUPPORTED ON THE SLAB ON GRADE FLOOR WILL MOVE WITH THE FLOOR. INTERIOR ELEMENTS SUPPORTED ON FOUNDATIONS AND COLUMNS WILL NOT EXPERIENCE SIMILAR OR MEASURABLE MOVEMENTS.
4. EXTERIOR/PERIMETER WALL ASSEMBLIES HUNG FROM THE EDGE OF THE BUILDING STRUCTURE WILL BE DIRECTLY AFFECTED (TO SOME DEGREE) BY CHANGES IN EXTERNAL TEMPERATURE AND FLOOR DEFLECTION.
5. EXTERIOR/PERIMETER AND INTERIOR ARCHITECTURAL FINISH DETAILS SHOULD ALLOW FOR RELATIVE MOVEMENTS BETWEEN ELEMENTS WITH DIFFERENT SUPPORT CONDITIONS.
6. THE FOUNDATION DESIGN SHOWN ASSUMES THAT THE OWNER/BUILDER IS AWARE OF THE PRESENCE OF EXPANSIVE SOILS, AND THAT HE HAS READ THE PREVIOUSLY REFERENCED SOILS REPORT. USE OF THESE PLANS IS INDICATION THAT THE OWNER/BUILDER ACCEPTS THE RISKS ASSOCIATED WITH BUILDING ON THIS SITE, ESPECIALLY THOSE RELATED TO SLAB ON GRADE CONSTRUCTION IN FINISHED AREAS. ANTHEM, LLC WILL NOT BE HELD LIABLE FOR DAMAGES CAUSED BY SLAB MOVEMENT.

DEFERRED SUBMITTALS:
1. PORTIONS OF THE STRUCTURE HAVE ELEMENTS OF PROPRIETARY DESIGN AND FABRICATION, WHICH SHALL BE SUBMITTED BY THE SUPPLIER FOR APPROVAL AFTER AWARD OF CONTRACT.
2. THESE ITEMS SHALL CONFORM TO THE LOAD, CAPACITY, SIZE, GEOMETRY, CONNECTION, AND SUPPORT CRITERIA NOTED ON THE STRUCTURAL DRAWINGS.
3. SHOP DRAWINGS AND CALCULATIONS SHALL BE PREPARED BY AN ENGINEER REGISTERED IN THE STATE OF <COLORADO>. FINAL SHOP DRAWING SUBMITTALS SHALL BE STAMPED AND SIGNED.
4. FURNISH DEFERRED SUBMITTALS FOR:
   A. SUPPLIER ENGINEERED STRUCTURAL STEEL
5. SUBMITTALS WILL BE REVIEWED BY THE STRUCTURAL ENGINEER OF RECORD FOR COMPLIANCE WITH THE SPECIFIED DESIGN REQUIREMENTS, STAMPED AS "REVIEWED," AND FORWARDED TO THE LOCAL BUILDING AUTHORITY FOR REVIEW AS REQUIRED.
6. FINAL ISSUE OF THE BUILDING PERMIT MAY, AT THE APPROVAL AUTHORITY'S OPTION, BE CONTINGENT ON ITS APPROVAL OF THE DEFERRED SUBMITTAL DOCUMENTS.
7. DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN CALCULATIONS AND DRAWINGS HAVE BEEN REVIEWED BY THE ARCHITECT, STRUCTURAL ENGINEER, AND/OR LOCAL BUILDING AUTHORITY AS REQUIRED.

LETTERS OF CONSTRUCTION COMPLIANCE:
1. THE GENERAL CONTRACTOR SHALL DETERMINE FROM THE LOCAL BUILDING AUTHORITY, AT THE TIME THE BUILDING PERMIT IS OBTAINED, WHETHER ANY LETTERS OF CONSTRUCTION COMPLIANCE WILL BE REQUESTED FROM THE STRUCTURAL ENGINEER.
2. THE CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER OF ALL SUCH REQUIREMENTS IN WRITING PRIOR TO THE START OF CONSTRUCTION.
3. TWO DAY ADVANCE NOTICE SHALL BE GIVEN WHEN REQUESTING SITE VISITS NECESSARY AS THE BASIS FOR THE COMPLIANCE LETTER.
4. THE GENERAL CONTRACTOR SHALL PROVIDE COPIES OF ALL THIRD-PARTY TESTING AND INSPECTION REPORTS TO THE ARCHITECT AND STRUCTURAL ENGINEER A MINIMUM OF ONE WEEK PRIOR TO THE DATE THAT THE COMPLIANCE LETTER IS NEEDED.

NAIL TABLE

PENNYWEIGHT	TYPE	DIAMETER	LENGTH
6d	COOLER	0.092"	1 7/8"
8d	COMMON	0.131"	2 1/2"
	BOX	0.113"	2 1/2"
	SINKER	0.113"	2 3/8"
	GUN	0.113"	2 3/8"
10d	COMMON	0.148"	3"
	BOX	0.128"	3"
	SINKER	0.120"	2 7/8"
	GUN	0.131"	3"
12d	COMMON	0.148"	3 1/4"
	BOX	0.128"	3 1/4"
	SINKER	0.135"	3 1/8"
	GUN	0.131"	3 1/4"
16d	COMMON	0.162"	3 1/2"
	BOX	0.135"	3 1/2"
	SINKER	0.148"	3 1/4"

SHEET LIST

SHEET NUMBER	SHEET NAME
S0.00	STRUCTURAL GENERAL NOTES
S1.00	FOUNDATION PLAN
S4.00	FRAME ELEVATIONS

LEGEND

Symbol	Description	Symbol	Description
(X)K, (Y)T	"X" KING STUDS, "Y" TRIMMER STUDS, STUDS TO MATCH WALL THICKNESS (E.G. "2K,1T" = 2 KING STUDS + 1 TRIMMER STUD)		CMU
XXXX, STUB	INDICATES BOTTOM OF COLUMN AND TYPE ABOVE FRAMING LEVEL. STUB INDICATES SHORTER COLUMN THAT EXTENDS VERTICALLY BETWEEN SUPPORTS		CONCRETE
BPX	INDICATES BASEPLATE		EARTH FILL
	INDICATES STEP IN FLOOR ELEVATION		POROUS FILL (I.E. GRAVEL)
STEP BC	INDICATES STEP IN BOTTOM OF CONCRETE WALL ELEVATION (E.G. LOCATION WHERE TOP OF FOOTING STEPS)		WOOD BEARING WALL
	INDICATES STEP IN TOP OF CONCRETE WALL OR LEDGE ELEVATION. ARROW POINTS TOWARD LOWER ELEVATION		WOOD SHEAR WALL
SLOPE SEE ARCH	INDICATES DIRECTION OF SLOPE		CFS BEARING WALL
FD	INDICATES FLOOR DRAIN		CFS SHEAR WALL
(XX'-XX") {XX'-XX"}	INDICATES TOP OF FOOTING OR PIER ELEVATION INDICATES MINIMUM PIER PENETRATION INTO BEDROCK		STRUCTURAL WALL BELOW FRAMING
FXX	CONTINUOUS SPREAD FOOTING. SEE SCHEDULE FOR SIZE AND REINFORCING	WXXXX	INDICATES STUD WALL TYPE, SEE SCHEDULE
FX.X	ISOLATED PAD FOOTING. SEE SCHEDULE FOR SIZE AND REINFORCING	SWX	INDICATES SHEAR WALL. SEE SCHEDULE FOR SHEATHING TYPE AND NAILING
TC=XX'-XX" BC=XX'-XX"	INDICATES TOP OF CONCRETE ELEVATION INDICATES BOTTOM OF CONCRETE ELEVATION	HDX	INDICATES HOLDOWN. SEE SCHEDULE FOR DESCRIPTION
XX'-XX"	INDICATES TOP OF CONCRETE SLAB OR WOOD SUBFLOOR ELEVATION		JOIST, OR TRUSS BEARS ON WALL OR BEAM BELOW
TL=XX'-XX"	INDICATES TOP OF CONCRETE LEDGE ELEVATION		BEAM, JOIST, OR TRUSS CONNECTED TO SUPPORT WITH METAL HANGER
[XX'-XX"]	INDICATES TOP OF STEEL BEAM ELEVATION		BEAM, JOIST, OR TRUSS CONNECTED TO SUPPORT WITH CONCEALED HANGER
(E)	INDICATES 'EXISTING'		INDICATES STEEL DECK OR CONCRETE SLAB SPAN DIRECTION
(N)	INDICATES 'NEW'		INDICATES LOCATION OF BEND IN BENT BEAM
(R)	INDICATES 'TO BE REMOVED'		INDICATES MOMENT CONNECTION

ABBREVIATIONS LIST

(E)	EXISTING
(N)	NEW CONSTRUCTION
(R)	TO BE REMOVED
AB	ANCHOR BOLT
ADDL	ADDITIONAL
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AHJ	AUTHORITY HAVING JURISDICTION
ALT	ALTERNATE
ARCH	ARCHITECT, ARCHITECTURAL
AVG	AVERAGE
BC	BOTTOM OF CONCRETE
BLKG	BLOCKING
BM	BEAM
BOT	BOTTOM
BP	BASE PLATE, BEAM POCKET
BRG	BEARING
BS	BOTH SIDES
BTWN	BETWEEN
CANT	CANTILEVER
CFS	COLD FORM STEEL
CIP	CAST IN PLACE
CJ	CONTROL JOINT, CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION
CL	CENTER LINE
CLR	CLEAR(ANCE)
CLT	CROSS LAMINATED TIMBER
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS, CONTINUE
D	DEPTH
DEMO	DEMOLITION
DF #1	DOUGLAS FIR-LARCH NO. 1
DIA	DIAMETER
DIM	DIMENSION
DWG	DRAWING
DWL	DOWEL
EA	EACH
EF	EACH FACE
EJ	EXPANSION JOINT
ELEV	ELEVATION
EO	EDGE OF
EOD	EDGE OF DECK
EOR	ENGINEER OF RECORD
EOS	EDGE OF SLAB
EQ	EQUAL
EW	EACH WAY
EXP	EXPANSION
EXT	EXTERIOR
FDN	FOUNDATION
FLR	FLOOR
FM	FACE MOUNT
FO	FACE OF
FRT	FIRE-RETARDANT TREATED

FS	FAR SIDE
FTG	FOOTING
GA	GAUGE
GB	GRADE BEAM
GC	GENERAL CONTRACTOR
GEN	GENERAL
GLB	GLUED LAMINATED BEAM
GLC	GLUED LAMINATED COLUMN
GW	GRADE WALL
GYP	GYPSUM
H	HEIGHT
HAS	HEADED ANCHOR STUD
HD	HOLD-DOWN
HDG	HOT DIPPED GALVANIZED
HDR	HEADER
HGR	HANGER
HI	HIGH
HK	HOOK
HOR	HORIZONTAL
IF	INSIDE FACE
INT	INTERIOR
INV	INVERTED
JNT	JOINT
JST	JOIST
K	KIP (1000 POUNDS)
KLF	KIPS PER LINEAL FOOT
L	LENGTH
LAT	LATERAL
Ld	REBAR DEVELOPMENT LENGTH
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LO	LOW
LONG	LONGITUDINAL
Ls	REBAR SPLICE LENGTH
LSL	LAMINATED STRAND LUMBER
LSV	LONG SIDE VERTICAL
LVL	LAMINATED VENEER LUMBER
LW	LIGHT WEIGHT
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MIN	MINIMUM, MINUTE
MISC	MISCELLANEOUS
MNFR	MANUFACTURER
MTL	METAL
No.	NUMBER
NOM	NOMINAL
NS	NEAR SIDE
NTS	NOT TO SCALE
NW	NORMAL WEIGHT
OC	ON CENTER
OF	OUTSIDE FACE
OH	OVERHEAD
OPG	OPENING
OPP	OPPOSITE HAND
OSB	ORIENTED STRAND BOARD

OWSJ	OPEN WEB STEEL JOIST
PAF	POWDER ACTUACTED FASTENER
PC	PRECAST
PE	PRE-ENGINEERED
PEMB	PRE-ENGINEERED METAL BUILDING
PERP	PERPENDICULAR
PJP	PARTIAL JOINT PENETRATION
PL	PLATE
PLF	POUNDS PER LINEAL FOOT
PLY	PLYWOOD
PSF	POUNDS PER SQUARE FOOT
PSL	PARALLEL STRAND LUMBER
PT	PRESSURE TREATED, POST-TENSIONING
QTY	QUANTITY
RE	REFERENCE, REFER TO
REINF	REINFORCE(MENT), REINFORCING
REQ	REQUIRED
RET	RETAINING WALL
RO	ROUGH OPENING
SC	SLIP CRITICAL
SCHED	SCHEDULE
SCL	STRUCTURAL COMPOSITE LUMBER
SDST	SELF-DRILLING, SELF-TAPPING
SEL	SELECT STRUCTURAL
SHTG	SHEATHING
SIM	SIMILAR
SIP	STRUCTURAL INSULATED PANEL
SOG	SLAB ON GRADE
SOMD	SLAB ON METAL DECK
SPAC	SPACING, SPACE
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STRU	STRUCTURE, STRUCTURAL
SW	SHEAR WALL, SELF-WEIGHT
t	THICKNESS
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
T.O.	TOP OF
TC	TOP OF CONCRETE
TF	TOP FLANGE
THK	THICK(NESS)
TL	TOP OF LEDGE
TOS	TOP OF STEEL
TRANS	TRANVERSE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VIF	VERIFY IN FIELD
W	WIDTH
WP	WORK POINT
WWF	WELDED WIRE FABRIC
Ø	DIAMETER

COLORADO LICENSED BRENTON KREIGER 63194 09/19/2025 PROFESSIONAL ENGINEER

REVISIONS

No.	Description	Date

STEAMBOAT SKI RESORT
GONDOLA GATES

ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
BOULDER, COLORADO, 80302
(303) 442-5458, (303) 442-4745 FAX

anthem structural engineers
303-848-8497 anthemstructural.com
970-300-3338 Job # 25-133

Job Number:	25-133
Date:	9/19/25
Drawn By:	JOF/BKK
Checked By:	KLM

Project Phase
PROGRESS SET

Sheet Title
STRUCTURAL GENERAL NOTES

Sheet Number
S0.00

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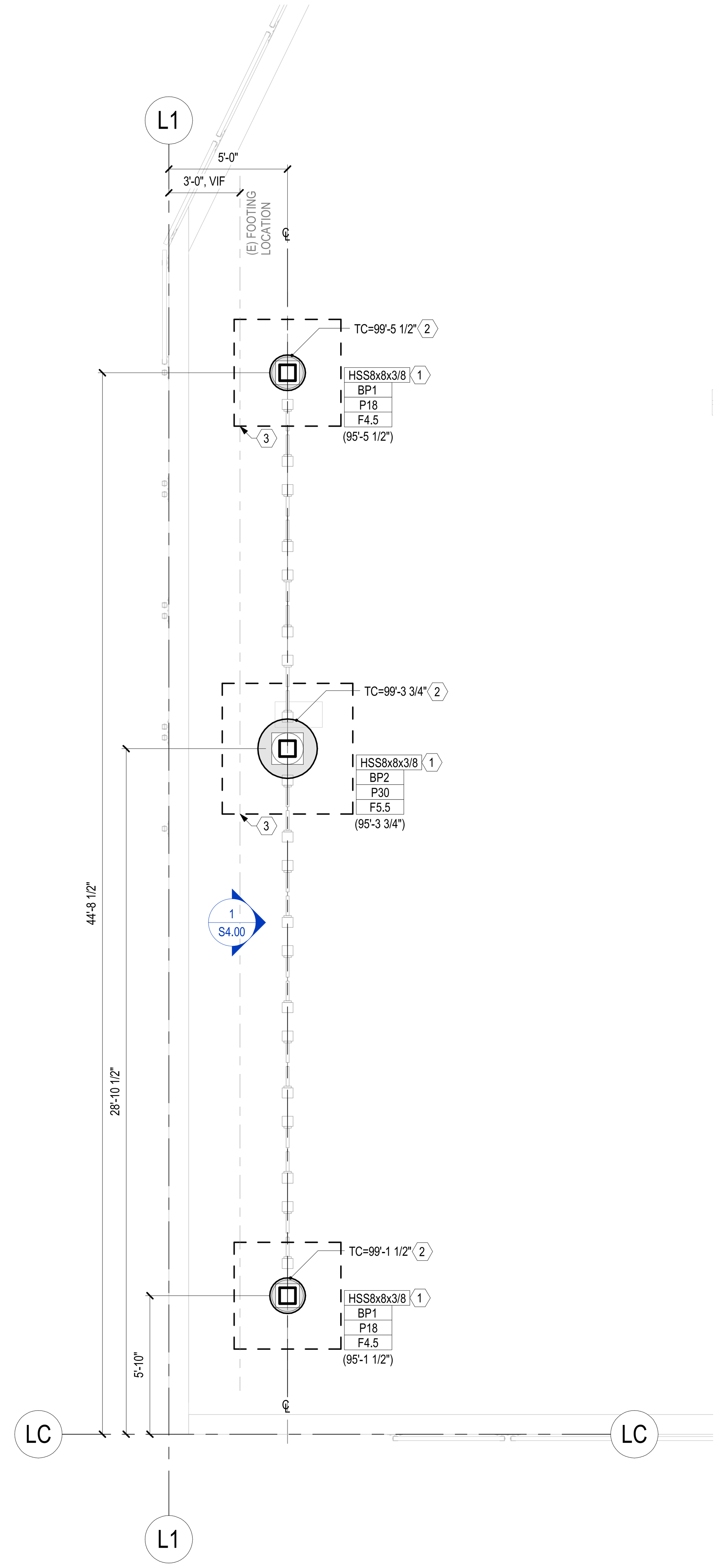
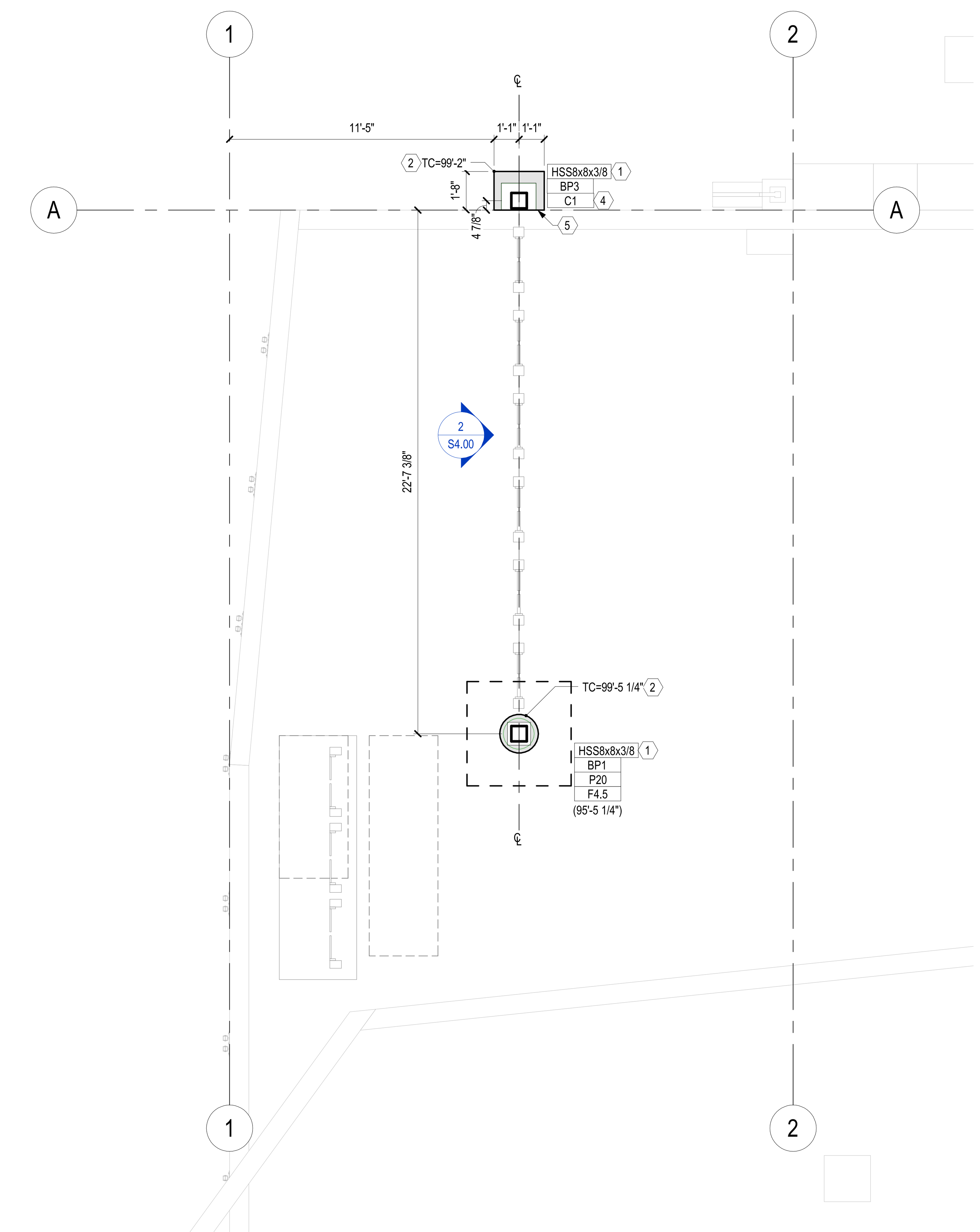
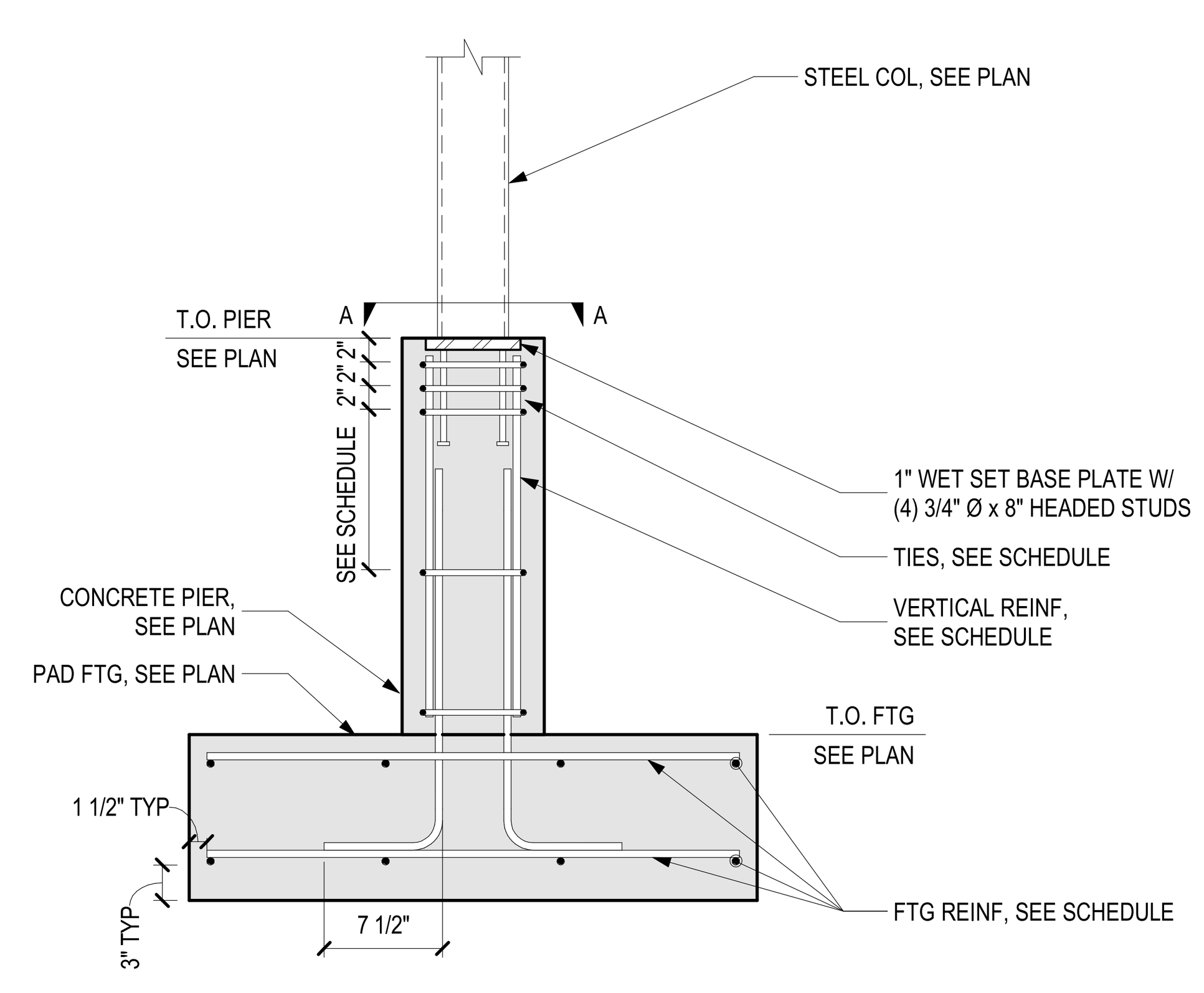


1 RFID GATES - WILD BLUE GONDOLA
1/4" = 1'-0"



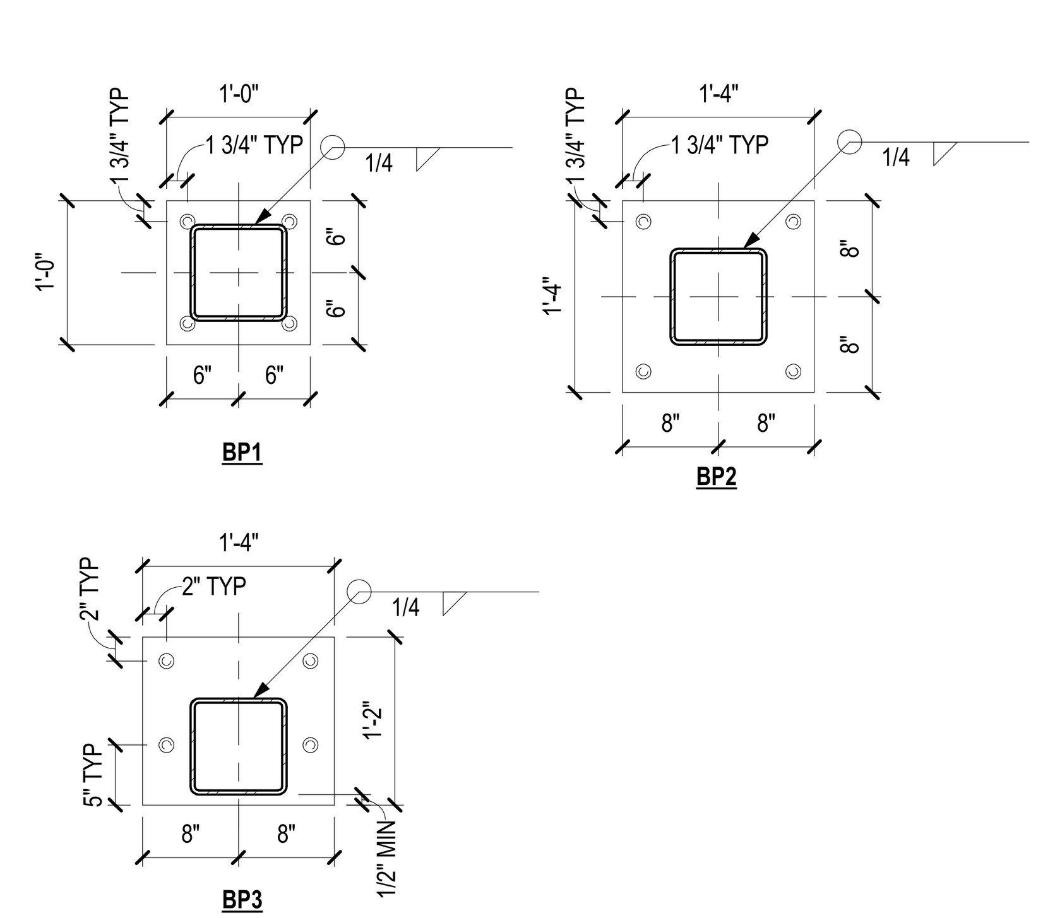
2 RFID GATES - STEAMBOAT GONDOLA
1/4" = 1'-0"



NOTE:
ALL BASE PLATES TO BE 1" THICK W/ 3/4"x8" HAS

3 STEEL COLUMN ON CONCRETE PIER
3/4" = 1'-0"

BASE PLATE SCHEDULE



SECTION A-A

FOUNDATION PLAN NOTES

1. SEE **S0.00** FOR GENERAL STRUCTURAL NOTES, LEGEND, ABBREVIATIONS KEY, AND SPECIAL INSPECTIONS.
2. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.
3. VIF (E) CONDITIONS PRIOR TO NEW CONSTRUCTION AND NOTIFY ANTHEM OF ANY DISCREPANCIES.
4. FOOTINGS TO BEAR ON APPROVED SUBGRADE PER GEOTECH REPORT. SEE GENERAL NOTES.
5. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RAMPS, SLAB SLOPES, STEPPED SLABS, AND PARTITION WALLS. SLAB ELEVATIONS SHOWN ARE APPROXIMATE.

KEYNOTE SCHEDULE - FOUNDATION

X	DESCRIPTION
1	STEEL COL TO BE PAINTED WITH A PROTECTIVE COATING PER OWNER, TYP
2	CONTRACTOR TO VERIFY TOP OF CONCRETE WITH EXISTING ADJACENT PAVER HEIGHT IN FIELD
3	AT OVERLAP, (N) PIER FOOTING IS ABOVE (E) FOOTING, NO CONN REQUIRED
4	CAST IN PLACE PILASTER DOWN TO TOP OF (E) FTG W/ WET SET HAS BASEPLATE. BOARD FORM FINISH TO MATCH EXISTING RETAINING WALLS.
5	DOWEL VERT BARS INTO (E) FTG W/ SET-3G, MIN 6" EMBED. CONTRACTOR OPTION TO PROVIDE #5 EPOXY DOWELS INTO (E) WALL, IN ADDITION TO DOWELS AT (E) FTG.

CONCRETE FOOTING SCHEDULE (ISOLATED)

TAG	LENGTH	WIDTH	THICKNESS	REINFORCEMENT
F4.5	4'-6"	4'-6"	1'-2"	(5) #5 EA WAY,TOP & BOT
F5.5	5'-6"	5'-6"	1'-2"	(6) #5 EA WAY,TOP & BOT

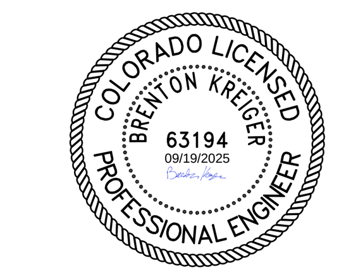
CONCRETE PIER / PILASTER SCHEDULE

MARK	SIZE	REINFORCING	
		VERTICAL	TIES
C1	20x26	(28) #5 EQ SPACED AROUND PERIMETER	(3) #3 @ 2" TOP, #3 @ 12" OC
P18	18" Ø	(10) #5 EQ SPACED AROUND PERIMETER	(3) #3 @ 2" TOP, #3 @ 12" OC
P20	20" Ø	(10) #5 EQ SPACED AROUND PERIMETER	(3) #3 @ 2" TOP, #3 @ 12" OC
P30	30" Ø	(23) #5 EQ SPACED AROUND PERIMETER	(3) #3 @ 2" TOP, #3 @ 12" OC

FOUNDATION SYMBOLS

ISOLATED CONCRETE FOOTING AT STEEL COLUMN W/ CONCRETE PEDESTAL (IF OCCURS)
SEE SCHEDULES AND DETAILS ON **S1.00**

HSS4x4x3/8 — COLUMN SIZE
BP1 — BASE PLATE TYPE
P1 — PEDESTAL TYPE
F3.0 — FOOTING SIZE / TYPE
(99'-0") — TOP OF FOOTING ELEVATION



NOTICE: DUTY OF COOPERATION

Release of these plans contemplates further cooperation among the owner, his contractor and the architect. Design and construction are complex. Although the architect and his consultants have performed their services with due care and diligence, they cannot guarantee perfection. Communication is imperfect and every contingency cannot be anticipated. Any ambiguity or discrepancy discovered by the use of these plans shall be reported immediately to the architect. Failure to notify the architect compounds misunderstanding and increases construction costs. A failure to cooperate by a simple notice to the architect shall relieve the architect from responsibility for the consequences. Changes made from the plans without consent of the architect are unauthorized and shall relieve the architect of responsibility for all consequences arriving out of such changes.

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Project Phase
PROGRESS SET

Sheet Title
FOUNDATION PLAN

Sheet Number
S1.00

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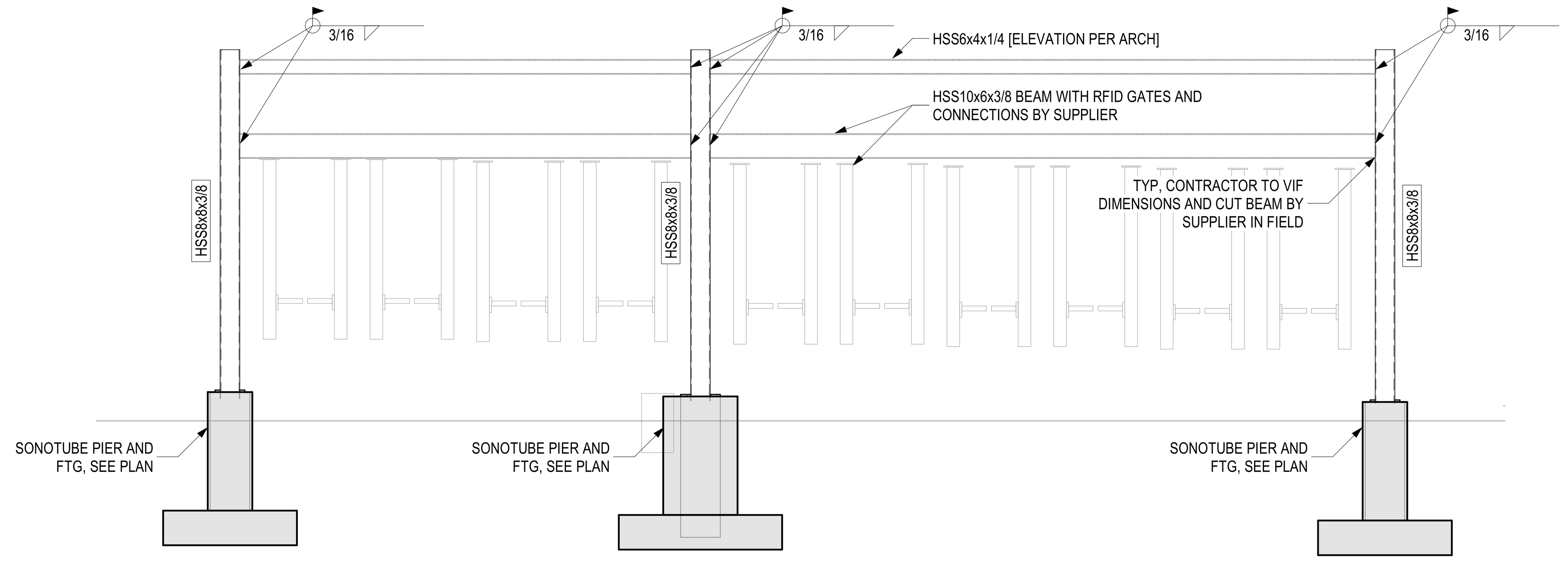
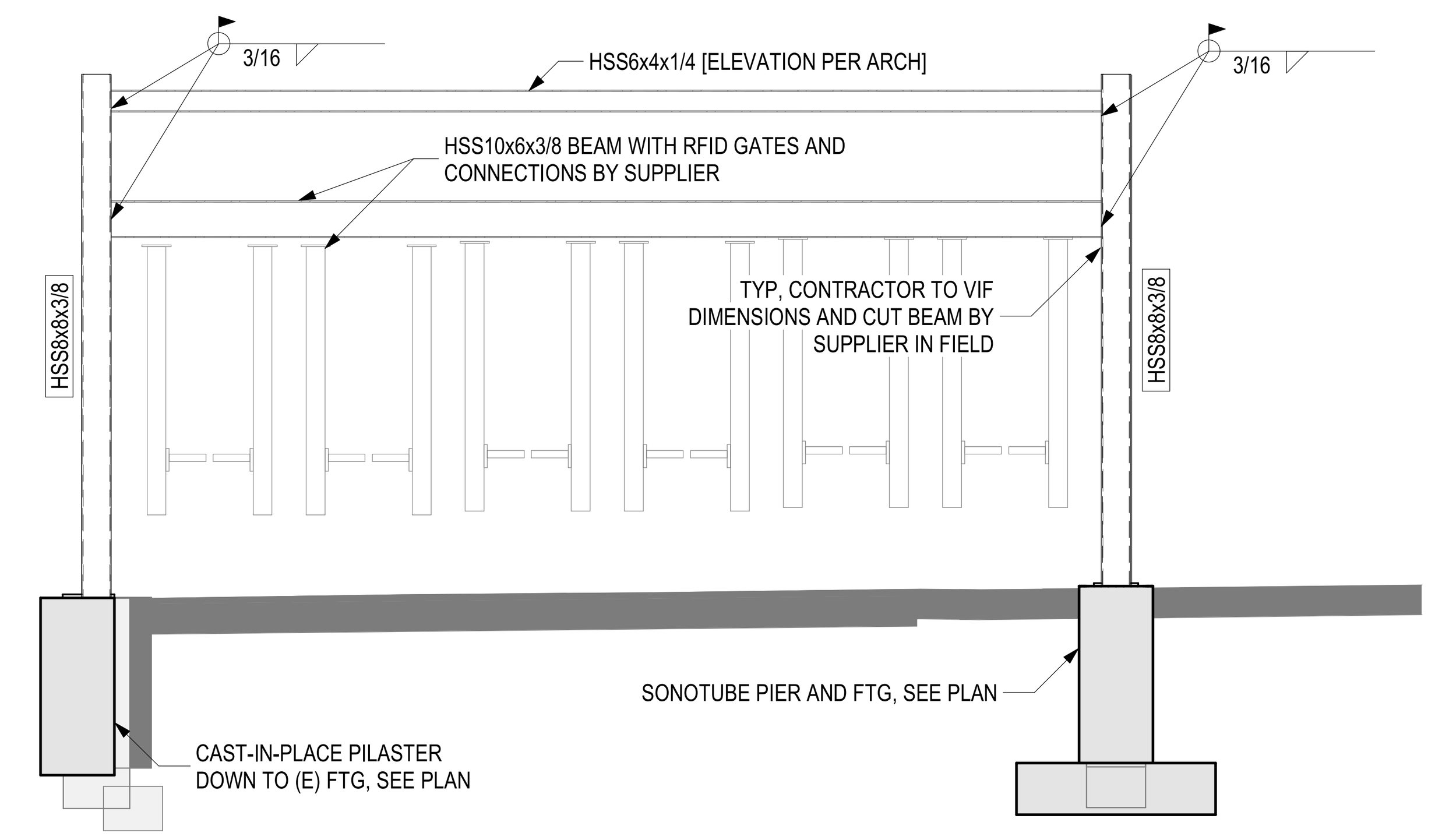


1 RFID GATES - WILD BLUE GONDOLA
1/4" = 1'-0"



2 RFID GATES - STEAMBOAT GONDOLA
1/4" = 1'-0"

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Project Phase
PROGRESS SET

Sheet Title
FRAME ELEVATIONS

Sheet Number
S4.00

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