

**FLOOR PLAN NOTES** AS APPLIES

- PROVIDE ONE LAYER OF 5/8" TYPE "X" GYP. BD. FROM FLOOR TO ROOF SHEATHING & GARAGE / DWELLING SEPARATION WALLS.
- PROVIDE A 1 3/8" MIN. THK., SOLID CORE, 1-HOUR FIRE-RATED DOOR w/ SELF-CLOSING HARDWARE & OPENING BETWEEN GARAGE AND DWELLING.
- PROVIDE A 10" HIGH PLATFORM FOR WATER HEATER.
- PROVIDE A P & T VALVE, ROUTE DISCHARGE LINE TO EXTERIOR.
- PROVIDE GLASS DOORS @ FIREPLACE OPENINGS.
- PROVIDE A DRYER VENT THRU HALL TO EXTERIOR.
- SHOWER WALLS MUST BE FINISHED TO FULL HEIGHT w/ A SMOOTH, HARD, NON-ABSORBENT SURFACE.
- PROVIDE TEMPERED GLASS OR APPROVED LAMINATE OR PLASTIC @ SHOWER ENCLOSURES. VERIFY TYPE w/ OWNER.
- PROVIDE EGRESS WINDOWS PER U.B.C., SEC. 1204
- PROVIDE A FLOOR DRAIN UNDER WASHER @ LAUNDRY ROOM, SLOPE PLATFORM TO DRAIN, RUN DRAIN LINE TO DAYLIGHT.
- WHERE POSSIBLE RUN ALL PLUMBING VENTS, EXHAUST VENTS, ETC. TO REAR OF DWELLING.
- PROVIDE A BACKFLOW PREVENTION DEVICE FOR ALL HOSE BIBBS AND LAWN SPRINKLER SYSTEMS.
- IN SHOWERS AND TUB-SHOWER COMBINATIONS, CONTROL VALVES MUST BE PRESSURE BALANCED OR THERMOSTATIC MIXING VALVES. UPC SECTION 410.7
- NEW WATER CLOSETS AND ASSOCIATED FLUSHMETER VALVES, IF ANY, SHALL USE NO MORE THAN 1.6 GALLONS PER FLUSH AND SHALL MEET PERFORMANCE STANDARDS ESTABLISHED BY THE AMERICAN NATIONAL STANDARDS INSTITUTE STANDARD A112.19.2 H & S CODE, SECTION 1742.1.3(b)
- FIRE PLACES WITH GAS LOG LIGHTERS ARE REQUIRED TO HAVE THE FLUE DAMPER PERMANENTLY FIXED IN THE OPEN POSITION AND FIREPLACES WITH L.P. LOG LIGHTERS ARE TO HAVE NO "PIT" OR "SUMP" CONFIGURATIONS, OR "NO GAS FIXTURE TO BE USED IN FIREPLACE." (U.M.C. SEC. 803 & SEC. 504(f)).

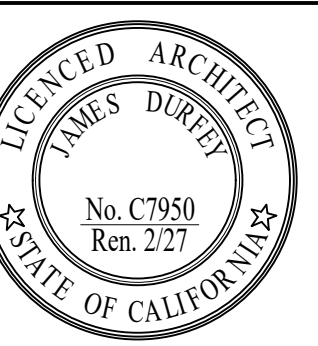
- 15. FOR ELECTRICAL DEVICES INSTALLED IN DWELLINGS: CEC ARTICLE 210 & 406**
- TAMPER RESISTANT RECEPTACLES FOR ALL LOCATIONS DESCRIBED IN 210.52 AND 550.13 (i.e. ALL RECEPTACLES IN THE DWELLING)
  - WEATHER RESISTANT TYPE FOR RECEPTACLES INSTALLED IN DAMP OR WET LOCATIONS (OUTSIDE), 4406.4(D)(6)
  - ARC-FAULT PROTECTION FOR ALL OUTLETS (NOT JUST RECEPTACLES) LOCATED IN ROOMS DESCRIBED IN NEC 210.12(A): KITCHENS, LAUNDRY AREAS, FAMILY, LIVING, BEDROOMS, DINING, HALLS, ETC.
  - GFCI PROTECTED OUTLETS FOR LOCATIONS DESCRIBED IN NEC 210.8(A): LAUNDRY AREAS, KITCHEN DISHWASHER, KITCHENS, GARAGES, BATHROOMS, OUTDOORS, WITHIN 6' OF A SINK, ETC.
- 16. PER ARTICLE 210.11 (C) THERE WILL BE A MINIMUM OF 2 SMALL APPLIANCE BRANCH CIRCUITS WITHIN THE LOCATIONS SPECIFIED IN ARTICLE 210.52(B)**
- i.e., KITCHEN AND DINING AREAS.
- 17. PER ARTICLE 210.11(C) 3, CIRCUITING SHALL BE EITHER:**
- A 20 AMPERE CIRCUIT DEDICATED TO EACH BATHROOM, OR
  - AT LEAST ONE 20 AMPERE CIRCUIT SUPPLYING ONLY BATHROOM

**ELECTRICAL LEGEND**

- 3. ALL LIGHTING TO BE HIGH EFFICACY- SEE MFR FOR SWITCHING & NOTES.**
- |         |                                                                                                             |   |                           |
|---------|-------------------------------------------------------------------------------------------------------------|---|---------------------------|
| ⊖       | DUPLEX OUTLET (110 V.)                                                                                      | ⊕ | 1/2 HOT OUTLET            |
| ⊖⊕      | DUPLEX OUTLET w/ GROUND FAULT CIRCUIT                                                                       | ⊕ | 220 VOLT APPLIANCE OUTLET |
| ⊖/P/GFI | WATERPROOF OUTLET w/ GFI CIRCUIT                                                                            | ⊖ | SINGLE POLE SWITCH        |
| ⊖       | FLOOR OUTLET (110V.)                                                                                        | ⊖ | 3-WAY SWITCH              |
| ⊖       |                                                                                                             | ⊖ | 4-WAY SWITCH              |
| ⊖       | AFCI                                                                                                        | ⊖ | DIMMER SWITCH             |
| ⊖       | RECESSED DOWN LIGHT                                                                                         | ⊖ | FLOOR LIGHT FIXTURE       |
| ⊖       | RECESSED HALOGEN SPOT LIGHT                                                                                 | ⊖ | DIRECTIONAL FLOOD LIGHT   |
| ⊖       | SURFACE MOUNTED LIGHT FIXTURE                                                                               |   |                           |
| ⊖       | SMOKE DETECTOR WITH BATTERY BACK-UP CARBON MONOXIDE ALARM WITH BATTERY BACK-UP INTERCONNECTED AN HARD WIRED |   |                           |

**ELLIE LANE RESIDENCE REMODEL**

**JAMES H DURFEY ARCHITECT**  
 2250 BIG PINE ROAD  
 ESCONDIDO, CALIFORNIA, 92027  
 CELL: 858 775 9567



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SEE DETAILS 7-9 SHEET A3 FOR TYP. BUT SIM WINDOW DETAILS  
 GLAZING SHALL BE INSTALLED WITH A NFRC CERTIFYING LABEL ATTACHED SHOWING U VALUE HGC = 0.25 , U-FACTOR= 0.32

WINDOWS				
ALL NEW GLAZING IS DUAL GLAZED AND ONE LAYER TEMP. GL. (DBL)				
	WIDTH X HEIGHT	MANUFACTURER	GLAZING	NOTES
		MILGARD VINYL		
EGRESS	B NEW 4'-0" X 4'-0" SL. GL. WIND.	MILGARD VINYL	20	MIN 5.7 S.F., 20" MIN W, 24" MIN. HT, BOTTM MAX 44 ABOVE FLR
EGRESS	C (N)4'-0" X 4'-0" SL. GL. WIND	MILGARD VINYL	16	
				32 SQ. FT OF GLAZING BEING ADDED
EGRESS	E (N)4'-0" X 1'-6" SL. GL WIND	NEW VINYL	6	
	F 5'-0" X 4'-8" SL GL. WIND.	EXISTING VINYL	23.35	
	G 3'-0" X 4'-0" SL.WIND	EXISTING VINYL	12	
	H 4'-0" X 1'-6" SL. WIND	EXISTING VINYL	6	151.21
	I 5'-0" X 3'-3" SL.WIND	EXISTING VINYL	18.35	
	J 2'-8" X 4'-8" S. HUNG	EXISTING VINYL	12.49	
	K 6'-0" X 4'-8" SL. WIND	EXISTING VINYL	28.02	
		SUB TOTAL	100.21	EXISTING
		TOTAL	193.21	(EXISTING + NEW)

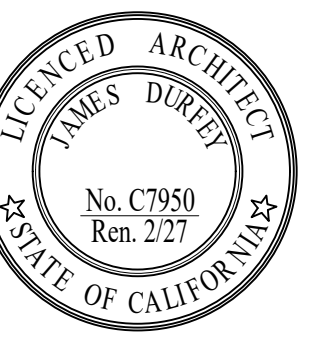
GLAZING FRAMES MADE OF VINYL MATERIALS SHALL HAVE WELDED CORNERS, METAL REINFORCEMENT IN THE INTERLOCK AREA, AND BE CERTIFIED TO THE MOST CURRENT EDITION OF ANSI/AAMA/NWDA 101/1.S.2 STRUCTURAL REQUIREMENTS. WINDOWS F AND G SHALL COMPLY WITH THE FOLLOWING REQUIREMENT (CRC R 337.8.2.1 BE CONSTRUCTED OF MULTI-PANE GLAZING WITH A MINIMUM OF ONE TEMPERED PANE MEETING THE REQUIREMENTS OF CRC R308 FOR SAFETY GLAZING.

GLAZING SHALL BE INSTALLED WITH A NFRC CERTIFYING LABEL ATTACHED SHOWING UVALUE HGCO-EFF= 0.25, U FACTOR= 0.32

DOORS				
TEMP. LOW E UNLESS NOTED OTHERWISE. ALL GL. LOW E DUAL GLAZED, DUAL TEMP. ALL EXT DOORS TO BE SOLID CORE MIN 1-3/8" THK				
	WIDTH X HEIGHT	MANUFACTURER	GLAZING	NOTES
①	(N)3'-0" X 6'-8" SC DOOR	EXISTING		TEMP GL.
②	2'-8" X 6'-8" FR DR.	EXISTING	17.8	TEMP GL
③	2'-6" X 6'-8" 1.5" LVR. DR	EXISTING	N.A.	
④	2'-6" X 6'-8" 1.5" LVR.DR	EXISTING	N.A.	USE TOP OF LINE HARDWARE
⑥	2'-10" X 6'-8" X 1.5" DR	EXISTING	N.A.	SEE DOOR ELEVATION THIS SHT
⑦	2'-6" X 6'-8" X 1.5" PC. DR	EXISTING	N.A.	USE TOP OF LINE HARDWARE
⑧	2'-8" x 6'-8" DR.	OWNER SEL.	N.A.	
⑨	2'-8" X 6'-0"	OWNER SEL.	N.A.	
⑩	6'-0" X 6'-8" SL. WARD DR.	OWNER SEL.	N.A.	
⑪	2'-8" X 6'-8" DR S.C.	OWNER SEL.	N.A.	
⑫	6'-0" X 6'-8" SL. WARD DR.	OWNER SEL.	N.A.	
		TOTAL	17.8	EXISTING

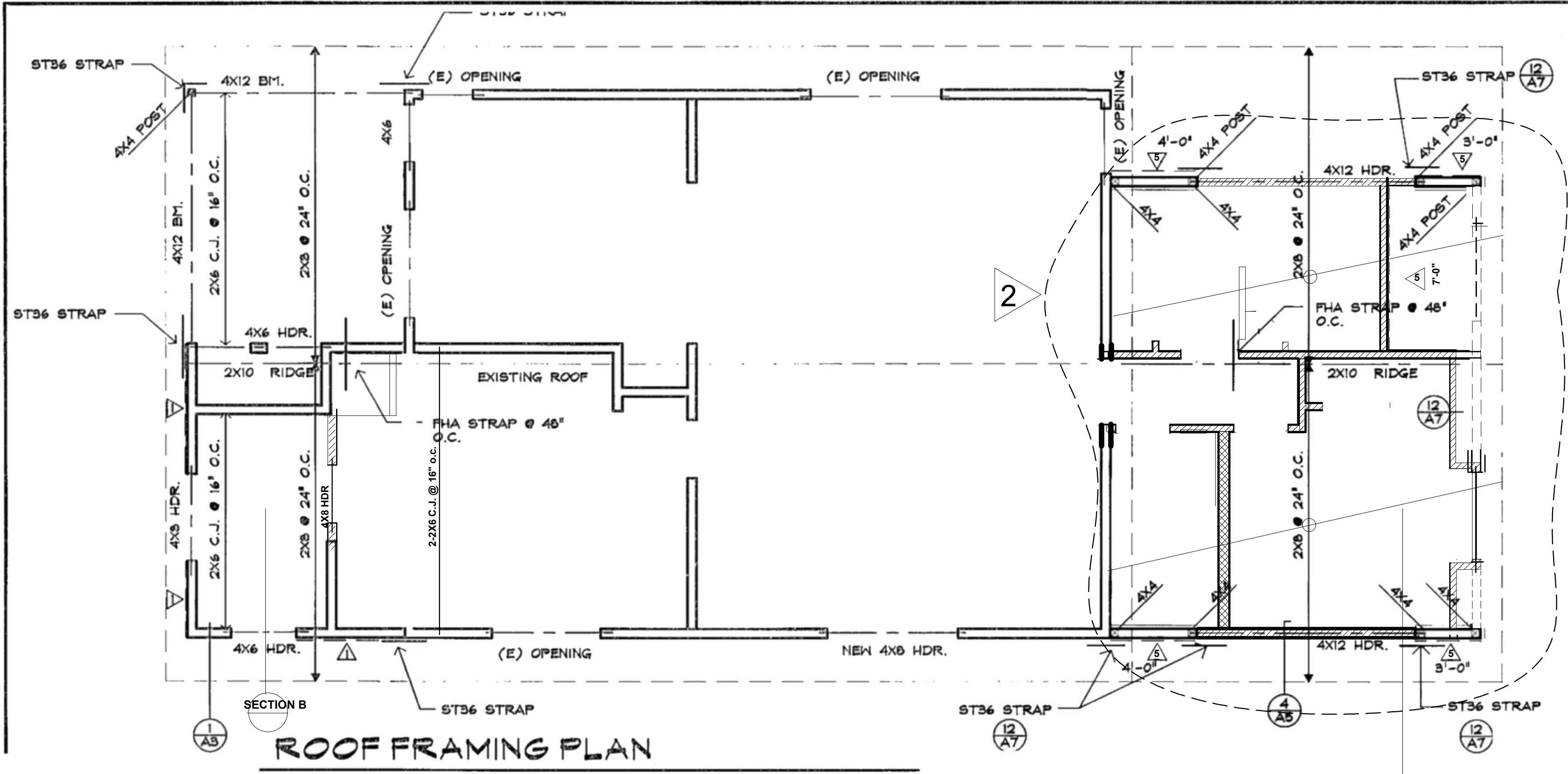
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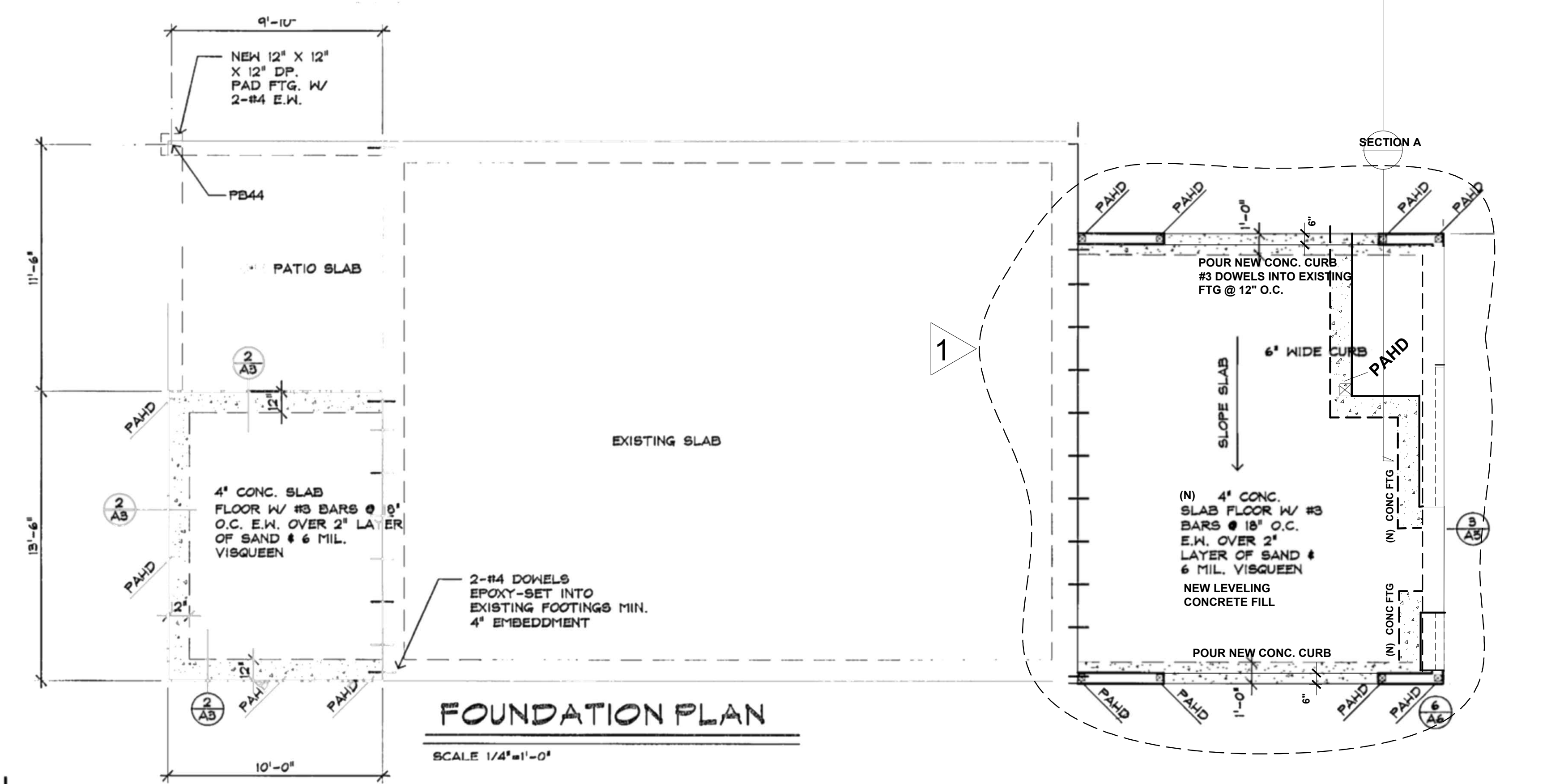


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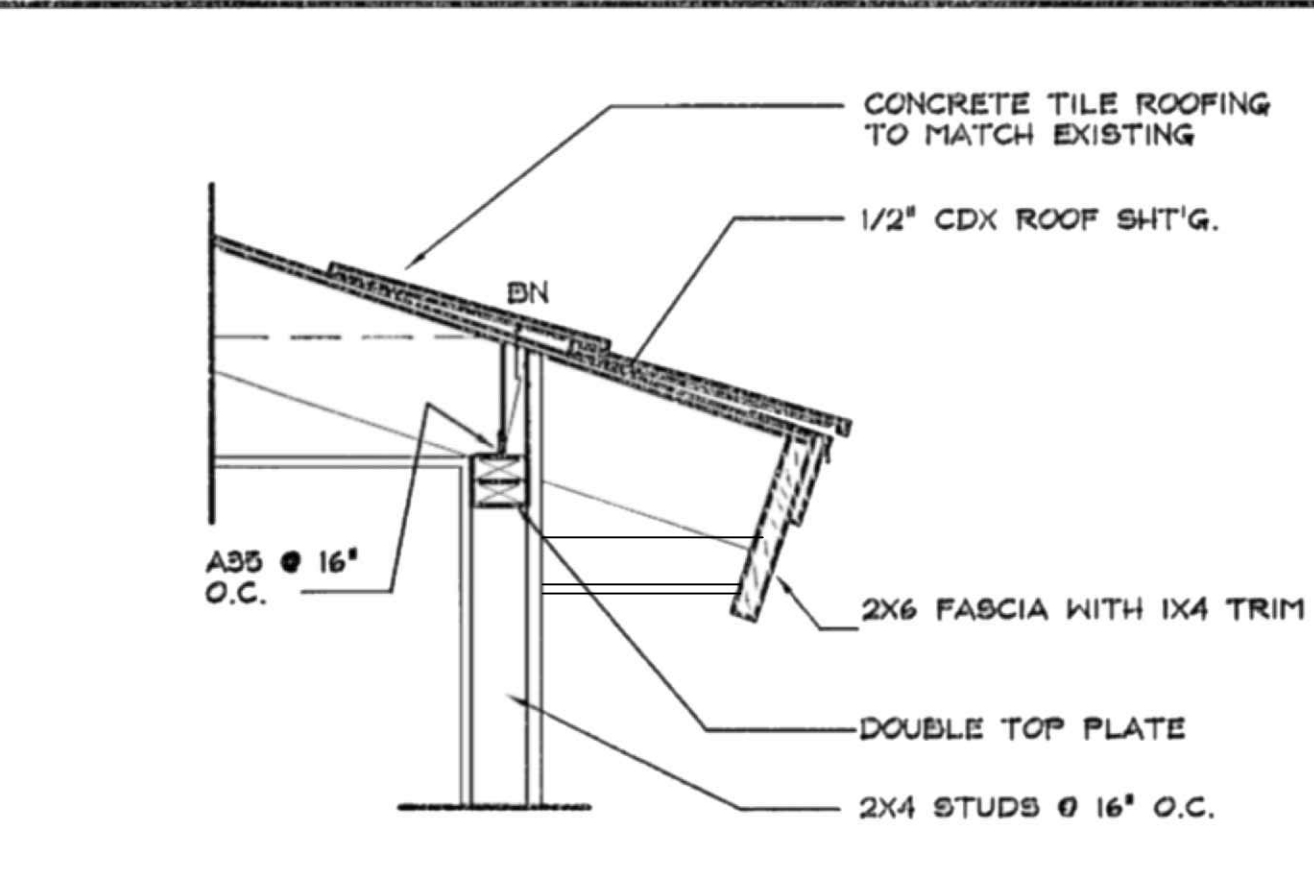
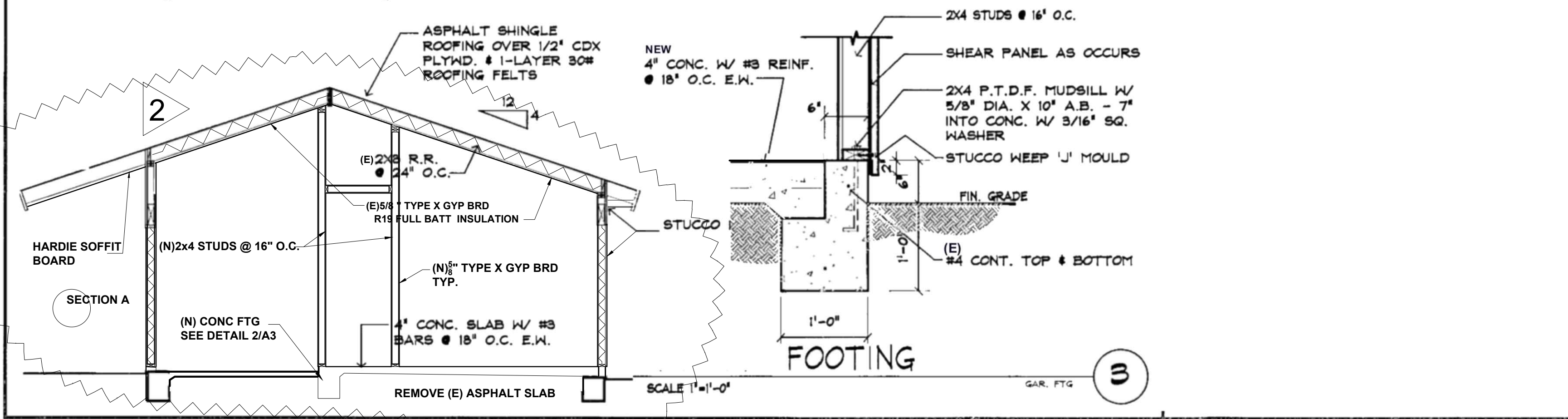
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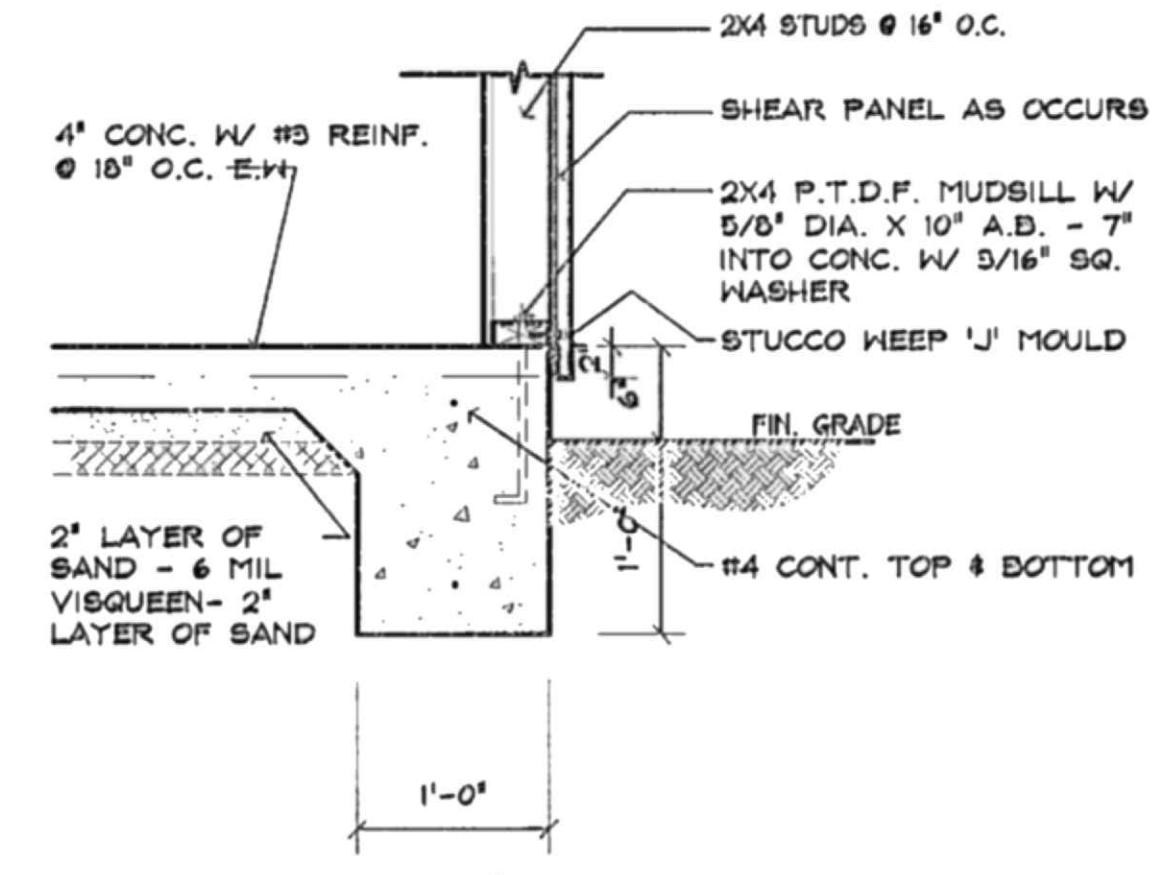
**ROOF FRAMING PLAN**  
SCALE 1/4"=1'-0"



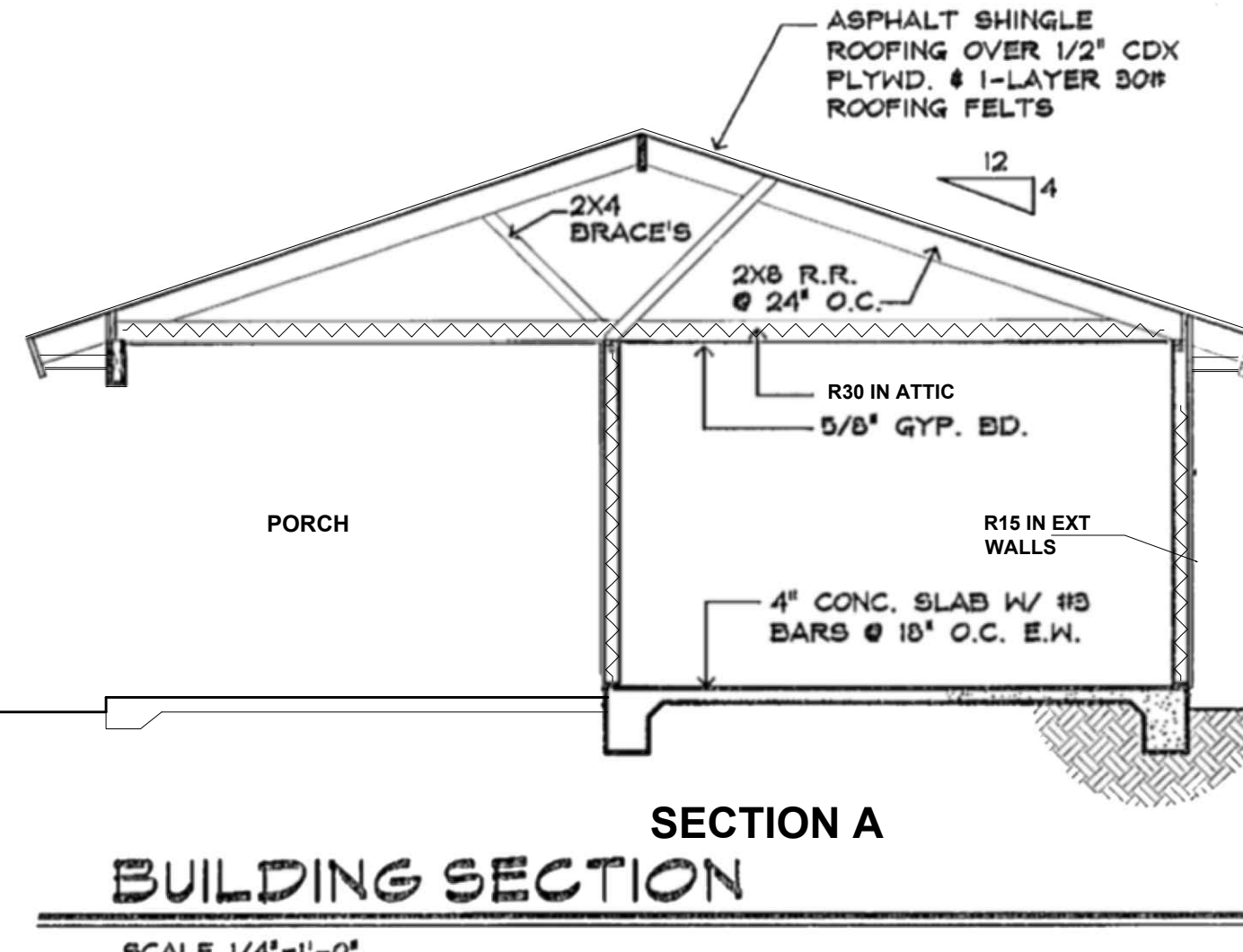
**FOUNDATION PLAN**  
SCALE 1/4"=1'-0"



**EAVE**  
SCALE 1"=1'-0"



**EXT. FOOTING**  
SCALE 1"=1'-0"

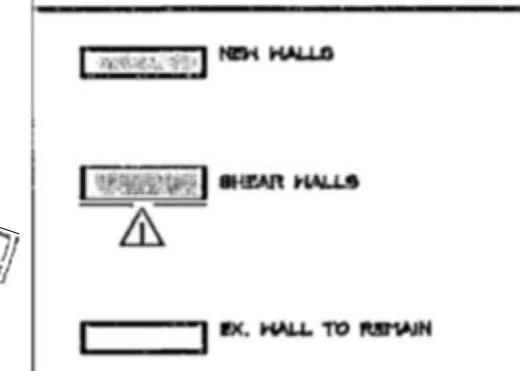


**SECTION A BUILDING SECTION**  
SCALE 1/4"=1'-0"

**FOUNDATION NOTES:**

1. MAXIMUM DESIGN SOIL PRESSURE: 1,000 PSI  
CONTINUOUS FOOTINGS: 1,000 PSI  
PAD FOOTINGS: 1,000 PSI
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO STARTING WORK AND IMMEDIATELY NOTIFY THE OWNER OF ANY DISCREPANCIES.
3. CONCRETE SHALL ATTAIN MINIMUM 2800 PSI COMPRESSIVE STRENGTH IN 28 DAYS MAXIMUM.
4. FOOTINGS SHALL EXTEND A MINIMUM OF 12" NATURAL GRADE.
5. REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 40 FOR #3 AND ASTM A615 GRADE 60 FOR ALL OTHERS.
6. UNLESS NOTED OTHERWISE, COVER OVER REINFORCING SHALL BE: 3" FOR CONCRETE CAST AGAINST EARTH 2" FOR EXPOSED CONCRETE
7. HOLD-DOWN ANCHORS TO BE TIED IN PLACE PRIOR TO CALLING FOR FOUNDATION INSPECTION.
- 7a. SILL PL. TO BE 2x4 P.T.D.F. OR FOUNDATION GRADE REDWOOD W/5/8" DIA. 12" A. BOLTS @ 48" O.C., 12" MAX. FROM PL. ENDS W/2x2x3/16" DIA. WASHER TYP.
8. THE STRUCTURE WILL BE LOCATED ENTIRELY ON NATIVE/UNDISTURBED SOIL.
9. IF THE BUILDING INSPECTOR SUSPECTS FILL EXPANSIVE SOILS OR ANY GEOLOGIC INSTABILITY BASED UPON OBSERVATION OF THE FOUNDATION EXCAVATION, A SOILS OR GEOLOGICAL REPORT, AND RESUBMITTAL OF PLANS TO PLAN CHECK TO VERIFY THAT THE REPORT RECOMMENDATIONS HAVE BEEN INCORPORATED WILL BE REQUIRED.
10. SPECIAL INSPECTION REQUIRED FOR ALL EPOXY SET ANCHORS.
11. 'A CERTIFICATE OF SATISFACTORY COMPLETION OF WORK REQUIRING SPECIAL INSPECTION MUST BE COMPLETED & SUBMITTED TO THE INSPECTION SERVICES DIVISION.'
12. MINIMUM FOUNDATION/FOOTING REQUIREMENTS TO BE IN ACCORDANCE WITH CHAPTER 18 OF THE 2001 U.B.C., U.O.N.
13. TYP. CONCRETE SLAB. CONCRETE SLAB W/ REBAR CENTER E. WAY IN CENTER OF SLAB TO BE OVER AN UNDERLAYMENT OF 2" CLEAN SAND FILL, OVER 10 MIL VISQUEEN VAPOR BARRIER, OVER 2" CLEAN SAND FILL, OVER COMPACTED PAD GRADE UNLESS SOILS REPORT/FOUNDATION PLAN SPECIFIED OTHERWISE.
14. SEE SHEAR WALL SCHEDULE FOR SIZE & SPACING OF A. BOLTS.

**WALL LEGEND**



**ROOF FRAMING (AS APPLIES)**

1. ALL ROOF FRAMING PER MINIMUM CONSTRUCTION STANDARDS AS SET FORTH AND IN ACCORDANCE W/ CHAPTER 25 OF THE 2001 U.B.C., U.O.N.
2. DOUBLE RAFTERS AROUND ALL SKYLIGHTS, TYPICAL.
- 2a. ALL DOUBLE MEMBER TO BE FACED NAILED W/16d @ 8" O.C.
3. USE HEADER SCHEDULE FOR ALL BEAMS, U.O.N.
4. PROVIDE 2x BLOCKING @ RAFTER/Ceiling JST. CONNECTIONS @ TOP PLATE W/35 @ 32" O.C., U.O.N. ON SHEARWALL SCHED.
5. BRACE RIDGES & PURLINS TO INTERIOR BEARING WALLS AND / OR FLUSH BEAMS @ 4' O.C.
6. VERTICAL AND/OR DIAGONAL SUPPORTS TO RIDGES, HIPPS & VALLEYS: USE 4x4 NOTCHED & FACE NAILED TO RIDGE, HIP OR VALLEY. USE A95 FRAMING ANCHOR @ EA. SIDE OF 4x4 SUPPORT TO CONNECT TO BEARING WALL OR FLUSH BEAM.
7. CALIFORNIA FILL FRAMING: CONTINUE ROOF SHEATHING UNDER CALIFORNIA FILL AREAS, USE 2x6 RAFTERS MIN. W/ 2x6 SLEEPERS.
8. PROVIDE PURLINS @ ALL RAFTERS WHERE SPAN IS GREATER THAN RAFTER SCHEDULE.
9. ALL HIPPS, VALLEYS AND RIDGES TO BE 2x10", U.O.N.
10. HANG ALL BEAMS W/ HUTT HANGERS, U.O.N.
11. DRAG BEAMS INTO TOP PLATE W/ ST6256 PER DRAG DETAIL.
12. SUPPORT ALL BEAMS W/ MIN. 4x POST, U.O.N.
13. USE 'EPC' OR 'PC' POST CAPS FOR ALL POST TO BEAM CONNECTIONS, U.O.N. WHERE BOTTOM OF BEAM IS DIRECTLY ON TOP OF DOUBLE TOP PLATE, USE A95 EA. SIDE OF BEAM W/ 4x POST IN WALL.
14. TYP. ROOF DIAPHRAGM: 1/2" PLYWOOD (32/16), 5/8" OR 5/8" W/ 8d @ 6" O.C. EDGE & BOUNDARY, & 8d @ 12" O.C. FIELD.
15. ALL DBL. FRAMING MEMBERS TO HAVE 2-ROW OF 16d @ 12" O/C FACE NAIL.

WRITTEN DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALE DIMENSIONS. Contractors shall verify and be responsible for dimensions and conditions of the job & Owner, must be notified in writing of any variation from the dimensions, conditions and specifications appearing on these plans.

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GENERAL NOTES: (AS APPLIES)

- THE CONTRACTOR SHALL VERIFY DIMENSIONS ELEVATIONS AND CONDITIONS AT THE JOB SITE FORMAN STARTING WORK, AND SHALL NOTIFY THE DESIGNER IMMEDIATELY OF ANY DISCREPANCIES.
- THE CONTRACTOR SHALL RESOLVE CONFLICTS ON THE PLANS WITH THE DESIGNER BEFORE PROCEEDING WITH CONSTRUCTION.
- UNLESS OTHERWISE SHOWN OR NOTED ELSEWHERE ON THE PLANS, TYPICAL DETAILS AND GENERAL NOTES APPLY TO ALL PARTS OF THE JOB.
- WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK, SUCH DETAILS SHALL BE THE SAME AS FOR SIMILAR WORK SHOWN ON THE DRAWINGS.
- NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND THE TYPICAL DETAILS.
- THE STRUCTURAL DRAWINGS SHOW ONLY THE BASIC STRUCTURAL REQUIREMENTS, REFER TO CIVIL, ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR NON-STRUCTURAL ITEMS SUCH AS OPENINGS, BLOCK OUTS, POCKETS, INSERTS, EMBEDDED ITEMS, EQUIPMENT ANCHORAGE, ETC.
- DIMENSIONS, LOCATION AND SIZE OF OPENINGS IN FLOORS, ROOFS AND WALLS SHALL BE VERIFIED WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS UNLESS SPECIFICALLY DETAILED, REFER TO TYPICAL DETAILS FOR SPECIAL FRAMING AND/OR REINFORCING REQUIREMENTS AROUND OPENINGS.
- IN NO CASE SHALL WORKING DIMENSIONS BE SCALED FROM PLANS, SECTIONS OR DETAILS ON THE STRUCTURAL DRAWINGS.
- CONTRACTOR SHALL VERIFY AND DETERMINE LOCATION OF ALL EXISTING UTILITIES AND SHALL NOT PERFORM ANY WORK THAT WILL DAMAGE EXISTING UTILITIES.
- CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL AND LOCAL SAFETY REQUIREMENTS.
- THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED WORK UNLESS OTHERWISE SPECIFICALLY NOTED. IT DOES NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKERS, AND OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING OR PROVISIONS FOR THE BUILDING, SHORING FOR THE BUILDING, SHORING FOR THE EARTH BANKS, FORMS, SCAFFOLDING, PLUMBING, SAFETY NETS, SUPPORT AND BRACING FOR CRANES AND GIN POLES, ETC. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL CONDUCT VISUAL INSPECTION OF THE WORK AT THE SITE BY THE DESIGNER OR THE ENGINEER SHALL NOT INSPECT THE WORK AT THE ABOVE ITEMS.
- ALL MATERIALS AND WORKMANSHIP SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL STANDARDS AND TO THE APPLICABLE PROVISIONS OF THE LATEST EDITION OF THE U.B.C. AND TITLE 24.
- CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS OR ROOF. LOAD SHALL NOT EXCEED DESIGN LIVE LOAD FOR EACH PARTICULAR LEVEL. WHEN WEIGHT OR MATERIALS OR EQUIPMENT MAY EXCEED DESIGN LOAD, STRUCTURAL SYSTEMS SHALL BY SHORED.
- WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK, CONSULT THE DESIGNER AND STRUCTURAL ENGINEER.

TIMBER:

- ALL FRAMING LUMBER TO BE GRADE MARKED PER THE LUMBER SCHEDULE SHOWN ON THESE DRAWINGS.
- SILL PLATES SHALL BE BOLTED TO CONCRETE WITH 5/8" DIA. X 8" BOLTS AT 4'-0" O.C. MAX. UNLESS OTHERWISE NOTED.
- WHERE STUD PARTITIONS JOIN CONCRETE OR MASONRY WALLS THE END STUD SHALL BE ANCHORED THERE WITH 1/2" DIA. BOLTS NEAR TOP AND BOTTOM AND AT 4'-0" O.C. SUCH BOLTS SHALL BE EMBEDDED IN THE WALL NOT LESS THAN 2/3 OF WALL THICKNESS.
- STUDS SHALL BE SPACED AT 16" O.C. MAX. AND OF THE SIZE SHOWN ON PLANS.
- TWO INCH SOLID BLOCKING SHALL BE PLACED BETWEEN ALL JOISTS AND RAFTERS AT ALL SUPPORTS AND UNDER ALL PARTITIONS UNLESS OTHERWISE DETAILED.
- HOLES FOR BOLTS SHALL BE BORED WITH A BIT OF THE SAME NOMINAL DIAMETER AS THE BOLT. THREADS SHALL NOT BEAR AGAINST WOOD.
- BOLTS IN WOOD SHALL BE NOT LESS THAN 7 DIAM. FROM THE END AND 4 DIAM. FROM THE EDGE, EXCEPT AS OTHERWISE SHOWN. (BOLT HOLES 1/16" LARGER THAN BOLT DIA.)
- TOP PLATES OF ALL WOOD STUD WALLS TO BE TWO PIECE SAME SIZE AS STUDS, EXCEPT AS OTHERWISE SHOWN. LAP 4'-0" MINIMUM WITH NOT LESS THAN 8-16d NAILS AT EACH LAP NOR MORE THAN 12 INCHES BETWEEN NAILS.
- ALL FRAMING CONNECTORS TO BE "SIMPSON" AS MANUFACTURED BY SIMPSON COMPANY OR APPROVED EQUIV, UNLESS OTHERWISE NOTED, GALV. WHERE EXPOSED TO WEATHER.
- NOTCHES OR HOLES SHALL NOT BE PLACED IN STUDS OR JOISTS UNLESS FULLY DETAILED ON APPROVED PLANS.
- NAILING SHALL BE WITH COMMON WIRE NAILS AND SHALL CONFORM TO THE NAILING SCHEDULE.
- LAG SCREWS: PRE DRILL WITH A BIT SIZE OF 65 % OF THE SHANK DIAMETER FOR THE TYPICAL PORTION. LEAD HOLES SHALL BE THE SAME LENGTH UNTHREADED PORTION AND THE SAME DIAMETER AS THE SHANK. SCREW ALL LAGS INTO PLACE CUT WASHERS SHALL BE PROVIDED UNDER HEADS WHICH BEAR ON WOOD.
- 2" X 4" SOLID BLOCKING SHALL BE PLACED BETWEEN JOISTS OR RAFTERS WHERE SPANS EXCEED 8'-0". CROSS RIDGING MAY BE OMITTED FOR ROOF AND CEILING JOISTS 8" AND UNDER IN DEPTH.
- ALL BOLTS SHALL HAVE STANDARD CUT WASHERS AT BOLT HEAD AND NUT.
- PROVIDE 2" FIRE BLOCKING IN STUD WALLS AT MAXIMUM SPACING PERMITTED BY GOVERNING CODE AND AT ALL CEILING LINES.
- ALL BOLTS SHALL HAVE STANDARD CUT WASHERS AT BOLT HEAD AND NUT. APPLICATION OF DRYWALL, PLYWOOD, PLASTER, ETC.
- STRUCTURAL INSPECTION AT FABRICATION SHOP SHALL CONFORM TO D.S.A. REQUIREMENTS.
- PROVIDE WEATHERPROOFING UNDER EXTERIOR SIDING, PER ARCH. DRAWINGS.

CONCRETE BLOCK MASONRY:

- CONCRETE BLOCK MASONRY UNITS SHALL BE TYPE 1 MEDIUM WEIGHT UNITS CONFORMING TO ASTM C-90 AND TO THE PROJECT SPECIFICATIONS (F' = 1800 PSI).
- GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2,000 PSI AND SHALL CONSIST OF THE FOLLOWING VOLUMETRIC PROPORTIONS:  
1 PART PORTLAND CEMENT  
2 PARTS PEA GRAVEL  
3 PARTS SAND  
SIRA GROUT AID 1/2 PER MANUFACTURER'S RECOMMENDATIONS.
- MORTAR SHALL BE TYPE 3 AND SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH 1,800 PSI AND SHALL HAVE THE FOLLOWING VOLUMETRIC PROPORTIONS (MAX.) PER ASTM - 6276.  
1 PART PORTLAND CEMENT  
1/2 PART HYDRATED LIME  
4 1/2 PARTS SAND
- THICKNESS OF MASONRY BED JOINT SHALL BE 3/8" MINIMUM AND 1" MAXIMUM.
- VERTICAL BARS IN WALLS ARE TO BE PLACED IN CENTER OF WALL UNLESS OTHERWISE SHOWN. USE FULL HEIGHT VERTICAL REINFORCING BARS WITHOUT SPLICES ON CANTILEVER WALL UNLESS NOTED OTHERWISE. OTHER WALLS TO BE SPICED @ THIRD POINTS.
- VERTICAL BARS IN MASONRY ARE TO BE TIED OR OTHERWISE FIXED IN POSITION AT INTERVALS OF NOT LESS THAN 152 DIA. AND AT TOP AND BOTTOM.
- ALL CELLS CONTAINING REINFORCING OR ANCHOR BOLTS SHALL BE GROUDED SOLID. WHEN WALLS ARE SET IN JOINT TO BE SOLID GROUT, ALL CELLS SHALL BE FILLED WITH GROUT. SOLID GROUT WALLS BELOW GRADE.
- TYPICAL COLORING SHALL USE OPEN END UNITS, BOND BEAM COURSES SHALL BE DOUBLE OPEN END BOND BEAM UNITS.
- HORIZONTAL REINFORCEMENT SHALL BE PLACED IN BOND BEAM UNITS.
- HIGH LIFT AND LOW LIFT GROUTING REQUIREMENTS SHALL CONFORM TO CHAPTER 2114 OF UNIFORM BUILDING CODE.
- CONSOLIDATE AND OPER. CONSOLIDATE GROUT WITH A MECHANICAL VIBRATOR HAVING A 3/4" HEAD AND OPERATING AT 5,000 RPM SUBMERGED.
- WHEN GROUTING IS STOPPED FOR ONE HOUR OR LONGER, HORIZONTAL CONSTRUCTION JOINTS SHALL BE FORMED BY STOPPING THE POUR OF GROUT 1-1/2 INCHES BELOW THE TOP OF THE UPPERMOST UNIT.
- CLEAN OUT OPENINGS SHALL BE PROVIDED FOR ALL GROUT LIFTS WHICH ARE MORE THAN 4' IN HEIGHT.
- A MINIMUM 1" GROUT SHALL BE PROVIDED BETWEEN BOLTS AND MASONRY FACE SHELLS.
- ALL PIPES OR CONDUITS PASSING THROUGH MASONRY SHALL BE SLEEVED. SLEEVES SHALL NOT BE CENTERED CLOSER THAN 4 DIAMETERS. NOT PIPES OR SLEEVES SHALL BE EMBEDDED HORIZONTAL.
- ALL HORIZONTAL BARS MUST HAVE A 180° HOOK AT WALL ENDS AROUND A VERTICAL BAR.

REINFORCING STEEL, CONCRETE & MASONRY:

- BAR REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60. ALL WELDED BARS TO MEET ASTM A706 REQUIREMENTS.
- WELDED WIRE FABRIC REINFORCEMENT SHALL CONFORM TO ASTM A185.
- LAP AT BAR SPLICES SHALL BE 36 BAR DIAMETER IN CONCRETE, OR 1-1/4 MINIMUM (AND 48 BAR DIAMETER IN MASONRY OR 2'-0" MINIMUM) UNLESS OTHERWISE NOTED. LAP OR WELDED WIRE FABRIC AT SPLICES SHALL NOT BE LESS THAN 6".
- BAR SUPPORTS SHALL BE PROVIDED IN ACCORDANCE WITH THE PROVISIONS OF "BAR LATEST EDITION OF MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION BY CRSI.
- REINFORCING STEEL WELDING TO COMPLY WITH AWS D 1.4. ALL WELDED STEEL SHALL CONFORM TO ASTM A706.
- ALL MASONRY OR CONCRETE WALLS AND COLUMNS SHALL BE DOWELED TO SUPPORTING FOOTINGS, BEAMS OR PADS WITH BARS OF THE SAME SIZE AND SPACING AS VERTICAL BARS IN THE WALLS AND COLUMNS U.O.N.
- SPLICE CONTINUOUS REINFORCEMENT FOR CONTINUOUS GRADE BEAMS OR FOOTINGS AT CENTER OF ANY SPAN FOR TOP BARS AND AT CENTER OF ANY SUPPORT FOR BOTTOM BARS.
- ALL REINFORCING BAR BENDS TO BE MADE COLD.
- REINFORCING STEEL SHALL HAVE THE FOLLOWING COVERAGE, WITH BARS PLACED AS NEAR TO THE CONCRETE SURFACE AS THE SPECIFIED COVER PERMITS, UNLESS NOTED OTHERWISE:  
CONCRETE PLACED AGAINST EARTH 3"  
FORMED CONCRETE IN CONTACT WITH EARTH 2"  
EXTERIOR FACE OF WALL 2"  
OTHER WALL FACES (NOT EARTH CONTACT) 1"  
BEAMS 1 1/2"  
SLABS (TYPICAL) 1"  
SLAB SURFACES SUPPORTING EARTH 1 1/2"
- ALL REINFORCING STEEL LAP SPLICES LENGTH SHALL BE CLASS B CONFORMING TO THE TABLE 1901ST UNLESS NOTED OTHERWISE ON DESIGN DRAWINGS.

REINFORCING CONCRETE:

- CONCRETE MINIMUM ULTIMATE COMPRESSIVE STRENGTH IN 28 DAYS SHALL BE AS FOLLOWS: (SEE PLAN FOR SPECIAL INSPECTION REQUIREMENTS)  
FOUNDATIONS f<sub>c</sub> = 2,500 PSI (REG. WT.)  
SLABS ON GRADE f<sub>c</sub> = 2,500 PSI (REG. WT.)  
COLUMNS AND WALLS f<sub>c</sub> = PSI (REG. WT.)  
ELEVATED SLABS AND BEAMS f<sub>c</sub> = PSI (REG. WT.)
- ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS, AND INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE.
- REFER TO DETAILS ON ARCHITECTURAL, MECHANICAL & ELECTRICAL DRAWING FOR MOLDS, ORNAMENTS, GROOVES, CLIPS, GROUNDS, ETC. TO BE CAST IN CONCRETE.
- NO PIPES OR DUCTS SHALL BE PLACED IN CONCRETE WALLS OR SLABS UNLESS WITH A NON CORROSIVE SLEEVE.
- UNLESS SHOWN OTHERWISE IN DETAILS, FURNISH NO. 3 SPACER TIES AT APPROXIMATELY 2'-0" O.C. IN ALL BEAMS AND FOOTINGS TO KEEP REINFORCING IN PLACE.
- CONSTRUCTION JOINTS OTHER THAN THOSE SHOWN ON THESE DRAWINGS, SHALL HAVE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER BEFORE STARTING WORK.
- WHERE ROUGHENED SURFACES ARE CALLED FOR AT CONSTRUCTION JOINTS, PROVIDE A CLEAN, ROUGHENED SURFACE HAVING A MINIMUM SURFACE ROUGHNESS AMPLITUDE OF 1/4".
- NO BRICK OR POROUS MATERIAL SHALL BE USED TO SUPPORT FOOTING REINFORCEMENT OF THE GROUND. STAKES ARE NOT PERMITTED WITHIN THE FOOTING SECTIONS.
- CONTROL JOINTS FOR SLABS ON GRADE WHEN MADE BY SAW CUTTING SHALL BE MADE NO LATER THAN 24 HOURS AFTER PLACING CONCRETE. CONCRETE SHALL BE SUFFICIENTLY HARD TO PREVENT RAVELING WHEN SAW CUTTING.
- PROVIDE 3/4" CHAMFER ON ALL EXPOSED CORNERS.
- CEMENT SHALL CONFORM TO TYPE I OR PORTLAND CEMENTS IN ACCORDANCE WITH ASTM C150.
- AGGREGATE SHOULD CONFORM TO THE REQUIREMENTS OF ASTM C33.
- USE TYPE I CEMENT FOR SOILS WITH MODERATE SULFATE ACTION.
- WHEN MANUFACTURED WOOD PRODUCTS ARE USED, ALL THE MINIMUM AND MAXIMUM NAILING MUST BE APPLIED PER MNFRS BE PROVIDED BY THE MNFR. WET ENGINEER STAMPED SHOP DWGS & CALCS MUST BE PROVIDED FOR APPROVAL BEFORE FABRICATION, HANDLING, STORAGE & INSTALLATION MUST BE PER MANUFACTURERS SPECIFICATIONS, HANGERS BY TRUSS MANUF.
- MAX. MOISTURE CONTENT OF GLUE LAM BEAMS & SAW LUMBERS SHALL NOT EXCEED 16% & 19 % RESPECTIVELY, DURING AND AFTER CONSTRUCTION.
- MIN. EDGE DISTANCE OF NAILS TO PLYWOOD EDGES MUST BE 3/8".
- LEAVE A 1/8" GAP BETWEEN ALL PLYWOOD SHEETS ALL AROUND.
- ALL MATERIALS MUST BE HANDLED AND STORED PER LATEST RECOMMENDATIONS OF U.B.C. & LATEST EDITION OF A.I.T.C.
- MOISTURE CONTENT MUST BE CHECKED & RECORDED BY A DEPUTY INSPECTOR.
- PLYWOOD FLOOR SHEATHING SHALL BE GLUED TO FLOOR JOISTS WITH ONE CONTINUOUS BEAD OF AN ADHESIVE CONFORMING TO UBO LATEST STANDARDS AND IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS.
- ALL TOE NAILS MUST BE APPLIED AT AN ANGLE OF 30 TO VERTICAL. THE PENETRATION MUST START, AT A DISTANCE OF L/3 (L=NAIL LENGTH) ABOVE THE RECEIVING MEMBERS SURFACE.
- ALL STRUCTURAL GLUED LAMINATED TIMBER SHALL BE CONTINUOUSLY INSPECTED DURING FABRICATION BY AN INSPECTOR SPECIALLY APPROVED BY THE OFFICE OF THE STATE ARCHITECT. AN ATO CERTIFICATE WILL NOT MEET THIS REQUIREMENT. THIS REQUIREMENT IS FOR SCHOOL AND HOSPITAL JOBS.
- PLYWOOD FLOOR SHEETING SHALL BE GLUED TO FLOOR JOISTS WITH ONE CONTINUOUS BEAD OF AN ADHESIVE CONFORMING TO UBO LATEST STANDARDS AND IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS.

NAILING SCHEDULE:

CONNECTION	NAILING(1)
1. Joist to sill or girder, toenail	3-8d
2. Bridging to joists, toenail each end	2-8d
3. 1"x6" subfloor or less to each joist, face nail	2-8d
4. Wider than 1"x6" subfloor to each joist, face nail	2-16d
5. 2" subfloor to joist or girder, blind and face nail	2-16d
6. Sole plate to joist or balking, top, face nail	16d @ 16" o/c
Sole plate to joist or blocking @ braced wall panels	3-16d per 16"
7. Top plate to stud, end nail	2-16d
8. Stud to girth plate	4-8d, toenail or 2-16d, end nail
9. Double studs, face nail	16d @ 24" o/c
10. Doubled top plates, typical face nail	16d @ 16" o/c
Double top plates, lap splice	8-16d
11. Blocking between joists or rafters to top plate, toenail	3-8d
12. Rim joist to top plate, toenail	8d @ 6" o/c
13. Top plates, laps & intersections, face nail	2-16d
14. Continuous header, two pieces	16d @ 16" o/c along each edge
15. Ceiling joists to plate, toenail	3-8d
16. Continuous header to stud, toenail	4-8d
17. Ceiling joists, lags over partitions, face nail	3-16d
18. Ceiling joists to parallel rafters, face nail	3-16d
19. Rafter to plate, toenail	3-8d
20. 1" brace to each stud & plate, face nail	2-8d
21. 1"x6" sheathing or less to each bearing, face nail	2-8d
22. Wider than 1"x6" sheathing or less to each bearing, face nail	3-8d
23. Built-up corner studs	16d @ 24" o/c
24. Built-up girder and beams	20d @ 32" o/c @ top & bottom & staggered 2-20d @ ends & @ each splice
25. 2" planks	2-16d @ each bearing
26. Wood structural panels and particleboard (2)	
1/2" and less	6d(3)
1/2" < 3/4"	8d(4) or 6d(5)
3/4" < 1"	8d(3)
1 1/8" < 1 1/2"	10d(4) or 8d(5)
Combination subfloor-underlayment (to framing)	
3/4" and less	6d(4)
3/8" < 1"	8d(5)
1 1/8" < 1 1/4"	10d(4) or 8d(5)
27. Panel siding (to framing)(2):	
1/2" or less	6d(6)
3/8"	8d(6)
28. Fiberglass sheathing (7)	
1/2"	No. 11 ga(8)
3/8"	No. 16 ga(9)
5/8"	No. 16 ga(9)
7/8"	No. 11 ga(8)
1"	No. 11 ga(8)
1 1/4"	No. 16 ga(9)
29. Interior paneling:	
1/2"	4d(10)
3/8"	6d(11)

DIAPHRAGM SHEATHING NAILS OR OTHER APPROVED SHEATHING CONNECTORS SHALL BE DRIVEN SO THAT THEIR HEAD OR CROWN IS FLUSH WITH THE SURFACE OF THE SHEATHING.

- NOTES:
- Common or box nails may be used except where otherwise stated.
  - Nails spaced @ 8" on center @ edges, 12" @ intermediate supports except @ all supports where spans are 48" or more. For nailing of wood structural panel and particleboard diaphragms & shear walls, refer to Sections 2315.3.3 & 2315.4 Nails for wall sheathing may be common, box or casing.
  - Common or deformed shank.
  - Common.
  - Deformed shank.
  - Corrosion-resistant siding or casing nails conforming to the requirements of Section 2304.3.
  - Fasteners spaced 3" on center @ exterior edges & 6" on center @ intermediate supports.
  - Corrosion-resistant roofing nails with 7/16" diameter head and 1-1/2" length for 1/2" sheathing and 1-3/4" length for 25/32" sheathing conforming to the requirements of Section 2304.3.
  - Corrosion-resistant staples with nominal 7/16" crown and 1-1/8" length for 1/2" length for 25/32" sheathing conforming to the requirements of Section 2304.3.
  - Panel supports at 16". Casing or finish nails spaced 8" on panel edges, 12" at intermediate supports.
  - Panel supports at 24". Casing or finish nails spaced 8" on panel edges, 12" at intermediate supports.

FOUNDATION NOTES:

- MAXIMUM DESIGN SOIL PRESSURE: 1,000 \_\_\_\_\_  
CONTINUOUS FOOTINGS: 1,000 \_\_\_\_\_  
PAD FOOTINGS: 1,000 \_\_\_\_\_
- SEE SOILS REPORT FOR:  
PROJECT NO.: \_\_\_\_\_  
DATED: \_\_\_\_\_
- ALL FOOTINGS TO BE A MINIMUM OF: \_\_\_\_\_ 12" BELOW NATURAL GRADE  
\_\_\_\_\_ 12" BELOW FINISH GRADE

- SOILS COMPACTION AND SITE PREPARATION TO BE IN ACCORDANCE WITH SOILS REPORT. ALL WORK TO BE DONE UNDER THE DIRECT SUPERVISION OF THE SOILS ENGINEER.
- FINISH EXCAVATION FOR FOUNDATION SHALL BE NEAT AND TRUE TO LINE WITH LOOSE MATERIAL REMOVED FROM EXCAVATION.
- FINISH EXCAVATION FOR FOUNDATION SHALL BE NEAT AND TRUE TO LINE WITH LOOSE MATERIAL REMOVED FROM EXCAVATION.
- THE FOOTING EXCAVATIONS SHALL BE KEPT FREE FROM LOOSE MATERIAL AND STANDING WATER AND, BEFORE ANY FOOTING CONCRETE IS PLACED, SHALL BE CHECKED AND APPROVED BY A QUALIFIED SOILS ENGINEER TO INSURE COMPLIANCE WITH THE REQUIREMENTS.
- SIDE OF FOUNDATION MAY BE POLURED AGAINST STABLE EARTH (U.O.N.) FULL STRENGTH.
- METHOD OF SUPPORTING REINFORCING PIPE SLEEVES MUST BE APPROVED BY THE STRUCTURAL ENGINEER.
- CONTRACTOR SHALL PROTECT ALL UTILITY LINES, ETC.
- CONTRACTOR SHALL PROTECT ALL UTILITY LINES, ETC.
- CONTRACTOR TO BRACE OR PROTECT FROM LATERAL LOADS THE PIT AND RETAINING WALLS UNTIL ATTACHING FLOORS OR SLABS ARE COMPLETELY IN PLACE AND HAVE ATTAINED FULL STRENGTH.
- FOOTING BACKFILL AND UTILITY TRENCH BACKFILL WITHIN BUILDING AREA SHALL BE MECHANICALLY COMPACTED IN ENGINEER. FLOODING WILL NOT BE PERMITTED.
- ALL ANCHOR BOLTS AND HOLD DOWNS SHALL BE TIED IN PLACE PRIOR TO FOUNDATION INSPECTION.
- 4" SLAB ON GRADE WITH (CL IN SLAB TYP.) (U.O.N.)
- ALL FOOTING WIDTH 12" MIN. (U.O.N.)
- ALL 8-16d BOLTS TO BE TIED IN PLACE PRIOR TO FOUNDATION INSPECTION.
- ALL SILL PLATES (P.T.D.F.) WITH 5/8" A/B x 12" @ 48" (U.O.N. ON PLANS).
- ADDITIONAL DIMENSIONS SEE ARCHITECTURAL DRAWINGS.
- SOIL ENGINEER MUST REVIEW AND APPROVE OF FOUNDATION PLAN IN WRITING BEFORE CONSTRUCTION.
- PRIOR TO CONTRACTOR REQUESTING A BUILDING DEPARTMENT FOUNDATION INSPECTION, THE SOILS ENGINEER SHALL ADVISE THE BUILDING OFFICIAL IN WRITINGS THAT:  
\* ALL BUILDING FOUNDATION WORK HAS BEEN PERFORMED ACCORDING TO THE SOILS REPORT.  
20. THE TESTING LAB SHALL SUBMIT COMPACTION RECORDS FOR ALL FILL TO THE ENGINEER BEFORE REQUESTING FOUNDATION INSPECTION. ALL LOOSE SOIL AND FILL DIRT, INCLUDING BACKFILL BEHIND RETAINING WALLS, SHALL BE COMPACTED TO AT LEAST 99 % OF MAXIMUM DENSITY, OR GREATER AS REQUIRED BY THE SOILS REPORT.
- BACKFILL FOR ALL RETAINING WALLS SHALL BE NON-EXPANSIVE PERVIOUS MATERIAL APPROVED BY THE SOILS ENGINEER AND SHALL NOT BE PLACED UNTIL MASONRY OR CONCRETE RETAINING MEMBERS HAVE BEEN IN PLACE A MINIMUM OF 14 DAYS OR HAVE OBTAINED 75 % OF THE DESIGN STRENGTH.

STRUCTURAL STEEL:

- STRUCTURAL WORK SHALL BE DETAILED, FABRICATED AND ERRECTED IN ACCORDANCE WITH THE AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS. (LATEST EDITION AND SUPPLEMENT)
- ALL STRUCTURAL STEEL UNLESS OTHERWISE NOTED SHALL CONFORM TO THE FOLLOWING:  
ROLLED SHAPES & PLATES ASTM A36  
PIPES ASTM A53, GRADE B  
TUBES ASTM A500, GRADE B
- MACHINE BOLTS SHALL BE ASTM A307.
- THE STRUCTURAL STEEL FABRICATOR SHALL FURNISH SHOP DRAWINGS OF ALL STEEL FOR ARCHITECT'S REVIEW BEFORE FABRICATION.
- BOLT HOLES IN STEEL SHALL BE 1/16 INCH LARGER DIAMETER THAN NOMINAL SIZE OF BOLT USED, EXCEPT AS NOTED.
- ALL STRUCTURAL STEEL SURFACES THAT ARE ENCASED IN CONCRETE OR MASONRY OR ARE ENCASED BY BUILDING FINISH, SHALL BE LEFT UNPAINTED.
- ALL WELDS SHALL BE IN CONFORMITY WITH THE LATEST EDITION OF THE CODE FOR WELDING IN BUILDING CONSTRUCTION (AWS D1.1) OF THE AMERICAN WELDING SOCIETY.
- WELD LENGTHS CALLED FOR ON PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED.
- FILLER METAL FOR WELDING SHALL CONFORM TO AWS D1.1 TABLE 4.1.1.
- ELECTRODES SHALL BE OF THE LOW HYDROGEN TYPE AND SHALL BE AS RECOMMENDED BY THEIR MANUFACTURER FOR THE POSITION AND CONDITION OF USE. ALL ELECTRODES FILLER MATERIAL SHALL BE A MINIMUM OF E70XX.
- PERMISSIBLE WELDING PROCESSES ARE:

SHOP WELDS	SMAW, SAW & FCW
FIELD WELDS	SMAW & FCW

- PROCESSES THAT ARE NOT PERMITTED ARE GMAW, ELECTROSLAG AND ELECTROGAS.
- ALL EXPOSED STRUCTURAL STEEL AND MISCELLANEOUS METAL SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
  - BASE PLATES SHALL BE BEDDED ON DRY PACK OR NON-SHRINK GROUT OF 1 INCH MINIMUM THICKNESS UNLESS OTHERWISE SHOWN.
  - FABRICATION AND ERECTION OF BEAMS SHALL BE WITH THE MILL CAMBER UP.
  - WHEN STRESSES ARE NOT GIVEN OR DETAILS NOT SHOWN, CONNECTIONS FOR MEMBERS CARRYING DIRECT STRESS SHALL DEVELOP THE STRENGTH OF THE MEMBERS.
  - A.I.S.C. STANDARD BEAM CONNECTIONS OR WELDED CONNECTIONS OF EQUAL STRENGTH SHALL BE USED FOR ALL BEAM CONNECTIONS NOT SHOWN. DEVELOP 1/8 OF THE UNIFORM LOAD CARRYING OF THE BEAM.
  - SPECIAL INSPECTION REQUIRED FOR ALL WELDS PER UNIFORM BUILDING CODE SECTION 1701.5.
  - ALL A325 & A325 SC BOLTS MUST BE INSTALLED UNDER CONTINUOUS SPECIAL INSPECTION. NUT MUST BE COMPATIBLE HIGH STRENGTH PER. AISC, W/ ADEQUATE HIGH STRENGTH WASHERS AT THE NUT & BOLT HEAD. PRETENSION BOLTS PER AISC LATEST EDITION RECOMMENDATION.
  - NON-SHRINK GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 7000 PSI PER ASTM C109. NON-SHRINK GROUT SHALL BE INSTALLED IMMEDIATELY AFTER COLUMN IS PLUMBED. CONTRACTOR SHALL NOT LOAD COLUMN ANCHOR BOLTS BEFORE PLACEMENT OF NON-SHRINK GROUT WITH OUT TAKING MEASURES TO PREVENT BUCKLING OF ANCHOR BOLTS UNDER CONSTRUCTION LOAD.

ROOF FRAMING NOTES:

- 1/2" PLY. (32#) BN. 8d @ 6", EN. 8d @ 6", FN. 8d @ 12" O.C. STR. 1 W/ PLY. CLIPS  
← → INDICATES ROOF RAFTER PER SCHED. (U.O.N.)
- ← → INDICATES TRUSS DIRECTION @ 24" O.C. (U.O.N. PER MANUF.).
- Δ INDICATES SHEAR WALLS & SHEAR TRANSFER FOR WALLS BELOW ROOF FRAMING. FOR SHEAR WALL SCHEDULE SEE SHEET S2.
- WALLS SHOWN ARE BELOW ROOF FRAMING & SHALL BE 2x4 @ 16" (U.O.N.)
- HEADERS (U.O.N.) ARE: 4x8 TO 6'-0" SPAN  
4x8 TO 8'-0" SPAN
- FOR ROOF SLOPES & ROOF OPENINGS, SEE ARCHITECTURAL DRAWINGS.
- 2x2x MIN. POST UNDER BEAMS AND HEADERS (TYP. U.O.N.)
- SEE PLAN FOR EACH SIDE OF TOP PLATE SPLICE (TYP. U.O.N.)
- (F) INDICATES FLUSH BEAMS.
- B.N. OVER ALL DRAGS & B.N. ALL VERT. POSTS IN SHEAR WALLS (TYP.).
- LOCATE MECHANICAL EQUIPMENT OVER BEAM LINES AS DESIGNED BY STRUCTURAL ENGINEER. (IF SPECIFIED ON PLANS)

FLOOR FRAMING NOTES:

- 3/4" (T&G) PLY. (4020) BN. & EN. 10d @ 6" O.C., FN. 10d @ 10" O.C.
- ← → INDICATES JOIST DIRECTION (U.O.N.)
- Δ INDICATES SHEAR WALLS & SHEAR TRANSFER FOR WALLS BELOW ROOF FRAMING. FOR SHEAR WALL SCHEDULE SEE SHEET S1.2.
- PROVIDE DOUBLE JOIST UNDER PARALLEL NONBEARING PARTITIONS.
- WALLS SHOWN ARE BELOW ROOF FRAMING & SHALL BE 2x4 @ 16" (U.O.N.)
- HEADERS (U.O.N.) ARE: 4x8 TO 4'-0" SPAN  
4x8 TO 6'-0" SPAN  
4x10 TO 8'-0" SPAN
- SEE PLAN FOR TOP PLATE SPLICE AT EXTERIOR AND SHEAR WALLS.
- PROVIDE 4x STUDS UNDER VERTICAL STRAPS.
- B.N. OVER ALL DRAGS (TYP.)
- ALL NAILS ARE COMMON (U.O.N.)
- NO PENETRATIONS ALLOWED IN SHEAR WALL, TOP AND BOTTOM PLATES, JOISTS, BEAMS (ETC.) UNLESS SPECIFICALLY CALLED OUT AND DETAILED ON STRUCTURAL DRAWINGS.

GLU-LAMINATED BEAM:

- GLUE LAMINATED BEAMS SHALL BE D.F., COMB. SYMBOL 24F-V8 PER UBC STANDARD WITH WET USE ADHESIVE, ARCHITECTURAL APPEARANCE AND ENDS SEALED U.O.N. THE CONTRACTOR SHALL SUPPLY SHOP DRAWINGS FOR REVIEW BY THE ENGINEER UPON COMPLETION OF FABRICATION AND PRIOR TO ERECTION SHALL SUPPLY TO THE ENGINEER AND THE BUILDING DEPARTMENT COPIES OF THE A.I.T.C. CERTIFICATES OF INSPECTION. MEMBERS SHALL BEAR A I.T.C. QUALITY MARK INDICATING CONFORMANCE WITH THESE REQUIREMENTS. LAMINATIONS SHALL BE 1-1/2" U.O.N. CHAMBERS SHALL BE AS SHOWN.

LUMBER SCHEDULE:

MEMBER	SPECIES	GRADE
POST 4x4 & LARGER	DOUGLAS FIR-LARCH	NO.1-POST & TIMBERS
2x4, 3x4 & 4x4 STUDS, PLATES, STRIPPING, MISC. CONCEALED FRAMING, BLOCKING & FIRE STOPPING	DOUGLAS FIR-LARCH	NO.1 OR NO.2 (U.O.N.)
SILL ON CONCRETE	PRESSURE TREATED DOUGLAS FIR-LARCH	NO.1 OR NO.2 (U.O.N.)
2x & 3x (LARGER THAN 4" NOM, WIDTH STUDS, PLATES, STRIPPING, JOISTS, MISC. CONCEALED FRAMING, BLOCKING & FIRE STOPPING	DOUGLAS FIR-LARCH OR BETTER (U.O.N.)	NO.2 JOIST & PLANKS
BEAMS & STRINGERS AND STRINGERS (U.O.N.)	DOUGLAS FIR-LARCH	NO.1 OR BETTER BEAMS
PLYWOOD ROOF, CONCEALED WALL SHEATHING	U.S. PS 1-83 GROUP 1	STRUCTURAL 1 GRADE C-D, EXT. GLUE
FLOOR SHEATHING UNDERLAYMENT, EXT.	U.S. PS 1-83 GROUP 1	STRUCTURAL 1, T & G GRADE C-D PLUGGED,

- ALL STRUCTURAL GLUED LAMINATED TIMBER SHALL BE CONTINUOUSLY INSPECTED DURING FABRICATION BY AN INSPECTOR SPECIALLY APPROVED BY THE OFFICE OF THE STATE ARCHITECT. AN ATO CERTIFICATE WILL NOT MEET THIS REQUIREMENT.\*

MACHINE APPLIED NAILING:

- USE OF MACHINE NAILING IS SUBJECT TO A SATISFACTORY JOB SITE DEMONSTRATION FOR EACH PROJECT AND THE APPROVAL BY THE PROJECT ARCHITECT OR STRUCTURAL ENGINEER AND THE OFFICE OF THE STATE ARCHITECT. THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. MACHINE NAILING WILL NOT BE APPROVED IN 5/8" PLYWOOD, IF NAIL HEADS PENETRATE THE OUTER PLY MORE THAN WOULD BE NORMAL FOR A HAND HAMMER OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY.
- WHEN MANUFACTURED WOOD PRODUCTS ARE USED, ALL THE MINIMUM AND MAXIMUM NAILING MUST BE APPLIED PER MNFRS BE PROVIDED BY THE MNFR. WET ENGINEER STAMPED SHOP DWGS & CALCS MUST BE PROVIDED FOR APPROVAL BEFORE FABRICATION, HANDLING, STORAGE & INSTALLATION MUST BE PER MANUFACTURERS SPECIFICATIONS, HANGERS BY TRUSS MANUF.
- MAX. MOISTURE CONTENT OF GLUE LAM BEAMS & SAW LUMBERS SHALL NOT EXCEED 16% & 19 % RESPECTIVELY, DURING AND AFTER CONSTRUCTION.
- MIN. EDGE DISTANCE OF NAILS TO PLYWOOD EDGES MUST BE 3/8".
- LEAVE A 1/8" GAP BETWEEN ALL PLYWOOD SHEETS ALL AROUND.
- ALL MATERIALS MUST BE HANDLED AND STORED PER LATEST RECOMMENDATIONS OF U.B.C. & LATEST EDITION OF A.I.T.C.
- MOISTURE CONTENT MUST BE CHECKED & RECORDED BY A DEPUTY INSPECTOR.
- PLYWOOD FLOOR SHEATHING SHALL BE GLUED TO FLOOR JOISTS WITH ONE CONTINUOUS BEAD OF AN ADHESIVE CONFORMING TO UBO LATEST STANDARDS AND IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS.
- ALL TOE NAILS MUST BE APPLIED AT AN ANGLE OF 30 TO VERTICAL. THE PENETRATION MUST START, AT A DISTANCE OF L/3 (L=NAIL LENGTH) ABOVE THE RECEIVING MEMBERS SURFACE.
- ALL STRUCTURAL GLUED LAMINATED TIMBER SHALL BE CONTINUOUSLY INSPECTED DURING FABRICATION BY AN INSPECTOR SPECIALLY APPROVED BY THE OFFICE OF THE STATE ARCHITECT. AN ATO CERTIFICATE WILL NOT MEET THIS REQUIREMENT. THIS REQUIREMENT IS FOR SCHOOL AND HOSPITAL JOBS.
- PLYWOOD FLOOR SHEETING SHALL BE GLUED TO FLOOR JOISTS WITH ONE CONTINUOUS BEAD OF AN ADHESIVE CONFORMING TO UBO LATEST STANDARDS AND IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS.

TABLE (2): SUMMARY OF SPECIAL INSPECTION

No.	DESCRIPTION OF TYPE OF INSPECTION REQUIRED, LOCATION, REMARKS, ETC	DESIGN STRENGTH
1.	CONCRETE BOLTS INSTALLED IN CONCRETE CONCRETE MOMENT RESISTING SPACE FRAME REINFORCING STEEL AND PRESTRESSING STEEL WELD TESTING, DUCTILE MOMENT RESISTING STEEL FRAME ALL STRUCTURAL WELDING INCLUDING REINFORCING STEEL HIGH-STRENGTH BOLTING STRUCTURAL MASONRY REINFORCING GYPSUM CONCRETE INSULATING CONCRETE FILL SPRAY APPLIED FIRE PROTECTING DEEP FOUNDATIONS (PILING, DRILLED PIERS & CAISSONS) SHOTCRETE	
2.	SIMPSON EPOXY SET ANCHOR BOLTS (CIBO #5279)	

- VERIFY SOIL CONDITIONS ARE SUBSTANTIALLY IN CONFORMANCE WITH THE SOIL INVESTIGATION REPORT.
- VERIFY THAT FOUNDATION EXCAVATIONS EXTEND TO PROPER DEPTH AND BEARING STRATA
- PROVIDE SOIL COMPACTION TEST RESULTS, DEPTH OF FILL RELATIVE DENSITY, BEARING VALUES
- PROVIDE SOIL EXPANSION TEST RESULTS, EXPANSION INDEX RECOMMENDATIONS FOR FOUNDATIONS, ON GRADE FLOOR SLAB DESIGN FOR EACH BUILDING SITE
- SPECIAL CASES (DESCRIBE)
- OFF-SITE FABRICATION OF BUILDING COMPONENTS
- OTHER STRUCTURAL INSPECTIONS AS REQUIRED BY DESIGNER

- SPECIAL INSPECTIONS LISTED ARE IN ADDITION TO THE CALLED INSPECTIONS REQUIRED BY SECTION 10B OF THE 44040. SPECIAL INSPECTION IS NOT A SUBSTITUTION FOR INSPECTION BY A CITY INSPECTOR.
- WHEN CEMENT FILL IS USED FOR HIGH SULFATE ACTION, CONTINUOUS INSPECTION IS ALWAYS REQUIRED DURING THE PERFORMANCE OF THE WORK UNLESS OTHERWISE SPECIFIED. WHEN WORK IS MORE THAN ONE CATEGORY OF WORK REQUIRING SPECIAL INSPECTION IS TO BE PERFORMED SIMULTANEOUSLY, OR THE CREDIT SPECIAL LOCATION OF THE WORK IS SUCH THAT IT CANNOT BE CONTINUOUSLY OBSERVED IN ACCORDANCE WITH THE PROVISIONS OF UBO SECTION 1701.6.1, IT IS THE AGENY'S RESPONSIBILITY TO EMPLOY A SUFFICIENT NUMBER OF INSPECTORS TO ASSURE THAT ALL THE WORK IS INSPECTED IN ACCORDANCE WITH \_\_\_\_\_ PROVISIONS.

