

COLUMN DESIGNATIONS

#### GENERAL NOTES :

ALL WORK SHALL BE PERFORMED ACCORDING TO THE FOLLOWING NOTES AND APPLICABLE SECTIONS OF THE BUILDING CODE, UNLESS NOTED OTHERWISE ON THESE DOCUMENTS.

#### 1. GENERAL CONDITIONS

 ALL DETAILS DESIGNATED AS "TYPICAL DETAILS" APPLY GENERALLY TO THE DRAWINGS IN ALL AREAS WHERE CONDITIONS ARE SIMILAR TO THOSE SHOWN IN THESE DETAILS.

- SLEEVES AND BLOCKOUTS REQUIRED FOR PASSAGE OF DUCTWORK, PIPING, DRAINS, CONDUIT, ETC. ARE NOT GENERALLY INDICATED ON THE STRUCTURAL DRAWINGS. THE CONTRACTOR SHALL DETERMINE ANY SUCH REQUIREMENTS FROM ARCHITECTURAL, MECHANICAL, ELECTRICAL, OR PLUMBING DRAWINGS (IN ADDITION TO ANY REQUIRED ANCHORAGES) PRIOR TO FABRICATION OR CONSTRUCTION OF STRUCTURAL ELEMENTS. ANY CONFLICTS BETWEEN THESE ITEMS AND STRUCTURAL MEMBERS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER

- VERIFY ALL OPENINGS THROUGH FLOOR, ROOF, AND WALLS WITH MECHANICAL AND ELECTRICAL
- NOTCHING OR CUTTING OF ANY STRUCTURAL MEMBER IS PROHIBITED UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS.
- ALL DIMENSIONS ON STRUCTURAL PLANS TO BE CHECKED AGAINST BUILDING
  MANUFACTURER'S DRAWINGS. NOTIFY BUILDING MANUFACTURER AND STRUCTURAL ENGINEER
- STRUCTURAL ENGINEER'S APPROVAL MUST BE SECURED FOR ALL CHANGES FROM STRUCTURAL PLANS. ANY UNAUTHORIZED MODIFICATIONS ARE AT THE RISK OF THE PERSON MAKING THE

OF ANY DISCREPANCIES BEFORE PROCEEDING WITH CONSTRUCTION.

- CONTRACTOR SHALL INSTALL ADEQUATE TEMPORARY BRACING TO PROVIDE LATERAL STABILITY FOR THE STRUCTURE DURING CONSTRUCTION.
- IMMEDIATELY NOTIFY THE ENGINEER IF, DURING CONSTRUCTION, A CONDITION WHICH IS NOT COVERED BY THESE DRAWINGS IS DISCOVERED.

#### 2. DESIGN LOADS

_	DESIGN LIVE LOADING IS AS FOLLOWS:
	GROUND SNOW LOAD
	ROOF LIVE LOAD 20 PSF
	COLLATERAL LOAD 1 PSF
	FLOOR LOADING
	RV GROSS VEHICLE WEIGHT (MODEL 1005 BY ALFA LEISURE, INC.) 29,500 lbs WITH 19,000 lbs ON ONE AXL
	SEISMIC SITE CLASS D
	WIND LOAD CRITERIA
	BASIC WIND SPEED 115 MPH, 3 SECOND GUST (2012 IBC) EXPOSURE

#### 3. CODES AND SPECIFICATIONS

- BUILDING CODE: 2009 INTERNATIONAL BUILDING CODE
- STRUCTURAL STEEL: "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, THIRTEENTH EDITION
- STRUCTURAL CONCRETE: "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI-301)", THE AMERICAN CONCRETE INSTITUTE

#### 4. SITE EXCAVATION

- THE SIDES OF ALL SOIL EXCAVATIONS DEEPER THAN 5 FEET SHALL BE LAID BACK TO A
- SLOPE OF 2.0 HORIZONTAL TO 1.0 VERTICAL UNLESS:

  A. A STEEPER SLOPE IS PERMITTED BY THE SOILS ENGINEER FOR THE PARTICULAR LOCATION BASED ON THE SOIL PROPERTIES IN QUESTION.
- B. A TEMPORARY SOIL RETENTION SYSTEM IS APPROVED BY THE SOILS ENGINEER AND
- CONTRACTOR SHALL COMPLY WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION STANDARDS FOR TRENCH SAFETY.

#### 5. FOUNDATION AND SITE CONDITIONS

- FOUNDATION DESIGN IS BASED ON BUCKHORN GEOTECH'S SOILS REPORT DATED AUGUST 1, 2014. THE RECOMMENDATIONS IN THIS REPORT MUST BE FOLLOWED.

ALLOWABLE SOIL BEARING PRESSURE	4000 PSF
PASSIVE EARTH PRESSURE	300 PCF
UNIT WEIGHT	125 PCF

- AT NO TIME, EITHER DURING OR AFTER CONSTRUCTION, SHOULD SURFACE WATER BE ALLOWED TO STAND OR ACCUMULATE ADJACENT TO THE FOUNDATION.
- MOISTURE PROTECTION INFORMATION SHALL BE THE RESPONSIBILITY OF THE OWNER AND SHOULD BE COORDINATED BY THE CONTRACTOR. IF MOISTURE SENSITIVE FLOOR FINISHES ARE TO BE USED, A VAPOR BARRIER WITH A 2" SAND PROTECTIVE COVERING SHALL BE PLACED BENEATH ALL INTERIOR SLABS—ON—GRADE.
- RADON GAS IS PREVALENT IN THE SOILS OF WESTERN COLORADO. THE EPA HAS WARNED THE PUBLIC OF THE DANGERS OF EXPOSURE TO THIS GAS WITHIN RESIDENTIAL DWELLINGS AND RECOMMENDS MITIGATION MEASURES. REFER TO PAMPHLET EPA/625/2-91/032 ENTITLED "RADON RESISTANT TECHNIQUES FOR RESIDENTIAL CONSTRUCTION". TO OBTAIN A FREE COPY OF THIS LITERATURE CONTACT THE RADON DIVISION OF THE ENVIRONMENTAL PROTECTION AGENCY IN DENVER, COLORADO AT (303) 692-3030.
- PRIOR TO PLACEMENT OF STRUCTURAL FILL, SUBGRADE SHALL BE GRADED LEVEL. SUBGRADE SOIL SHALL BE SCARIFIED TO A DEPTH OF 8" AND THEN RECOMPACTED TO 95% MAXIMUM DENSITY, STANDARD PROCTOR.
- ALL BEARING SOIL SHALL BE UNDISTURBED (UN-EXCAVATED) NATIVE SOIL WHICH HAS BEEN CONSOLIDATED AND PROOF-ROLLED.
   STRUCTURAL FILL SHALL BE PLACED IN LIFTS NOT TO EXCEED 6".
- DO NOT PLACE BACKFILL AGAINST WALLS OR GRADE BEAMS UNTIL THEY ARE ADEQUATELY BRACED TO RESIST LATERAL MOVEMENT. DO NOT REMOVE ANY BRACING INSTALLED UNTIL PERMANENT LATERAL STABILITY OF THE BUILDING HAS BEEN ACHIEVED.
- WHERE BACKFILL IS REQUIRED ON BOTH SIDES OF A STRUCTURAL ELEMENT, BACKFILL SHALL BE PLACED SIMULTANEOUSLY ALONG BOTH SIDES SO THAT THE BACKFILL HEIGHT ON ANY ONE SIDE DOES NOT EXCEED THE HEIGHT OF THE OPPOSITE SIDE BY MORE THAN 48 INCHES.
   BACKFILL AGAINST EXTERIOR WALLS MAY BE SITE MATERIAL. ALL BACKFILL SHALL BE

#### 6. OBSERVATION / TESTING SCHEDULE

- VERIFY SOIL CONDITIONS AFTER EXCAVATION, BUT PRIOR TO PLACEMENT OF FORMS.
   VERIFY PLACEMENT AND COMPACTION OF STRUCTURAL FILL.
- CONCRETE TESTING FOR ALL FOOTINGS AND WALLS:
   ONE SET OF (4) CONCRETE CYLINDERS TO BE SAMPLED FOR EACH 50 CUBIC YARDS, OR PORTION THEREOF.
   CYLINDERS TO BE TESTED FOR COMPRESSIVE STRENGTH. TEST ONE CYLINDER AT 7 DAYS AND TWO CYLINDERS AT 28 DAYS. ONE CYLINDER TO BE HELD.
   DISTRIBUTION OF CONCRETE TESTS TO OWNER'S REPRESENTATIVE AND PROJECT

- NOTIFY BUCKHORN GEOTECH AT LEAST ONE WORKING DAY PRIOR TO REQUESTING VERIFICATION, OBSERVATION, OR TESTING.

#### 7. CONCRETE

- ALL CEMENT SHALL BE TYPE I/II (ASTM C 150) (SULFATE RESISTANT).

	_	_			
28 – DAY STRENGTH	MAXIMUM SLUMP	AGGREGATE SIZE (MAX.)		AIR CONTENT	USAGE
4000 PSI	4 IN.	3/4 IN.	0.51	4% TO 7%	ALL
4000 PSI	4 IN.	3/4 IN.	0.51	0% ADDED	SLABS-ON GRADE

- PROVIDE CONCRETE HAVING THE FOLLOWING GENERAL CHARACTERISTICS:

- WHERE FLY ASH IS PERMITTED, THE QUANTITY OF FLY ASH IS INCLUDED WITHIN THE SCHEDULED WATER/CEMENT ( CEMENTITIOUS ) RATIO ABOVE.

# ALL REINFORCING STEEL SHALL BE NEW HIGH STRENGTH DOMESTIC DEFORMED BARS, GRADE 60, ASTM 1615—89 WITH 60,000 PSI MINIMUM YIELD STRENGTH; EXCEPT # 3 COLUMN TIES, BEAM STIRRUPS, FIELD—BENT AND FIELD—WELDED BARS, WHICH SHALL BE GRADE 40.

- CORNER BARS, WHERE NEEDED, SHALL MATCH AND LAP ALL HORIZONTAL REINFORCING.
   CARE SHOULD BE TAKEN DURING THE PLACEMENT OF LAPPED BARS TO INSURE THAT THERE IS ADEQUATE SPACE REMAINING FOR PROPER CONCRETE PLACEMENT AND COVER.
- SPLICES IN REINFORCING STEEL SHALL BE MADE USING A MINIMUM OF 40 BAR DIAMETER
- PROVIDE ALL ACCESSORIES NECESSARY TO SUPPORT REINFORCING AT ALL POSITIONS SHOWN ON THE STRUCTURAL DRAWINGS.
- PROVIDE (2) #5 (1 EACH FACE) WITH 2 FOOT PROJECTION AROUND ALL OPENINGS IN
- REINFORCEMENT CONCRETE COVER PROTECTION MINIMUMS:
- A. CONCRETE PLACED AGAINST EARTH.......3 INCHES

  B. CONCRETE PLACED IN FORMS BUT EXPOSED TO WEATHER OR EARTH:
- a. IF BARS ARE LARGER THAN NO. 5 ....... 2 INCHES b. IF BARS ARE NO. 5 OR SMALLER ........ 1–1/2 INCH
- C. COLUMNS, GIRDERS AND BEAMS.....1-1/2 INCH
  D. SLABS AND WALLS......3/4 INCH

SAWN JOINTS IN SLABS—ON—GRADE SHALL BE MADE WITHIN 24 HOURS FROM TIME OF PLACEMENT AND WITHOUT DAMAGE TO THE SURFACE. PROVIDE CONTROL JOINTS AS

- CONTRACTOR SHALL COORDINATE LOCATION AND INSTALLATION OF ANY, AND ALL, EMBED ITEMS, OPENINGS, CONDUITS, PENETRATIONS, CURBS, DEPRESSIONS, ETC. AS THEY RELATE TO CAST-IN PLACE CONCRETE PRIOR TO CONCRETE PLACEMENT. INSTALLATION OF THESE ITEMS SHALL BE COORDINATED WITH THE TRADES REQUIRING THEM.

- ALL CONDUIT AND PIPE EMBEDDED IN CONCRETE SHALL CONFORM WITH ALL PROVISIONS SPECIFIED IN ACI 318, SECTION 6.3
- CONCRETE FORMS SHALL BE PLACED TO FOLLOW SLOPES AND GRADES KEEPING MEMBER DEPTHS CONSTANT AS DETAILED OR SCHEDULED, UNLESS NOTED OTHERWISE.

#### 8. STRUCTURAL WOOD FRAMING

INDICATED ON ENGINEERING DRAWINGS.

 SIZES SHOWN FOR SAWN LUMBER FRAMING ARE NOMINAL SIZES. CONSTRUCTION SHALL BE IN ACCORDANCE WITH CHAPTER 23 OF THE UNIFORM BUILDING CODE.

 SAWN LUMBER: ALL SAWN LUMBER FOR STRUCTURAL FRAMING SHALL BE KILN DRIED HEM-FIR GRADED AS PER LATEST EDITION — NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION BY THE NATIONAL FOREST PRODUCTS ASSOCIATION AND THE WESTERN WESTERN WOOD PRODUCTS ASSOCIATION AS FOLLOWS:

STRUCTURAL 2x JOIST AND FRAMING STUDS SHALL BE #1 HEM—FIR OR BETTER (OR AS INDICATED ON PLAN) Fb = 1050 PSI Fcperp = 405 PSI Fc = 1250 PSI Fv = 70 PSI

TIMBER FRAMING 5x5 AND LARGER (BEAMS): DOUGLAS FIR—LARCH #1 OR BETTER
(WESTERN WOOD PRODUCTS ASSOCIATED GRADING RULES AGENCY)

TIMBER FRAMING 5x5 AND LARGER (POSTS): DOUGLAS FIR—LARCH #1 OR BETTER (WESTERN WOOD PRODUCTS ASSOCIATED GRADING RULES AGENCY)

 $Fb = 1200 \ PSI$   $Fcperp = 625 \ PSI$   $Fc = 850 \ PSI$ 

 $Fb = 1350 \ PSI \qquad Fv = 85 \ PSI \qquad E = 1,600,000 \ PSI$ 

 CONNECTORS SHOWN ON THE DRAWINGS ARE MANUFACTURED BY THE SIMPSON STRONG—TIE COMPANY. ANY CONNECTORS BY OTHER MANUFACTURER'S WILL BE DEEMED EQUIVALENT IF THEIR RATED CAPACITY IS AT LEAST EQUAL TO THAT OF THE CONNECTOR SPECIFIED. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION.

#### 9. MANUFACTURED WOOD PRODUCTS

#### - MICROLLAM LUMBER BEAMS

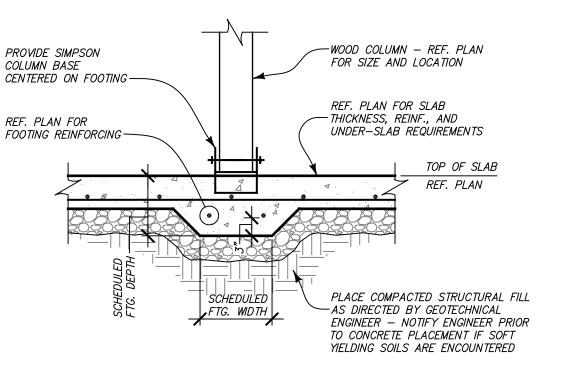
VERTICALLY LAMINATED VENEER HEADERS AND BEAMS SHOWN ON THE DRAWINGS AS "ML" ARE 1 3/4" THICK AS MANUFACTURED BY THE WEYERHAEUSER CORPORATION. ML BEAMS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. MULTIPLE MEMBERS SHALL BE FASTENED TOGETHER AS PER THE MANUFACTURER'S RECOMMENDATIONS. MICROLLAM BEAMS SHALL NOT BE USED WHERE EXPOSED TO

WEATHER OR IN DIRECT CONTACT WITH EARTH. Fb = 2600 PSI Fv = 285 PSI E = 1,900,000 PSI

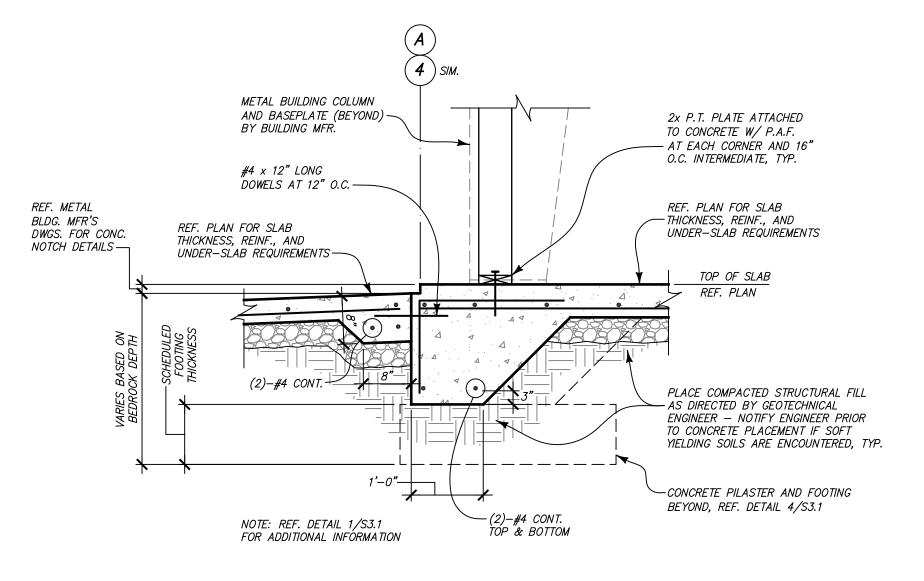
#### - PLYWOOD ( OR O.S.B. ) SHEATHING

A. PLYWOOD (OR O.S.B.) FOR ROOFS, FLOORS AND SHEAR WALL SHEATHING SHALL BE APA GRADE TRADEMARKED CDX WITH EXTERIOR GLUE. LAY UP PLYWOOD WITH FACE GRAIN PERPENDICULAR TO SUPPORTS AND STAGGER JOINTS. ALL NAILING TO BE COMMON NAIL, RING SHANKED FOR FLOOR AND ROOF SHEATHING. ALL FLOOR SHEATHING TO BE GLUED AND NAILED. REFER TO TABLE BELOW FOR USE

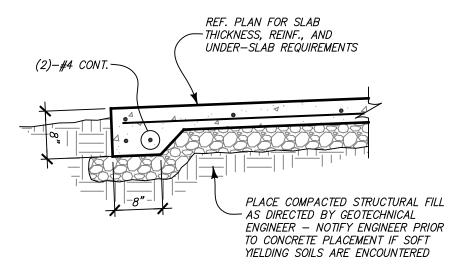
<u>APPLICATION</u>	DECK <u>THICK.</u>	SPAN <u>RATING</u>	EDGE <u>NAILING</u>	FIELD <u>NAILING</u>
LEVEL ROOF	3/4"	48/24	8d @ 6" O.C.	8d @ 12" O.C.
SLOPED ROOF	5/8"	32/16	8d @ 6" O.C.	8d @ 12" O.C.
<u>FLOOR</u>	3/4" T&G	48/24	8d @ 6" O.C.	8d @ 12" O.C.
SHEAR WALL	7/16"	24/0	8d @ 4" O.C.	8d @ 10" O.C.













LERMAN GARAGE/ APARTMENT BUILDING 2984 BLACK CANYON ROAD

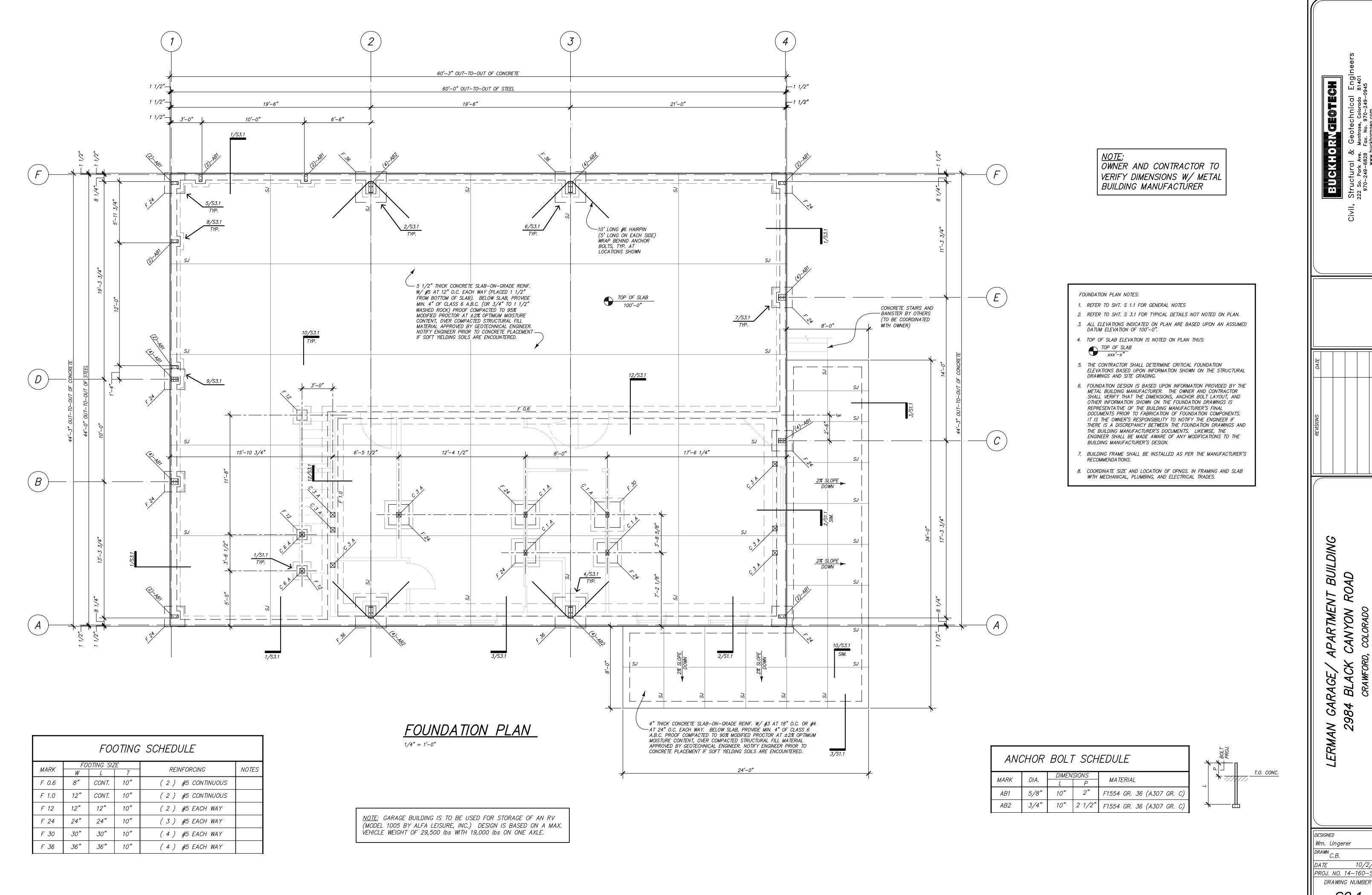
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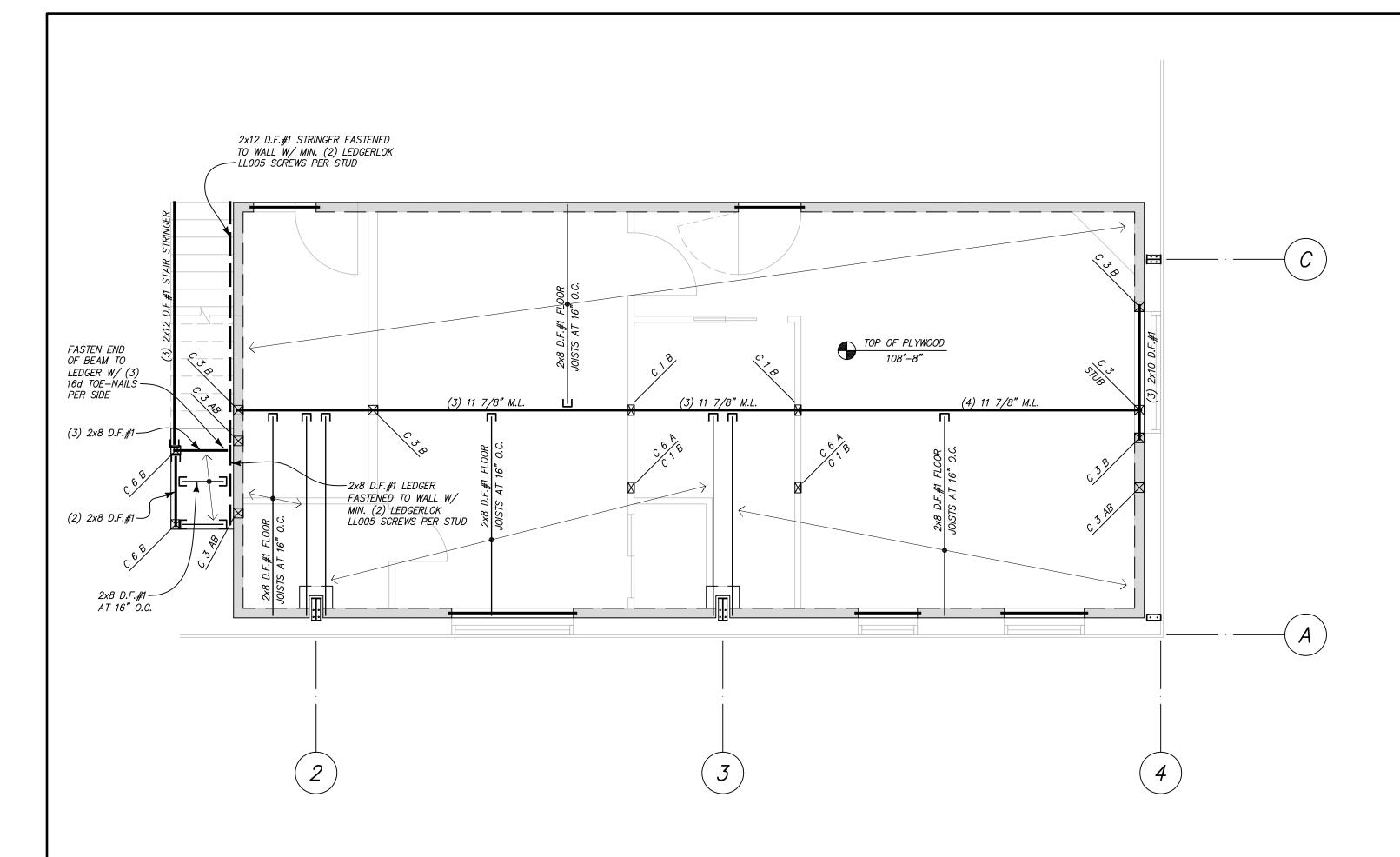
PROJ. NO. 14—160—S7



APARTMENT BUILDING CANYON ROAD

Wm. Ungerer

PROJ. NO. 14-160-STF



# APARTMENT UPPER FLOOR FRAMING PLAN

1/4" = 1'-0"

-(3) 2x8 D.F.#1 (3) 11 7/8" M.L.

## APARTMENT ROOF FRAMING PLAN 1/4" = 1'-0"

CLEARANCES BETWEEN WOOD FRAMING AND METAL BUILDING FRAMING ARE BASED ON A 1" MAX DEFLECTION IN THE METAL BUILDING. NO ENVIRONMENTAL LOADS HAVE BEEN CONSIDERED IN THE DESIGN OF THE APARTMENT FRAMING AND FOUNDATION, THEREFORE NO FORCES SHOULD BE ALLOWED TO BE TRANSFERRED FROM THE METAL BUILDING TO THE APARTMENT.

> TYPICAL HEADERS SHALL BE (3) 2x6 H.F. #1 (GLUED AND NAILED) UNLESS NOTED OTHERWISE ON PLAN OR DETAILS

#### UPPER FLOOR/ ROOF FRAMING PLAN NOTES:

- 1. REFER TO SHT. S 1.1 FOR GENERAL NOTES.
- 2. REFER TO SHT. S 3.1 FOR TYPICAL DETAILS NOT NOTED ON PLAN.

BRACES INSTALLED PER MANUFACTURER'S INSTRUCTIONS.

- 3. ALL ELEVATIONS INDICATED ON PLAN ARE BASED UPON AN ASSUMED DATUM ELEVATION
- 4. TOP OF PLYWOOD (OR OSB) FLOOR DECK IS NOTED ON PLAN THUS:
- 5. FLOOR DECK SHALL BE 3/4" PLYWOOD, GLUED AND NAILED TO FRAMING MEMBERS PER BUILDING CODE REQUIREMENTS.
- 6. COLUMNS ARE LOCATED ON WALL CENTERLINES UNLESS DIMENSIONED OTHERWISE ON PLAN OR DETAILS. (COORD. WITH ARCH'L DRAWINGS)
- INDICATES THE LOCATION OF A LOAD BEARING STUD FRAMED WALL. LOAD BEARING STUD WALLS SHALL BE 2x6 @ 16" O.C., TYPICAL (COORD. WITH ARCH'L DRAWINGS). IN ADDITION TO TRIMMERS. A CONTINUOUS "KINGSTUD" SHALL BE PLACED AT EACH SIDE OF WALL OPENINGS AND EXTEND TO THE PLATE LINE ABOVE. EXTERIOR WALLS SHALL BE BRACED WITH DIAGONAL 1x4 BRACING LET-INTO STUDS OR SIMPSON RCWB
- 8. CONTRACTOR SHALL COORDINATE ALL TOP OF WALL AND BEARING PLATE ELEVATIONS WITH ARCHITECTURAL DRAWINGS.
- 9. ROOF DECK SHALL BE 5/8" PLYWOOD NAILED TO FRAMING MEMBERS PER BUILDING CODE REQUIREMENTS.
- 10. FRAMING SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALL BRIDGING, BLOCKING, AND ANY ADDITIONAL ACCESSORIES REQUIRED BY MANUFACTURER.
- 11. COORDINATE SIZE AND LOCATION OF OPNGS. IN FRAMING WITH ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS.

12. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF SLOPE AND OVERHANG.

HANGER SCH	HEDULE
FRAMING MEMBER	HANGER
(1) 2x12 RAFTER	SIMPSON LSSU210 *
(1) 2x8 JOIST	SIMPSON LB28 **
(3) 2x12 STRINGER	SIMPSON HU212-3TF
(2) 2x8 BEAM	SIMPSON HUS28-2TF

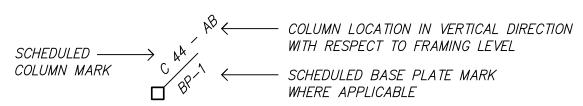
#### SCHEDULE NOTES:

- 1. VERIFY HANGER SEL OF MFR. PRIOR TO
- 2. COMPLY WITH ALL R DURING INSTALLATION
- \* MAY BE SUBSTITUTED \*\* MAY BE SUBSTITUTED

	C	COLUMN SCHEDU	JLE	
MARK	MATERIAL	SIZE	BASE PLATE	NOTES
C 1	WOOD	(4) 2 x 4	N / A	
C 3	WOOD	(3) 2 x 6	N / A	
C 6	WOOD ( DF #1 )	6 x 6 POST	N / A	

#### <u>SCHEDULE NOTES :</u>

1. COLUMNS SHALL BE INDICATED ON PLAN THUS:



### <u>EXAMPLE</u>

- A COLUMN IS ABOVE FRAMING LEVEL ONLY
- B COLUMN IS BELOW FRAMING LEVEL ONLY
- AB COLUMN OCCURS BOTH ABOVE AND BELOW FRAMING LEVEL BUT IS <u>NOT</u> CONTINUOUS
- C COLUMN IS CONTINUOUS THRU FRAMING LEVEL
- 2. REFER TO GRAPHIC STANDARDS LEGEND LOCATED ON SHT. S 1.1 FOR ADDITIONAL

EXPLANATION OF COLUMN DESIGNATIONS.

	TIANGEN	1					
	SIMPSON LSSU210 💥						
	SIMPSON LB28 **	1					
	SIMPSON HU212-3TF						
	SIMPSON HUS28-2TF				REVISIONS		
O ORDER RECOMI TION.	MENDATIONS FROM MFR.	SIDE			RI		
	(4) 16d TOE—NAILS PER S (3) 16d TOE—NAILS PER S						

BUCKHORNGEOTECH

Wm. Ungerer DRAWN C.B.

PROJ. NO. 14-160-STF DRAWING NUMBER

