

**STRUCTURAL NOTES**

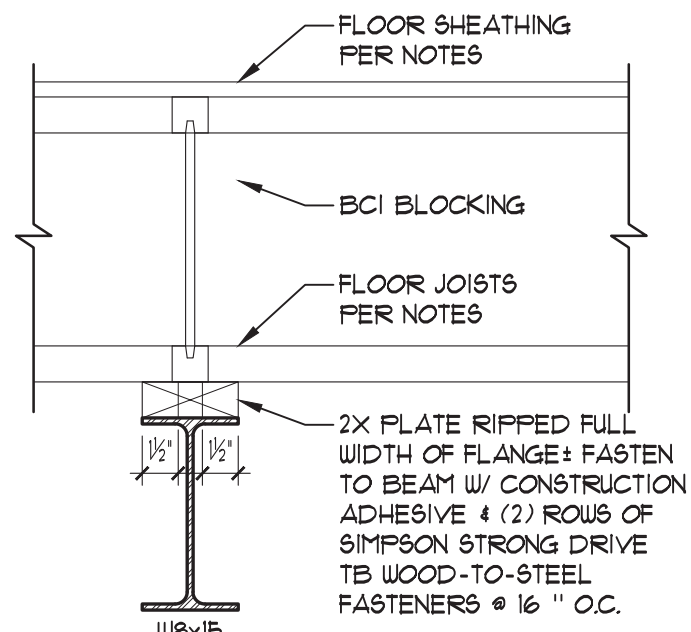
- 1. APPLICABLE CODES:**  
 A. These general notes apply to all structural drawings. This project is designed in accordance with the International Residential Code (IRC), 2015 Edition, and the Minimum Design Loads for Buildings and Other Structures (ASCE 7-10) and The Pikes Peak Regional Building Code, (2017 Edition).  
 B. All material and workmanship shall be in accordance with applicable provisions of the codes specified above.
- 2. LOADS USED IN DESIGN:**  
 A. Roof Snow Load: 25 psf  
 Roof Dead Load: 25 psf  
 B. Floor Live Load: 40 psf  
 Floor Dead Load: 10 psf  
 C. Wind: Ultimate Wind Speed, V3s: 130 mph  
 Exposure: 'C'  
 Wind Importance Factor, Iw: 1.0

- 3. COORDINATION:**  
 A. **DO NOT SCALE.** The layout shown is based solely on architectural plans and other written documentation by Pikes Peak Habitat for Humanity, for Carter 4 BR15 MASTER dated 2-26-20. Changes affecting the layout shown must be specific and clearly conveyed to Rocky Mountain Group in written form as a change for inclusion into these plans. Contractor and/or client shall verify all dimensions and layout prior to construction. All dimensions on structural drawings shall be checked against architectural drawings and any discrepancies shall be brought to the attention of the Architect and Engineer immediately. Refer to mechanical, electrical and architectural drawings for openings not shown on structural drawings.  
 B. Shop drawings shall be prepared by the fabricator. Copying of these construction documents for use as shop drawings will not be permitted. Design team shall have 10 working days to review and return shop drawings for acceptance or re-submittal.  
 C. All temporary shoring shall be the responsibility of the contractor. Removing or modifying partition or bearing walls could result in cosmetic damage. Shoring of the existing structure, prior to modification of the wall is the responsibility of the contractor. It should be noted that the process of shoring and modification of the wall can result in cracks appearing in the drywall or brittle finishes, such as stucco or tile floor. This cracking is typically aesthetic in nature and could occur throughout the house. RMG is not responsible for cosmetic damage that may occur.  
 D. Design is void after two years from original date of issue, unless updated to acceptable codes and practices at that time.  
 E. A preconstruction meeting with personnel of Rocky Mountain Group, the architect, contractor and appropriate subcontractors is strongly recommended prior to construction to discuss structural plans.

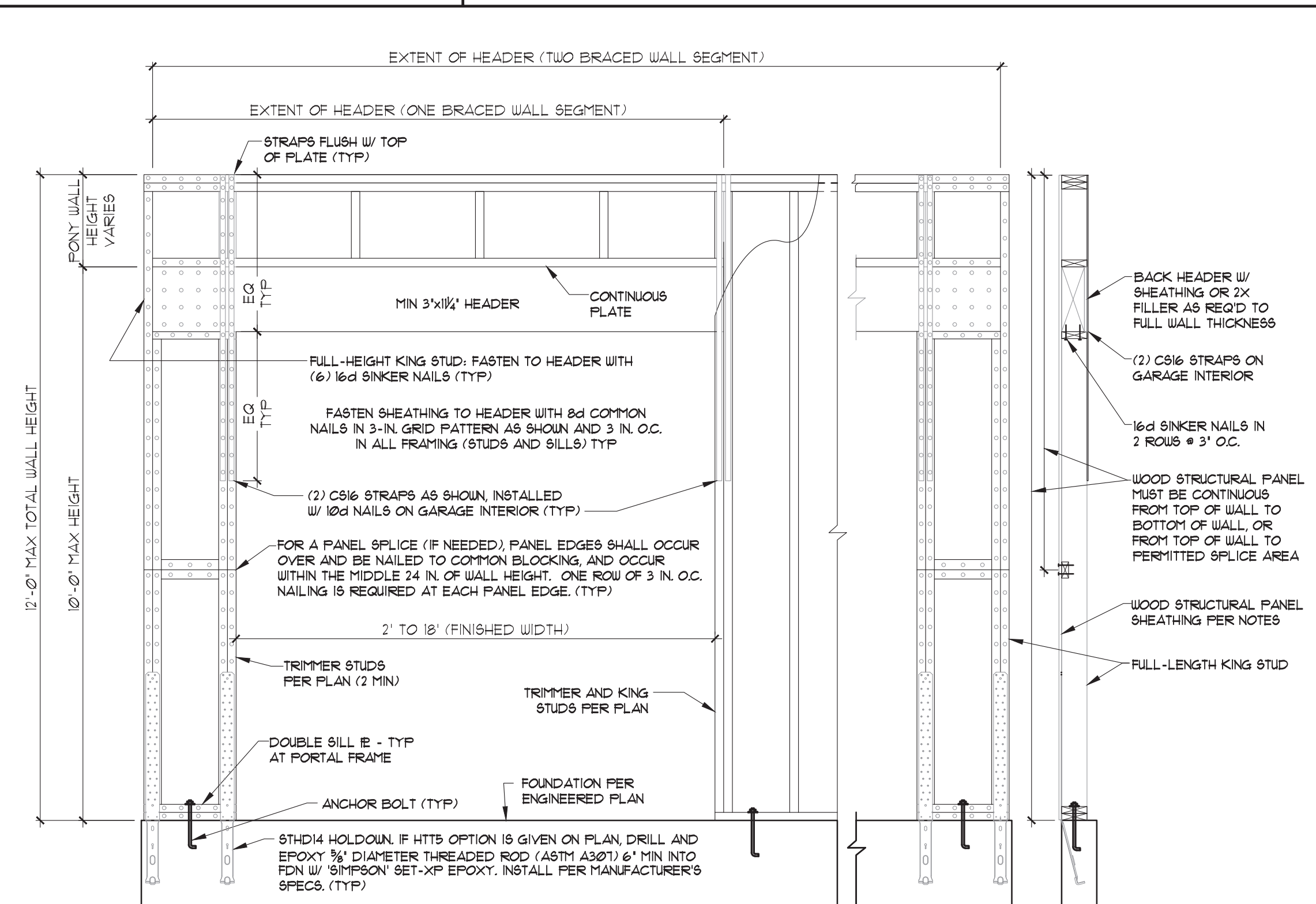
- 4. STRUCTURAL STEEL:**  
 A. Structural steel, including cast in angles, plates or other sections shall be detailed and erected in accordance with the American Institute of Steel Construction (AISC) Specifications and Code of Standard Practice, latest edition.  
 B. All wide flange and channel structural steel shall conform to ASTM A992. All other structural shapes and miscellaneous steel shall conform to ASTM A36 unless otherwise noted. Tube steel columns shall conform to ASTM A500, Grade-B. Pipe columns shall conform to ASTM A53.  
 C. Shop connections shall be welded with E70xx electrodes and ground smooth where exposed. Field connections shall be made with bolts conforming to ASTM A325N unless otherwise noted. Field welds shall be made with E70xx electrodes. All welding shall be in accordance with AWS "Structural Welding Code", latest edition and performed by certified, licensed welder.  
 D. All beam connections not detailed on the drawings shall be standard framed beam connections as shown in Table II and III of the AISC "Manual of Steel Construction", latest edition, designed to carry the full capacity of the uniformly loaded member, unless noted otherwise.  
 E. Field Quality Control: Inspect in accordance with AISC specifications. Materials engineer shall visually inspect all field welded connections and visually inspect all bolted connections to ascertain that all welds, bolts, nuts and required washers have been installed and are of proper type and that all facing surfaces have been brought into snug contact.

- 5. WOOD:**  
 A. Framing lumber shall be Hem Fir (unless noted otherwise) and as follows or better:  
 2x4 studs: Stud Grade  
 2x6 or larger studs: #2 Grade  
 Plates: #3 Grade  
 Joists and Rafter: #2 Grade  
 2x and 4x Beams: #2 Grade  
 6x or larger Beams: #1 Grade Beam and Stringer  
 Glu-Lam Beams: 24F-V4 DF/DF unless noted otherwise  
 Posts: #1 Grade Post and Timber  
 B. All wood construction shall be in conformance with the provisions of "The National Design Specification for Wood Construction", latest edition.  
 C. Laminated Veneer Lumber (LVL) and prefab joists shall be manufactured by TrusJoist or equivalent or shall meet APA Performance Standards, and installed per manufacturers specifications. Supplier shall furnish shop drawings showing all joists, bridging, blocking and miscellaneous accessories for review by the structural engineer prior to fabrication.  
 D. Where not otherwise shown on plans, all nailing or screwing shall be as indicated in the Building Code. All sheathing must be nailed. Adhesives SHALL NOT be used in place of nailing.  
 E. Metal connectors to be provided by 'Simpson Strong-Tie' or equivalent.  
 F. APA rated OSB may be used in lieu of plywood with prior approval from Engineer of Record.  
 G. Wood roof and floor trusses shall be designed by others unless noted otherwise. Calculated live load deflection of trusses shall not exceed 1/360 for floors and 1/240 for roof of the overall span length. The truss supplier shall provide shop drawings and calculations prepared and stamped by a structural engineer registered in the state of Colorado for review by the Engineer of Record to verify they conform to requirements of the basic structure. These shop drawings shall show the locations of all trusses, connection plate sizes & capacity and the size & grade of lumber to be used. Truss fabrication shall not proceed until completion of shop drawing review by the Engineer of Record. Truss manufacturer or contractor shall provide blocking at bearing locations and bridging/lateral bracing as required for truss stability.  
 H. Site fabricated trusses are to be adequately shored and installed by qualified personnel. Appropriate bracing shall be in place at all times. Rocky Mountain Group is not responsible for the construction sequence of site built trusses.  
 I. Floor sheathing shall conform to the provisions of tables: R503.1, R503.2.1.1(1), or R503.2.1.1(2) in the 2015 IRC.  
 J. The contractor shall not cut, notch or otherwise modify joists, beams, or trusses without the written consent of the Engineer of Record.

STRUCTURAL LEGEND	
(X) DETAIL * OR LETTER SHEET DETAIL IS ON	(D) DROPPED BEAM
(1) SEE PLAN NOTES	EN. EDGE NAILING
(S) SHEAR WALL SCHEDULE	(E) EXISTING
SOLID BOX INDICATES LOAD FROM ABOVE (CONTINUE FOOT DOWN TO FOUNDATION BELOW)	FF. FINISH FLOOR
OPEN BOX INDICATES LOAD FROM ABOVE (CARRIED BY BEAM OR HEADER BELOW)	(F) FLUSH BEAM
L HANGER (PER PLAN)	G.T. GIRDER TRUSS
--- HEADER / BEAM	K KING STUD
--- SHEAR WALL	K.P. KING POST
--- BEARING WALL (INTERIOR)	L.V.L. LAMINATED VENEER LUMBER
--- JOIST/RAFTER SPAN (BEAR ON BEAM)	M+L MICRO-LAM
--- JOIST/RAFTER SPAN (FLUSH FRAME TO BEAM)	O.C. ON CENTER
A.F.F. ABOVE FINISH FLOOR	O.S.B. ORIENTED STRAND BOARD
A.B. ANCHOR BOLT	P. PLATE
CANT. CANTILEVER	P.T. PRESSURE TREATED
¢ CENTER LINE	SIM SIMILAR
CONT. CONTINUOUS	S.F.N. SILL PLATE NAILING
¢ DIAMETER	T. TRIMMER
	T.O. TOP OF
	TYP. TYPICAL
	V-L VERSA-LAM



**2 FLOOR FRAMING DETAIL**  
 SCALE: 1 1/2" = 1'-0"



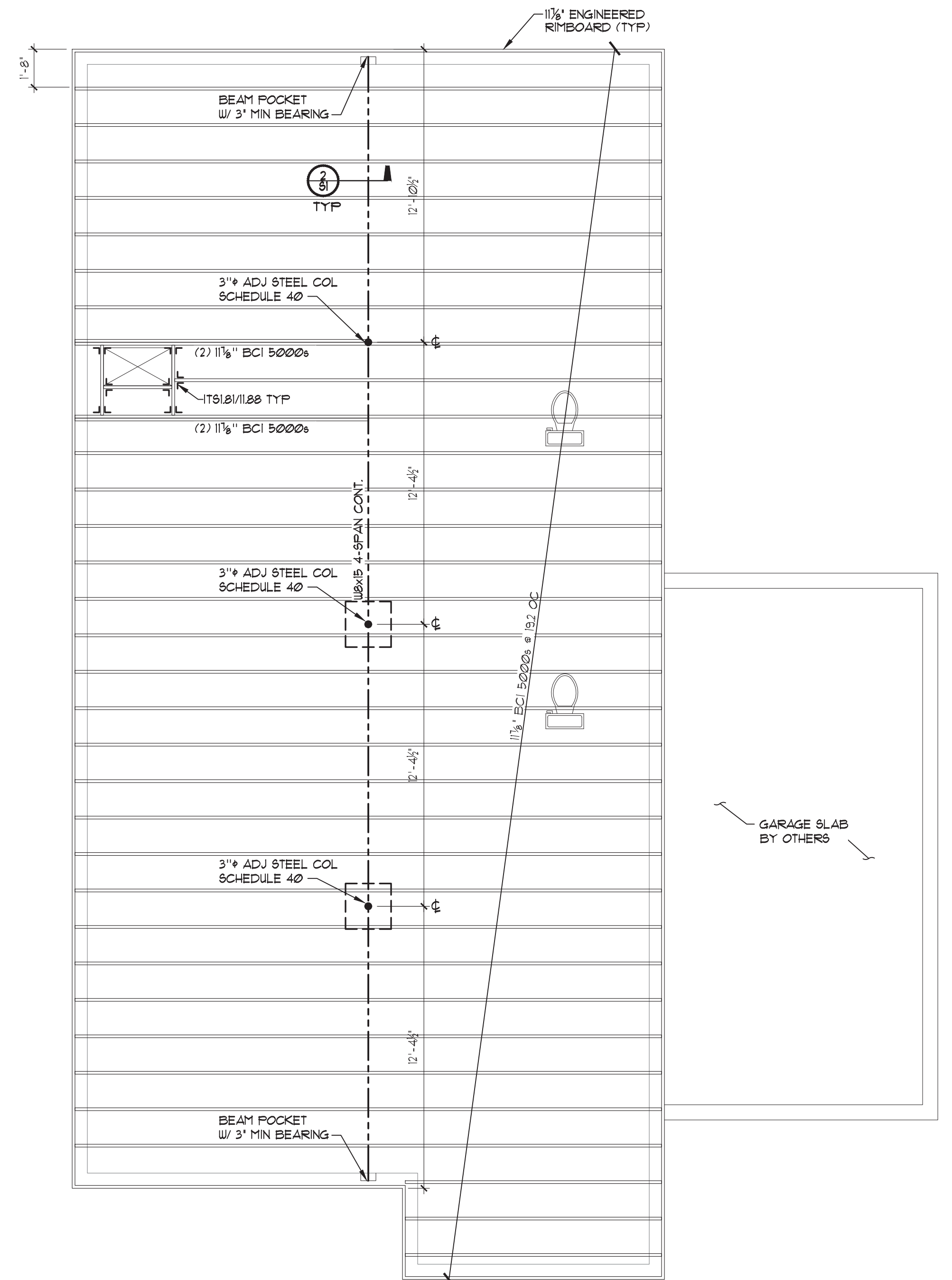
**1 PORTAL FRAME DETAIL - WITH HOLDOWN**  
 SCALE: 1/2" = 1'-0"

SHEAR WALL SCHEDULE		
SHEAR WALL AS REQUIRED PER PLAN	FOUNDATION ANCHOR / BOTTOM PLATE NAILING	
(S) 1/2\"/>		

HOLDOWN SCHEDULE	
(A) SIMPSON 5THD14RJ OR HTTB	
(B) SIMPSON 5THD14 OR HTTB	

LOCATE HOLDOWNS 2' FROM WALL CORNERS OR EDGES OF OPENINGS (UNO.)

- GENERAL PLAN NOTES**
- \* **ROOF SHEATHING:** 1/2" (MIN) APA RATED OSB OR PLYWOOD W/ 8d NAILS @ 6" O.C. ALONG ALL SUPPORTED PANEL EDGES AND 12" O.C. IN FIELD
  - \* **TRUSS / RAFTER ANCHORING:** PROVIDE (1) SIMPSON HZT CLIP PER PLY MIN. @ EA. TRUSS TO TOP PLATE BEARING LOCATIONS. (TYP. - UNLESS NOTED OTHERWISE)
  - \* **BEAMS & MULTIPLE-PLY TRUSSES:** SHALL HAVE A MIN. OF (1) 2x4/6 STUD COLUMN PER PLY AT EACH BEARING LOCATION (TYP. - UNLESS NOTED OTHERWISE)
  - \* **EXTERIOR WALLS:** SHALL BE 2x6 STUDS @ 16" O.C. (TYP. - UNLESS NOTED OTHERWISE). EXTERIOR WALLS TO BE CONTINUOUSLY SHEATHED W/ 1/2" OSB W/ 8d's @ 6" O.C. AT PANEL EDGES AND 12" O.C. IN THE FIELD (TYP. - UNLESS NOTED OTHERWISE)
  - \* **INTERIOR WALLS:** SHALL BE 2x STUDS @ 16" O.C. RE: ARCH'L PLANS FOR THICKNESSES (TYP. - UNLESS NOTED OTHERWISE)
  - \* **HEADER SIZE:** SHALL BE (2) 2x8 MIN. W/ (1) KING STUD AND (1) TRIMMER AT EA. END (TYP. - UNLESS NOTED OTHERWISE)
  - \* **BUILT-UP STUD COLUMNS:** SHALL BE CONTINUED DOWN TO FOUNDATION OR OTHER SUPPORTING MEMBER. BUILT-UP COLUMNS SHALL BE BLOCKED SOLID AT THE FLOOR SYSTEM
  - \* **MULTI-PLY BEAMS:** CONSISTING OF (3) OR MORE MEMBERS SHALL BE SECURED TOGETHER W/ (1) 1/2" THRU BOLT @ 16" O.C. STAGGERED (OFFSET EA. BOLT 2 1/2" FROM ¢ OF BEAM)
  - \* **FLUSH FRAMED (SIDE LOADED):** BUILT-UP LVL BEAMS CONSISTING OF (3) OR MORE MEMBERS SHALL BE SECURED TOGETHER W/ (2) 1/2" THRU BOLTS @ 16" O.C. (OFFSET EACH BOLT 2 1/2" FROM ¢ OF BEAM)
  - \* **DROP FRAMED (TOP LOADED):** BUILT-UP LVL BEAMS CONSISTING OF (4) OR MORE MEMBERS SHALL BE SECURED TOGETHER W/ (2) ROWS OF 1/2" THRU BOLTS STAGGERED @ 24" O.C. (OFFSET EACH BOLT 2 1/2" FROM ¢ OF BEAM)



ALL ELEVATIONS  
**FIRST FLOOR FRAMING PLAN**  
 SCALE: 1/4" = 1'-0"

**ROCKY MOUNTAIN GROUP**  
 Geotechnical  
 Structural  
 Civil  
 Mechanical  
 Electrical  
 Plumbing  
**RMG**  
 ARCHITECTURAL  
 ENGINEERS  
 EMPLOYEE OWNED  
 SOUTHERN COLORADO  
 REGISTERED PROFESSIONAL ENGINEERS: CO 80918  
 29110 AUSTIN BLVD. SUITE 100  
 FORT COLLINS, CO 80504  
 SOUTHERN COLORADO REGISTERED PROFESSIONAL ENGINEERS: CO 80918  
 29110 AUSTIN BLVD. SUITE 100  
 FORT COLLINS, CO 80504

**COLORADO LICENSED**  
 PROFESSIONAL ARCHITECT  
 2/26/20  
 55591  
 PROFESSIONAL ARCHITECT  
 PROFESSIONAL ARCHITECT

**FRAMING PLANS**  
 CARTER 4 BR15 MASTER  
 EL PASO COUNTY, CO

**MAIN FLOOR FRAMING PLAN, NOTES AND DETAILS**

PROJECT STATUS  
**SUBMITTAL SET**

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ARCHING: C/M  
 DRAWN: PHZ  
 CHECKED: MDT  
 DATE: 02-05-2020

#	REVISION	DATE
1	GENERAL NOTE	2-26-20

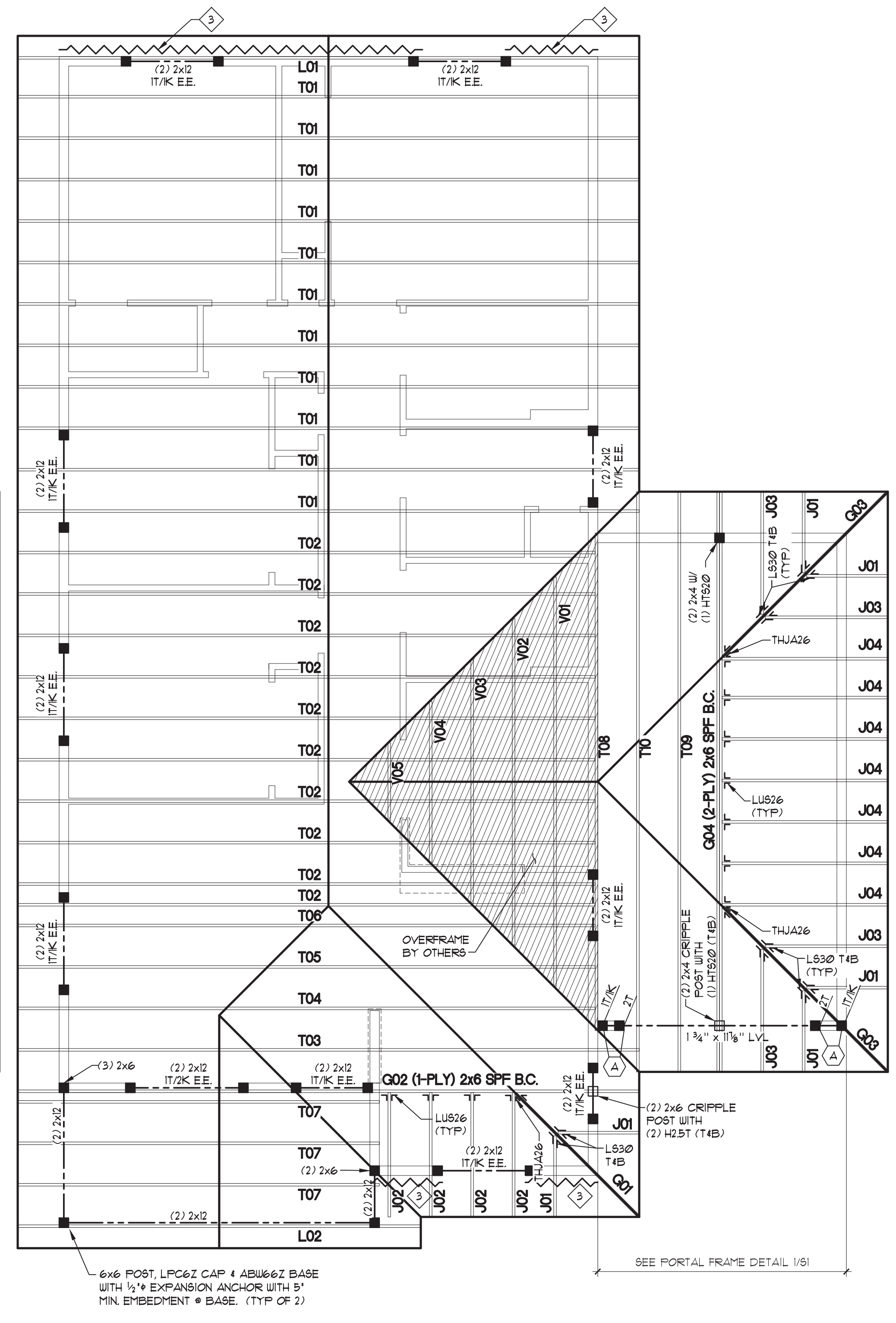
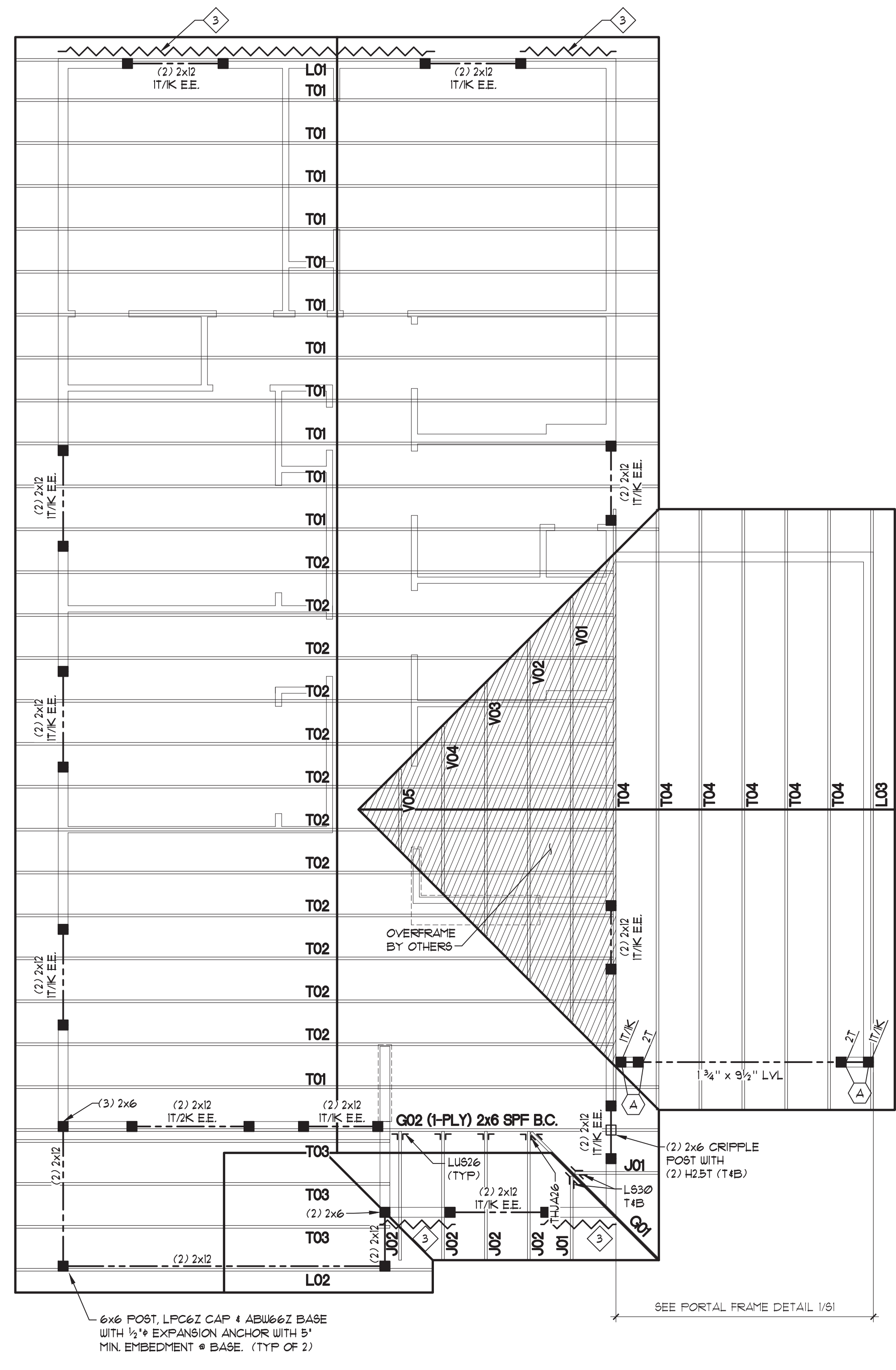
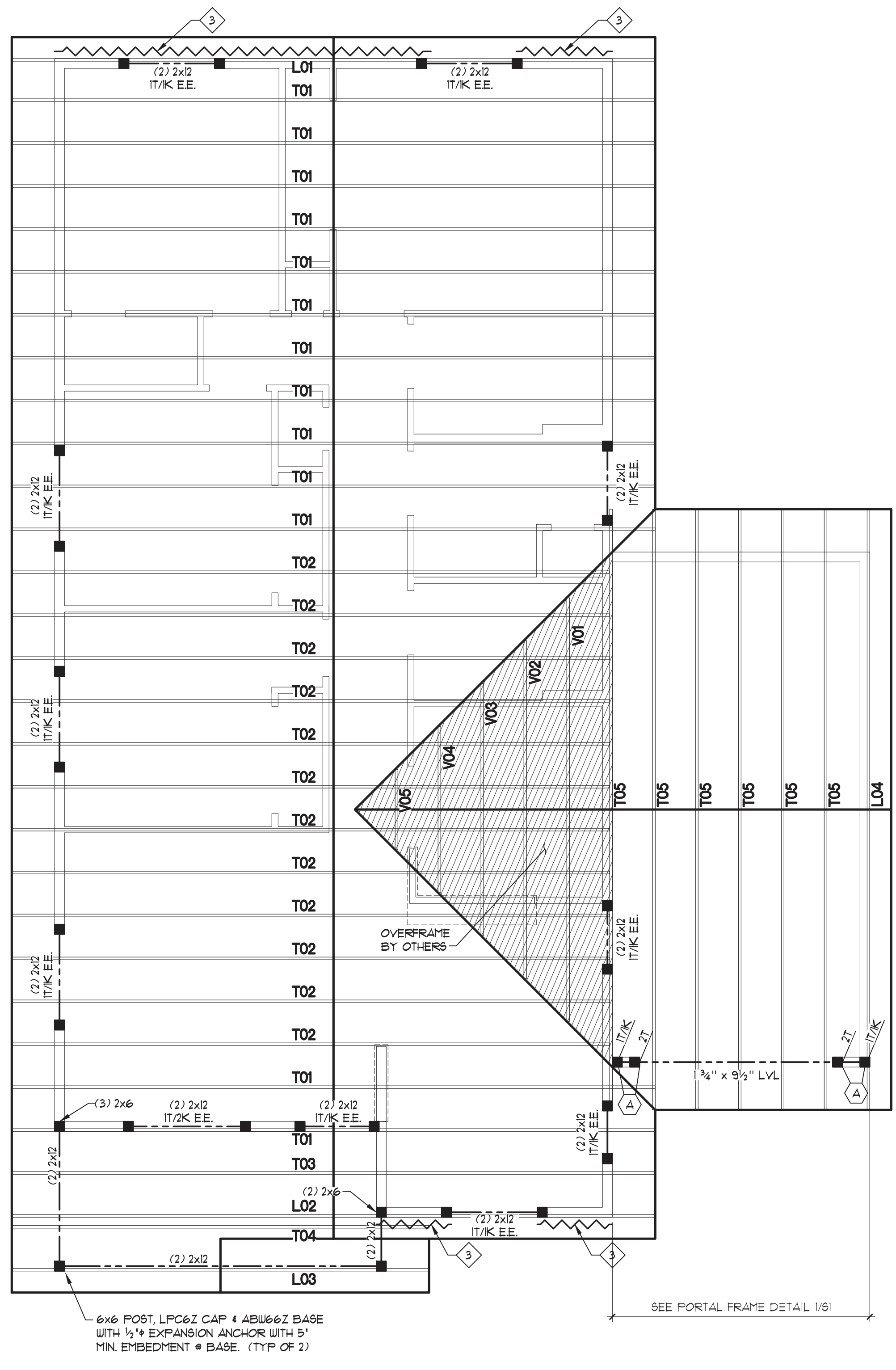
JOB NO.: 174402  
 SHEET NO.: S1  
 1 of 2

HOLDOWN SCHEDULE	
(A)	SIMPSON 5THD14RJ OR HTT5
(B)	SIMPSON 5THD14 OR HTT5
LOCATE HOLDDOWNS 2" FROM WALL CORNERS OR EDGES OF OPENINGS (UNO.)	

SHEAR WALL SCHEDULE		
SHEAR WALL AS REQUIRED PER PLAN		FOUNDATION ANCHOR / BOTTOM PLATE NAILING
3	1/2" OR 3/4" APA RATED SHEATHING W/ 8d NAILS @ 6" O.C. EDGE AND BOUNDARY NAILING	EXTERIOR/ INTERIOR: 1/2" AB's @ 48" O.C. / 1/6d NAILS @ 8" O.C.
4	1/2" OR 3/4" APA RATED SHEATHING W/ 8d NAILS @ 4" O.C. EDGE AND BOUNDARY NAILING	EXTERIOR/ INTERIOR: 1/2" AB's @ 32" O.C. / 1/6d NAILS @ 5" O.C.
5	1/2" OR 3/4" APA RATED SHEATHING W/ 8d NAILS @ 3" O.C. EDGE AND BOUNDARY NAILING	EXTERIOR/ INTERIOR: 1/2" AB's @ 24" O.C. / 1/6d NAILS @ 4" O.C.

NOTES:  
1) APA RATED SHEATHING SHEAR PANELS REQUIRE ALL PANEL EDGES TO BE BACKED WITH 2" NOMINAL OR WIDER FRAMING. FIELD NAILS SHALL BE SPACED @ 12" O.C. FOR FRAMING MEMBER SPACING OF 16" O.C. FIELD NAILS SHALL BE SPACED @ 6" O.C. FOR FRAMING MEMBER SPACING OF 24" O.C.

GENERAL PLAN NOTES		
* <b>ROOF SHEATHING:</b> 1/8" (MIN) APA RATED OSB OR PLYWOOD W/ 8d NAILS @ 6" O.C. ALONG ALL SUPPORTED PANEL EDGES AND 12" O.C. IN FIELD	* <b>INTERIOR WALLS:</b> SHALL BE 2x STUDS @ 16" O.C. RE: ARCH'L PLANS FOR THICKNESSES (TYP. - UNLESS NOTED OTHERWISE)	* <b>FLASH FRAMED (SIDE LOADED):</b> BUILT-UP LVL BEAMS CONSISTING OF (3) OR MORE MEMBERS SHALL BE SECURED TOGETHER W/ (2) 1/2" THRU BOLTS @ 16" O.C. (OFFSET EACH BOLT 2 1/2" FROM & OF BEAM)
* <b>TRUSS / RAFTER ANCHORING:</b> PROVIDE (1) SIMPSON H2ST CLIP PER FLY MIN. @ EA. TRUSS TO TOP PLATE BEARING LOCATIONS. (TYP. - UNLESS NOTED OTHERWISE)	* <b>HEADER SIZE:</b> SHALL BE (2) 2x8 MIN. W/ (1) KING STUD AND (1) TRIMMER AT EA. END (TYP. - UNLESS NOTED OTHERWISE)	* <b>DROP FRAMED (TOP LOADED):</b> BUILT-UP LVL BEAMS CONSISTING OF (4) OR MORE MEMBERS SHALL BE SECURED TOGETHER W/ (2) ROUS OF 1/2" THRU BOLTS STAGGERED @ 24" O.C. (OFFSET EACH BOLT 2 1/2" FROM & OF BEAM)
* <b>BEAMS &amp; MULTIPLE-PLY TRUSSES:</b> SHALL HAVE A MIN. OF (1) 2x4/6 STUD COLUMN PER FLY AT EACH BEARING LOCATION (TYP. - UNLESS NOTED OTHERWISE)	* <b>BUILT-UP STUD COLUMNS:</b> SHALL BE CONTINUED DOWN TO FOUNDATION OR OTHER SUPPORTING MEMBER. BUILT-UP COLUMNS SHALL BE BLOCKED SOLID AT THE FLOOR SYSTEM	
* <b>EXTERIOR WALLS:</b> SHALL BE 2x6 STUDS @ 16" O.C. (TYP. - UNLESS NOTED OTHERWISE). EXTERIOR WALLS TO BE CONTINUOUSLY SHEATHED W/ 1/2" OSB W/ 8d's @ 6" O.C. AT PANEL EDGES AND 12" O.C. IN THE FIELD (TYP. - UNLESS NOTED OTHERWISE)	* <b>MULTI-PLY BEAMS:</b> CONSISTING OF (3) OR MORE MEMBERS SHALL BE SECURED TOGETHER W/ (1) 1/2" THRU BOLT @ 16" O.C. STAGGERED (OFFSET EA. BOLT 2 1/2" FROM & OF BEAM)	



ROOF FRAMING PLAN (A)

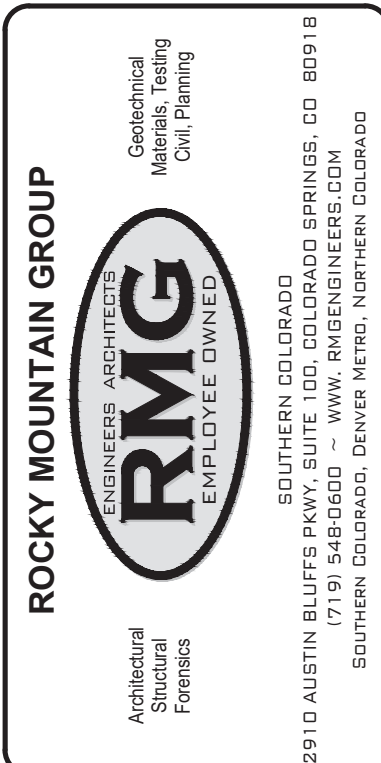
SCALE: 1/4" = 1'-0"

ROOF FRAMING PLAN (B)

SCALE: 1/4" = 1'-0"

ROOF FRAMING PLAN (C)

SCALE: 1/4" = 1'-0"



FRAMING PLANS  
CARTER 4 BRYS MASTER  
EL PASO COUNTY, CO

HABITAT FOR HUMANITY  
PROJECT STATUS  
SUBMITTAL SET

#	REVISION	DATE
1	GENERAL NOTE	2-28-20

JOB NO. 174402  
SHEET NO. S2  
2 of 2