# **GENERAL**:

UNLESS NOTED OTHERWISE, ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE 2018 INTERNATIONAL BUILDING CODE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING CONDITIONS AT THE JOB SITE, AND TO FULLY COORDINATE ALL DIMENSIONS AND CONDITIONS OF DETAILS WITH OTHER DISCIPLINES. ANY FIELD CONDITIONS REQUIRING CONSTRUCTION THAT IS DIFFERENT FROM THAT SHOWN ON THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. ANY CONFLICTING DETAILS SHOWN IN THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE CONSTRUCTION OF SAID DETAIL. DO NOT SCALE DRAWINGS. ANY QUESTIONS REGARDING THE CONSTRUCTION DOCUMENTS SHALL BE SUBMITTED TO THE ARCHITECT IN THE FORM OF A WRITTEN **REQUEST FOR INFORMATION.** 

ALL SUPPORT OF CONSTRUCTION LOADS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL SHORING AND BRACING REQUIRED FOR THE PROTECTION OF LIFE AND PROPERTY DURING THE CONSTRUCTION PROCESS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL PROCEDURES OF SOIL EXCAVATION, BACK FILL, AND SUPPORT OF ADJACENT PROPERTY DURING EARTHWORK SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

ALL DIMENSIONS INDICATED ON PLANS SHALL BE TO FACE OF STUDS, FACE OF CONCRETE BLOCK, FACE OF ROUGH CONCRETE, CENTERLINE OF COLUMNS, BOTTOM OF METAL DECK, AND TOP OF SLAB, UNLESS NOTED OTHERWISE. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS NOT INDICATED ON STRUCTURAL DRAWINGS. THE FOLLOWING DESIGN CRITERIA SHALL BE ENFORCED;

ROOF DEAD LOAD: 15 PSF. LIVE LOAD: 20 PSF BOTTOM CHORD LIVE LOAD AT ATTIC TRUSSES: 20 PSF ROOF SNOW LOAD: Pg=120 PSF  $P_f = 101 PSF$ Ce = 1.0I = 1.0Ct = 1.2 (UNHEATED STRUCTURE) FLOOR DEAD LOAD: 15 PSF FLOOR LIVE LOAD: 40 PSF WIND FORCES: BASIC WIND SPEED: 115 MPH (ULTIMATE WIND SPEED) WIND EXPOSURE TYPE: C WIND IMPORTANCE FACTOR: 1.0 SEISMIC RISK CATEGORY II  $S_{DS} = 0.537$  $S_{D1} = 0.108$ SITE CLASS C SEISMIC DESIGN CATEGORY D BASIC LFRS = LIGHT FRAMED WALLS WITH SHEAR PANELS R=6.5 W WEIGHT OF STRUCTURE: DESIGN BASE SHEAR - 0.083W (ULTIMATE) 0.059W (SERVICE) DESIGN PROCEDURE: EQUIVALENT LATERAL FORCE

### FOUNDATIONS:

MAXIMUM ALLOWABLE SOIL PRESSURE: =1,500 PSF PER CHAPTER 18 OF THE 2018 IBC

ALL FOOTING DEPTHS INDICATED ON PLANS ARE MINIMUM DEPTHS. FOOTINGS MAY BE PLACED IN NEAT EXCAVATED TRENCHES. TRENCH SHALL BE APPROVED BY INSPECTOR PRIOR TO PLACEMENT OF CONCRETE. AT LOCATIONS WHERE STRUCTURAL FILL IS REQUIRED, FILL SHALL BE PLACED IN 6" LIFTS & COMPACTED AT OPTIMUM MOISTURE CONTENT. REFER TO SOILS INVESTIGATION FOR DEPTH AND EXTENT OF STRUCTURAL FILL.

#### CONCRETE:

ALL CONCRETE MATERIALS SHALL COMPLY WITH THE STANDARDS SPECIFIED IN THE LATEST EDITION OF THE ACI 318 BUILDING CODE. EACH MIX DESIGN SHALL BE REVIEWED BY AN APPROVED INDEPENDENT LABORATORY, AND SHALL BE SUBMITTED TO THE ENGINEER AT LEAST 2 WEEKS PRIOR TO THE PLACEMENT OF CONCRETE. CONTRACTOR SHALL INFORM THE ENGINEER AT LEAST 2 DAYS PRIOR TO PLACING ANY CONCRETE SO THAT THE ENGINEER MAY HAVE THE OPPORTUNITY TO REVIEW THE WORK.

CONCRETE TESTING SHALL BE PERFORMED BY AN APPROVED INDEPENDENT TESTING LABORATORY. THE TESTING AGENCY SHALL TEST (4) CYLINDERS FROM EACH CLASS OF CONCRETE USED EACH DAY. A MINIMUM OF (1) SAMPLE MUST BE TAKEN FROM EACH 50 CUBIC YARDS OF CONCRETE.

LOCATION	SPECIAL	SLUMP	AGGREGATE	E COMPRESSIVE
- I	NSPECTION.	(MAX)	(MAX SIZE)	STRENGTH (PSI)
FOOTINGS	NO	5	1" DIA	3000 (2500 WAS USED FOR DESIGN
GRADE BEAMS	NO	5	1" DIA	3000 (2500 WAS USED FOR DESIGN
				,

ANY CONCRETE THAT FAILS TO MEET SPECIFICATIONS SHALL BE REMOVED AND REPLACED AT THE EXPENSE OF THE CONTRACTOR.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION, DESIGN, PLACEMENT AND REMOVAL OF ALL FORMWORK. ALL SHORING DURING PLACEMENT OF CONCRETE IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

2500 PSI CONCRETE WAS USED FOR DESIGN NO SPECIAL INSPECTION REQUIRED.

#### CONCRETE REINFORCING:

ALL REINFORCING BARS SHALL CONFORM TO ASTM A-615 GRADE 60, Fy=60,000 PSI MIN., UNLESS NOTED OTHERWISE. BARS SHALL BE TIED SECURE PRIOR TO PLACEMENT OF CONCRETE TO MAINTAIN PROPER PLACEMENT AFTER CONCRETE IS IN PLACE. LAP ALL BARS 40 DIAMETERS UNLESS NOTED OTHERWISE. SPLICE BARS ONLY WHERE SHOWN ON PLANS.

MAINTAIN THE FOLLOWING CONCRETE COVERAGES FOR CONCRETE REINFORCING:

SLABS AND WALLS NOT EXPOSED TO WEATHER......1 1/2" CLEAR DISTANCE BETWEEN BARS..... .....2" U.N.O.

SHOP DRAWINGS OF ALL BARS AND LOCATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. NORMAL WEIGHT CONCRETE SHALL HAVE A UNIT WEIGHT OF POUNDS PER CUBIC FOOT. USE OF CALCIUM CHLORIDE IS NOT PERMITTED IN ANY CONCRETE MIXES. ALL OTHER ADDITIVES AND ADMIXTURES MUST HAVE THE WRITTEN APPROVAL OF THE ENGINEER. THE ENGINEER SHALL HAVE 10 BUSINESS DAYS TO REVIEW SHOP DRAWINGS.

# LAMINATED VENEER LUMBER:

ALL LAMINATED VENEER LUMBER SHALL CONFORM TO THE SPECIFICATIONS OF TRUSS JOIST MCMILLIAN CORPORATION FOR VENEER LUMBER, OR ENGINEER APPROVED EQUIVALENT. DESIGN VALUES SHALL MEET OR EXCEED THOSE PUBLISHED VALUES IN THE TRUSS JOIST MCMILLIAN PRODUCT GUIDE, LATEST EDITION. A COMPLETE SET OF STRUCTURAL SHOP DRAWINGS, INDICATING MEMBERS AND PLACEMENT SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO THE FABRICATION OF THE MEMBERS. THE ENGINEER SHALL HAVE 10 BUSINESS DAYS TO **REVIEW SHOP DRAWINGS.** 

## **PLYWOOD WEB JOIST:**

ALL WOOD I-JOIST SHALL CONFORM TO THE SPECIFICATIONS OF TRUSS JOIST MCMILLIAN CORPORATION FOR TJI JOISTS, OR ENGINEER APPROVED EQUAL. DESIGN VALUES SHALL MEET OR EXCEED THOSE PUBLISHED VALUES IN THE TRUSS JOIST MCMILLIAN TJI JOIST PRODUCT GUIDE, LATEST EDITION. A COMPLETE SET OF STRUCTURAL SHOP DRAWINGS, INDICATING MEMBERS AND PLACEMENT SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO THE FABRICATION OF THE JOISTS. THE ENGINEER SHALL HAVE 10 BUSINESS DAYS TO REVIEW SHOP DRAWINGS.

#### SHEATHING:

SHEATHING SHALL BE A.P.A. RATED, SEE PLAN FOR SPAN RATING AND THICKNESS SHEATHING INSTALLATION: ROOF AND FLOOR SHEATHING SHALL BE LAID WITH THE FACE GRAIN PERPENDICULAR TO THE FRAMING MEMBERS U.N.O. AND END JOINTS SHALL BE STAGGERED. WALL SHEATHING MAY BE APPLIED HORIZONTALLY OR

VERTICALLY. ALL NAILS SHALL BE COMMON WIRE NAILS U.N.O. EQUIVALENT PNEUMATIC DRIVEN NAILS MAY BE USED IF FASTENER MANUFACTURER HAS CURRENT I.C.C. APPROVAL. FASTENERS TO BE USED SHALL BE EOUIVALENT IN LATERAL AND WITHDRAWAL STRENGTH TO THE SIZE COMMON NAIL SPECIFIED.

#### **ROOF SHEATHING:**

EDGE BLOCKING OF UNSUPPORTED EDGES OF SHEATHING AS NOTED ON PLANS. PLY CLIPS OR APPROVED EQUAL CONNECTOR SHALL BE INSTALLED AT MID SPAN BETWEEN EACH SUPPORT WHEN RAFTER SPACING EXCEEDS 16" AND EDGE BLOCKING IS NOT SPECIFIED.

AT INTERMEDIATE SUPPORTS, U.N.O.

#### FLOOR SHEATHING:

EDGE BLOCKING OF UNSUPPORTED EDGES OF SHEATHING AS NOTED ON PLANS.

TYPICAL NAILING SHALL BE 10d @ 6" O.C. ALL SUPPORTED EDGES AND OVER SHEAR WALLS, AND 10d @ 12" O.C. ALL INTERMEDIATE SUPPORTS U.N.O. USE RING SHANK NAILS.

ALL FLOOR SHEATHING SHALL BE GLUED TO JOISTS. THE FIELD-GLUED FLOOR SYSTEM SHALL BE INSTALLED ACCORDING TO THE RECOMMENDATION OF THE AMERICAN PLYWOOD ASSOCIATION. GLUE SHALL BE APPLIED TO THE JOISTS AND TO THE GROOVE IN THE EDGE OF THE T & G PANELS. GLUE SHALL MEET THE REQUIRE MENTS OF THE AMERICAN PLYWOOD ASSOCIATION ADHESIVE SPEC. AFG-D1 AND SHALL BE APPLIED AS DIRECTED BY THE GLUE MANUFACTURER. GLUE MAY BE APPLIED MANUALLY OR WITH PNEUMATIC OF ELECTRIC EQUIPMENT.

# **ROUGH CARPENTRY:**

FRAMING LUMBER SHALL MEET THE FOLLOWING MINIMUM STANDARD U.N.O. USE SPECIES GRADE SILL PLATES 2 x 4 H.F. STANDARD OR BETTER. 2 x 6, 2 x 8 H.F NO. 2 OR BETTER. ALL SILL PLATES IN CONTACT WITH CONCRETE OR MASONRY, SHALL BE PRESSURE TREATED OR CALIFORNIA REDWOOD.

HORIZONTAL FRAMING LUMBER: (UNO) 4x4 AND SMALLER 2x ROOF JOISTS & RAFTERS 2x FLOOR JOISTS 3x LEDGERS 4x HEADERS & BEAMS 6x6 & LARGER BEAMS

VERTICAL FRAMING LUMBER: (U.N.O.) ALL STUDS NO. 2 H.F. ALL POSTS H.F. NO. 1 ALL OTHER LUMBER U.N.O H.F. STANDARD OR BETTER.

PROVIDE A MINIMUM OF (2) STUDS UNDER ALL BEAM BEARING LOCATIONS UNO. PROVIDE A MINIMUM OF (3) STUDS UNDER ALL GIRDER TRUSS BEARING LOCATIONS UNO. WHERE POSTS OR MULTIPLE STUDS UNDER BEAMS OR HEADERS ARE IDENTIFIED ON DRAWINGS, THOSE POSTS OR MULTIPLE STUDS SHALL BE CARRIED TO THE FOUNDATION. BLOCK JOISTS AT ALL SUPPORTS. DOUBLE JOISTS UNDER PARALLEL PARTITIONS. BLOCK UNDER PERPENDICULAR PARTITIONS AT 32" O.C.

JOISTS HANGERS AND OTHER METAL FRAMING ACCESSORIES ARE REFFERD TO ON PLANS BY PARTICULAR TYPE AS MANUFACTURED BY SIMPSON COMPANY, SAN LEANDRO CALIFORNIA. ACCESSORIES OF OTHER MANUFACTURER WITH EQUIVALENT LOAD CARRYING CHARACTERISTICS MAY BE USED, WHEN APPROVED BY ENGINEER.

BOLTS: HOLES IN WOOD 1/16" OVERSIZE MAX. USE WASHERS AGAINST WOOD. RETIGHTEN ALL BOLTS BEFORE CLOSING IN. PRE-DRILL HOLES FOR LAG BOLTS AND TURN BOLTS INTO HOLES, DO NOT DRIVE-IN. FIRE STOPPING, BACKING FOR INTERIOR FINISHES, NON-BEARING WALLS AND OTHER NON-STRUCTURAL FRAMING IS NOT NECESSARILY SHOWN ON THE STRUCTURAL DRAWINGS.

SEE FASTENING SCHEDULE (U.N.O.) PER IBC 2018 TABLE 2304.10.1

TYPICAL NAILING SHALL BE 8d @ 6" O.C. AT SUPPORTED EDGES AND OVER SHEAR WALLS AND 8d AT 12" O.C.

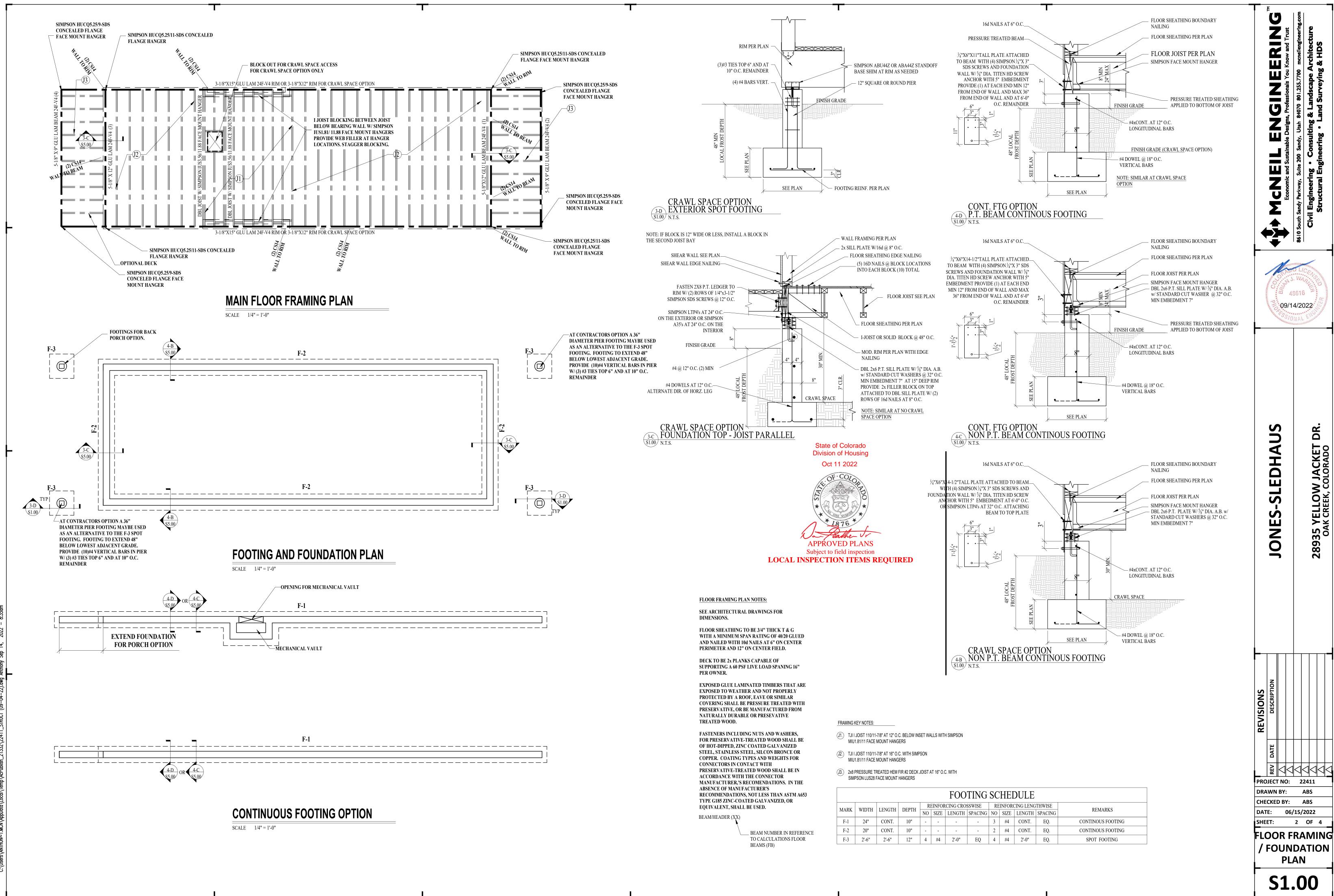
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H.F.	NO. 2
H.F.	NO. 2
H.F.	NO. 2
H.F.	NO. 1
H.F.	NO. 1
H.F.	NO. 1

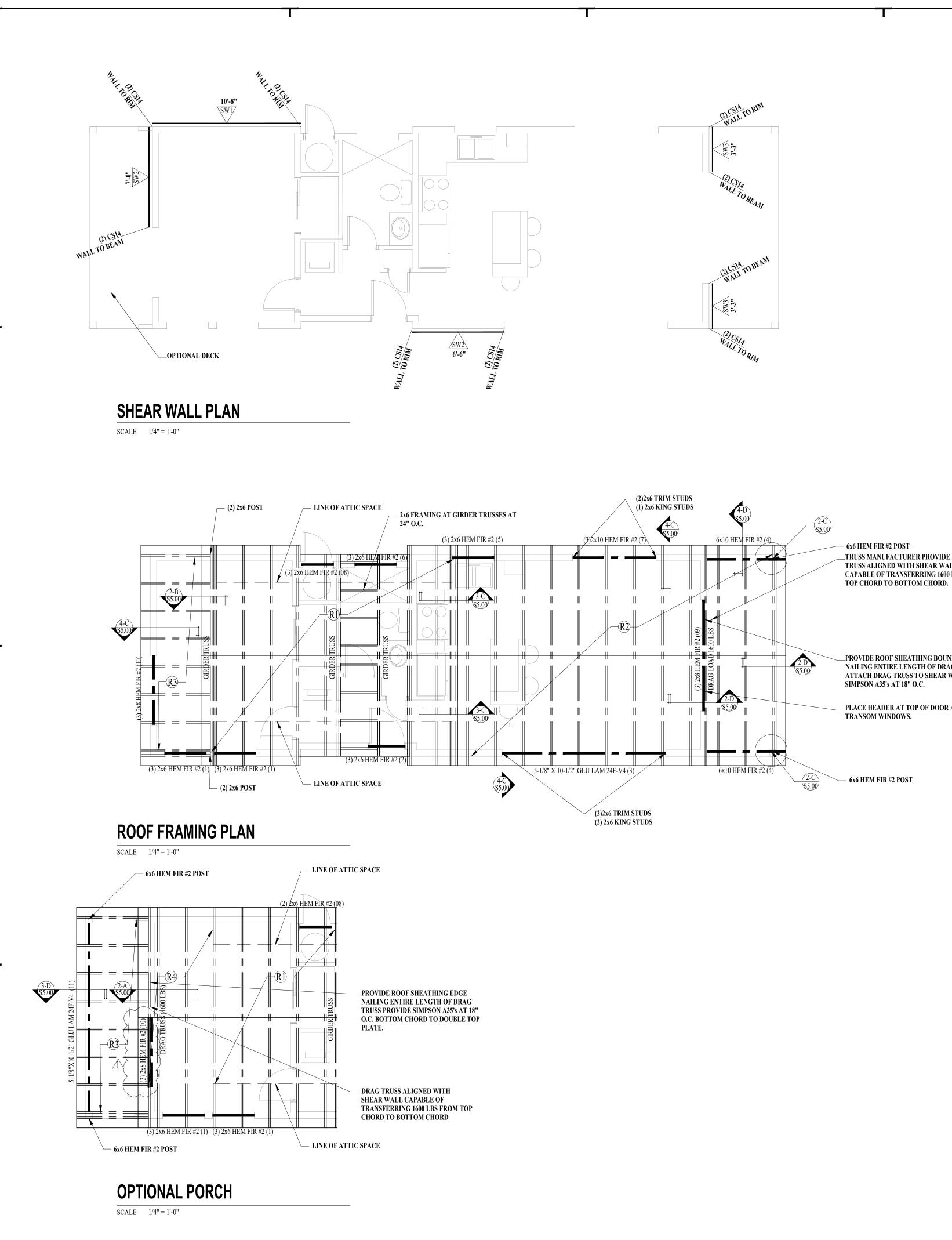


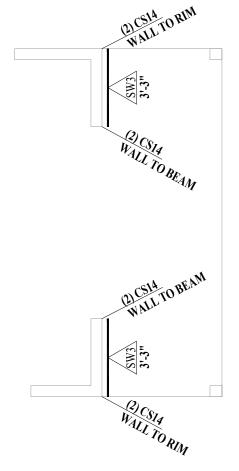
# OF.COL APPROVED PLANS Subject to field inspection

LOCAL INSPECTION ITEMS REQUIRED

	Economic and Sustainable Designs, Professionals You Know and Trust	8610 South Sandy Parkway, Suite 200 Sandy, Utah 84070 801.255.7700 mcneilengineering.com	Civil Engineering • Consulting & Landscape Architecture Structural Engineering • Land Surveying & HDS	
	09/14	28935 YELLOW JACKET DR. OAK CREEK, COLORADO		
REVISIONS REVISIONS REVISIONS BESCRIPTION CHECKE DATE: SHEET:		A		







TRUSS MANUFACTURER PROVIDE DRAG TRUSS ALIGNED WITH SHEAR WALLS CAPABLE OF TRANSFERRING 1600 LBS FROM

**\_\_PROVIDE ROOF SHEATHING BOUNDARY** NAILING ENTIRE LENGTH OF DRAG TRUSS ATTACH DRAG TRUSS TO SHEAR WALLS WITH

\_PLACE HEADER AT TOP OF DOOR AND BELOW

APPROVED PLANS Subject to field inspection LOCAL INSPECTION ITEMS REQUIRED

State of Colorado

Division of Housing

Oct 11 2022

THIC MARK TYPE OSB/CDX OSB/CDX OSB/CDX OSB/CDX OSB/CDX OSB/CDX OSB/CDX FLOOR T&G ROOF CDX 5/8"

CENTER. 4. STAPLES MAY NOT BE USED AS A SUBSTITUTE FOR NAILS. SHEAR WALL PLAN LEGEND: X'-XX''

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EITHER SIDE OF THE WALL

DETAIL 1-A/S5.10

FRAMING KEY NOTES:

(R1.) PREFABRICATED ATIC ROOF TRUSSES AT MAX SPACING 24" O.C. DESIGN TRUSS W/ 20 PSF LIVE LOAD AND 10 PSF DEAD LOAD AT BOTTOM CHORD.

(R2) PREFABRICATED SCISSOR TRUSSES AT MAX SPACING OF 24" O.C.

(R3) PREFABRICATED MONO TRUSSES AT A MAX SPACING OF 24" O.C.

(R4) PREFABRICATED ROOF TRUSS AT A MAX SPACING 24" O.C.

FRAMING PLAN NOTES:

SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS.

ALL EXTERIOR WALL FRAMING AND INTERIOR BEARING WALL FRAMING SHALL BE 2x6 HEM FIR STUD GRADE FRAMING AT 16" O.C. UNLESS NOTED OTHERWISE

ROOF SHEATHING TO BE 5/8" OSB WITH A MIN SPAN RATING OF 40/20 NAILED WITH 8d NAILS AT 6" ON CENTER PERIMETER AND 12" ON CENTER

FIELD. ATTIC FLOOR SHEATHING TO BE 3/4" THICK T & G WITH A MINIMUM SPAN RATING OF 40/20 GLUED AND NAILED WITH 10d NAILS AT 6" ON

CENTER PERIMETER AND 12" ON CENTER FIELD. BEAM/HEADER (XX)

> \_\_\_\_ BEAM NUMBER IN REFERENCE TO CALCULATIONS ROOF BEAMS (RB OR LB)

# SHEATHING NAILING SCHEDULE

HICKNESS	ESS SPAN RATING	NAILING					REMARKS
IICKINESS		SIZE	BLOCKED	EDGE	BOUNDRY	FIELD	KLMARK5
7/16"	32/16	8d	YES	6	6	12	-
7/16"	32/16	8d	YES	4	4	12	-
7/16"	32/16	8d	YES	3	3	12	-
7/16"	32/16	8d	YES	2	2	12	-
7/16"	32/16	8d	YES	4	4	12	SHEATHING TO BE APPLIED TO EA. FACE OF WALL
7/16"	32/16	8d	YES	3	3	12	SHEATHING TO BE APPLIED TO EA. FACE OF WALL
7/16"	32/16	8d	YES	2	2	12	SHEATHING TO BE APPLIED TO EA. FACE OF WALL
3/4"	40/20	10d	NO	6	6	12	-
5/8"	40/20	8d	NO	6	6	12	-

1. NAILS FOR SW WALLS MAY BE BOX NAILS. NAILS FOR FLOOR AND ROOF TO BE COMMON TYPE.

2. WHERE SHEATHING IS APPLIED TO EACH FACE OF WALL AND NAIL SPACING IS LESS THAN 6" O.C., PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS.

3. WHERE NAIL SPACING IS 3" O.C. OR LESS, FOUNDATION SILL PLATES ALL LOCATIONS WITH NO RIM JOST AND ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT BE LESS THAN A SINGLE 3" NOMINAL MEMBER OR DOULBE 2X MEMBERS. STITCH NAIL THE DOUBLE MEMBER WITH TWO ROWS OF 10d COMMON NAILS AT 4" ON

- INDICATES SHEAR WALL TYPE AND LENGTH SHEATHING MAYBE PLACE ON

- INDICATES LOCATION OF SIMPSON CS14 FLOOR TO BEAM STRAP SEE

