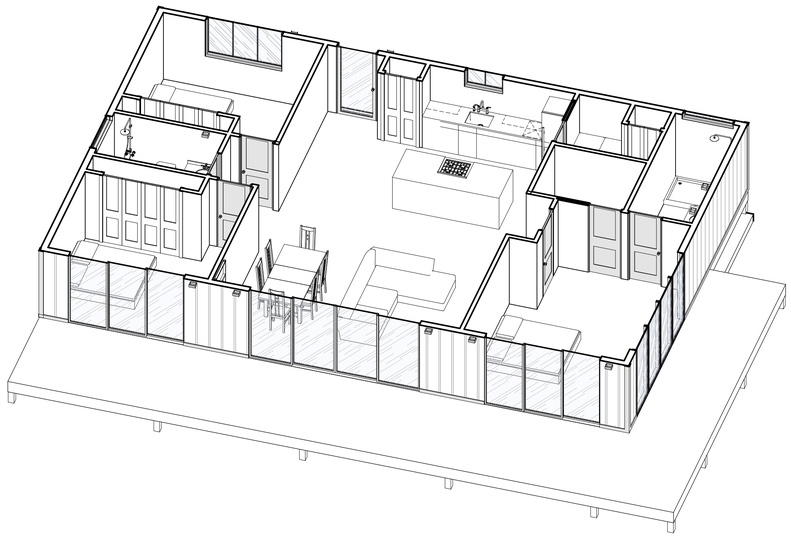
30X46 LEAN COTTAGE



NOTE: IF CONFLICT WITH NOTES ON PLANS, MOST RESTRICTIVE REQUIREMENTS WOULD GOVERN:

- 2X6 FRAMING TO BE STUD GRADE.
- 2X4 LIGHT FRAMING TO BE STUD GRADE.
- JOIST AND RAFTERS TO BE NO.1 D.F. (DOUG FIR.) – LARCH.
- BEAMS, STRINGERS AND HEADERS TO BE NO.1 D.F. – LARCH.
- POSTS AND TIMBERS BE NO.1 D.F. –LARCH.
- UNLESS OTHERWISE SPECIFIED, TIMBER SHALL BE DOUG FIR AND SHALL CONFORM TO W.C.L.I.B STANDARD GRADING AND DRESSING, RULES.

1. ALL STRUCTURAL: BEAM/BEAM, BEAM/COLUMN AND COLUMN/FOUNDATION JOINTS MUST BE POSITIVELY CONNECTED WITH SIMPSON OR EQUIVALENT CONNECTORS REGARDLESS OF LACK OF CONNECTION DETAILING ON PLANS. STANDARD CONNECTIONS U.O.N SIMPSON OR EQUIVALENT: BEAM/COLUMN "CC" BEAM/BEAM – "HUFT", COLUMN/PAD FOOTING – "CB"
2. COMBINATION LED LIGHT/VENT FAN, CAPABLE OF 5 AIR CHANGES/HOUR, AT INTERIOR BATHROOMS, OR ADD WHERE EXTERIOR BATHROOM WINDOW IS.
3. THE FOLLOWING SHALL APPLY FOR:
   A. WATER CLOSETS: 1.6 GPF
   B. SHOWER HEADS: 2.5 GPM
   C. LAUNDRY FAUCETS: 2.2. GPM
   D. SINK FAUCETS: 2.2 GPM
4. ALL HOSE BIBS ARE REQUIRED TO BE PROTECTED WITH A PERMANENTLY ATTACHED ATI–SIPHON DEVICE. MIN. 1 HOSE BIB REQUIRED FRONT AND BACK.
5. GROUND FAULT INTERCEPTOR PROTECTION (GFI) FOR ALL EXTERIOR RECEPTACLES, IN BATHROOMS, IN UNFINISHED BASEMENTS/CRAWL SPACES, IN GARAGES AND AT COUNTER TOP IN KITCHENS OR AT BAR SINKS.
6. SWITCHED LIGHT FIXTURE IN EVERY HABITABLE ROOM, BATHROOM, STAIRWAY, HALL, ATTACHED GARAGE AND AT OUTDOOR ENTRANCES.
7. PROVIDE 2 GFI PROTECTED EXTERIOR RECEPTACLES, WEATHER PROOF W/BUBBLE COVER ON AT THE REAR AND FRONT OF EACH DWELLING UNIT.
8. OUTLETS ARE REQUIRED FOR KITCHEN COUNTER SPACE 12" AND WIDER IN SUCH A MANNER THAT NO POINT ALONG THE WALL IS MORE THAN 2' FROM OUTLET OR MORE THAN 4' FOR ISLAND AND PENINSULA COUNTERS.
9. OUTLETS FOR WALL SPACES 2' AND WIDER AT MAXIMUM 12' O.C. SO THAT NO POINT ALONG A WALL, FIXED GLASS, OR GUARD RAIL IS MORE THAN 6' FROM OUTLETS.
10. A DEDICATED 20 AMP BRANCH CIRCUIT FROM BATHROOM RECEPTACLES IS REQUIRED.
11. WATER HEATER WILL BE SECURELY STRAPPED TO WALL WITH TWO STRAPS. ONE WITHIN 1/3 OF TOP ON 1/3 OF BOTTOM. ELEVATE WATER HEATER MIN, 18" ABOVE FLOOR ON 1 HR. PANE PEDESTAL.
12. PROVIDE APPROVED SMOKE DETECTORS.
13. SHOWERS SHALL BE FINISHED 70" ABOVE DRAIN WITH MATERIALS NOT ADVERSELY AFFECTED BY MOISTURE.
14. SAFETY GLAZING IS REQUIRED AT WARDROBE DOORS, SHOWER DOORS, AND WINDOWS AT BATH TUBS AND SHOWERS AND WITHIN 2' OF DOORS.
15. PROVIDE DOUBLE TOP PLATE WITH 48" LAP SPLICES STRAPPED WITH SIMPSON STRAP ST6224.
16. PROVIDE FIRE BLOCKING, VERTICAL OR HORIZONTAL, SHALL CONFORM TO IRC R302.11.
17. ROOF SHEATHING: CDX STRUCTURAL 1 PLYWOOD OR APA RATED O.S.B. WITH NAILING PER AT ROOF FRAMING PLAN.
18. ALL GLAZING SHALL BE DUAL GLAZED TO MEET THE ENERGY CODE STANDARDS.
19. PROVIDE R–19 IN THE EXTERIOR WALLS, PROVIDE R–38 IN THE ROOF OR CEILING UNLESS OTHERWISE RECOMMENDED BY CERTIFIED ENERGY REPORT OR LOCAL CODE REQUIREMENTS.
20. DRYER VENT SHALL BE 4" SMOOTH ROUND METAL, MAX. LENGTH OF 14" WITH 90 DEGREE BENDS. ANY DEVIATION SHALL BE ENGINEERED AND APPROVED BY MECHANICAL UNIT.
21. PROVIDE PLUMBING ACCESS PANEL AT ALL TUBS PER PLUMBING CODE.
22. ALL GLASS AT TUBS AND SHOWERS SHALL BE TEMPERED SAFETY GLASS.
23. PROVIDE VENTILATION AT ALL BATHS AND UTILITY ROOMS THROUGH NATURAL OR MECHANICAL MEANS AS INDICATED.
24. AN APPROVED CARBON MONOXIDE ALARM SHALL BE INSTALLED IN DWELLING UNITS AS INDICATED

SHEET INDEX

BUILDING INFORMATION:

FIRST FLOOR SF:	1380 SQ. FT.
PORCH/ PATIO:	565 SQ. FT.
LOFT:	145 SQ. FT.
MAX HEIGHT:	16'-7"
DIMENSIONS: L X W	30'-0" x 46'-0"
ROOF PITCH:	3:12
STRUCTURE:	LIGHT TIMBER FRAMING
BEDROOMS:	3
BATHROOMS:	2

30X46 LEAN COTTAGE

Designer: Designer

Drawn By: Author

NOTES

1. Plans are copyrighted and inteded for personal builds only
2. Review Plans with your local builder or engineer to make sure it is suitable for your site and local requirements
3. Printable sheet size is 36"x24"

REVISIONS

SCALE:

COVER PAGE

Sheet No.

A0

DIV I - GENERAL REQUIREMENTS

THE WORK SHALL COMPLY WITH ALL APPLICABLE LOCAL AND STATE CODES, ORDINANCES, REGULATIONS AND AMENDMENTS AND ALL OTHER AUTHORITIES HAVING JURISDICTION. THE WORK SHALL COMPLY WITH INTERPRETATIONS OF THE LOCAL BUILDING OFFICIAL. IF THE INTERPRETATION OF THE LOCAL BUILDING OFFICIAL IS AT VARIANCE WITH THESE DOCUMENTS, INFORM THE ARCHITECT PRIOR TO PROCEEDING.

<u>CONSTRUCTION METHODS AND TECHNIQUES</u> - THE ARCHITECT IS NOT RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES, OR FOR SAFETY MEASURES IN CONNECTION WITH THE WORK AND SHALL NOT BE HELD RESPONSIBLE FOR THE CONTRACTORS, SUBCONTRACTORS OR ANYONE PERFORMING THE WORK, TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

<u>FIELD CONDITIONS AND DIMENSIONS</u> - ON-SITE VERIFICATION OF ALL DIMENSIONS AND CONDITIONS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND HIS SUBCONTRACTORS. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. ARCHITECT SHALL BE NOTIFIED PROMPTLY OF ANY DISCREPANCIES IN INFORMATION AND OF ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND INFORMATION ON THE DRAWINGS PRIOR TO CONSTRUCTION

<u>TYPICAL CONDITIONS</u> - THE GENERAL NOTES AND TYPICAL DETAILS APPLY THROUGHOUT THE JOB UNLESS INDICATED OTHERWISE. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN OR DETAILED, THE CHARACTER AND QUALITY OF THE WORK SHALL BE THE SAME AS THAT INDICATED FOR SIMILAR CONDITIONS.

<u>COORDINATION OF WORK</u> - THE CONTRACTOR SHALL COORDINATE AND COMPARE ALL DRAWINGS BETWEEN THE DIFFERENT CONSULTANTS AND TRADES AND SHALL PROMPTLY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES THAT MAY BE FOUND.

<u>STRUCTURAL NOTES</u> - IN CASE OF ANY DISCREPANCIES BETWEEN THESE NOTES AND NOTES ON THE STRUCTURAL DRAWINGS, THE NOTES FOUND ON THE STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE.

<u>TEMPORARY BRACING</u> - USE TEMPORARY BRACING AS REQUIRED TO STABILIZE BASEMENT AND FOUNDATION WALLS AND SUPERSTRUCTURE UNTIL PERMANENT CONSTRUCTION IS IN PLACE.

THE STRUCTURAL INTEGRITY OF THE BUILDING IS DEPENDENT UPON COMPLETION ACCORDING TO PLANS AND SPECIFICATIONS. THE ARCHITECT AND STRUCTURAL ENGINEERS ASSUME NO LIABILITY FOR THE STRUCTURE DURING CONSTRUCTION. THE METHOD OF CONSTRUCTION AND SEQUENCE OF OPERATIONS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL SUPPLY ANY NECESSARY SHORING, BRACING, STRUTS, GUYS, ETC. TO PROPERLY BRACE THE STRUCTURE AGAINST WIND, DEAD AND LIVE LOADS UNTIL THE BUILDING IS COMPLETED ACCORDING TO THE PLANS AND SPECIFICATIONS. CONTRACTOR SHALL NOT PLACE BACK-FILL AGAINST BASEMENT WALLS UNTIL THE FLOOR SYSTEM IS COMPLETELY INSTALLED OR CONTRACTOR HAS PROVIDED ADEQUATE SHORING AND BRACING. ANY QUESTIONS REGARDING TEMPORARY BRACING REQUIREMENTS SHOULD BE FORWARDED TO A STRUCTURAL ENGINEER FOR REVIEW.

MECHANICAL UNITS AND ANY OTHER EQUIPMENT SUPPORTED BY THE STRUCTURE WITH WEIGHTS IN EXCESS OF 200 POUNDS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION.

<u>PRODUCT LITERATURE AND MANUFACTURER'S RECOMMENDATIONS</u> COMPLY WITH THE MANUFACTURER'S OR FABRICATOR'S INSTRUCTIONS OR RECOMMENDATIONS FOR THE PREPARATION OF SUBSTRATES AND INSTALLATION AND USE OF MATERIAL.

<u>SOIL TREATMENT FOR TERMITE CONTROL (IF APPLICABLE)</u> APPLY TOXICANT TO SOIL IN ENTIRE AREA TO BE OCCUPIED BY STRUCTURE AND TO 2' BEYOND PERIMETER LINE OF STRUCTURE. USE APPROVED TOXICANT WITH A FIVE YEAR GUARANTEE. NOTE: THIS ITEM MAY BE WAIVED IF SITE CONDITIONS DO NOT WARRANT IT AND WITH OWNERS APPROVAL.

<u>FIRE RATED ASSEMBLIES</u> - IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND HIS SUBCONTRACTORS TO VERIFY AND CONSTRUCT ALL RATED ASSEMBLIES TO COMPLY EXACTLY WITH THE REQUIREMENTS OF THE TEST REPORTS LISTED. THE ARCHITECT SHALL BE NOTIFIED PROMPTLY OF ANY CHANGE IN MATERIALS PRIOR TO CONSTRUCTION AND ANY CHANGES IN MATERIALS MUST HAVE THE PRIOR APPROVAL OF THE ARCHITECT. ALL FIRE RATED ASSEMBLIES ARE CONTINUOUS UNLESS OTHERWISE NOTED. ASSEMBLY MATERIALS SHALL TAKE PRECEDENCE OVER MATERIALS SPECIFIED IN THESE DRAWINGS.

<u>RADON TESTING</u> - CONTRACTOR TO INVESTIGATE SITE AND CONDUCT NECESSARY TEST TO ENSURE THAT RADON GAS DOES NOT EXCEED SAFE LIMITS AS MANDATED BY STATE OR LOCAL LAWS. NOTIFY ARCHITECT AND LOCAL JURISDICTIONAL AUTHORITIES BEFORE BEGINNING CONSTRUCTION FOR SPECIFIC DETAILS WHICH MAY BE REQUIRED.

MECHANICAL / PLUMBING / ELECTRICAL CONTRACTORS SHALL BE REQUIRED TO SEAL ALL HORIZONTAL AND VERTICAL PENETRATIONS IN THE EXTERIOR WALL CAUSED BY THEIR TRADE.

ALL SHEATHING PENETRATIONS CAUSED BY ERECTION SHALL BE PATCHED AND REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

DETAILS OF CONSTRUCTION OF ANY RETAINING WALL BUILT MUST BE SUBMITTED TO THE OFFICE OF THE BUILDING INSPECTOR FOR APPROVAL PRIOR TO CONSTRUCTION.

CRAWL SPACE SHALL BE PROVIDED UNDER FLOOR JOIST NOT LESS THAN 18" IN DEPTH, AND SUCH SPACE SHALL BE VENTED WITH SCREENED OPENINGS HAVING A CLEAR AREA OF NOT LESS THAN 1 SQUARE FOOT FOR EACH 150 SQUARE FEET OF CRAWL SPACE AREA.

GENERAL CONTRACTOR IS RESPONSIBLE TO LOCATE AND PROVIDE NECESSARY STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING SLEEVES, ANCHORS, VENT OPENING, ETC THAT MIGHT BE REQUIRED.

DIV II - EXISTING CONDITIONS - SITE WORK

THESE DRAWINGS DO NOT COVER SITE WORK, EXCAVATION, GRADING AND LANDSCAPING. REFER TO THE SITE DRAWINGS PREPARED BY THE CIVIL ENGINEER FOR THESE ITEMS.

<u>SOIL INVESTIGATION AND REPORT -</u> ALL EARTH WORK, COMPACTION AND SUPERVISION SHALL BE DONE ACCORDING TO THE RECOMMENDATIONS OF THE SOIL INVESTIGATION REPORT PREPARED BY A LICENSED GEOTECHNICAL ENGINEER. CONCRETE SLAB AND FOOTING CALCULATIONS ARE BASED ON SOIL BEARING CAPACITY NOTED UNDER "STRUCTURAL DESIGN LOADS". IF ON-SITE BORINGS REVEAL LESSER VALUES, NOTIFY THE ARCHITECT, IN WRITING.

<u>EXCAVATION</u> - SHALL BE SUFFICIENT TO PROVIDE FULL DESIGN DIMENSIONS OR TO ALLOW FOR FORMING AS REQUIRED. NO FOOTINGS SHALL BE PLACED ON FROZEN EARTH. NO FOOTING SHALL BE PLACED ON SOFT MATERIAL.

<u>BACKFILL AND COMPACTION</u> GRADED EARTH CONTAINING NO ORGANIC MATERIAL, TRASH, MUCK, ROOTS, LOGS, STUMPS, CONCRETE, ASPHALT, OR OTHER DELETERIOUS SUBSTANCES. BACKFILL SHALL BE - USE ONLY CLEAN, WELL COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED BY THE ASTM D698 STANDARD PROCTOR TEST. DO NOT BACKFILL AGAINST BASEMENT WALLS UNTIL SUPER STRUCTURE IS IN PLACE. PRIOR TO PLACING FILL, THE EXISTING SURFACE SHALL BE CLEARED OF ALL REFUSE OR ORGANIC MATERIALS. BACKFILL IN LAYERS OF 6"-8" EACH. ALL SOIL FILL MATERIAL MUST BE APPROVED BY SOILS ENGINEER PRIOR TO PLACEMENT.

DIV III - CONCRETE

<u>CONCRETE/FOUNDATIONS</u> - ALL REINFORCED CONCRETE TO BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE ACI 318
SEE STRUCTURAL DRAWINGS FOR ADDITIONAL SPECIFICATIONS

<u>INSPECTIONS</u> - FOOTING EXCAVATIONS SHALL BE INSPECTED BY THE BUILDING OFFICIAL PRIOR TO THE PLACING OF ANY CONCRETE. THE BUILDING OFFICIAL SHALL BE GIVEN NOTICE FOR THIS INSPECTION.

<u>DRAINAGE OF FOOTINGS</u> - UNLESS OTHERWISE NOTED PROVIDE PERIMETER BASEMENT WALLS WITH 4" OR 6" DIAMETER PERFORATED CORRUGATED PLASTIC DRAIN LAID ON 2" GRAVEL BASE W/ 6-8" GRAVEL COVER WITH JOINTS COVERED WITH FILTER CLOTH FOR PERFORATED TILE. SLOPE DRAIN TILE AS REQUIRED TO DRAIN TO STORM SEWER OR OUTFALL. PUT 18" OF GRAVEL ALL AROUND FOUNDATION.PROVIDE FREE DRAINING, GRANULAR BACKFILL WITH A MAXIMUM EQUIVALENT FLUID PRESSURE = 30 PSF PER FOOT OF DEPTH AGAINST BASEMENT & RETAINING WALLS. IF BACK-FILL PRESSURE EXCEEDS 30 PSF THEN WALL MUST BE DESIGNED FOR ACTUAL PRESSURES BY STRUCTURAL ENGINEER.

<u>DAMPPROOFING FOR CONCRETE AND MASONRY FOUNDATIONS</u> - EXTERIOR FOUNDATION WALLS OF MASONRY CONSTRUCTION ENCLOSING BASEMENTS SHALL BE DAMPPROOFED BY APPLYING NOT LESS THAN 3/8" OF PORTLAND CEMENT PARGING TO THE WALL FROM FOOTING TO FINISH GRADE. THE PARGING SHALL BE COVERED WITH A COAT OF APPROVED BITUMINOUS MATERIAL APPLIED AT THE RECOMMENDED RATE. EXTERIOR FOUNDATION WALLS OF CONCRETE CONSTRUCTION ENCLOSING BASEMENTS SHALL BE DAMPPROOFED BY APPLYING A COAT OF APPROVED BITUMINOUS MATERIAL TO THE WALL FROM THE FOOTING TO THE FINISH GRADE LINE AT THE RECOMMENDED RATE. FOUNDATION WALLS OF HABITABLE ROOMS LOCATED BELOW GRADE SHALL BE WATERPROOFED WITH MEMBRANES EXTENDING FROM THE EDGE OF THE FOOTING TO THE FINISH GRADE LINE. THE MEMBRANE SHALL CONSIST OF EITHER 2-PLY HOT-MOPPED FELTS, 6-MIL POLYVINYL CHLORIDE, 55 POUND ROLL ROOFING OR EQUIVALENT MATERIAL. THE LAPS IN THE WATERPROOFING MEMBRANE SHALL BE SEALED AND FIRMLY AFFIXED TO THE WALL. FOUNDATION WALL MAY BE DAMPPROOFED OR WATERPROOFED USING MATERIALS OR METHODS OF CONSTRUCTION OTHER THAN COVERED IN THIS SECTION WHERE APPROVED BY THE BUILDING OFFICIAL.

<u>REINFORCING</u> - SEE STRUCTURAL DRAWINGS FOR LOCATIONS AND SIZE ORE REINFORCING STEEL. FURNISH SUPPORT BARS AND ALL REQUIRED ACCESSORIES IN ACCORDANCE WITH CRSI STANDARDS.

NO CONCRETE SHALL BE POURED INTO TRENCHES CONTAINING STANDING WATER OR MUD. FOOTINGS SHALL BE DEWATERED PRIOR TO PLACEMENT OF CONCRETE. NO CONCRETE SHALL BE PLACED UNTIL ALL REINFORCING HAS BEEN INSTALLED BY THE CONTRACTORS AND INSPECTED BY THE APPROPRIATE BUILDING OFFICIAL(S).

MINIMUM PROTECTIVE COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

CONCRETE STRUCTURE	MIN COVERAGE
1. FOOTINGS	3IN
2. BEAMS/COLUMNS	2IN
3. FLOOR SLABS	
REFINFORCING BARS	3/4"
WELDED WIRE MESH	MID-SLAB
4. FOUNDATION WALLS	
INTERIOR FACE	1IN
EXTERIOR WALL	3IN

<u>WATERPROOFING AND DRAIN TILES</u> - AT POURED CONCRETE EXTERIOR FOUNDATION WALLS THAT ENCLOSE HABITABLE OR USABLE SPACE, WATERPROOF THE FOUNDATION WALLS WITH A MEMBRANE EXTENDING FROM THE TOP OF THE FOOTING TO FINISH GRADE. THE MEMBRANE SHALL CONSIST OF 2-PLY HOT MOPPED FELTS WITH JOINTS LAPPED AND SEALED - OR SHALL BE OF OTHER CODE APPROVED SYSTEM. FOR OTHER SYSTEMS, CONTRACTOR SHALL PROVIDE LITERATURE TO ARCHITECT AND COUNTY AUTHORITIES FOR REVIEW AND APPROVAL.

DRAINS SHALL BE PROVIDED AROUND ALL CONCRETE AND MASONRY FOUNDATIONS THAT RETAIN EARTH AND ENCLOSE HABITABLE OR USABLE SPACES LOCATED BELOW GRADE INCLUDING CELLARS AND CRAWL SPACES WHERE GRADE IS LOWER THAN EXTERIOR. LAY DRAIN TILE [PERFORATED 4" DIAMETER PVC PIPE] IN VDOT NO. 57 GRAVEL. THE GRAVEL SHALL EXTEND 1' - 0" MINIMUM BEYOND THE OUTSIDE EDGE OF THE FOOTING AND 6" ABOVE THE TOP OF THE FOOTING. GRAVEL SHALL BE COVERED WITH AN APPROVED FILTER MEMBRANE. PERFORATED PIPE SHALL BE PLACED ON 2" GRAVEL AT LEAST ONE SIEVE SIZE LARGER THAN THE PERFORATIONS AND COVERED WITH 6" MINIMUM OF THE SAME MATERIAL. BE SURE THAT BACKFILL HAS BEEN WELL COMPACTED BEFORE GRAVEL IS PLACED. THE GRAVEL FILTER SHALL BE COMPLETELY COVERED WITH GEOTEXTILE FABRIC [EOS NO. 70 SIEVE, GRADIENT 2 OR LESS]. OTHER CODE APPROVED DRAINAGE SYSTEMS MAY BE USED. FOR OTHER SYSTEMS, CONTRACTOR SHALL PROVIDE LITERATURE TO ARCHITECT AND COUNTY AUTHORITIES FOR REVIEW AND APPROVAL.

DRAIN TO DAYLIGHT OR A SUMP PUMP PER THE ENGINEER'S DRAWINGS. FILTER FABRIC SHALL HAVE AN OPEN AREA OF 40% OR LESS AND AN EQUIVALENT OPENING SIZE OF A NO. 40 SIEVE.

DIV IV - UNIT MASONRY

BRICK SHALL BE MADE FROM CLAY OR SHALE AND CONFORM TO ASTM SPECIFICATION C62.FOR FOUNDATIONS, WORK BELOW GRADE AND WORK IN CONTACT WITH EARTH, USE GRADE SW. USE GRADE MW FOR EXTERIOR WALL ABOVE GRADE AND GRADE NW FOR INTERIOR WALLS AND FOR BACK UP OF WALLS FACED WITH FACING BRICK. ALL MATERIALS TO BE USED ARE TO MEET ASTM OR PUBLISHED STANDARDS ACCEPTED BY THE ASTM.

USE TYPE M MORTAR FOR BELOW GRADE APPLICATIONS AND TYPE S MORTAR FOR ALL OTHER APPLICATIONS. MASONRY CEMENT SHALL CONFORM TO ACCEPTED PRACTICE FOR MASONRY. MIX ALL CEMENTITIOUS MATERIALS AND SAND IN A MECHANICAL BATCH MIXER FOR A MINIMUM OF FIVE (5) MINUTES. ADJUST THE CONSISTENCY OF THE MORTAR TO THE SATISFACTION OF THE MASON. ALL MORTAR SHALL BE USED WITHIN 2-1/2 HOURS OF THE INITIAL MIXING AND SHALL NOT BE USED AFTER IT HAS BEGUN TO SET.

MATERIALS SHALL CONFORM TO THE FOLLOWING STANDARDS:
1. MORTAR: ASTM C270-12A
2. HOLLOW CMU: ASTM C90-13
3. FACE BRICK: ASTM C216-13

ALL MASONRY WORK SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF ACI 530.1-13 AND ASCE 6-13.
ALL MASONRY SHALL BE PROTECTED FROM FREEZING FOR NOT LESS THAN 48 HOURS AFTER INSTALLATION AND SHALL NOT BE LAID IN TEMPERATURES BELOW 35 DEGREES FAHRENHEIT WITHOUT PRECAUTIONS NECESSARY TO PREVENT FREEZING.NO ANTIFREEZE ADMIXTURES SHALL BE ADDED TO MORTAR.

BRICK VENEER SHALL BE ATTACHED TO WOOD FRAMING WITH CORROSION-RESISTANT 22-GAGE CORRUGATED GALVANIZED METAL TIES [MINIMUM 7/8" WIDE]. PLACE TIES VERTICALLY AT 24" O.C. AND HORIZONTALLY AT 24" O.C. AND SHALL SUPPORT NOT MORE THAN 2.67 SQUARE FEET OF WALL AREA. PROVIDE 1" MINIMUM AIR SPACE BETWEEN VENEER AND SHEATHING.

PROVIDE 15 LB ASPHALT FELT OVER SHEATHING AS A MOISTURE BARRIER AND PROVIDE WEEP HOLES FOR DRAINAGE THROUGH ONE VERTICAL BRICK JOINT AT 33" O.C. AND NOT LESS THAN 3/16" IN DIAMETER.
LOCATE WEEP HOLES IMMEDIATELY ABOVE ALL FLASHING.

LOCATE FLASHING BENEATH THE FIRST COURSE OF MASONRY ABOVE FINISH GRADE ABOVE THE FOUNDATION WALL OR SLAB AND AT OTHER POINTS OF SUPPORT INCLUDING STRUCTURAL FLOORS, SHELF ANGLES, AND LINTELS.

DIV VI - WOODS

<u>LUMBER</u> - ALL EXTERIOR LUMBER (DECKS, HANDRAILS, ETC.) AND LUMBER THAT IS IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESERVATIVE TREATED IN ACCORDANCE WITH AWPA STANDARDS AND STAMPED "GROUND CONTACT 0.40 LBS/CUBIC FOOT."

NO STRUCTURAL MEMBER SHALL BE OMITTED, NOTCHED, CUT, BLOCKED OUT, OR RELOCATED WITHOUT THE PRIOR APPROVAL OF THE ARCHITECT.

JOISTS, RAFTERS, AND BEAMS SHALL BE SET WITH THE CROWN EDGE UP. DOUBLE JOISTS/RAFTERS TO FORM HEADERS AND TRIMMERS AROUND ROUGH OPENINGS AS REQUIRED, PROVIDING BLACKING OR SUITABLE EDGE SUPPORT BETWEEN MEMBERS WHERE NECESSARY.

THE ENDS OF EACH JOIST, BEAM, OR GIRDER SHALL HAVE NOT LESS THAN 1.5" OF BEARING ON WOOD OR METAL AND NOT LESS THAN 3" ON MASONRY OR CONCRETE EXCEPT WHERE SUPPORTED ON A 1" X 4" RIBBON STRIP AND NAILED TO THE ADJACENT STUD OR BY USE OF APPROVED JOIST HANGERS. GRADE STAMPS SHALL APPEAR ON ALL LUMBER.

STORE ALL LUMBER ABOVE GRADE AND PROTECT FROM EXPOSURE FROM WEATHER.
FLOOR FRAMING MEMBERS WITH CERAMIC TILE OR HARDWOOD FINISH FLOORS SHALL BE FRAMED A MAXIMUM OF 19.2" O.C.ALL OTHER AREAS SHALL BE FRAMED AT A MAXIMUM OF 24" O.C.

<u>FIRE RETARDANT TREATED PLYWOOD AND DIMENSIONAL LUMBER (WHERE APPLICABLE)</u> - IF FIRE RETARDANT TREATED PLYWOOD IS APPLIED TO A STRUCTURE ,(FIRE RETARDANT PLYWOOD MUST BE APPLIED 4' TO EITHER SIDE OF FIRE WALLS OR PARTY WALLS UNLESS NOTED OTHERWISE) IT IS TO BE ACCOMPANIED BY VERIFICATION THAT ACID HYDROLYSIS WILL NOT OCCUR IN THE PRODUCT AT TEMPERATURES BELOW 400 DEGREES FAHRENHEIT; THIS CERTIFICATION MUST COME FROM THE MANUFACTURER AND BE APPROVED BY A CERTIFIED TESTING AGENCY AND LOCAL BUILDING OFFICIALS.

<u>FIREBLOCKING</u> - FIREBLOCKING SHALL BE PROVIDED IN WOOD FRAME CONSTRUCTION TO CUT OFF ALL CONCEALED DRAFT OPENINGS, BOTH HORIZONTAL AND VERTICAL, AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE PER IRC SECTION R302.11.

FIREBLOCKING SHALL BE PROVIDED:
1. IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS VERTICALLY AT THE CEILING AND FLOOR LEVELS, AND HORIZONTALLY NOT EXCEEDING 10' - 0";
2. ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUACH AS SOFFITS AND DROPPED CEILINGS
3. IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE ROP AND BOTTOM OF THE RUN
4. AT OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES, AND WIRES AT CEILING AND FLOOR LEVEL
5. CHIMNEYS AND FIREPLACES PER SECTION R1003.19
6. CORNICES OF TWO-FAMILY DWELLINGS AT THE LINE OF DWELLING UNIT SEPARATION

<u>DRAFTSTOPPING</u> - LOCATIONS AND DRAFTSTOPPING MATERIALS SHALL BE USED IN ACCORDANCE WITH IRC SECTION R302.12

DRAFTSTOPPING SHALL BE PROVIDED IN WOOD FRAME CONSTRUCTION WHERE THERE IS USABLE SPACE BOTH ABOVE AND BELOW THE CONCEALED SPACE OF A FLOOR/CEILING ASSEMBLY.

DRAFTSTOPS SHALL BE INSTALLED TO FORM CONCEALED SPACES NOT TO EXCEED 1,000 SF, AND DIVIDING CONCEALED SPACES INTO APPROXIMATELY EQUAL AREAS.

DRAFTSTOPPING SHALL BE PROVIDED IN FLOOR/CEILING ASSEMBLIES WITH EITHER SUSPENDED CEILINGS OR OPEN WEB FLOOR TRUSS ASSEMBLIES

<u>INTERIOR TRIM</u> - WINDOWS, DOOR AND BASES MAY BE FINGER JOINTED, 2 1/2" TRADITIONAL PROFILE OR AS INDICATED ON DRAWINGS.

<u>INTERIOR STAIRS</u> - PRE-FABRICATED WOOD UNLESS OTHERWISE NOTED

<u>SHELVING</u> - 3/4" FILLED FLAKEBOARD WITH TAPERED FRONT EDGE, SHOP AND METAL BRACKETS, 42" O/C MAX., UNLESS INDICATED OTHERWISE ON DRAWINGS OR VINYL WRAP WIRE SHELVING AS SELECTED BY BUILDER (OWNER).
<u>RAILINGS</u>- RAILINGS OR HANDRAILS SHALL BE INSTALLED ON ANY EXTERIOR PORCH OR STAIR EXCEEDING 3 RISERS IN HEIGHT OR 24" ABOVE GRADE.

<u>HANDRAILS</u> - AT STAIR (IF APPLICABLE): 34"-38" HEIGHT MEASURED VERTICALLY FROM THE NOSING OF THE TREAD. HANDRAIL GRIP SIZE SHALL HAVE EITHER A CIRCULAR CROSS SECTION DIAMETER OF 1/4" TO NOT MORE THAN 2" DIAMETER OR A NONCIRCULAR CROSS SECTION w/ AN EQUIVALENT GRASPING SURFACE, EDGED TO HAVE A MINIMUM RADIUS OF 1/8"

<u>GUARDRAILS</u> - NOT LESS THAN 36" HEIGHT, MEASURED VERTICALLY. CONSTRUCT SUCH THAT A SPHERE WITH A DIAMETER OF 4" CANNOT PASS THROUGH ANY OPENING.

DIV VII - THERMAL AND MOISTURE PROTECTION

<u>ROOFING</u> - ALL ROOFING ASSEMBLIES AND COVERINGS SHALL BE CLASS C (MINIMUM).

COMPOSITE COMPOSITION SHINGLES: PROVIDE AND INSTALL TWENTY (20) YEAR SELF-SEALING SHINGLES OVER ONE (1) LAYER OF 15 LB ASPHALT-SATURATED FELT UNDERLAYMENT APPLIED SHINGLE FASHION AND LAPPED A MINIMUM OF 2" FOR SLOPES GREATER THAN 4:12. FOR SLOPES FROM 2:12 TO 4:12, UNDERLAYMENT SHALL BE TWO LAYERS WITH A 19" STRIP PARALLEL WITH AND STARTING AT THE EAVE. STARTING AT THE EAVE, APPLY A 36" WIDE SHEET OVERLAPPING SUCCESSIVE SHEETS 19". INSTALL PER MANUFACTURER'S SPECIFICATIONS.

VALLEY FLASHING - OPEN VALLEYS SHALL BE FLASHED WITH MIN. NO. 28 GAUGE GALVANIZED CORROSION - RESISTANT SHEET METAL AND SHALL EXTEND MINIMUM 8" FROM CENTER LINE EACH WAY. CLOSED VALLEY FLASHING SHALL BE TWO LAYERS 90# MINERAL SURFACED CAP SHEET WITH BOTTOM LAYER MINIMUM 12" WIDE AND TOP LAYER 24" WIDE, CEMENTED TOGETHER. CLOSED VALLEYS MAY ALSO BE OF 36" WIDE FOIL ROOFING MATERIAL NOT LESS THAN NO. 50 IN THE VALLEY OVER THE UNDERLAYMENT.

PROVIDE ICE PROTECTION CONSISTING OF TWO LAYERS OF UNDERLAYMENT CEMENTED TOGETHER OR A SELF ADHERING POLYMER MODIFIED BITUMEN SHEET FROM THE EAVE'S EDGE TO 24" INSIDE THE EXTERIOR WALL LINE OF BUILDING.

<u>ROOF EDGE</u> - PROVIDE NON-CORROSIVE ALUMINUM DRIP EDGE FLASHING AT ROOF EDGE.

<u>BUILT UP ROOFING</u> - TO BE DETAILED ON DRAWINGS AND INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS.

<u>ROOFING AND SHEET METAL</u> - INSTALLATION SHALL BE IN ACCORDANCE WITH STANDARDS AND DETAILS ESTABLISHED BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC. "SMACNA" - REFER TO 4TH EDITION, 1987, FOR SPECIFIC DETAIL INFORMATION.

<u>SINGLE PLY ROOFING</u> - E.P.D.M. SINGLE PLY ROOFING MEMBRANE .045 MIL OR BETTER TO BE INSTALLED PER MANUFACTURERS SPECIFICATIONS AND APPLICABLE BUILDING CODES.

<u>SNOW GUARDS</u> - INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS STANDARDS AND RECOMMENDATIONS FOR QUANTITY, LOCATION AND SPACING.

<u>EXTERIOR WALLS</u>

A. FLASHING - TO BE NON-CORROSIVE ALUMINUM OR COPPER PROVIDED AT TOPS AND SIDES OF ALL EXTERIOR WINDOW AND DOOR OPENINGS IN SUCH A MANNER TO BE LEAKPROOF. REFER TO STANDARDS AND DETAILS ESTABLISHED BY THE SHEET METAL & AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC. "SMACNA", 4TH EDITION, 1987.
B. FLASH AND COUNTER FLASH - ALL ROOF TO WALL CONDITIONS, MINIMUM NO. 26 GAUGE CORROSION RESISTANT ALUMINUM STEP FLASHING AS REQUIRED TO MAINTAIN MINIMUM HEIGHT. WHEN FLASHING AGAINST MASONRY, FLASHING SHALL BE INSTALLED W/ 1/2" REGLET & THEN SEALED.
C. FLASH ALL EXTERIOR OPENINGS AND ALL BUILDING CORNERS WITH APPROVED WATERPROOF BUILDING PAPER TO EXTEND AT LEAST 4" BEHIND WALL COVERING.
D. FLASH AND CAULK - WOOD BEAMS AND OTHER PROJECTIONS THROUGH EXTERIOR WALLS OR ROOF SURFACES.
E. EXTERIOR SHEATHING - 7/16" O.S.B. SHEATHING INSTALLED PER MANUFACTURER'S SPECIFICATIONS UNLESS NOTED OTHERWISE ON DRAWINGS.
F. CAULKING / SEALANT - AS SELECTED BY BUILDER (OWNER) - SUBMIT PRODUCT LITERATURE TO ARCHITECT FOR APPROVAL.
G. FLASHING - WHEN VENEER OF BRICK, CLAY, TILE, CONCRETE OR NATURAL OR ARTIFICIAL STONE ARE USED, 30 MIL PLASTIC FLASHING SHALL BE ATTACHED TO THE SHEATHING WHEREVER NECESSARY TO PREVENT MOISTURE PENETRATION BEHIND THE VENEER & EXTEND TO OR BEYOND THE FACE OF MASONRY VENEER. 30 MIL THROUGH THE WALL FLASHING TO BE PROVIDED AT ALL FLOOR LEVELS IN SUCH A MANOR TO BE LEAK PROOF.
H. ROUGH CARPENTRY CONTRACTORS SHALL SEAL WITH CONSTRUCTION ADHESIVE, PLATES AT FLOOR AND CEILING AND CAULK ALL WINDOWS AND DOOR FLANGES / JAMBS AND ALL PANEL BUTT JOINTS PRIOR TO AND DURING ERECTION.
I. ALL WOOD SHALL BE MINIMUM 8" ABOVE FINISH GRADE OR PRESSURE TREATED LESS THAN 8" ABOVE FINISH GRADE. ALL SIDING SHALL BE MINIMUM 6" ABOVE FINISH GRADE.

<u>BUILDING WRAP</u> - IN MIXED-HUMID CLIMATES (ZONE 4) INSTALL BUILDING WRAP ON EXTERIOR FACE, LAPPED AND SEALED PER MFR., UNLESS NOTED OTHERWISE ON DRAWINGS.

DIV VIII - OPENINGS - DOORS AND WINDOWS

ALL DWELLINGS SHALL BE PROVIDED WITH A MEANS OF EGRESS IN ACCORDANCE WITH SECTION R311 WITH AT LEAST ONE SIDE-HINGED DOOR AT A MINIMUM 3' WIDE X 6' - 8" HIGH (32" X 78" CLEAR OPENING) THAT SHALL LEAD TO THE PUBLIC WAY.

EXTERIOR WINDOWS AND DOORS SHALL BE IN ACCORDANCE WITH SECTION R609.
WINDOW FALL PREVENTION DEVICES SHALL BE INSTALLED WHEN THE WINDOW SILL IS BELOW 24" FROM THE INTERIOR FLOOR IN ACCORDANCE WITH SECTION R312.2ALL EXTERIOR WINDOWS SHALL HAVE INSULATING GLASS.

SIZES INDICATED ON PLANS ARE NOMINAL SIZES ONLY.

THE CONTRACTOR SHALL CONSULT WITH WINDOW MANUFACTURER TO DETERMINE EXACT SIZES AND ROUGH OPENINGS.

ALL HABITABLE ROOMS SHALL HAVE AN AGGREAGATE GLAZING AREA OF NOT LESS THAN 8% OF THE FLOOR AREA OF SUCH ROOMS.

THE MINIMUM OPENABLE AREA TO THE OUTDOOORS SHALL BE 4% OF THE FLOOR AREA BEING VENTILATED.

BASEMENTS (FINISHED OR UNFINISHED), HABITABLE ATTICS, AND EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE (1) OPERABLE EMERGENCY ESCAPE AND RESCUE OPENING (WINDOW OR DOOR). SUCH OPENINGS SHALL HAVE A SILL HEIGHT NOT TO EXCEED 44" ABOVE THE FLOOR.

ALL ABOVE GRADE FLOOR AND BELOW GRADE FLOOR EMERGENCY EGRESS OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET WITH A MINIMUM NET CLEAR HEIGHT OF 24" AND A MINIMUM NET CLEAR WIDTH OF 20".

GRADE FLOOR OPENINGS SHALL HAVE A MINIMUM OF 5.0 SQUARE FEET NET CLEAR OPENING.

BELOW ADJACENT GRADE ELEVATION EMERGENCY EGRESS WINDOWS SHALL BE PROVIDED WITH A WINDOW WELL WITH A MINIMUM HORIZONTAL AREA OF 9 SQUARE FEET AND MINIMUM HORIZONTAL PROJECTION AND WIDTH OF 36", ALLOWING THE OPENING TO BE FULLY OPENED. A LADDER OR STEPS SHALL BE PROVIDED FOR WELLS GREATER THAN 44" IN VERTICAL DEPTH.

<u>WEATHER PROOFING</u> - ALL SLIDING, SWINGING DOORS AND WINDOWS OPENING TO THE EXTERIOR SHALL BE FULLY WEATHERSTRIPPED, CAULKED, GASKETED OR OTHERWISE TREATED TO LIMIT AIR INFILTRATION.
PROVIDE MAXIMUM AIR INFILTRATION AS FOLLOWS:
1. WINDOWS SHALL HAVE AN AIR INFILTRATION RATE OF LESS THAN 0.3 CFM PER FOOT OF SUCH CRACK.
2. SLIDING GLASS DOORS SHALL HAVE AN AIR INFILTRATION RATE OF LESS THAN 0.3 CFM PER SQUARE FOOT OF DOOR AREA.
3. SWINGING DOORS SHALL HAVE AN AIR INFILTRATION RATE OF LESS THAN 1.25 CFM PER SQUARE FOOT OF DOOR AREA. PROVIDE FLASHING AS PER SMACNA AT ALL WINDOW HEADS.

<u>DOOR / WINDOW ROUGH OPENINGS</u> - MINIMUM OF DOUBLE STUDS AT ALL DOOR/WINDOW ROUGH OPENINGS AND PROVIDE POSTS & HEADERS AS NOTED ON FRAMING PLANS. CLARIFY ANY MISSING SIZES WITH ARCHITECT.

<u>EXTERIOR ENTANCE DOOR</u> - FIBERGLASS DOOR NON-RATED POLYSTYRENE INSULATION PERMANENTLY BONDED TO PANELS. PROVIDE 1-1/2 PAIR HINGES FOR DOORS UP TO 7'-2" IN HEIGHT AND 2 PAIR HINGES FOR DOORS TO 8'-0" IN HEIGHT. SEE DRAWINGS FOR RAISED PANEL DESIGN. PROVIDE COMPLETE WEATHER STRIPPING AND METAL THRESHOLD.

<u>GARAGE TO INTERIOR DOOR</u> - IF APPLICABLE - TO BE METAL OR SOLID WOOD CORE 1 3/4" IN THICKNESS, OR 20-MINUTE FIRE-RATED DOOR EQUIPPED WITH A SELF-CLOSING DEVICE.

<u>INTERIOR DOORS</u> - TO BE HOLLOW CORE WOOD WITH WOOD VENEER OR PLASTIC LAMINATE FACING.

DIV IX - FINISHES

ALL GYPSUM WALLBOARD SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF IRC AS WELL AS STATE AND LOCAL CODES AND ORDINANCES [AS APPLICABLE].

GYPSUM WALLBOARD SHALL NOT BE INSTALLED UNTIL WEATHER PROTECTION FOR THE INSTALLATION IS PROVIDED. STORAGE PROVISIONS SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS.

MINIMUM TEMPERATURE IN AREAS TO RECEIVE DRYWALL SHALL BE 50 DEGREES FAHRENHEIT. ALL WALLBOARD JOINTS SHALL BE BUTTED LOOSELY TOGETHER [MAXIMUM ALLOWABLE: 1/4"]. END JOINTS SHALL BE SUPPORTED ON FRAMING MEMBERS. AFTER TRIM IS INSTALLED, CORRECT ALL SURFACE DAMAGE AND DEFECTS AS REQUIRED.

PROVIDE WATER RESISTANT FIBER-CEMENT, FIBER-MAT REINFORCED CEMENT, GLASS MAT GYPSUM BACKERS, OR FIBER-REINFORCED GYPSUM BACKERS IN COMPLIANCE WITH ASTM C 1288, C 1325, C 1178, OR C1278, AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AS BACKER BOARD FOR WALL TILE AT TUBS AND SHOWER AREA AND WALL PANELS IN SHOWER AREAS AS SHOWN ON THE DETAILS IN THE ARCHITECTURAL DRAWINGS, OR A MINIMUM OF 6' ABOVE THE DRAINIF NOT INDICATED OTHERWISE.

FIRE-RESISTIVE CONSTRUCTION: GARAGE CEILINGS, WALLS, AND BULKHEADS WHEN ADJACENT TO A DWELLING UNIT SHALL BE OF 5/8" TYPE-X OR OTHER RATED CONSTRUCTION ACCORDING TO THE UL DESIGN SPECIFIED ON THE DRAWINGS WHEN UNITS ARE DESIGNED UNDER IRC STANDARDS AS INDICATED ON THE DRAWINGS.

FLAME SPREAD AND SMOKE INDEX FOR WALLS AND CEILING FINISHES SHALL BE IN ACCORDANCE WITH SECTION R302.9.

CERAMIC TILE SHALL BE THIN SET APPLICATION ON MOISTURE RESISTANT DRYWALL. PROVIDE BASE AND MISCELLANEOUS TRIM. THE COLOR AS SELECTED BY OWNER. PROVIDE MARBLE THRESHOLD FOR TRANSITION BETWEEN CERAMIC FLOOR TILE AND OTHER FLOOR FINISHES. FLOOR TILE SHALL BE NON-SLIP.

RESILIENT FLOORING - SHALL BE SHEET VINYL OR VINYL COMPOSITION TILE INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS.

UNDERLAYMENT- PROVIDE SUITABLE FLOOR UNDERLAYMENT FOR ALL CERAMIC TILE AND RESILIENT FLOORING.

PAINT INTERIOR
- CEILINGS- LATEX FLAT, 2 COATS
- WALLS - LATEX FLAT, 2 COATS
- TRIM - LATEX SEMI-GLOSS, 2ND COAT BRUSH APPLIED OVER ONE COAT FLAT

KITCHEN AND BATHROOMS
- CEILING - LATEX FLAT, 2 COATS
- WALLS - LATEX FLAT, 2 COATS
- TRIM - ENAMEL, 2 COATS

PAINT EXTERIOR
- TRIM - LATEX, 1 COAT PRIME, 1 COAT FINISH

DIV XXII - PLUMBING

PLUMBING FIXTURES SHALL CONFORM IN ACCORDANCE WITH IRC CHAPTER 27.

SANITARY DRAINAGE SHALL CONFORM IN ACCORDANCE WITH IRC CHAPTER 30.

ALL WORK SHALL BE IN FULL ACCORDANCE WITH ALL CURRENT CODES AND REGULATIONS OF THE GOVERNING AGENCIES.

PLUMBING SUBCONTRACTOR SHALL REVIEW STRUCTURAL AND PLUMBING DRAWINGS AND NOTIFY THE ARCHITECT OF ANY PLUMBING, HVAC, STRUCTURAL, AND DESIGN INTENT CONFLICTS PRIOR TO CONSTRUCTION.

ALL WORK SHALL BE DONE IN A NEAT AND WORKMAN-LIKE MANNER SO AS NOT TO NEEDLESSLY HAMPER THAT PORTION OF THE WORK PERFORMED BY OTHERS.

DIV XXIII - MECHANICAL

MECHANICAL SYSTEMS SHALL CONFORM IN ACCORDANCE WITH IRC CHAPTERS 11 - 23.

WHEN THE WINTER DESIGN TEMPERATURE IN TABLE R301.2(1) IS BELOW 60°F, DWELLING UNIT SHALL BE PROVIDED WITH HEATING FACILITIES CAPABLE OF MAINTAINING A MINIMUM ROOM TEMPERATURE OF 68°F AT A POINT 3 FEET ABOVE THE FLOOR AND TWO FEET FROM EXTERIOR WALLS IN ALL HABITABLE ROOMS AT THE DESIGN TEMPERATURE. THE INSTALLATION OF ONE OR MORE PORTABLE SPACE HEATERS SHALL NOT BE USED TO ACHIEVE COMPLIANCE WITH THIS REQUIREMENT.

ALL WORK SHALL BE IN FULL ACCORDANCE WITH ALL CURRENT CODES AND REGULATIONS OF THE GOVERNING AGENCIES.
MECHANICAL SUBCONTRACTOR SHALL SUBMIT SHOP DRAWINGS INDICATING DUCT LAYOUTS, CONDENSER LOCATION, AND DUCT SIZES TO THE ARCHITECT PRIOR TO INSTALLATION.

MECHANICAL SUBCONTRACTOR SHALL REVIEW STRUCTURAL SHOP DRAWINGS AND NOTIFY THE ARCHITECT OF ANY MECHANICAL AND STRUCTURAL DESIGN INTENT CONFLICTS PRIOR TO CONSTRUCTION.

ALL WORK SHALL BE DONE IN A NEAT AND WORKMAN-LIKE MANNER SO AS NOT TO NEEDLESSLY HAMPER THAT PORTION OF THE WORK PERFORMED BY OTHERS.

DIV XXVI - ELECTRICAL

GENERAL - ALL WORK SHALL BE IN FULL ACCORDANCE WITH ALL CURRENT CODES AND REGULATIONS OF THE GOVERNING AGENCIES AND SHALL COMPLY WITH THE REQUIREMENTS OF THE SERVING POWER AND TELEPHONE COMPANIES.

ALL WORK SHALL BE DONE IN A NEAT AND WORKMAN-LIKE MANNER SO AS NOT TO NEEDLESSLY HAMPER THAT PORTION OF THE WORK PERFORMED BY OTHERS.

ALL EQUIPMENT INSTALLED OUTDOORS AND EXPOSED TO THE WEATHER SHALL BE WEATHERPROOF.
BOTTOMS OF RECEPTACLES AND SWITCHES SHALL BE LOCATED 5" ABOVE COUNTER TOPS UNLESS OTHERWISE NOTED ON DRAWINGS.

RECEPTACLES SHALL BE INSTALLED VERTICALLY AT 12" ABOVE FINISHED FLOOR AND MAXIMUM 12' - 0" O.C. HORIZONTALLY. ALL RECEPTACLES WITHIN 6' - 0" HORIZONTALLY OF A SINK, LAVATORY, OR TUB SHALL BE WIRED TO A GROUND FAULT INTERRUPTED CIRCUIT.

ALL SMOKE DETECTORS SHALL BE WIRED IN A MANNER SUCH THAT ACTIVATION OF ONE WILL ACTIVATE ALL.

ALL STAIRS SHALL BE PROVIDED ILLUMINATION IN ACCORDANCE WITH SECTION R303.7.

ALL SMOKE ALARMS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION R314.

ALL CARBON MONOXIDE ALARMS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION R315.

WHEN FUEL-FIRED APPLIANCES ARE USED, CARBON MONOXIDE ALARMS SHALL BE PROVIDED IN ALL NEW CONSTRUCTION OUTSIDE OF EACH SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.

A CARBON MONOXIDE ALARM IS ALSO REQUIRED WITHIN ANY BEDROOM WHERE A FUEL-BURNING APPLIANCE IS LOCATED WITHIN THAT BEDROOM OR ITS ATTACHED BATHROOM.

AUTOMATIC GARAGE DOOR OPENERS SHALL BE LISTED IN ACCORDANCE WITH UL325.

STRUCTURAL INSULATED PANELS

Structural insulated panel (SIP) walls shall be designed in accordance with the provisions of IRC.
All panels shall be identified by grade mark or certificate of inspection issued by an approved Manufacturer.

<u>SIPs Material:</u>

Adhesives used to structurally laminate the foam plastic insulation core material to the structural wood facers shall conform to ASTM D 2559 or approved alternative specifically intended for use as an adhesive used in the lamination of structural insulated panels.

The minimum lumber framing materials used for SIPs prescribed in this document is NLGA graded No. 2 Spruce-pine-fir. Other wood species/grades that meet or exceed the mechanical properties and specific gravity of No. 2 Spruce-pine-fir shall be permitted for substitution.

Screws used for the erection of SIPs as specified in Section R614.5 shall be provided by the SIPs manufacturer and shall be sized to fully penetrate the main member – the wood member to which the assembly is being attached.

SIP walls shall be capped with a double top plate installed to provide overlapping at corner.

SIP walls shall have full bearing on sole plate having a width equal to the nominal width of the foam core.

<u>Bracing:</u>

SIP walls shall be braced in accordance with Section R602.10.

SIP walls shall meet the requirements of Section R602.10.5 except that SIPs corners shall be fabricated as specified in section R614.5.3.

<u>Drilling and Notching:</u>

The maximum vertical chase penetration in SIPs shall have a maximum side dimension of 2 inches (51 mm) centered in the panel core.

Vertical chases shall have a minimum spacing of 24- inches (610 mm) on center.

Maximum of two horizontal chases shall be permitted in each wall panel - one at 14 inches (360 mm) from the bottom of the panel and one at mid-height of the wall panel.

The maximum allowable penetration size in a wall panel shall be circular or rectangular with a maximum dimension of 12 inches (300 mm). Overcutting of holes in facing panels shall not be permitted.

Structural insulated panels shall be spliced in accordance with Section R614.8 or by another approved method.

30X46 LEAN COTTAGE

Designer: Designer
Drawn By: Author

<u>NOTES</u>

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3. Printable sheet size is 36"x24"

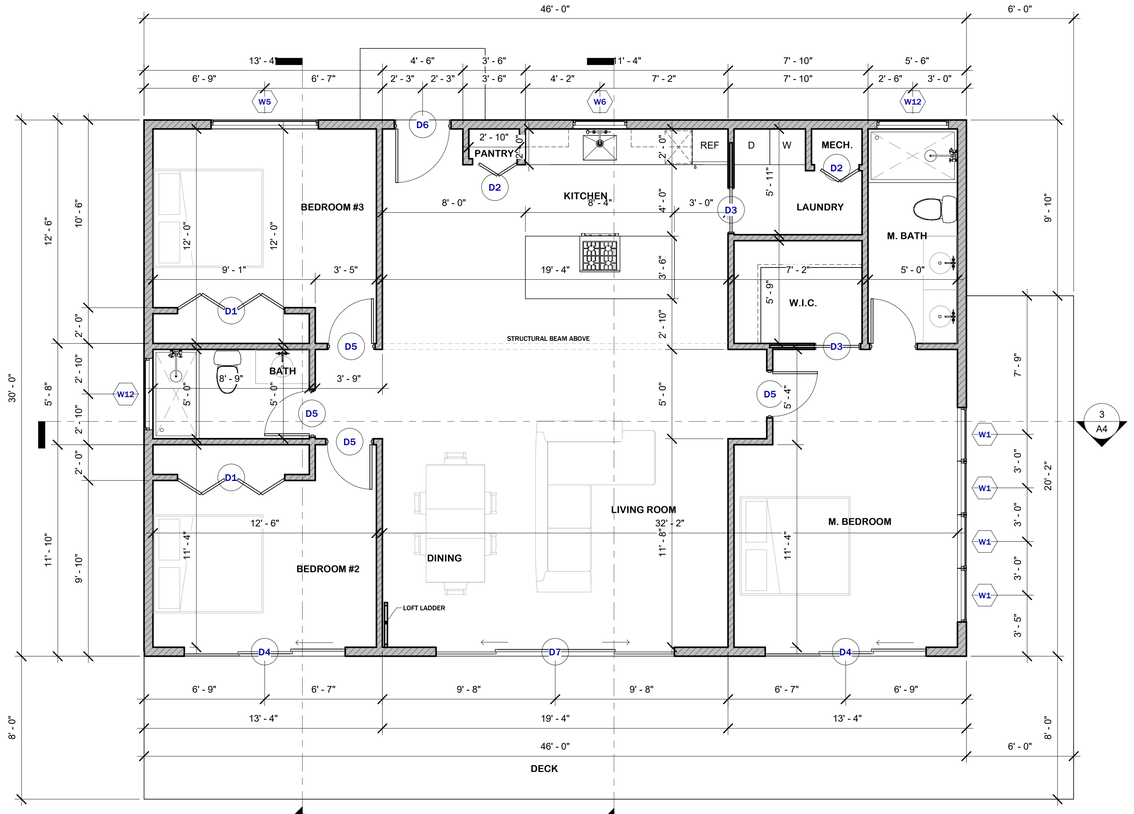
REVISIONS

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

GENERAL NOTES

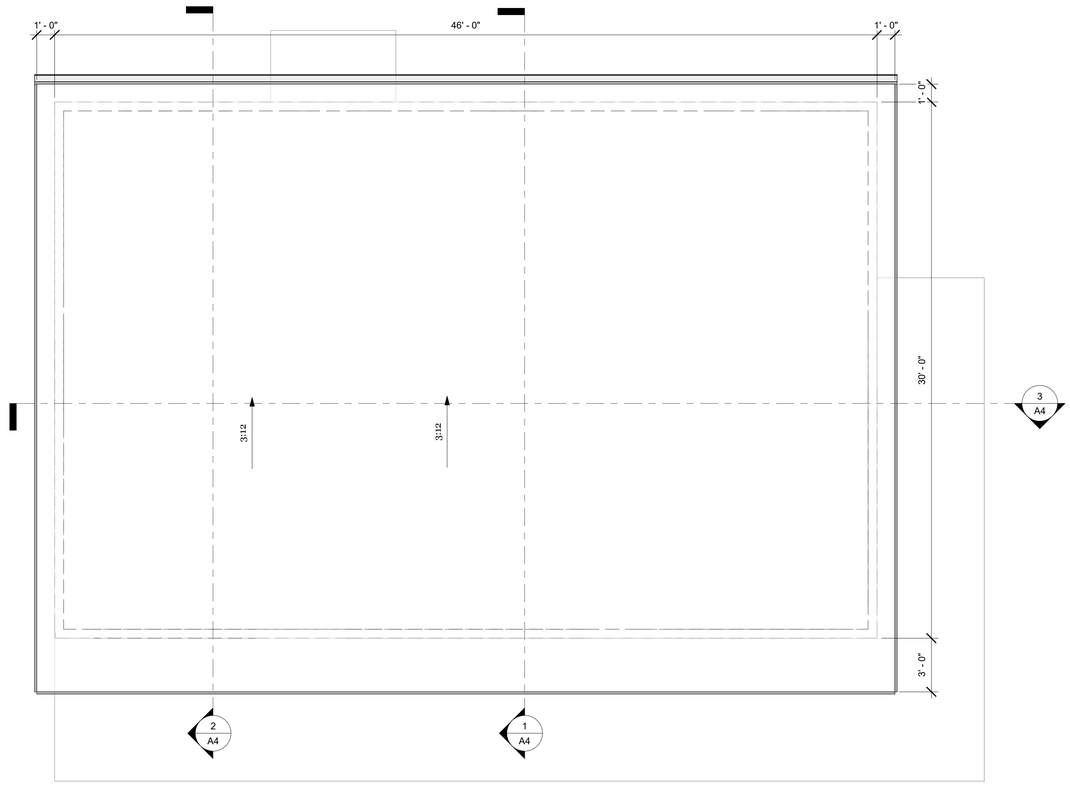
Sheet No.

A1



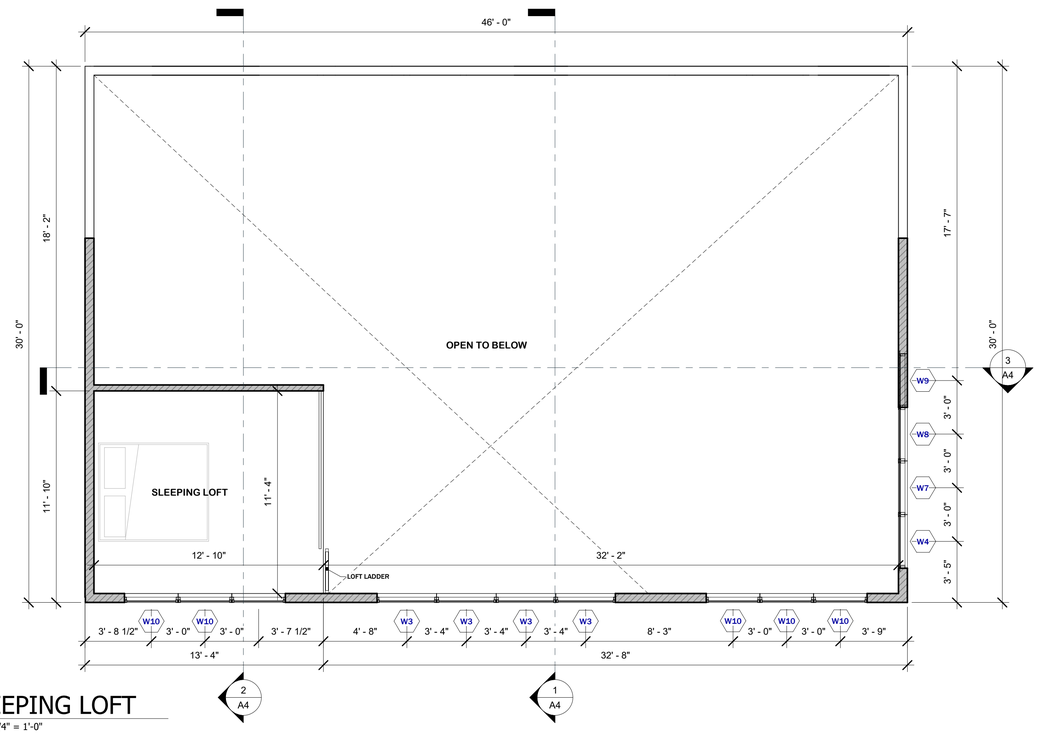
1 A2 FIRST FLOOR PLAN

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



2 A2 ROOF PLAN

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



3 A2 SLEEPING LOFT

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

GENERAL NOTES

1. DO NOT SCALE DRAWINGS, WRITTEN DIMENSIONS TAKE PRECEDENCE. CONTRACTOR TO VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS OF THE JOB.
2. ALL WRITTEN NOTES ON THESE DRAWINGS SHALL TAKE PRECEDENCE OVER THE MINIMUM STANDARD NOTES DETAILED ON THE LAST SHEET OF THESE DRAWING.
3. BUILDER TO APPROVE LOCATION OF HOUSE ON LOT, AND TO VERIFY ALL UTILITY LOCATIONS, ALL EASEMENTS, BUILDING AND SETBACK LINES, AND TO OBSERVE ALL DEED RESTRICTIONS PRIOR TO CONSTRUCTION.
4. SMOKE DETECTORS REQUIRE 120 VOLT CONNECTION TO HOUSE WIRING WITH BATTERY BACKUP OR A CENTRALLY MONITORED FIRE ALARM SYSTEM.
5. PROVIDE VENTILATION AT ALL BATHROOMS THROUGH NATURAL OR MECHANICAL MEANS.
6. NOTIFY DESIGNER WITH ANY DISCREPANCIES BEFORE WORKING.

WINDOW SCHEDULE

I.D.	QUANTITY	SIZE WIDTH	SIZE HEIGHT	SILL HEIGHT	DESCRIPTION
W1	4	3' - 0"	8' - 0"	0' - 0"	FIXED PICTURE WINDOW
W3	4	3' - 4"	3' - 6"	0' - 0"	FIXED PICTURE WINDOW
W4	1	3' - 0"	3' - 6"	0' - 0"	FIXED PICTURE WINDOW
W5	1	6' - 0"	5' - 0"	3' - 0"	SLIDING WINDOW
W6	1	3' - 0"	3' - 0"	5' - 0"	AWNING WINDOW
W7	1	3' - 0"	3' - 0"	0' - 0"	FIXED PICTURE WINDOW
W8	1	3' - 0"	2' - 6"	0' - 0"	FIXED PICTURE WINDOW
W9	1	3' - 0"	2' - 0"	0' - 0"	FIXED PICTURE WINDOW
W10	6	3' - 0"	3' - 6"	0' - 0"	FIXED PICTURE WINDOW
W12	2	4' - 0"	2' - 0"	6' - 0"	AWNING WINDOW
Total Count	22				

DOOR SCHEDULE

I.D.	QUANTITY	SIZE WIDTH	SIZE HEIGHT	HEAD HEIGHT	DESCRIPTION
D1	2	6' - 0"	6' - 8"	6' - 8"	BIFOLD DOOR - 4 PANEL
D2	2	2' - 6"	6' - 8"	6' - 8"	BIFOLD DOOR - 2 PANEL
D3	2	2' - 6"	6' - 8"	6' - 8"	INTERIOR POCKET DOOR
D4	2	9' - 0"	8' - 0"	8' - 0"	SLIDING DOOR 3-PANEL
D5	5	2' - 6"	6' - 8"	6' - 8"	INTERIOR SWING DOOR
D6	1	3' - 0"	8' - 0"	8' - 0"	EXTERIOR SWING DOOR
D7	1	13' - 4"	8' - 0"	8' - 0"	SLIDING DOOR 4-PANEL
Total Count	15				

30X46 LEAN COTTAGE

Designer: Designer

Drawn By: Author

NOTES

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REVISIONS

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

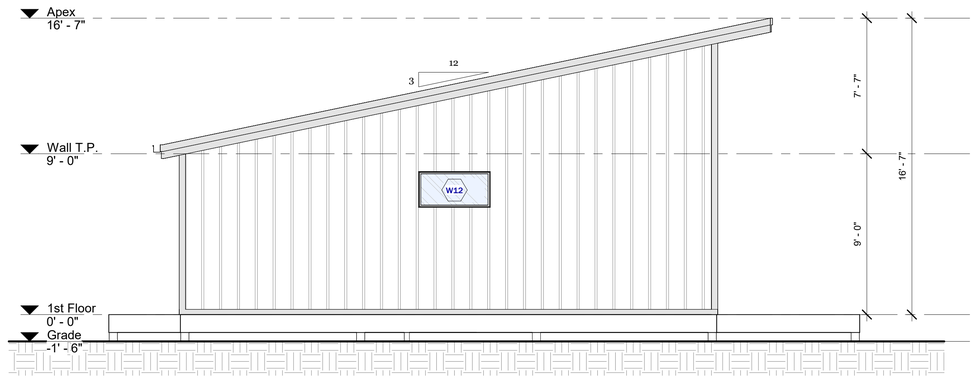
FLOOR & ROOF PLAN

Sheet No.

A2

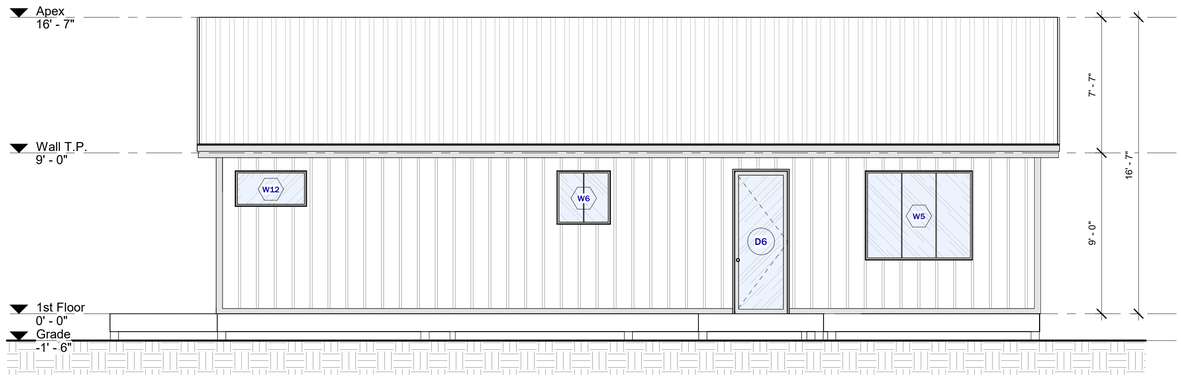
1 A3 **SOUTH ELEVATION**

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



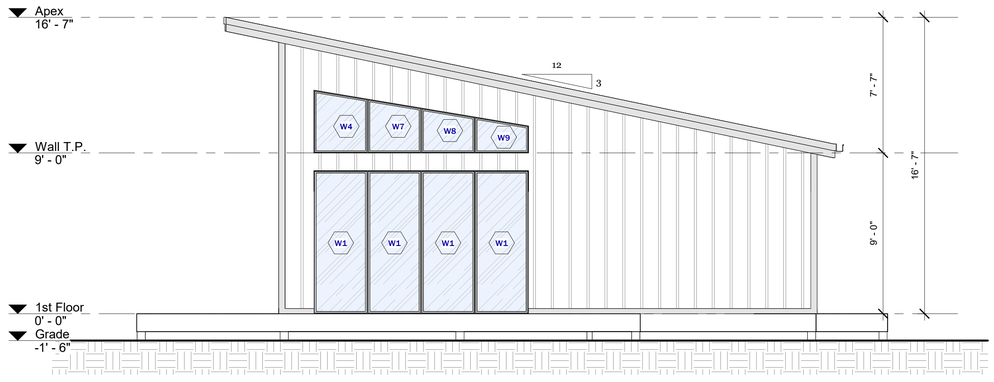
3 A3 **EAST ELEVATION**

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



2 A3 **NORTH ELEVATION**

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



4 A3 **WEST ELEVATION**

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

30X46 LEAN COTTAGE

Designer: Designer

Drawn By: Author

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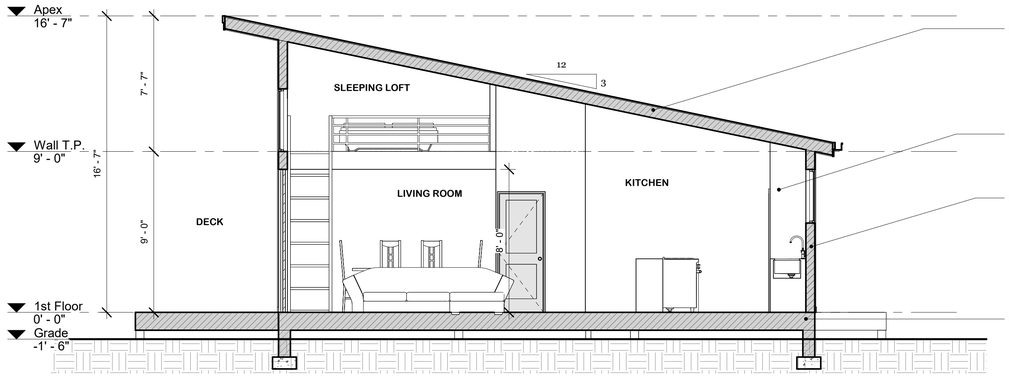
REVISIONS

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

BUILDING ELEVATIONS

Sheet No.

A3



ROOF CONSTRUCTION: (TOP DOWN)
- STANDING SEAM METAL SIDING
- ROOFING PAPER (30LB FELT OR EQUIVALENT)
- ROOF SHEATHING
- ROOF FRAMING W/ R-38 SPRAY FOAM INSULATION
- 1x3 STRAPPING @ 16" O/C
- 1/2" GYPSUM BOARD (REQ FOR THERMAL BARRIER)

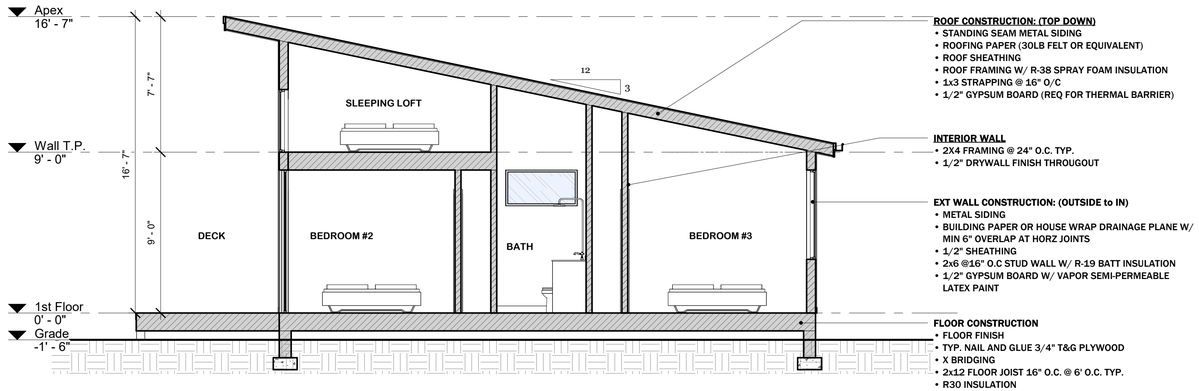
INTERIOR WALL
- 2X4 FRAMING @ 24" O.C. TYP.
- 1/2" DRYWALL FINISH THROUGOUT

EXT WALL CONSTRUCTION: (OUTSIDE to IN)
- METAL SIDING
- BUILDING PAPER OR HOUSE WRAP DRAINAGE PLANE W/ MIN 6" OVERLAP AT HORZ JOINTS
- 1/2" SHEATHING
- 2x6 @16" O.C STUD WALL W/ R-19 BATT INSULATION
- 1/2" GYPSUM BOARD W/ VAPOR SEMI-PERMEABLE LATEX PAINT

FLOOR CONSTRUCTION
- FLOOR FINISH
- TYP. NAIL AND GLUE 3/4" T&G PLYWOOD
- X BRIDGING
- 2x12 FLOOR JOIST 16" O.C. @ 6' O.C. TYP.
- R30 INSULATION

1 / A4 BUILDING SECTION 1

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



ROOF CONSTRUCTION: (TOP DOWN)
- STANDING SEAM METAL SIDING
- ROOFING PAPER (30LB FELT OR EQUIVALENT)
- ROOF SHEATHING
- ROOF FRAMING W/ R-38 SPRAY FOAM INSULATION
- 1x3 STRAPPING @ 16" O/C
- 1/2" GYPSUM BOARD (REQ FOR THERMAL BARRIER)

INTERIOR WALL
- 2X4 FRAMING @ 24" O.C. TYP.
- 1/2" DRYWALL FINISH THROUGOUT

EXT WALL CONSTRUCTION: (OUTSIDE to IN)
- METAL SIDING
- BUILDING PAPER OR HOUSE WRAP DRAINAGE PLANE W/ MIN 6" OVERLAP AT HORZ JOINTS
- 1/2" SHEATHING
- 2x6 @16" O.C STUD WALL W/ R-19 BATT INSULATION
- 1/2" GYPSUM BOARD W/ VAPOR SEMI-PERMEABLE LATEX PAINT

FLOOR CONSTRUCTION
- FLOOR FINISH
- TYP. NAIL AND GLUE 3/4" T&G PLYWOOD
- X BRIDGING
- 2x12 FLOOR JOIST 16" O.C. @ 6' O.C. TYP.
- R30 INSULATION

2 / A4 BUILDING SECTION 2

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

ROOF CONSTRUCTION: (TOP DOWN)
- STANDING SEAM METAL SIDING
- ROOFING PAPER (30LB FELT OR EQUIVALENT)
- ROOF SHEATHING
- ROOF FRAMING W/ R-38 SPRAY FOAM INSULATION
- 1x3 STRAPPING @ 16" O/C
- 1/2" GYPSUM BOARD (REQ FOR THERMAL BARRIER)

INTERIOR WALL
- 2X4 FRAMING @ 24" O.C. TYP.
- 1/2" DRYWALL FINISH THROUGOUT

EXT WALL CONSTRUCTION: (OUTSIDE to IN)
- METAL SIDING
- BUILDING PAPER OR HOUSE WRAP DRAINAGE PLANE W/ MIN 6" OVERLAP AT HORZ JOINTS
- 1/2" SHEATHING
- 2x6 @16" O.C STUD WALL W/ R-19 BATT INSULATION
- 1/2" GYPSUM BOARD W/ VAPOR SEMI-PERMEABLE LATEX PAINT

FLOOR CONSTRUCTION
- FLOOR FINISH
- TYP. NAIL AND GLUE 3/4" T&G PLYWOOD
- X BRIDGING
- 2x12 FLOOR JOIST 16" O.C. @ 6' O.C. TYP.
- R30 INSULATION

3 / A4 BUILDING SECTION 3

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

30X46 LEAN COTTAGE

Designer: Designer

Drawn By: Author

NOTES

1. Plans are copyrighted and inteded for personal builds only
2. Review Plans with your local builder or engineer to make sure it is suitable for your site and local requirements
3. Printable sheet size is 36"x24"

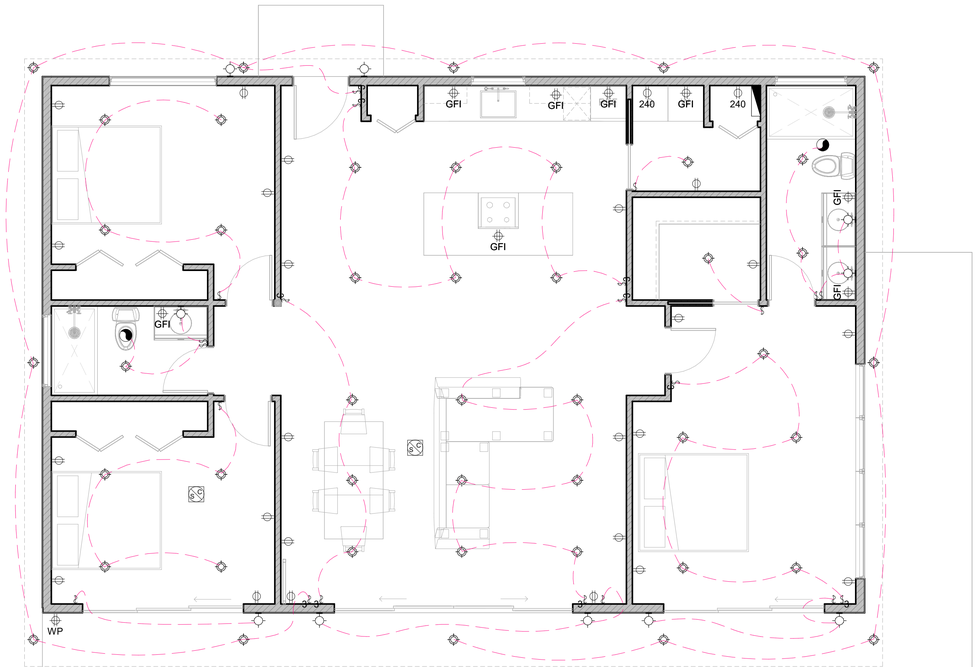
REVISIONS

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

BUILDING SECTIONS

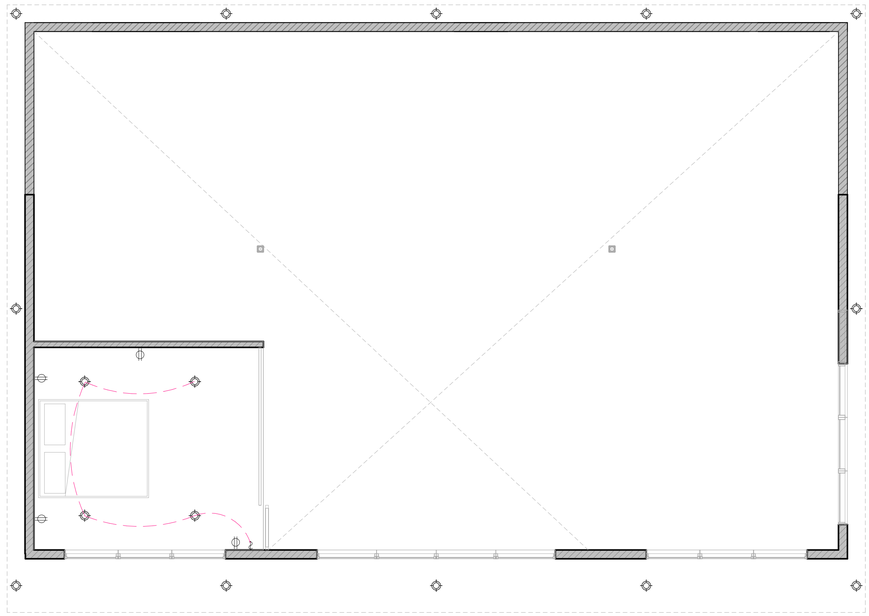
Sheet No.

A4



1 E1 FIRST FLOOR ELECTRICAL PLAN

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



2 E1 SLEEPING LOFT ELECTRICAL PLAN

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

ELECTRICAL SYMBOLS

- GENERAL PURPOSE LIGHT
- P — PENDANT
- WALL BRACKET LIGHT
- RECESSED CAN LIGHT
- MINI RECESSED CAN LIGHT
- FLOURESCENT LIGHT
- GAS FLOOD LIGHT/ SCONCE
- CEILING FAN
- $ — SINGLE POLE SWITCH
- $3 $4 — THREE/FOUR WAY SWITCH
- $D — SWITCH - DIMMER
- $P — SWITCH - PILOT
- DUPLEX OUTLET
- GDO — GARAGE DOOR OPENER
- DUPLEX OUTLET @ 60" A.F.F.
- GFI — DUPLEX OUTLET WITH GROUND FAULT INTERRUPTER
- WP — WEATHER PROOF - GFI OUTLET
- SWITCH AND OUTLET
- DUPLEX FLOOR OUTLET
- 240 — 220 VOLT OUTLET
- J — JUNCTION BOX
- G — GARBAGE DISPOSAL
- TELEPHONE OUTLET
- MULTI-MEDIA OUTLET
- T — PROGRAMMABLE THERMOSTAT
- S — SMOKE DETECTOR
- CARBON MONOXIDE & SMOKE DETECTOR
- C — CARBON MONOXIDE DETECTOR
- ELECTRIC PANEL
- EXHAUST FAN
- EXHAUST FAN WITH LIGHT
- DB — DOORBELL
- EXTERIOR SCONCE
- CHANDELIER

GENERAL NOTES - ELECTRICAL PLAN

1. ALL SMOKE DETECTORS ARE TO BE WIRED IN SUCH A MANNER THAT ACTIVATION OF WILL ACTIVATE THEM ALL.
2. PROVIDE BRACING FOR ALL CLG. FAN OUTLETS.
3. RECESSED LIGHTING SHALL BE LISTED AS IC (ZERO CLEARANCE TO INSULATION) AND AT (AIR-TIGHT), BE SEALED / CAULKED BETWEEN THE FIXTURE HOUSING AND CEILING, SHALL NOT CONTAIN A SCREW BASE SOCKET AND CONTAIN BULBS MARKED WITH JA8-2016-E EFFICIENCY LABEL.
4. CARBON MONOXIDE (CO) ALARMS SHALL BE INSTALLED ON THE CEILING OR WALL (ABOVE THE DOOR HEADER) IN EACH AREA / HALLWAY ADJACENT TO SLEEPING ROOMS, EACH OCCUPIABLE STORY, AND WITHIN A BEDROOM IF THE BEDROOM OR ATTACHED BATHROOM CONTAINS A FUEL-BURNING APPLIANCE. CO ALARMS ARE NOT REQUIRED IF THERE IS NO FUEL-BURNING APPLIANCE OR FIREPLACE IN THE DWELLING OR WHERE THE GARAGE IS DETACHED FROM THE DWELLING.
5. ARCFAULT INTERRUPTERS SHOULD BE PROVIDED IN ALL BEDROOMS.
6. ALL OTHER OUTLETS NOT INDICATED ARE TO BE PROVIDED BY ELEC. CONTRACTER PER CODE.
7. ALL ELECTRICAL OUTLETS TO BE TAMPER PROOF.
8. ALL BATHROOM LIGHT FIXTURES TO BE COVERED WITH LENSES AND GLOBES AND BE MOISTURE RESISTANT IF IN SHOWER OR TUB AREAS.
9. ALL BATHROOMS TO BE VENTILATED BY AN EXHAUST FAN. THE FAN MUST BE ENERGY STAR COMPLIANT AND VENTED TO THE OUTSIDE. EXHAUST FANS TO HAVE MINIMUM 50 CFM VENTILATION RATE AND BE ON A SEPERATE CONTROL SWITCH AND BE SUPPLIED BY A GFCI CIRCUIT.
10. ELECTRIC RANGES, COOKTOPS OR OVENS MUST BE DEDICATED TO A 240 VOLT CIRCUIT.
11. WALL RECEPTACLES TO BE PLACED NO FARTHER THAN 12 FEET APART.
12. LAUNDRY ROOMS SHALL HAVE A MINIMUM 20 AMP DEDICATED CIRCUIT. IF ELECTRIC WASHER AND DRYER PROVIDE A SEPERATE 240 VOLT CIRCUIT.

30X46 LEAN COTTAGE

Designer: Designer

Drawn By: Author

NOTES

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2. Review Plans with your local builder or engineer to make sure it is suitable for your site and local requirements
3. Printable sheet size is 36"x24"

REVISIONS

SCALE: As indicated

ELECTRICAL PLAN

Sheet No.

E1

GENERAL RESIDENTIAL NOTES

1. All joist hangers, metal connectors, straps, nails, nuts bolts, and washers shall be hot dipped galvanized.
2. Galv. Hurricane anchors (Simpson type 10) shall be used for all rafter anchorages at intersections with all walls or beams, except stainless steel (SS) hurricane anchor to be used in areas exposed to the atmosphere fastened with ss ring shank nails.
3. Exterior stud walls shall be tied to girders with Simpson CS16 strap ties (fasten directly to stud) at every third stud and tied with 7/16 OSB from top plate to CMU wall timber plate. Exterior studs between floors shall also be tied WI Simpson CS16 strap ties at every other stud.
4. Alignment: Piers shall not exceed 1/2" in any bay or in any 20'-0" length (maximum for any length shall be 1") unless indicated otherwise.
5. All work shall be in accordance with the International Residential Code, 2009 edition.
6. The design of the parts and portions of the structure is based on a completed condition. Any temporary bracing, shoring or supporting of the structure or its parts which is made necessary due to construction sequencing (or otherwise) to maintain stability prior to completion shall be the responsibility of the contractor.
7. Any floor depression dimensions which are required shall be confirmed by the contractor as meeting the intent of the architectural drawings.
8. All elevations are referenced from the first floor finished elevation.
9. Any discrepancies, interference, or conflicts between the structural drawings and those of other disciplines shall be reported before the submission of checked shop drawings by the contractor for review.
10. All references to codes, standards, or specifications are to be the latest issued editions at the time of the permitting.
11. Safe and adequate shoring of all parts of the structure, during the course of construction, shall be the responsibility of the general contractor.
12. The contractor shall verify all dimensions in the field.
13. Shop drawings shall be furnished for approval before any fabrication and erection are started. Poorly executed shop drawings shall be rejected and resubmitted.
14. Contractor to verify all dimensions and conditions at the project site before starting work and shall notify the architect immediately of any discrepancies. The contractor shall notify the architect of any site conditions that are not consistent with the drawings.
15. Refer to architectural drawings for all wall and door openings. Refer to electrical and mechanical drawings for size and location of all openings for ducts, piping conduits, etc. Not shown.
16. All sections and details are typical at similar locations and where applicable.

FILL

1. All fill material shall be a select material capable of attaining 95% maximum dry density compaction.
2. The exposed soil surface after excavation shall be compacted a minimum of 95% of their standard Proctor maximum dry density in accordance with ASTM D698 to a depth of 8".
3. This project was designed in the absence of a soils report. All design values are based on an assumed bearing value of 2000 PSF. The reasonableness of this assumption should be verified before commencing any foundation work.
4. All excavations for footings shall be made to the grades shown for continuous footings. Contractor shall take measures as to prevent cave-in of the footing excavations as may be required.
5. Compacted fill material shall be free of organics, stones, rocks, broken bricks, wood fragments, or other deleterious material that affects the compatibility of the material.
6. Fill material shall be placed in lifts not to exceed 10" and compacted to at least 95% of the modified Proctor maximum dry density.
7. Prior to placement of any concrete, the thin layer of disturbed soil in the footing subgrade shall be compacted with hand operated, gas power tampers.

STRUCTURAL CONCRETE

1. All concrete shall develop a minimum compressive strength of 3000 PSI in 28 days with a 4" slump.
2. All concrete shall be compacted with high frequency, internal mechanical vibrating equipment supplemented by hand spading and tamping.
3. All reinforcing steel shall be grade 60 deformed bars complying with ASTM A615.
4. Slab welded wire mesh shall lap one full mesh at sides and ends and be adequately tied.
5. All detailing, fabrication and placement of reinforcing steel shall comply with the requirements of the SCI manual of standard practice for detailing reinforced concrete structures.
6. All reinforcing bar splice lengths and locations, embedments, lengths, hooks, etc. Shall be as indicated on the drawings.
7. Splicing of footing reinforcing shall be at mid-span between columns and staggered. Minimum lap at splices to be 48 bar diameters.
8. Provide the following additional reinforcing:
   A. Two #5 bars on all sides where the largest dimension is 1 '-0" or more. Bars shall extend 2'-0" past the opening edge.
   B. Two #5 bars each way at re-entrant corners.
9. All externally exposed corners of concrete shall be beveled with a 3/4" x 45' surface unless indicated differently on the drawings.
10. Bar supports and spacers for rebar shall be provided in accordance with ACI 315-80.
11. Out of level tolerance for the top of the slab is 5/32 " in 10'-0" and 1/4 " overall.
12. All concrete work shall be in accordance with ACI 318, "specification for structural concrete for buildings.
13. Wire brush and lightly oil anchor bolts after concrete placement.
14. Concrete cover shall be as indicated by ACI 318 and as detailed on drawings. Where the cover is not dimensioned use the same dimensioned for similar items.
15. Construction joints when required, shall be located at mid-spans of slab or beams.
16. Wet (not flood) the forms, rebar and bottom of all footing and grade beam excavations immediately before placing concrete.
17. Concrete slab shall be machined troweled finished and receive a coat of sealer hardener liquid membrane curing compound to be applied immediately after the slab is finished in accordance with manufacturer's instructions.
18. Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
19. Concrete shall be maintained above 50'. and in a moist condition for at least the first 7 days after placement in accordance with ACI 318.
20. The contractor shall be responsible for seeing that all rebar and foundation anchors are correctly aligned and tied in place before placing concrete and that they remain in position during concrete placement operations.

STRUCTURAL MASONRY

1. Masonry construction shall conform to ACI "Building Code Requirements for Masonry Structures" (ACI/ASCE 530) and "Specifications for Masonry Structures" (ACI/ASCE 530.1) except as amended
2. Obtain a copy of masonry code, and specifications far reference at the job site.
3. Use type "S" mortar with a minimum compressive strength of 1800 psi.
4. Masonry units shall conform to ASTM C90 with a minimum compressive strength of 1900 psi on a net section, to provide net area compressive strength of masonry (F'm) of 1500 psi.
5. Provide filled cells as shown on plans. In addition, provide filled cells adjacent to all openings, at anchorage of connections.
6. Provide full mortar bedding around all filled cells with vertical reinforcing.
7. Reinforcing far filled cells shall conform to ASTM A615, Grade 60. Provide the following lap splices for reinforcing: #4 Bars 24" #5 Bars 30"
8. Reinforce wall with "ladder" type reinforcement in bed joints at 16" O.C. measured vertically. Lap splice all horizontal wall reinforcing 6'. Provide prefabricated 'tee" or corner sections at all intersecting walls.
9. Refer to typical wall sections for maximum construction height of masonry walls. Provide clean-out holes at the base of filled cells when the concrete pour exceeds 5 feet in height.
10. Concrete for filled cells shall be vibrated during placement using a "pencil" type vibrator.
11. The masonry walls are not designed to withstand temporary construction loads. It is the contractor's responsibility at all times to maintain wall stability during the construction phase of this project.
12. The use of solid load-bearing masonry units is prohibited on this project.
13. Masonry wall construction requires expansion/contraction joints. Locate these joints as directed by the project Architect not more than 40 feet on center. Avoid locations near windows and doors or other geometry that would lend to the formation of expansion cracks.
14. All lintels over masonry openings shall be Cast-Crete Lintels. Cast-Crete lintels are available from General Materials, Inc.
15. Provide seismically rated brick ties for all brick veneer per manufacture install instructions.

TIMBER TRUSSES

1. Prefab floor trusses shall be designed by a registered professional engineer in accordance with the latest edition of the "national design specification for stress-graded lumber and its fastenings" as recommended by the national forest products association and the truss plate institute.
2. Trusses shall be designed for wind and applicable live and dead loads per IRC requirements, late8st edition.
3. Floor truss deflection shall be limited to 3/4" for total load.
4. All plywood sub-floor sheathing to be 23/32 tongue and exterior groove grade Advantech or Sturdi-floor. Flooring shall be glued and nailed with 8d nails @ 4" O.C. at all supported edges and 6" O.C. at intermediate framing members.
5. Pre-manufactured wood truss supplier to provide all necessary temporary and permanent bracing for lateral stability of truss system.
6. Pre-manufactured truss shop drawings shall be submitted for approval before fabrication.
7. Wood component manufacture to coordinate all dimensions with the contractor.
8. Truss manufacture to determine and locate all point and line loads on trusses and girders.
9. No openings, notches or modifications in wood components shall be field cut without written permission by the wood component designer.
10. Truss manufacturer. To provide truss hangers as required for support of floor trusses.

TIMBER

1. All timber framing members shall be #2 SPF (UNO)
2. Exterior wall sheathing shall be jointed over studs a minimum of 12" above the sole plate and 12" below the top plate.
3. All exterior wall sheathing must extend from the bottom edge of sole plate or sill plate to top edge of the top plate.
4. Plywood sheathing shall have 1/8" space between sheets, all edges, and be 15132" struct 1 APA-rated plywood sheathing.
5. All exterior walls greater than or equal to 10 feet in height must be 2x6 studs.
6. Fasten plywood with a double row of nails (jacks and adjacent wall studs) at all windows and door openings with nail spacing previously indicated.
7. All plywood sub-floor sheathing to be 23/32 tongue and groove exterior grade Sturdi-floor. Flooring shall be glued and nailed with 8d nails@4" O.C at all supported edges and 6" O.C at intermediate framing members.
8. Extra studs, not jack studs, shall be installed at opening jambs to replace the typical spaced studs interrupted by openings.
9. All exterior & interior shear wall wood sole plates in contact with concrete or masonry shall be pressure treated and anchored to the foundation wall with 5/8 " Ø anchor bolts x 7" embedment at 32" O.C. A minimum of one anchor bolt shall be provided within 6 to 12 inches of each end of each plate and within 12 inches of corners, or as shown on plans
10. All other sole plates to be fastened with 5/8" Ø x 7" embed. Min @ 32" O.C
11. Laminated veneer lumber shall be equal to "microlam" with 2600 psi bending stress: 2,000,000 psi modulus of elasticity.
12. Ceiling diaphragm:
13. The gypsum board shall be,1/2" minimum. Fasten directly to the ceiling joists with #6 x 11/4 " long type S or W drywall screws at 10" o.c. In the board field and 7 inches O.C at the board ends and ceiling edges. Provide blocking as required for edge nailing. The ceiling diaphragm shall be continuous or shall be spliced with framing around the top plates of partition walls with the above screws at 7" O.C the ceiling diaphragm shall be fastened to 2x perimeter blocking members which are fastened to the top plates with 10d nails @ 6" O.C
14. Roof sheathing fastening:
15. The first four-foot wide plywood sheathing along roof edges (includes gable end wall and each side of the ridge), shall have all edges nailed@4" O.C with intermediate members fastened at 4" O.C provide blocking, as required, to ensure all edges are nailed. The remaining roof sheathing shall be fastened at 4" O.C along edges and 6" O.C along intermediate members. Sheathing shall be fastened to roof framing with 8d ring shank. Gable end blocking: provide blocking@48" 0.c. Maximum, in first two framing spaces at each end.
16. Simpson strong-tie connectors are specifically required to meet the structural calculations of the plans. Before substituting another brand, confirm load capacity based on reliable published testing data or calculations. The engineer/designer of record should evaluate and give written approval for substitution prior to installation.
17. Floor and roof framing including support beams and any existing connections Were previously engineered by others and are not the responsibility of the engineer of record.

STRUCTURAL STEEL

1. Structural steel design, fabrication and erection shall be in conformance with the following codes and specifications, latest edition, unless noted otherwise:

   AISC (American Institute of Steel Construction) manual of steel construction, allowable stress design, 13th edition - 2005.
   AISC specification for structural steel buildings.
   AISC code of standard practice for steel buildings and bridges.
   AISC specification for structural steel joints using ASTM a325 or a490 bolts.

2. All structural steel material shall conform to the following standards, unless noted otherwise.

Structural steel	standard
W,Wt	ASTM A992 And ASTM A572 Grade 50
L, 2, L, C, Hp, Plates, Bars	ASTM A572, Grade 50
Structural Tubing	ASTM A307, Grade A
Structural Pipe	ASTM A36
High Strength Bolts	ASTM A500, Grade B
High Strength Nuts	ASTM A53, Type E Or S, Grade B
Unfinished Bolts	ASTM A325, Type 1 ASTM A490, ASA Req. By Design
Unfinished Nuts	ASTM A563, Grade Dh
Welding Electrodes	ASTM A563, Grade A AWS D1.1, 370xx Series

3. All welding shall be in conformance with the American welding society structural welding code -aws d1.i, latest edition.
4. Shop connections shall typically be welded using electrodes with a minimum tensile strength of 70 KSI
5. Bolted connections for primary structural members shall be made with minimum 3/4 inch diameter high strength bolts conforming to ASTM A325n or ASTM A490 in bearing type connections with threads included in the shear plane. The connections shall use pre-tensioned bolts unless noted otherwise. These connections shall use direct tension indicating devices to ensure the bolts are tightened to the minimum pre-tension loads as specified by AISC table j3.7. Inspection is required to verify that bolts are tightened. The design and assembly of high strength bolted connections shall be in accordance with AISC specification for structural joints using ASTM A325 or A490 bolts. High strength bolted connections shall be used for all primary connections. Double angle beam connections shall be used unless noted otherwise.
6. Connections shall be designed in accordance with the latest edition of the AISC "specifications for the design, fabrication, and erection of structural steel for buildings," FEMA 350, AISC seismic provisions, latest edition and part 4 of the AISC manual of steel construction for the loads given on the drawings. If no loads are given, the minimum beam connection shall be designed using 112 UDL.
7. Slip-critical (friction type) connections are to be provided at joints where slippage cannot be tolerated such as those exposed to vibration and/or direct tension, at crane support and moment connections, those with oversized holes, and where indicated on the drawings. High strength bolts of minimum 3/4-inch diameter conforming to the requirements of ASTM A325 or A490 shall be used. Bolts shall be tensioned to the values shown in table j3.7 of part 5 of the AISC manual of steel construction, ninth edition, using direct tension indicating devices. AISC specified slip-critical allowable based on the class of surface condition shall be used for design. Connection material subjected to tension forces shall be checked for prying action.
8. Bolted connections for secondary members (such as purlins, girts, and stair framing) may be made with 3/4-inch diameter machine bolts conforming to ASTM A307, Grade A, bolts for stair bracing, stair treads and toe plates may be 518 inch diameter conforming to ASTM A307, Grade A. Nuts for A307 bolts shall be ASTM A563, grade a, unless otherwise noted.
9. All bolt holes for equipment supported on structural steel shall be field drilled unless noted otherwise. Holes shall not be flame cut or burned.
10. All bolted connections shall have a minimum of 2 rows of bolts unless noted otherwise.
11. The fabricator shall prepare shop drawings and weight cs-lists in accordance with AISC specifications. The engineer shall approve shop drawings before fabrication is started. Approval shall not relieve the fabricator of his responsibility for the structural adequacy or fit up in the field.
12. Provide necessary holes and connections where future expansion is indicated.
13. All horizontal and vertical bracing members shall have their connections designed for the force as shown on drawings with no reductions, and in accordance with standard drawings 1394--01.04 and 1394-01.05. Where the forces are not shown, provide minimum connections per standard drawings 1394-01.10.
14. Minimum gusset plate thickness shall be 3/8 inch.
15. Work points for bracing connections shall be to the centerline of the column and all bracing connections shall be concentric unless otherwise shown or noted. Where this is not possible, connections shall be designed to account for the resulting eccentricities.
16. Serrated galvanized grating shall generally cover all exterior platform and walkways, all interior platform and walkways shall be covered by plain galvanized grating with 1-114 inch by 3/16 inch, bearing bars at 1-31116 inch on center unless otherwise noted. The weight of removable flooring sections shall not exceed 150 pounds.
17. All openings in grating over 12" diameter shall be banded, field locate and cut 12" diameter and smaller openings in the grating unless noted otherwise.
18. All metal roof and floor decking shall be galvanized, unless noted otherwise.
19. During the final placing of solid web structural members, the load shall not be released from the hoisting line until the members are secured with at least two bolts per connection except for diagonal bracing. Solid web structural members used as diagonal bracing shall be secured by at least one bolt per connection. The bolts must be of the same size and strength as shown on the erection drawing and drawn up wrench tight. For reference, see OSHA regulation 1926.756.
20. All columns shall be anchored by a minimum of (4) anchor bolts. Each column splice and column anchor bolt assembly including the welding to the base plate shall be designed to resist 300 lbs. Eccentric load located (18) inched from the column face in each direction at the top of the column shaft. For reference, see OSHA regulation 1926.756.

STEEL CONNECTIONS

1. Connection details not completely detailed on the drawings; including material grade and sizes, weld sizes, and the number of bolts, shall be designed by the contractor per the specifications.
2. Refer to the specifications for additional requirements.
3. Reactions noted on the plans are based on service loads and are intended for use with allowable stress design method.

GROUT

1. Grout below structural steel base plates shall be non-metallic, non-shrink grout with a minimum strength of 6000 psi when bearing on 3000 psi concrete or less, a strength of 8000 psi when bearing on concrete between 3000 and 4000 psi, and, unless noted otherwise on the drawings, a strength of 8000 psi when bearing on concrete greater than 4000 psi.

WINDOWS

R301.2.1.2 protection of openings
Exterior glazing in buildings located in windborne debris regions shall be protected from windborne debris. Glazed opening protection for windborne debris shall meet the requirements of the large missile test of ASTM E 1996 and ASTM E 1886 as modified in section 301.2.1.2.1 garage door glazed opening protection for windborne debris shall meet the requirements of an approved impact-resisting standard or ANSI/DASMA 115.

Exceptions:
Wood structural panels with a minimum thickness of 7/16" (11 mm) and the maximum span of 8 feet (2438 mm) shall be permitted for opening protection. Panels shall be precut and attached to the framing surrounding the opening containing the product with the glazed opening. Panels shall be predrilled as required for the anchorage method and shall be secured with the attachment hardware provided. Attachments shall be designed to resist the component and cladding loads determined in accordance with either table R301.2(2) or ASCE 7, with the permanent
Corrosion-resistant attachment hardware provided and anchors permanently installed on the building. Attachment in accordance with table R301.2.1.2 is permitted for buildings with a mean roof height of 45 feet (13,728 mm) or less where the ultimate design wind speed, Vult is 180 mph (290 kph) or less.

The design wind speed for the subject project is Vult = 138 mph (ultimate wind speed). Based on table 1609.3.1 "wind speed conversion" Vasd = 106 mph (nominal design wind speed), therefore, based on "exception 1" above, table 1609.1.2. "wind-borne debris protection fastening schedule for wood structural panel" is applicable, see attached table. Based on our calculations panels shall be attached with 1/4" diameter panel mate plus anchor or female id anchor at 16" O.C., all edges, by 2" embedment.

TABLE R301.2.1.2
WIND-BOURNE DEBRIS PROTECTION FASTENING
SCHEDULE FOR WOOD STRUCTURAL PANELS a,b,c,d

FASTENER TYPE	PANEL SPAN <=4'-0"	4'-0" < PANEL SPAN <= 6'-0"	6'-0" < PANEL SPAN <= 8'-0"
No. 8 wood-screw-based anchor w/ 2" embed. length	16	10	8
No. 10 wood-screw-based anchor w/ 2" embed. length	16	12	9
¼-inch 0 lag screw-based anchor w/ 2" embed. length	16	16	16

For SI: 1 inch = 25.4 mm, 1 foot= 304.8 mm, 1 pound = 4.448 N, 1 mile per hour=0.447 m/s. each
A. This table ia based on 180 mph wind speeds (Vult) and 33-foot mean roof height.
B. Fasteners shall be installed at opposing ends of the wood structural panel. Fastaners shale be locatad not less than 1" from the edge ofihe panel.
C. Anchors shall penetrate through the exterior wall covering with an embedment length 2" minmum into the buildng frame. Fasteners shall be located not lees than 2 1/2" from the edge of concrete block or concrete.
D. Panels attached to masonry er masonry / stucco shall be attached using vibration-resistant anchors having an ultimate withdrawal capacity of not less than 1,500 pounds .

SINGLE STORY OR SECOND FLOOR

SPAN	SIZE / DEPTH	JACK STUDS	KING STUDS
O' TO 3'-6"	(2) 2X6s or 3.5X6 L VL/PSL	1	1
3'-7" TO 6'-2"	(2) 2X8s or 3.5X7.25 LVL/PSL	1	2
6'-3" TO 8'-0"	(2) 2x10s or 3.5X9.25 LVL/PSL	1	2
8'-1" TO 10'-0'	(2) 1.75X10 LVL	2	3
10'-1" AND UP	CONSULT WITH ENGINEER FOR SIZE.	N/A	N/A

FIRST STORY W/ FLOOR ABOVE

SPAN	SIZE / DEPTH	JACK STUDS	KING STUDS
O' TO 3'-2"	(2) 2X8s	1	1
3'-3" TO 6'-2"	(2) 2X10s	2	2
6'-3" TO 8'-0"	(2) 2x12s	2	2
8'-1" TO 10'-0'	(2) 1.75X12 LVL	2	3
10'-1" AND UP	CONSULT WITH ENGINEER FOR SIZE.	N/A	N/A

All lintels shall bear on not less than double cut jack studs. Jack studs shall be nailed to supporting double king studs w1th 2 rows of 16d nails at 12 O.C. staggered.

For 2x6 walls, add an additional ply of lintel material.

See strapping detail for uplift connections around windows and doors.

The above lintels/headers are intended for openings supporting one floor and roof loads only. Consult with the engineer for openings that support two floors and/or roof loads and for those that are supporting a point or beam loading.

The header sizes above do not allow for point loads or if a beam or other heavily loaded element falls over header shown.

Multi-ply headers are sized with the anticipation of plywood or OSB material installed in between each ply.
For header widths less than the thickness of the wall framing shift header to outside face of the wall.

MULTIPLE LVL ATTACHMENT SCHEDULE

FASTENER	(2) PLY LVL	(3) PLY LVL	(4) PLY LVL
16d Nails	3 ROWS 12" O.C.	3 ROWS 12" o.c. EACH SIDE	
1 /4" X 3.5" Screws	3 ROWS 16" O.C.	3 ROWS 16" o.c. EACH SIDE	
1/2 DIA THRU BOLTS	2 ROWS 24" O.C.	2 ROWS 24" O.C.	2 ROWS 16" O.C.

1. FASTENER ROWS ARE TO BE STAGGERED
2. FOR LVL BEAMS 17" OR MORE IN DEPTH, INSTALL AN ADDITIONAL ROW OF THE FASTENER SHOWN ABOVE. IE. 3 ROWS BECOME 4 ROWS.
3. WHERE THE MUL IIPLE LVL SUPPORTS A PERPENDICULAR BEAM, INSTALL 2 1/2" DIA THROUGH BOLTS WITHIN 8" EACH SIDE OF PERPENDICULAR BEAM.

CODES AND STANDARDS

1. "Minimum Design Loads For Buildings And Other Structures" American Society Of Civil Engineers. Asce 7-10 Was Utilized For The Design Of This Structure In Accordance With The International Residential Code 2015- Part Ix Reference Standards (Page 764).
2. "Specifications For Structural Steel Buildings', Allowable Strength Design (13th Edition - Asd), March 9, 2005 - American Institute Of Steel Construction
3. "Seismic Provisions For Structural Steel Buildings", May 21, 2005, American Institute Of Steel Construction
4. "Structural Welding Code- Steel (Aws D1.1)" And "Structural Welding Code Reinforcing Steel (Aws D1.4)", American Welding Society.
5. "Building Code Requirements For Reinforced Concrete (Aci 318-05), American Concrete Institute 2005 And All Succeeding Revisions.
6. "Building Code Requirements For Masonry Structures" (Aci 530-05) And
7. "Specifications For Masonry Structures" (Aci 530.1-11), American Concrete Institute 2005.
8. "Manual Of Standard Practice", Concrete Reinforcing Steel Institute, Latest Edition.

CLIMACTIC AND GEOGRAPHIC DATA

Wind Design Speed	115 MPH
Seismic Design Category	D1
Weathering:	Negligable
Frostline Depth	12 IN
Termite	Very Heavy
Winter Design Temp	26 Degrees
Ice Barrier Underlayment Req'd	No
Air Freezing Index	50 Degrees
Annual Temp	63.1

GRAVITY LOAD DESIGN CRITERIA

DEAD LOAD CRITERIA	
Total Roof Dead Loads:	20 TOTAL PSF
LIVE LOAD CRITERIA	
Roof Slope - flat to 4:12	20 PSF
Floors Habitable attics and Sleeping Areas	30 PSF
SOIL BEARING PRESSURE	2000 PSF (ASSUMED);

This project was designed in the absence of a soils report.
Load bearing values for soil capacity have been assumed utilizing IRC 2009, table R401.4.1 based on the following classifications (SW, SP, SM, SC, GM and GC) = 2000 psf. The reasonableness of this assumption should be verified prior to commencing any foundation work.

30X46 LEAN COTTAGE

Designer: Designer
Drawn By: Author

NOTES

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3. Printable sheet size is 36"x24"

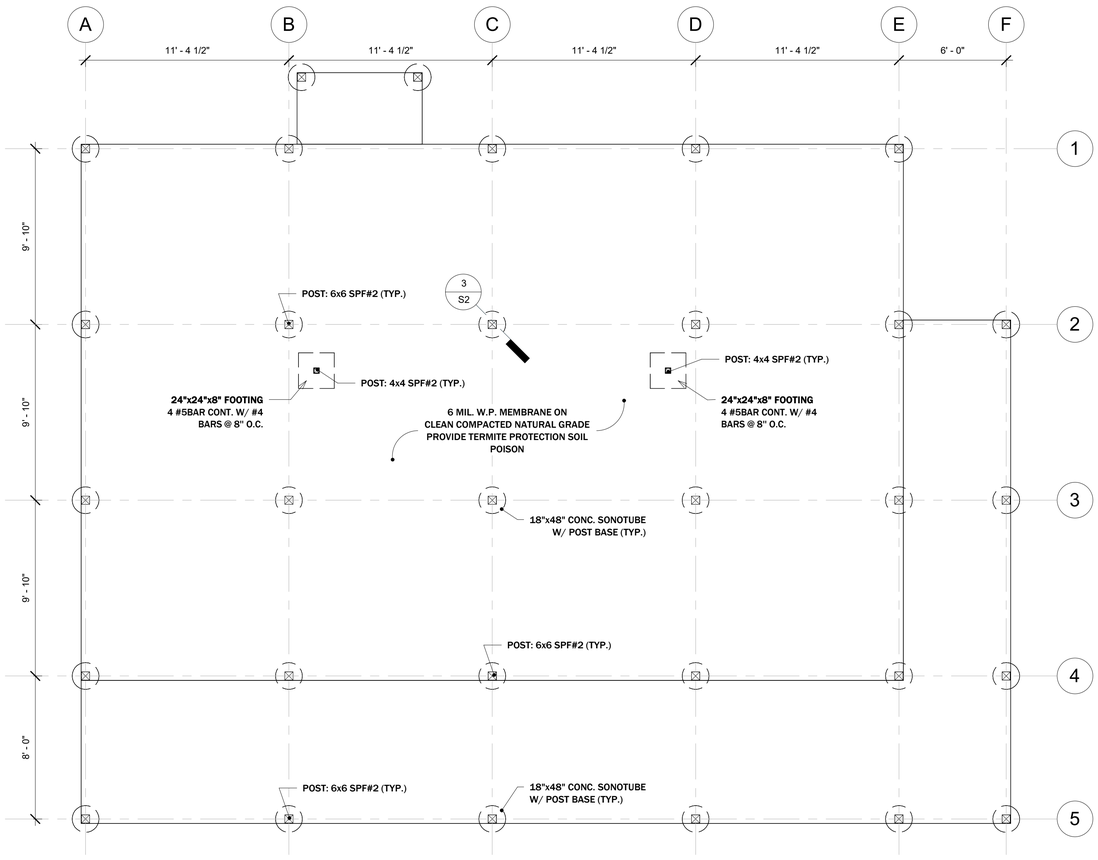
REVISIONS

SCALE: 1/2" = 1'-0"

FRAMING NOTES

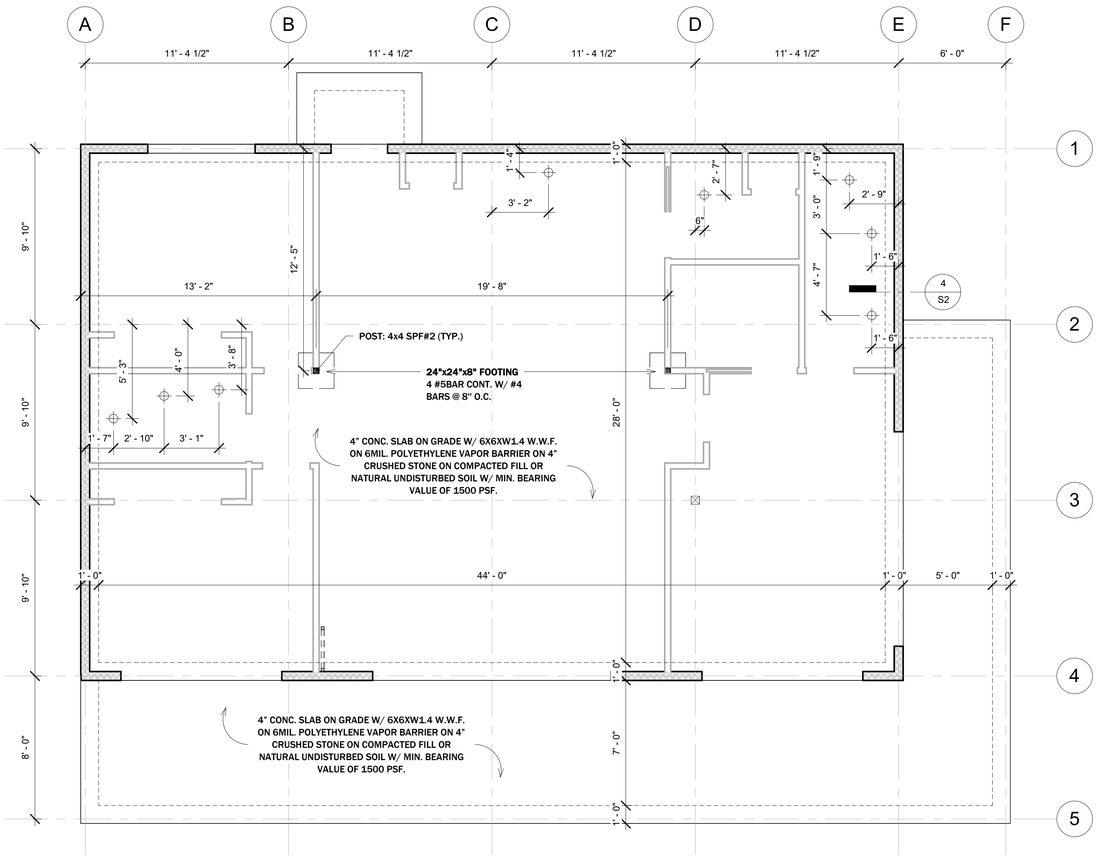
Sheet No.

S0



1 S1 FOUNDATION PLAN - PIERS

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



2 S1 FOUNDATION PLAN - SLAB

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

STRUCTURAL DESIGN CRITERIA

CLIMACTIC AND GEOGRAPHIC DATA

Wind Design Speed	115 MPH
Seismic Design Category	D1
Weathering:	Negligable
Frostline Depth	12 IN
Termite	Very Heavy
Winter Design Temp	26 Degrees
Ice Barrier Underlayment Req'd	No
Air Freezing Index	50 Degrees
Annual Temp	63.1

GRAVITY LOAD DESIGN CRITERIA

DEAD LOAD CRITERIA		
Total Roof Dead Loads:		20 TOTAL PSF
Total Floor Dead Loads:		20 TOTAL PSF
LIVE LOAD CRITERIA		
Roof	Slope - flat to 4:12	20 PSF
Floors	Habitable attics and Sleeping Areas	30 PSF
SOIL BEARING PRESSURE		2000 PSF (ASSUMED);

FOUNDATION AND FLOOR FRAMING PLAN NOTES

1. ALL FOOTINGS TO BEAR ON FIRM, UNDISTURBED SOIL AT 12" MIN. BELOW LOWEST ADJACENT GRADE.
2. ANCHOR BOLTS AT EXTERIOR WALLS AND INTERIOR BEARING WALLS TO BE GALVANIZED AND A MINIMUM 1/2" DIA. SPACED AT 72" O.C.

30X46 LEAN COTTAGE

Designer: Designer

Drawn By: Author

NOTES

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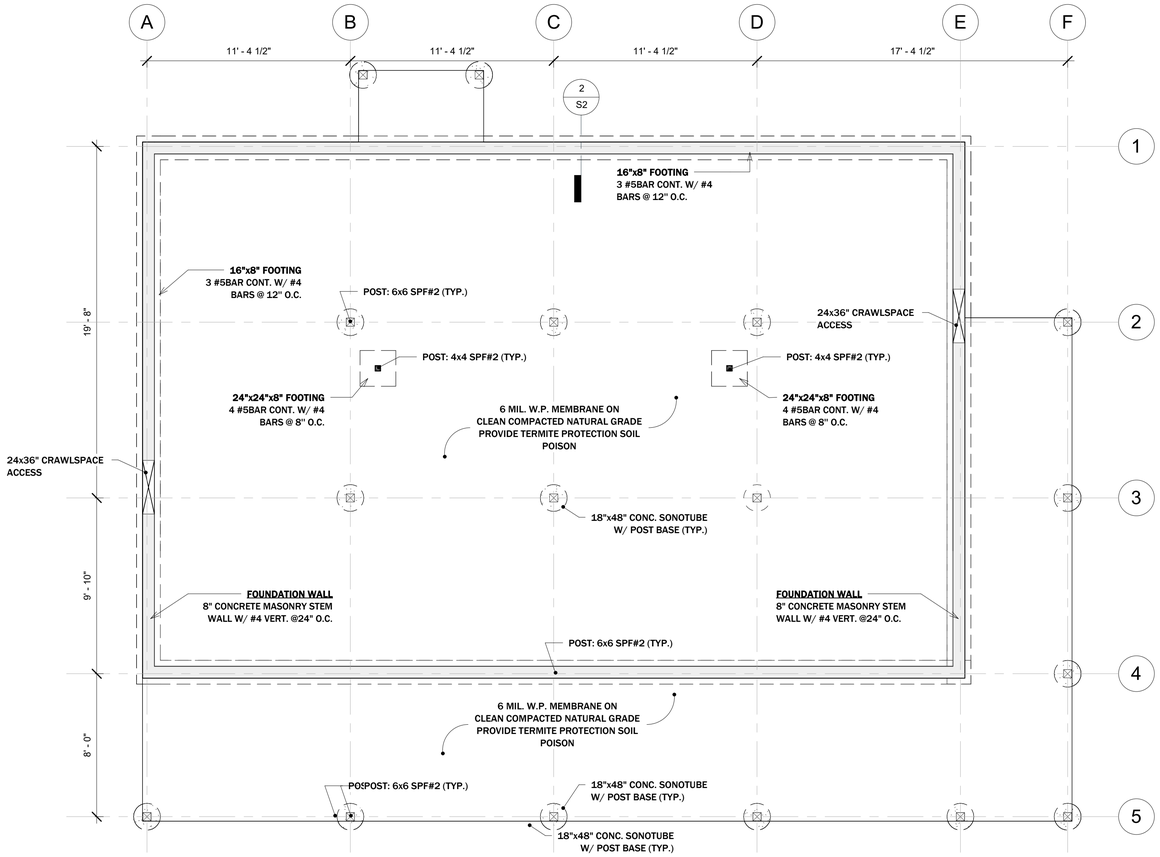
REVISIONS

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

FOUNDATION PLAN

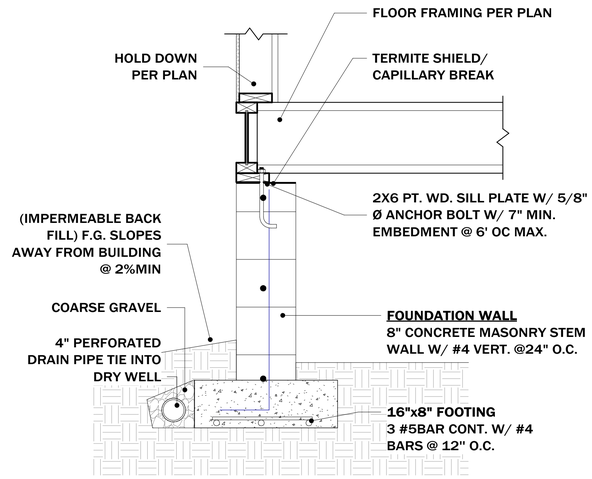
Sheet No.

S1



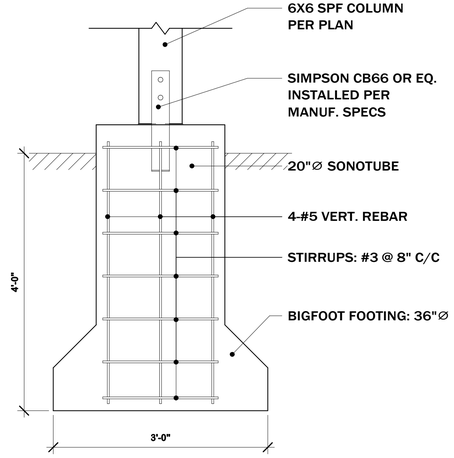
1 S2 **FOUNDATION PLAN - CRAWL SPACE**

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



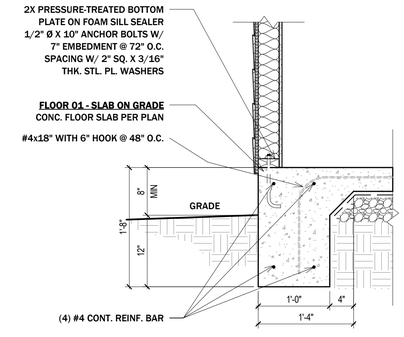
2 S2 **STEM WALL**

Scale: 1" = 1'-0"



3 S2 **FOUNDATION PIER DETAIL**

Scale: 1" = 1'-0"



4 S2 **SLAB ON GRADE DETAIL**

Scale: 1" = 1'-0"

STRUCTURAL DESIGN CRITERIA

CLIMACTIC AND GEOGRAPHIC DATA

Wind Design Speed	115 MPH
Seismic Design Category	D1
Weathering:	Negligable
Frostline Depth	12 IN
Termite	Very Heavy
Winter Design Temp	26 Degrees
Ice Barrier Underlayment Req'd	No
Air Freezing Index	50 Degrees
Annual Temp	63.1

GRAVITY LOAD DESIGN CRITERIA

DEAD LOAD CRITERIA		
Total Roof Dead Loads:		20 TOTAL PSF
Total Floor Dead Loads:		20 TOTAL PSF
LIVE LOAD CRITERIA		
Roof	Slope - flat to 4:12	20 PSF
Floors	Habitable attics and Sleeping Areas	30 PSF
SOIL BEARING PRESSURE		2000 PSF (ASSUMED);

FOUNDATION AND FLOOR FRAMING PLAN NOTES

1. ALL FOOTINGS TO BEAR ON FIRM, UNDISTURBED SOIL AT 12" MIN. BELOW LOWEST ADJACENT GRADE.
2. ANCHOR BOLTS AT EXTERIOR WALLS AND INTERIOR BEARING WALLS TO BE GALVANIZED AND A MINIMUM 1/2" DIA. SPACED AT 72" O.C.

30X46 LEAN COTTAGE

Designer: Designer

Drawn By: Author

NOTES

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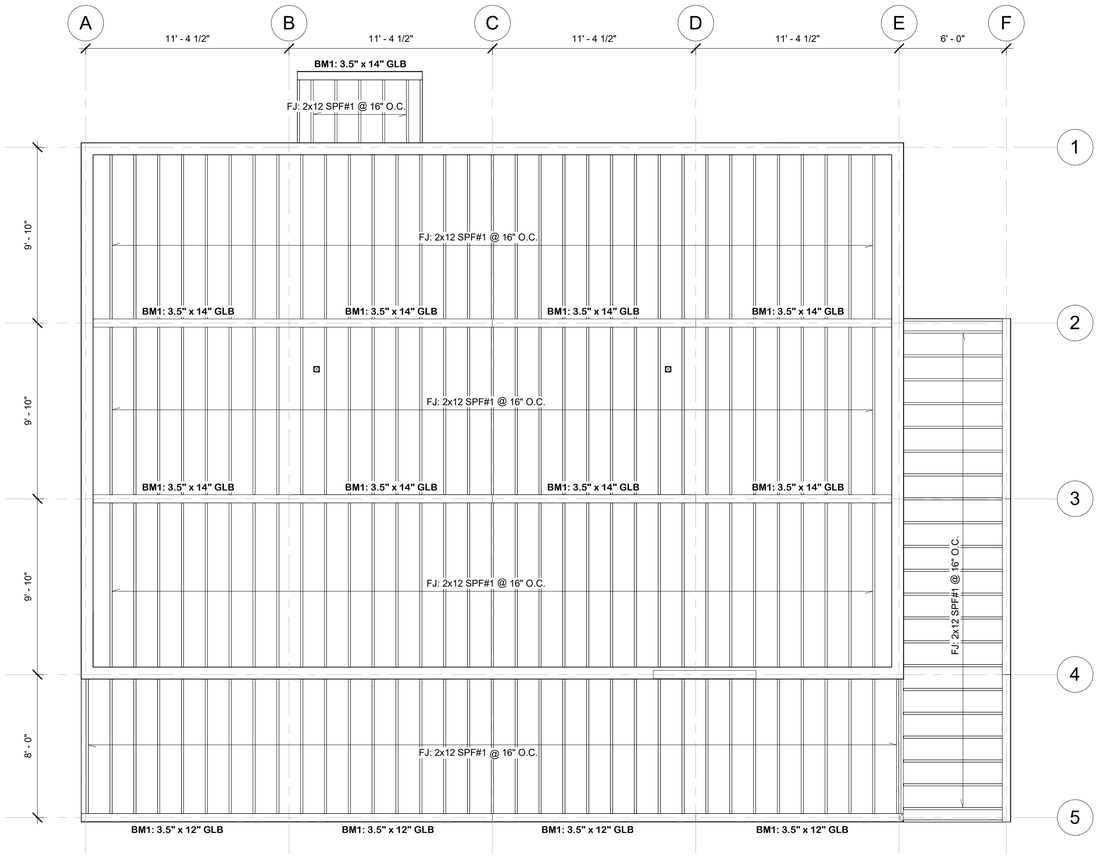
REVISIONS

SCALE: As indicated

FOUNDATION PLAN

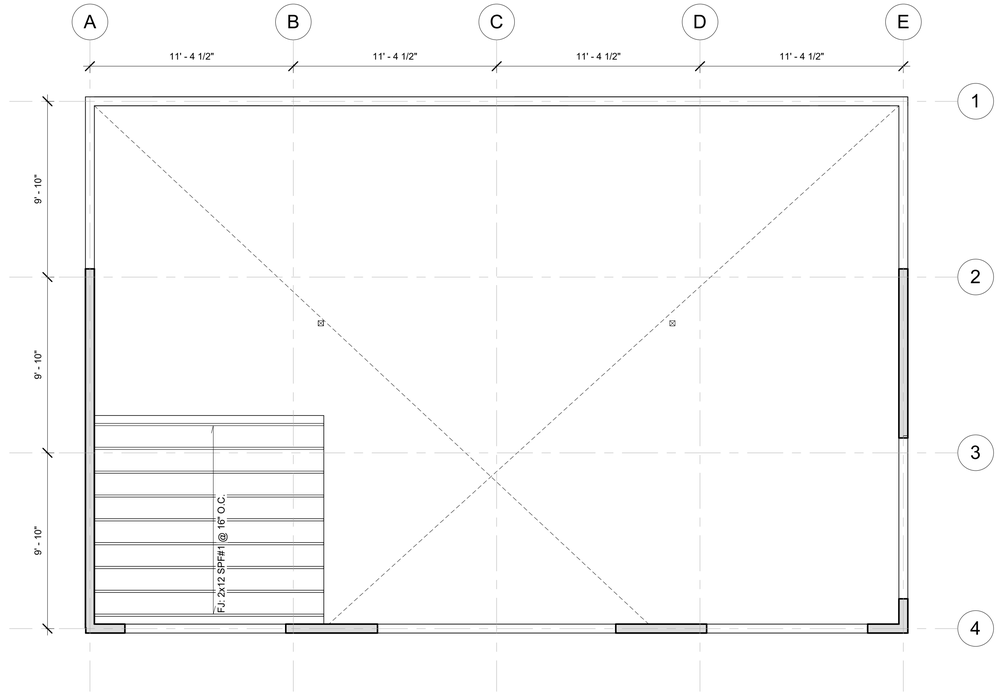
Sheet No.

S2



1/S3 FIRST FLOOR FRAMING PLAN

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



2/S3 SLEEPING LOFT FRAMING PLAN

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

STRUCTURAL DESIGN CRITERIA

CLIMACTIC AND GEOGRAPHIC DATA

Wind Design Speed	115 MPH
Seismic Design Category	D1
Weathering:	Negligable
Frostline Depth	12 IN
Termite	Very Heavy
Winter Design Temp	26 Degrees
Ice Barrier Underlayment Req'd	No
Air Freezing Index	50 Degrees
Annual Temp	63.1

GRAVITY LOAD DESIGN CRITERIA

DEAD LOAD CRITERIA

Total Roof Dead Loads:	20 TOTAL PSF
Total Floor Dead Loads:	20 TOTAL PSF

LIVE LOAD CRITERIA

Roof	Slope - flat to 4:12	20 PSF
Floors	Habitable attics and Sleeping Areas	30 PSF

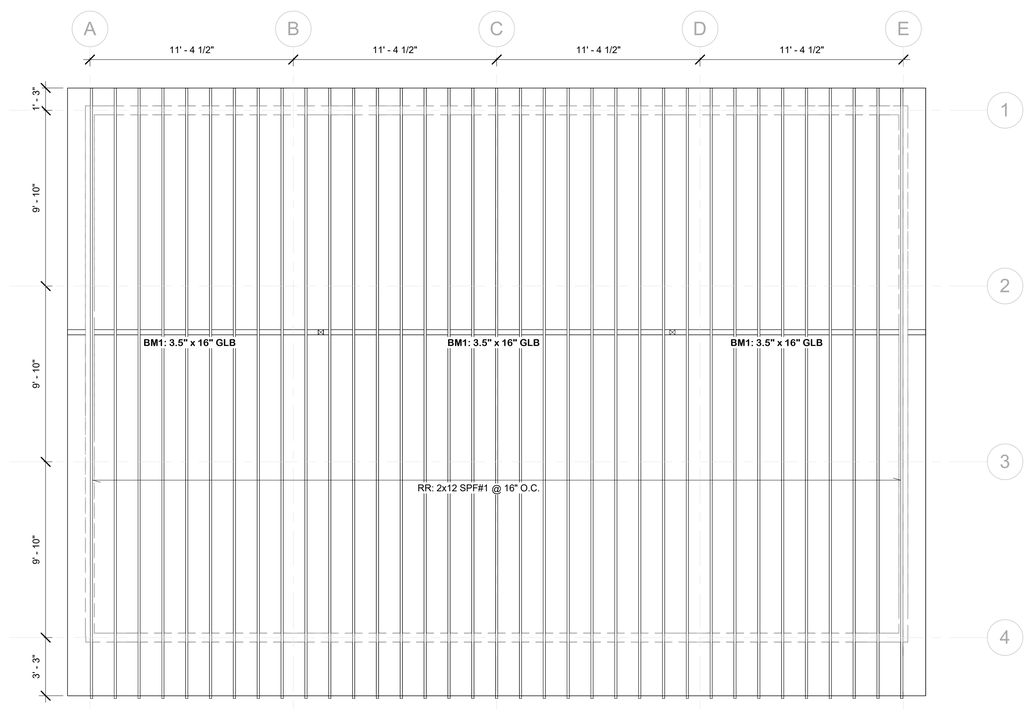
SOIL BEARING PRESSURE 2000 PSF (ASSUMED);

STRUCTURAL NOTES

1. ALL FRAMING LUMBER TO BE #2 SPF (UNO).
2. ALL DESIGNATED EXTERIOR BRACED WALL SHALL BE A MINIMUM 7/16" OSB PANEL SHEATHING ATTACHED TO FRAMING WITH 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS.
3. SOLE PLATES SHALL BE FASTENED TO JOISTS OF SOLID BLOCKING WITH (3) 16d NAILS AT 16" O.C. JOIST TO PLATE OR SILL 8d @ 16" O.C. TOENAIL.
4. ALL EXTERIOR WALL CORNERS SHALL BE FRAMED WITH MINIMUM 1/2" GYPSUM BOARD APPLIED TO BOTH FACES OF FRAMING WITH ADHESIVE AND TYPE "S" OR "W" SCREWS AT 7" O.C. AT EDGES AND 8" O.C. AT INTERMEDIATE SUPPORTS.
5. DESIGNATED NARROW WALL BRACING SHALL BE CONSTRUCTED IN ACCORDANCE WITH TABLE R602.10.5 MINIMUM LENGTH OF BRACED WALL PANELS.
6. THIS DRAWINGS SHOWS BRACED WALL LINES WITH 'CONTINUOUS STRUCTURAL PANEL SHEATHING' MEETING THE MINIMUM REQUIREMENTS OF SECTIONS R602.103 OF THE IRC.
7. REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION

ROOF FRAMING PLAN NOTES

1. PROVIDE MINIMUM (2) 2X6 DFL #2 OVER ALL OPENINGS IN ALL EXTERIOR AND BEARING WALLS.
2. PROVIDE MINIMUM DOUBLE STUD POST UNDER ALL BEAMS, HEADERS, AND GIRDER TRUSSES.
3. PROVIDE MINIMUM 2X6 DFL STUD GRADE AT 16" AT ALL EXTERIOR AND BEARING WALLS, AND A MINIMUM 2X4 STUD GRADE AT 16" O.C. AT INTERIOR AND PARTITION WALLS.
4. TYPICAL ROOF SHEATHING TO BE 1/2" APA RATED PLYWOOD WITH 8d NAILS AT 6/12.
5. PROVIDE SOLID BLOCKING AT ALL CEILING HUNG FIXTURE LOCATIONS.



3/S3 ROOF FRAMING PLAN

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

30X46 LEAN COTTAGE

Designer: Designer

Drawn By: Author

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REVISIONS

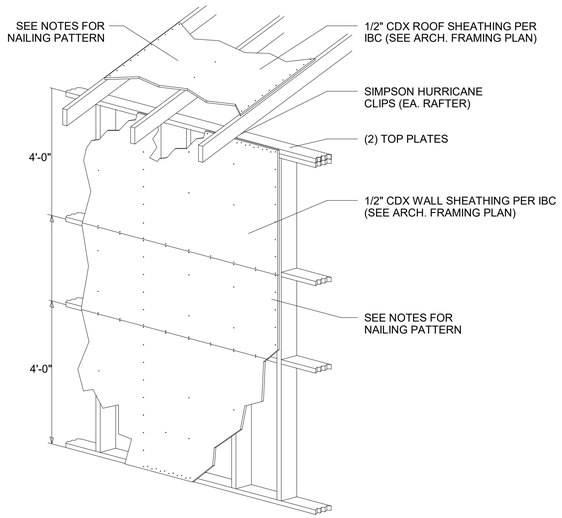
SCALE: 1/4" = 1'-0"

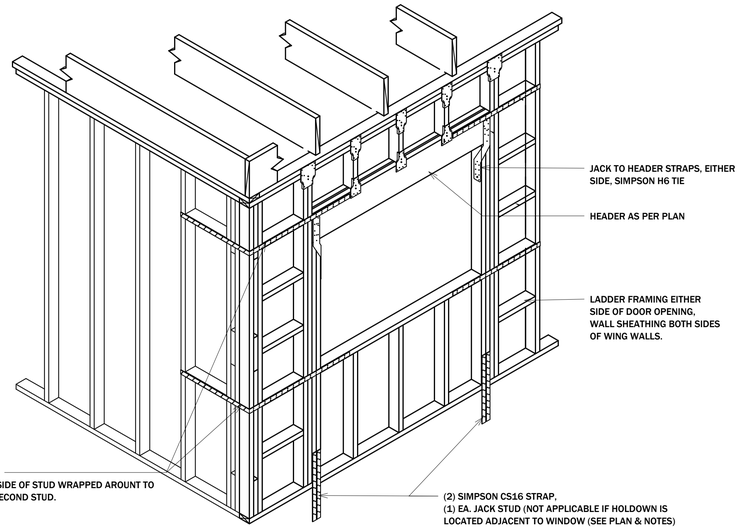
FLOOR & ROOF FRAMING PLAN

Sheet No.

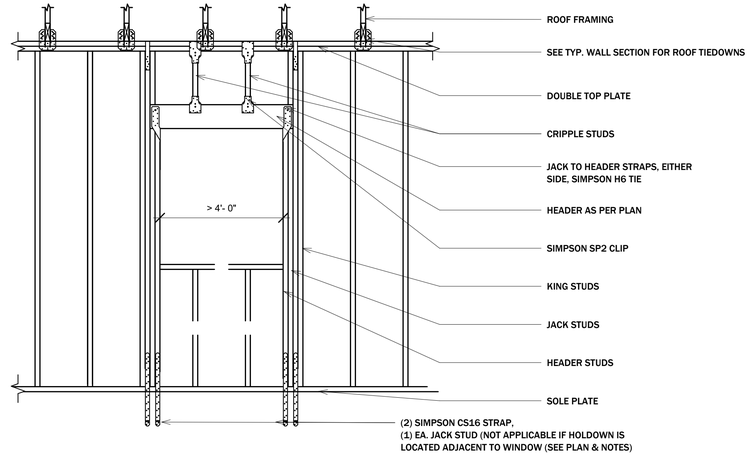
S3

SHEATHING NAILING PATTERN





Bracing For less than 48" from Corners
Scale: 1/2" = 1'-0"



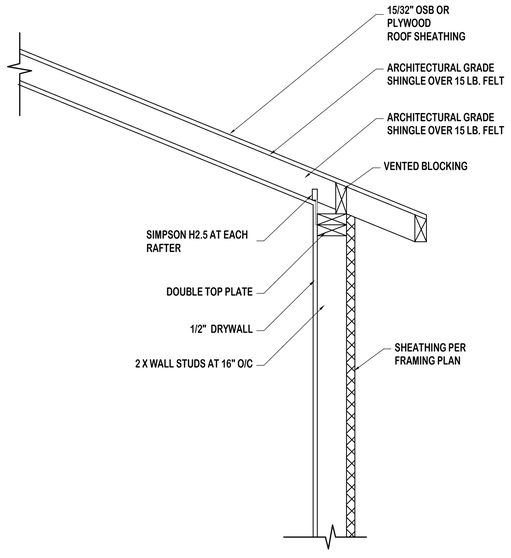
Typ. Uplift Connection at Door & Window Openings
Scale: 1/2" = 1'-0"

NAILING SCHEDULE

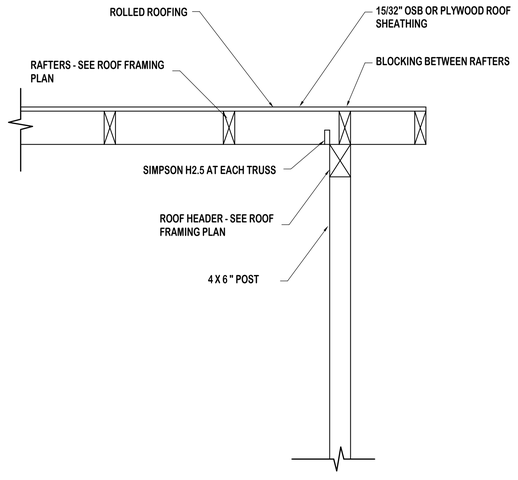
(APPLIES UNLESS NOTED OTHERWISE ON DRAWINGS)

CONNECTION	FASTENER	NUMBERS OR SPACING
JOIST TO BAND JOIST, FACE NAIL	16D COMMON	3
JOIST TO SILL OR GIRDER, TOE-NAIL	8D COMMON	3
BRIDGING TO JOIST, TOENAIL EACH END	8D COMMON	2
LEDGER STRIP	16D COMMON	3 @ EACH JOIST
1x6 OR LESS SUB FLOOR TO EACH JOIST, FACE NAIL	8D COMMON	2
OVER 1x6 SUB FLOOR TO EACH JOIST, FACE NAIL	8D COMMON	3
2" SUB FLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	16D COMMON	2
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16D COMMON	16" O.C.
TOP OR SOLE PLATE TO STUD, END NAIL	16D COMMON	2
STUD TO SOLE PLATE, TOE NAIL	8D COMMON	4
DOUBLE STUDS, FACE NAIL	10D COMMON	24" O.C.
DOUBLE TOP PLATES, FACE NAIL	10D COMMON	16" O.C.
TOP PLATES, LAP AND INTERSECTIONS FACE NAIL	-	2-16D OR 3-10D COMMON
CONTINIOUS HEADER, TWO PIECES	16D COMMON	16" O.C. ALONG EACH EDGE
CEILING JOIST TO PLATE, TOENAIL	8D COMMON	3
CONTINIOUS HEADER TO STUD, TOE NAIL	8D COMMON	3
CEILING JOIST, LAPS OVER PARTITIONS, FACE NAIL	-	3-16D OR 4-10D COMMON
CEILING JOIST TO PARALLEL RAFTERS, FACE NAIL	-	3-16D OR 4-10D COMMON
RAFTER TO PLATE, TOENAIL	8D COMMON	3
1" BRACE TO EACH STUD AND PLATE, FACE NAIL	8D COMMON	2
1x8 OR LESS SHEATHING TO EACH BEARING, FACE NAIL	8D COMMON	2
BUILT-UP CORNER STUDS	16D COMMON	3
BUILT-UP GIRDERS AND BEAMS, OF THREE MEMBERS	20D COMMON	24" O.C.
STUDS TO SOLE PLATE, END NAIL	16D COMMON	16D COMMON

NOTE:
Wall and roof sheathing will be nailed with 8d nails 3" O.C. around edges and 6" O.C. in the field. Wall and roof sheathing will be nailed with 10d nails 4" O.C. around edges and 12" O.C. in the field. Provide sheathing splices over blocking or framing the sheathing may be placed either horizontally or vertically. Nails in any single row shall not be spaced closer than 3" O.C.



1 SD1 ROOF DETAIL 1
Scale: 1" = 1'-0"



2 SD1 ROOF DETAIL 2
Scale: 1" = 1'-0"

30X46 LEAN COTTAGE

Designer: Designer
Drawn By: Author

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REVISIONS

SCALE: As indicated

FRAMING DETAIL

Sheet No.

SD1

30x46 LEAN COTTAGE MATERIAL LIST

FOUNDATION & FLOORING

QTY	MATERIAL	SIZE	LENGTH / AREA	PURPOSE
1	3.5 x 10.5 Glued laminated timber	4x12	7'-0"	Front Porch Beam
7	3.5 x 10.5 Glued laminated timber	4x12	3'-8 1/2"	Front Porch Joist
10	2x12 Lumber	2x12	13'-2"	Loft Joist
1	2x12 Lumber	2x12	11'-8"	Loft Joist
-	Water Barrier	Varies	1950SF	Polyethylene Vapor Barrier
-	3/4" Subfloor	Varies	1950SF	Main Floor subfloor
-	Flooring Material	Varies	1950SF	Main Floor (interchangeable to other flooring materials)
		Pier Foundation Option		
29	Concrete Foundation Base/Pier (or Sonotube)	18" dia, 48" depth		Foundation - Refer to Sheet S1
29	Foundational Post	6"x6"		Foundation - Refer to Sheet S1
16	3.5 x 10.5 Glued laminated timber	4x12	11'-4 1/2"	Foundation Beam
4	3.5 x 10.5 Glued laminated timber	4x12	6'-0"	Foundation Beam
17	3.5 x 10.5 Glued laminated timber	4x12	9'-10"	Foundation Beam
6	3.5 x 10.5 Glued laminated timber	4x12	8'-0"	Foundation Beam
32	2x12 Lumber	2x12	7'-8 1/2"	Deck Floor Joists
22	2x12 Lumber	2x12	5'-8 1/2"	Deck Floor Joists
96	2x12 Lumber	2x12	9'-6 1/2"	Floor Joists
43	2x6 Blockings	2x10	12'	Floor blocking - purchase longer lumber and cut to ~16"
-	Underfloor Insulation Batts		1950SF	Underfloor insulation
		Crawl Space Foundation Option		
15	Concrete Foundation Base/Pier (or Sonotube)	18" dia, 48" depth		Foundation - Refer to Sheet S2
15	Foundational Post	6"x6"		Foundation - Refer to Sheet S2
17	3.5 x 10.5 Glued laminated timber	4x12	9'-10"	Foundation Beam
6	3.5 x 10.5 Glued laminated timber	4x12	8'-0"	Foundation Beam
96	2x12 Lumber	2x12	9'-6 1/2"	Floor Joists
32	2x12 Lumber	2x12	7'-8 1/2"	Deck Floor Joists
22	2x12 Lumber	2x12	5'-8 1/2"	Deck Floor Joists
-	Underfloor Insulation Batts		1950SF	Underfloor insulation
		Slab Foundation Option		
4	2x12 Ledger & Rim	2x12	12'-0"	Main Cabin Ledger & Rim
7	2x12 Ledger & Rim	2x12	10'-0"	Main Cabin Ledger & Rim
-	4" Concrete Slab	4"	1380SF	Main Cabin Foundation - S1
-	4" Concrete Slab	4"	525SF	Deck - S1

QTY	MATERIAL	SIZE	LENGTH / AREA	PURPOSE
12	2x6 Top and Bottom Plate	2x6	16'-0"	Exterior Wall Framing Side walls
24	2x6 Top and Bottom Plate	2x6	12'-0"	Exterior Wall Framing Front and Back walls
35	2x6 Wall Studs @ 16" O.C.	2x6	7'-0"	Exterior Wall Framing - Front top studs
114	2x6 Wall Studs @ 16" O.C.	2x6	9'-0"	Exterior Wall Framing
12	2x6 Wall Studs @ 16" O.C.	2x6	6'-0"	Side Exterior Wall Framing (loft portion)
10	2x6 Wall Studs @ 16" O.C.	2x6	4'-0"	Side Exterior Wall Framing (loft portion)
8	2x6 Wall Studs @ 16" O.C.	2x6	2'-0"	Side Exterior Wall Framing (loft portion)
32	2x6 Wall Studs @ 16" O.C.	2x6	1'-0"	Cripple stud
47	2x6 Window/door header & sill	2x6	3'-3"	Window W1, W4, W6, W7, W8, W9, W10, Door D6
12	2x6 Window/door header & sill	2x6	3'-7"	Window W3
7	2x6 Window/door header & sill	2x6	6'-3"	Window W5, Door D1
6	2x6 Window/door header & sill	2x6	4'-3"	Window W12
18	2x6 Door header	2x6	2'-9"	Door D2, D3, D5
4	2x6 Door header	2x6	9'-3"	Door D4
2	2x6 Door header	2x6	13'-7"	Door D7
-	R-19 BATT Insulation or Alternative		1560SF	Wall Insulation
-	1/2" Exterior Sheathing	-	1560SF	Sheathing
-	Exterior Siding	-	1560SF	Exterior Facade

INTERIOR WALLS				
QTY	**MATERIAL**	**SIZE**	**LENGTH / AREA**	**PURPOSE**
129	2x4 Wall Stud @ 16"	2x4	9'-0"	Interior Wall Framing Studs
59	2x4 Wall Stud @ 16"	2x4	4'-0"	Interior Wall Framing Studs - loft
51	2x4 Plates	2x4	10'-0"	Interior Wall Top & Bottom Plates
-	Drywall / Sheetrock		1832SF	Interior Drywall / Finish
CEILING AND ROOFING				
QTY	**MATERIAL**	**SIZE**	**LENGTH / AREA**	**PURPOSE**
37	2x12 LVL Roof Rafters @ 16" O.C	2x12	14'-0"	Roof Rafters
37	2x12 LVL Roof Rafters @ 16" O.C	2x12	22'-0"	Roof Rafters
39	2x10 Blocking	2x10	12'-0"	Roof Rafter Blockings - purchase longer and cut to ~16"
37	Plywood Sub-roofing Boards	4'x8'	1680SF	Sub-roofing Materials
-	Underlayment	-	1680SF	Waterproofing Roofing Layer
-	Metal Decking	-	1680SF	Roofing
-	Dry Ceiling	-	1567SF	Ceiling finish