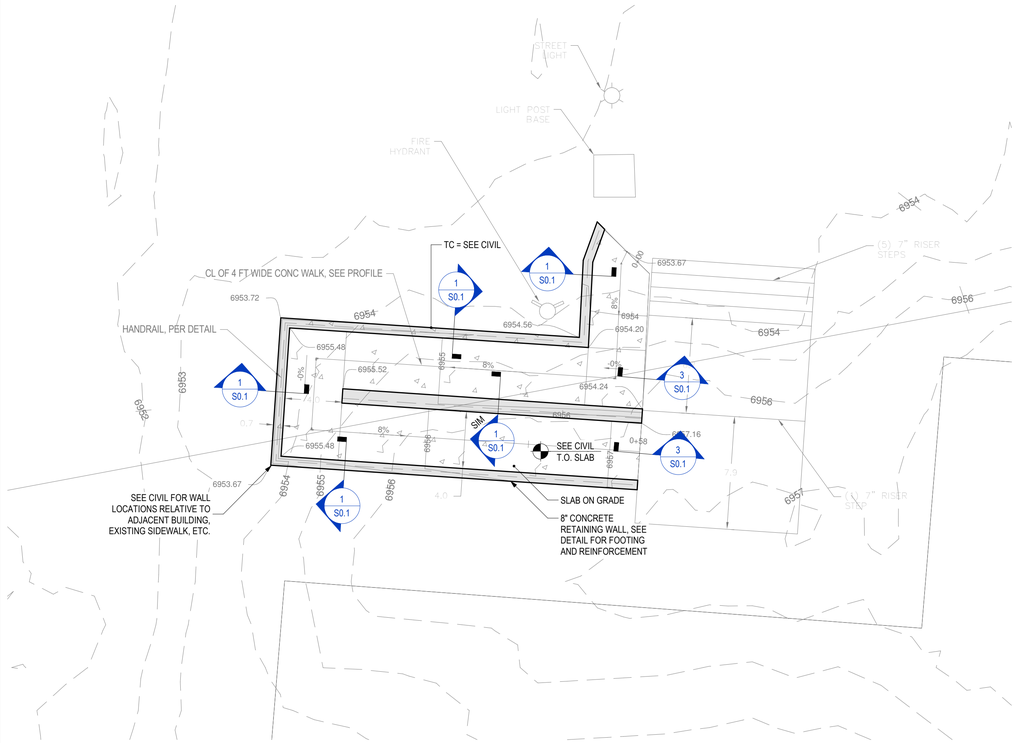
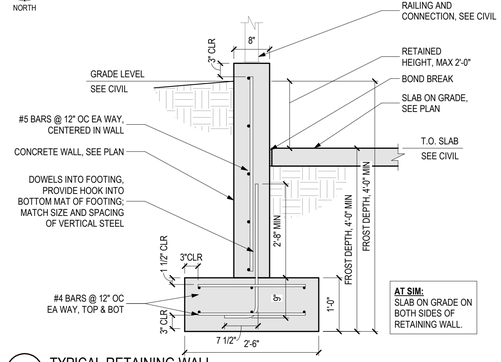
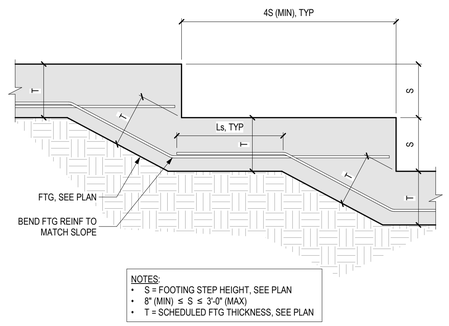


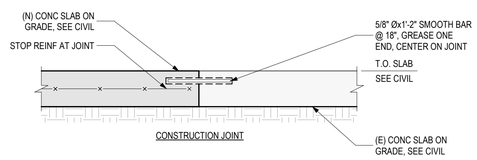
FOUNDATION PLAN
1 : 5
NORTH



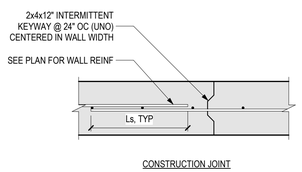
1 TYPICAL RETAINING WALL
3/4" = 1'-0"



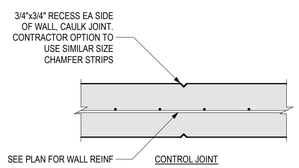
2 TYP FOOTING STEP
3/4" = 1'-0"



3 NEW SLAB AT EXISTING PATIO
3/4" = 1'-0"

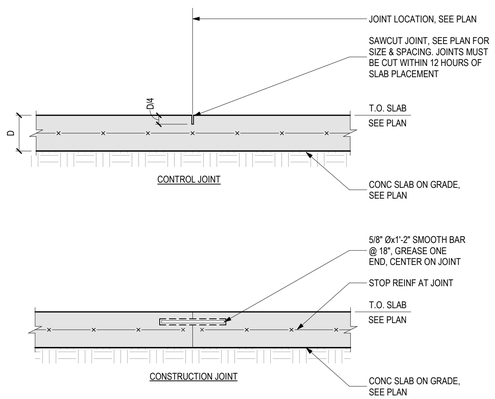


CONSTRUCTION JOINT NOTES:
1. ALL HORIZONTAL REINF TO BE CONT THROUGH JOINT AND DEVELOPED EACH SIDE OF JOINT.
2. CONTRACTOR TO COORDINATE CONSTRUCTION AND CONTROL JOINT LOCATIONS. IF CONSTRUCTION JOINT AND CONTROL JOINT COINCIDE, SEE CONTROL JOINT NOTES FOR REBAR AND RECESS REQUIREMENTS
3. FOR WALLS WITH SINGLE MAT OF REINF, ACCEPTABLE TO SHIFT KEYWAY TO ALLOW HORIZONTAL BARS TO PASS

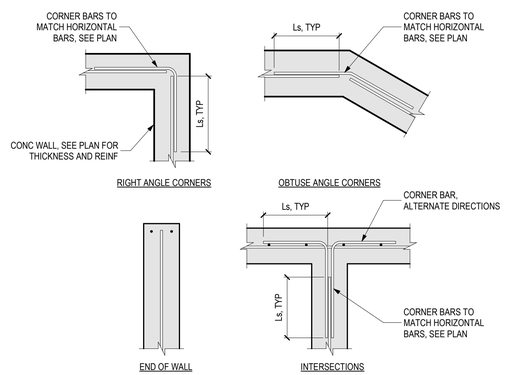


CONTROL JOINT NOTES:
1. PLACE CONTROL JOINTS AT 20'-0" MAXIMUM ALONG LENGTH OF WALL. FOR WALL LESS THAN 6'-0" IN HEIGHT, PLACE JOINTS AT 3 TIMES WALL HEIGHT.
2. 1/2 OF HORIZONTAL REINF TO BE TERMINATED AT CONTROL JOINT LOCATIONS. STAGGER TERMINATED BARS IN WALL WITH (2) MATS OF REBAR

4 TYP CONCRETE WALL JOINTS
3/4" = 1'-0"



5 TYP JOINTS IN WWF REINFORCED SLAB ON GRADE
3/4" = 1'-0"



6 TYP CONCRETE WALL CORNER REINFORCEMENT (SINGLE LAYER)
3/4" = 1'-0"

STRUCTURAL GENERAL NOTES

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

GOVERNING JURISDICTION: ROUTT COUNTY
SITE LOCATION: 40.459234, -106.8034852
SITE ELEVATION: 6,732 FT

DESIGN LOADS:
1. RISK CATEGORY: II, STANDARD
2. ROOF LIVE LOADS:
   A. GROUND SNOW LOAD (P_G): 120 PSF
   B. SNOW EXPOSURE FACTOR (C_E): 1.0
   C. SNOW LOAD IMPORTANCE FACTOR (I_S): 1.0
   D. THERMAL FACTOR (C_T): 1.0

FOUNDATION DESIGN:
1. FOUNDATIONS ARE DESIGNED WITHOUT A SOILS ENGINEER'S SOIL INVESTIGATION. THE FOUNDATION DESIGN CRITERIA WAS ASSUMED FOR PURPOSES OF FOUNDATION DESIGN AND SHOULD BE CONFIRMED BY A GEOTECHNICAL ENGINEER, AT THE OWNER'S EXPENSE, PRIOR TO CONSTRUCTION (THIS PROCEDURE MAY REQUIRE REVISIONS TO FOUNDATION DESIGN, AT ADDITIONAL EXPENSE TO THE OWNER, IF GEOTECHNICAL ENGINEER DETERMINES THAT SUCH DESIGN CRITERIA ARE INAPPROPRIATE FOR THIS BUILDING SITE).
2. SLOPE FINAL GRADES DOWN AND AWAY FROM FOUNDATION WALLS A MINIMUM OF 6 INCHES IN FIRST 10 FEET PER IRC.

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; MINIMUM FROST DEPTH SHALL BE 4'-0" BELOW ADJACENT EXTERIOR FINISHED GRADE.
   C. DESIGN OF FOOTINGS IS BASED ON:
      a. MAXIMUM ALLOWABLE BEARING PRESSURE: 1,500 PSF (CODE MINIMUM, ASSUMED)
4. EARTH RETAINING STRUCTURES:
   A. EARTH EQUIVALENT FLUID LATERAL PRESSURE:
      a. ACTIVE PRESSURE: 60 PCF (ASSUMED)
      b. PASSIVE PRESSURE: 250 PCF (ASSUMED)
      c. COEFFICIENT OF SLIDING FRICTION: 0.3 (ASSUMED)

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: I/II
   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. DRILLED PIERS:	3,000 PSI	0.55	1.5% (± 1.5%)	7 INCHES (± 1")
b. RETAINING WALLS:	4,000 PSI	0.50	5.0% (± 1.5%)	4 INCHES (± 1")
c. EXTERIOR SLABS-ON-GRADE: (EXCLUDES FLATWORK)	3,500 PSI	0.45	6.0% (± 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. 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.

LEGEND

SLOPE SEE ARCH	INDICATES DIRECTION OF SLOPE		CONCRETE
	INDICATES STEP IN TOP OF CONCRETE WALL OR LEDGE ELEVATION. ARROW POINTS TOWARD LOWER ELEVATION		EARTH FILL
(E)	INDICATES 'EXISTING'		POROUS FILL (I.E. GRAVEL)
(N)	INDICATES 'NEW'	XX'-XX"	INDICATES TOP OF CONCRETE SLAB OR WOOD SUBFLOOR ELEVATION

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.

INSPECTIONS:
1. INSPECTIONS AND TESTING SHALL BE PERFORMED BY A QUALIFIED INSPECTOR IN ACCORDANCE WITH IRC SECTION R109.
2. THE 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 INSPECTION.
3. EXCEPT AS NOTED, THE INSPECTIONS OUTLINED IN THE IRC ARE IN ADDITION TO, AND BEYOND THE SCOPE OF, PERIODIC STRUCTURAL OBSERVATIONS. STRUCTURAL OBSERVATIONS ARE INCLUDED IN THE STRUCTURAL ENGINEERING DESIGN AND CONSTRUCTION ADMINISTRATION SERVICES PROVIDED BY THE STRUCTURAL ENGINEER.

TYPICAL CONCRETE SLAB ON GRADE (UNO): 4" THICK CONCRETE SLAB ON PREPARED SUB-GRADE PER SOILS REPORT. REINFORCE WITH 4x4 - W2.9 x W2.9 WWF PLACED AT MID DEPTH. SAWCUT OR TOOLED 1/8" CONTROL JOINTS PER @ 6'-0" MAX EACH WAY. INSTALL (3) #4 x 5'-0 DIAGONAL BARS AT MID-DEPTH OF SLAB AT ALL RE-ENTRANT CORNERS.

City of Steamboat Springs
Planning Department
Approved Plan Set
08/12/2025 jbrown

anthem structural engineers
303-848-8497 970-300-3338
anthemstructural.com Job #25-046

COLORADO LICENSED
KEVIN L. METZ
58479
4-21-2025
PROFESSIONAL ENGINEER

REVISION NUMBER	DATE	DESCRIPTION

COMMON AREA, TORIAN PLUM CONDO
PHASE 1
1847 SKI TIME SQUARE DR
STEAMBOAT SPRINGS, CO 80487

STRUCTURAL NOTES, FOUNDATION PLAN & DETAILS

DRAWN: JOF | CHECK: BKK
ISSUE: CONST DOCUMENTS
DATE: 04/21/2025

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