

### FRAMING AND SHEATHING

ALL 2X4 STUDS TO BE MAX. 16" O.C. 2X6 STUDS TO BE MAX 24" O.C. FLOOR SHEATHING SHALL BE 3/4" T&G APA RATED 40/20 OSB SHEATHING NAILED WITH 8d NAILS 6" O.C. AT ALL PANEL EDGES, SUPPORTED EDGES, AND ALL BLOCKING. USE 8d NAILS 12" O.C. IN FIELD. NAILS SHALL BE MIN. 1/2" FROM EDGE OF PANEL. LAY SHEATHING LONG DIMENSIONS PERPENDICULAR WITH JOISTS AND GLUE WITH GLUE CONFORMING TO APA SPECS. FLOOR JOISTS SHALL BE BLOCKED AT ALL BEARING POINTS. BLOCK ALL HORZ. EDGES OF WALL SHEATHING WITH 2 X 4 BLOCKING. EXTEND SHEATHING OVER RIM JOIST AND NAIL TO WALL PLATES ABOVE AND BELOW. OR BREAK UPPER AND LOWER SHEETING AT MID HEIGHT OF RIM BOARD. EXTEND SHEATHING DOWN TO SILL PLATE AND NAIL PER SHEAR WALL SCHEDULE.

TYPICAL ROOF SHEATHING SHALL BE 7/16" RATED OSB SHEATHING NAILED WITH 8d NAILS 6" O.C. AT PANEL EDGES, SUPPORTED EDGES, AND ALL BLOCKING WITH 8d NAILS, 12" O.C. ALONG INTERMEDIATE FRAMING MEMBERS. UNLESS OTHERWISE NOTED USE 2: 2X10 WITH PLY FILLER FOR BEARING HEADER. NOTE: FOR ROOF SNOW LOADS OVER 40 PSF USE 5/8"

EXCEPT WHERE OTHERWISE NOTED, CONNECT ALL WOOD TO CONCRETE, WOOD TO STEEL AND WOOD TO WOOD (EXCEPT STUD TO PLATE) WITH SIMPSON METAL CONNECTORS. SOLID 2" NOMINAL BLOCKING SHALL BE PROVIDED AT ENDS OR POINTS OF SUPPORT OF ALL WOOD JOISTS AND TRUSSES. INSTALL JOIST, RAFTER, AND BEAM HANGERS & POST CAPS PER MANUFACTURES SPECIFICATIONS.

MINIMUM NAILING SHALL BE AS PER SHEAR WALL SCHEDULE. STAPLES CAN BE SUBSTITUTED FOR NAILS AT HALF SPACING. PROVIDE SOLID BEARING THROUGH FLOOR SYSTEMS AND POSTS DOWN TO CONC. FTG.

CONTRACTOR AND ALL SUB-CONTRACTORS SHALL FOLLOW ALL STANDARD BUILDING CODES, PRACTICES, AND REQUIREMENTS AS LISTED IN THE 2015 IRC.

USE BALLOON FRAMING METHOD TO CONNECT FLOOR SYSTEMS IN SPLIT LEVEL DESIGNS. USE DOUBLE FLOOR JOIST UNDER EA. END OF SHEAR WALLS OVER CANT. FLOOR SECTIONS.

INSTALL JOIST AND RAFTER HANGERS AS PER MANUFACTURERS SPECIFICATIONS. UNLESS OTHERWISE NOTED CONNECT ALL HEADER TO STUD/POST, POST TO FLOOR, BEAM TO BEAM, RAFTER TO WALL OR TRUSS, ETC. WITH APPROPRIATE METAL CONNECTORS.

### TRUSS/ GIRDER CONNECTION

USE SIMPSON H1 OR EQUIV. TIES EACH END OF EA. TRUSS. INSTALL RAFTER HANGERS EA. END OF EA. RAFTER AS PER MANUFACTURE SPECS. INSTALL SOLID BLOCKING BETWEEN TRUSSES ALONG BEARING WALLS. INSTALL H16-2 OR EQUIV. STRAPS TO EA. END GIRDERS IF UPLIFT LESS THAN 1265 LBS. INSTALL VGT OR EQUIV. STRAPS TO EA. END GIRDERS IF UPLIFT LESS

### HEADER TRIMMER CONNECTION

- FOR HEADERS 5'- 8'-6" LONG - INSTALL TWO ACE EA. END OR 12" LONG CS16 STRAP

- NAIL TO KING STUD USING (6)16d NAILS

- INSTALL TWO ST18 EA. END
- USE (2) TRIMMERS

### ROOF BEAM SCHEDULE

- RB-2 (2) 2X8's
- RB-3 (2) 2X8's
- RB-6 (2) 1 3/4" X 7 1/4" LVL's
- RB-7 (2) 2X10's
- RB-8 (2) 2X10's
- RB-9 (2) 2X6's

- FOR HEADERS LESS THAN 5' LONG
- FOR HEADERS 9'-18' LONG

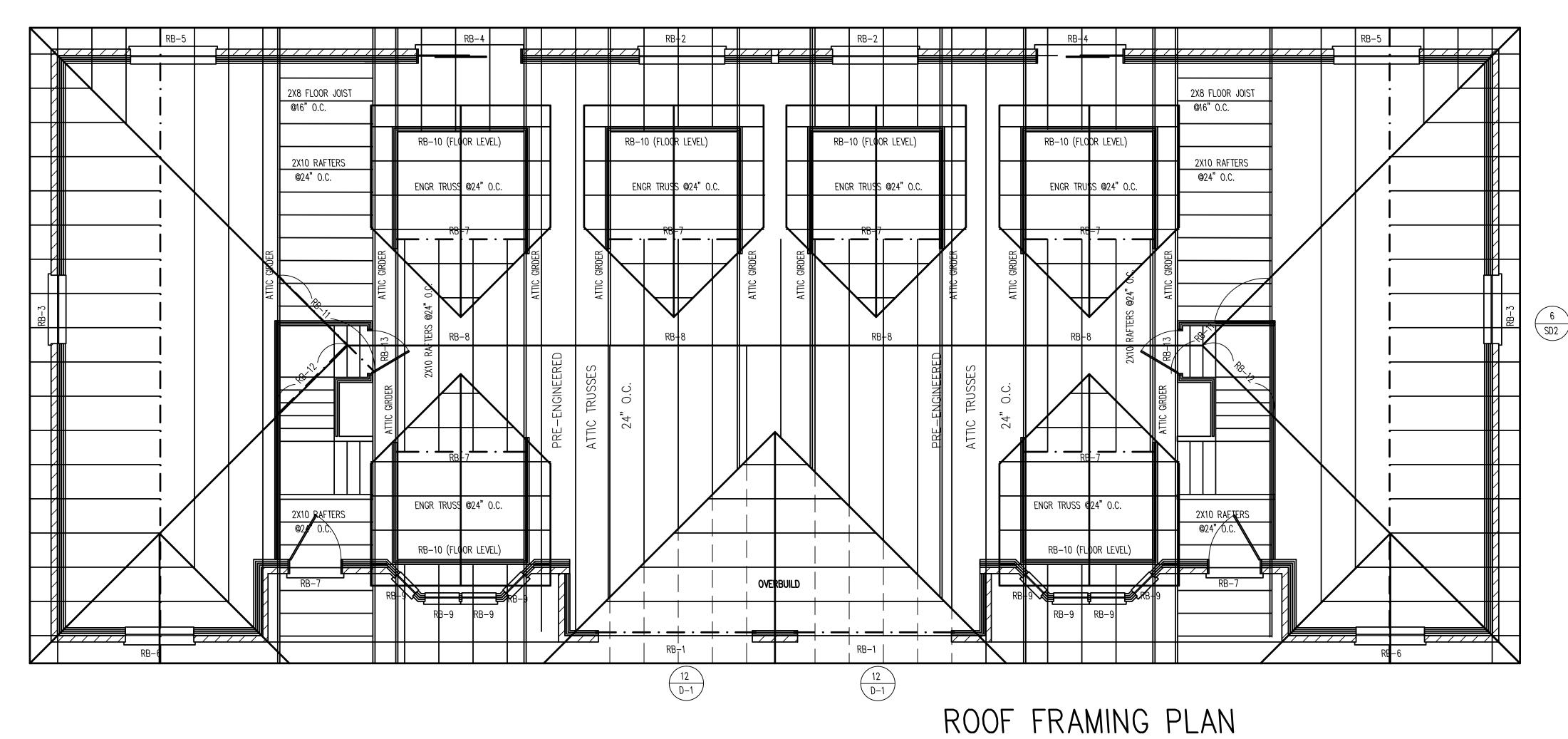
USE (2) TRIMMERS

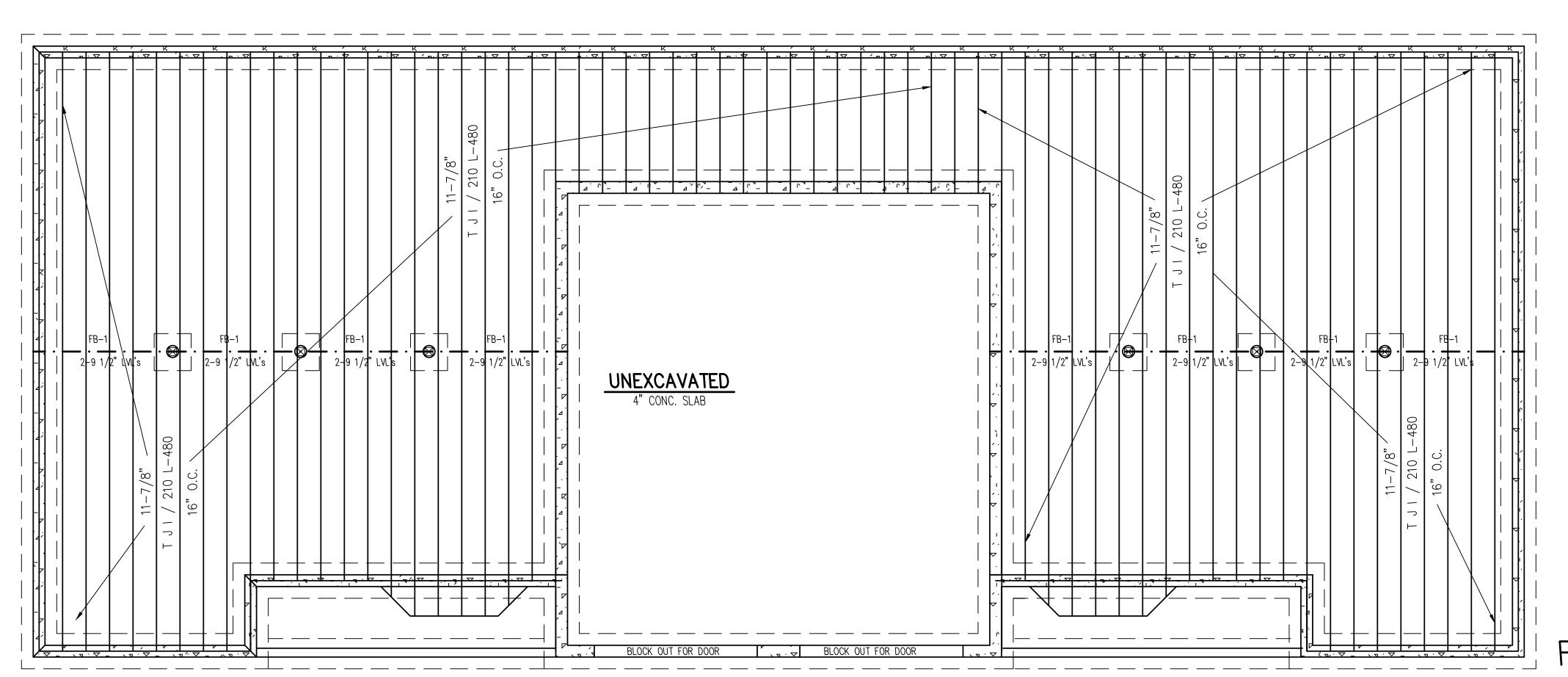
THAN 4940 LBS.

- INSTALL MST48 THROUGH FLOOR DIAPHRAGM
- IF APPLICABLE - INSTALL STHD8 OR HTT22 OR HDU TO CONCRETE OR NAIL POST TO WALL SHEATHING

- RB-1 (2) 1 3/4" X 14" LVL's
- RB-4 (2) 2X8's
- RB-5 (2) 1 3/4" X 9 1/2" LVL's

- RB-10 (2) 1 3/4" X 9 1/2" LVL's
- RB-11 (1) 1 3/4" X 9 1/2" LVL
- RB-12 (1) 1 3/4" X 9 1/2" LVL
- RB-13 (2) 2X8's





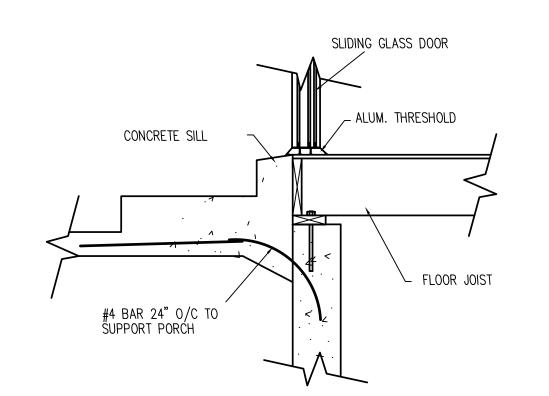
FLOOR FRAMING PLAN SCALE 1/4" = 1'-0"

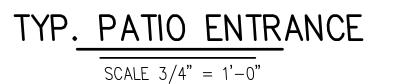


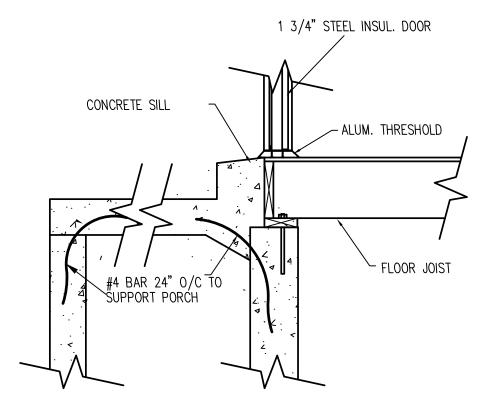


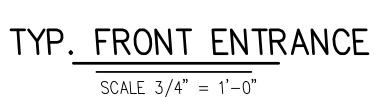
TYP. BEARING WALL

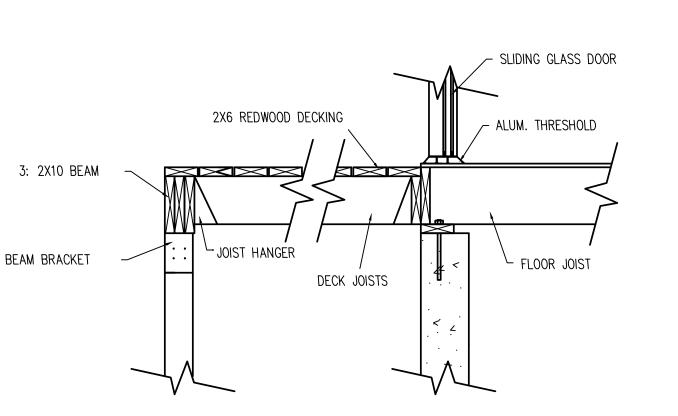
MAXIMUM WALL HEIGHT FROM T.O. FOOTING	TOP EDGE SUPPORT	MIN. WALL WIDTH	VERTICAL WALL REINF.		HORIZONTAL WALL REINF.		ADDITIONAL REINF. FOR OPENINGS						MAX. LINTEL	MIN. LINTEL	ADDITIONAL FTG. SIZE AND REINF.	
			SIZE	SPACING	SIZE	SPACING	NO.	OVE SIZE		)ES SIZE	BEL NO.		LENGTH	DEPTH	WIDTH	
2'-0" TO 5'-0"	NONE	8"	#4	24" O.C.	#4	18" O.C.	2	#4	1	#4	1	#4	2'	6"	SEE	FTG. SCHED.
5'-1" TO 6'-0"	NONE	8"	#4	18" O.C.	#4	18" O.C.	2	#4	1	#4	1	#4	3'	6"	30"	3 #4 x CONT
6'-1" TO 7'-0"	NONE	8"	#4	12" O.C.	#4	18" O.C.	2	#4	1	#4	1	#4	4'	8"	30"	3 #4 x CONT
7'-10" TO 8'-0"	FLOOR	8"	#4	24" O.C.	#4	18" O.C.	2	#4	1	#4	1	#4	5'	10"	SEE FTG. SCHED.	
8'-1" TO 9'-0"	FLOOR	8"	#4	16" O.C.	#4	18" O.C.	2	#4	1	#4	1	#4	6'	12"	SEE FTG. SCHED.	
> 9'-0"+	REQ. ENG.	-	ı	-	-	-	-	-	1	1	-	1	-	-	REQ. ENG.	
NOTES:  1. REBAR TO BE F 2. #4 FOOTING DO 3. ONE BAR SHALI (THE REMAINING I 4. BARS SHALL BE 5. ANCHOR BOLTS 6. ALL FOUNDATIO	WELS SHALL E BE LOCATED EQUALLY SPAC PLACED WITH SHALL BE 5/	XTEND 24 IN THE T CED BETWE IIN 2" OF '8" DIA. x	" INTO OP 4" EN) THE OI 12" EN	THE FOUND AND ONE B PENING AND IBEDDED IN	ation Ar in Exten	AND MATCH THE BOTTON ID 24" BEY	VER 44" OND	TICAL OF TH THE ED	steel E fol Ge 0	 Jndati F the	ON W	ALL. IING.			3"x1/4"W	ASHERS)



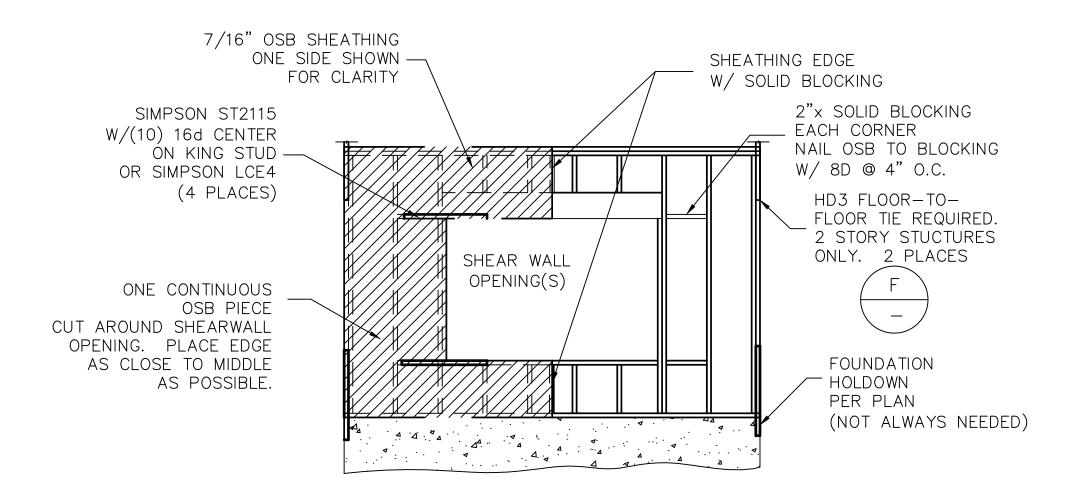




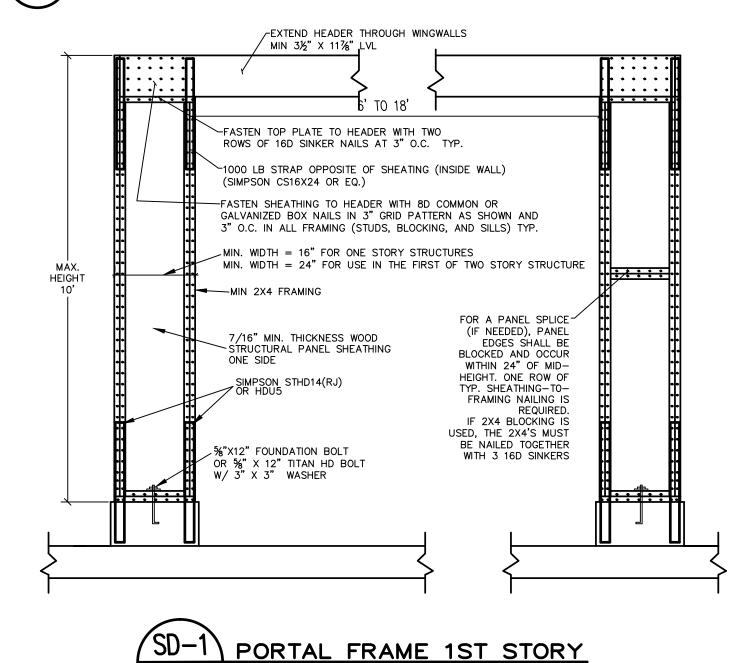




TYP. DECK ENTRANCE SCALE 3/4" = 1'-0"



# SD-2 FORCE TRANSFER SHEAR WALL (NTS)



## NOTES

- \* ALL PREFAB. ITEMS TO BE MANUFACTURED BY APPROVED FABRICATORS
- \* PROVIDE GFI PROTECTION ON ALL OUTLETS WITHIN 6' OF SINKS, IN GARAGE AREA, AT OUTLET BY FURNACE AND WATER PROOF GFI'S ALL EXTERIOR OUTLETS PROVIDE ARC FAULT PROTECTION ALL BEDROOM OUTLETS. PROVIDE TAMPER-RESISTANT OUTLETS PER CODE
- \* ALL EXHAUST FANS TO BE VENTED TO OUTSIDE
- \* ALL HOSE BIBBS TO HAVE ANTI-SYPHON DEVICES.
- PROVIDE ATTIC VENTS AT THE RATE OF 1/300 SQ. FT. WITH VENTED SOFFITS, WITH MIN. 50% IN UPPER PORTION AND REMAINDER IN SOFFIT. VENTS AS REQ'D. PROVIDE INSUL. DAM TO MAINTAIN FREE AIR CIRCULATION THRU SOFFIT VENTS.
- \* ALL GLAZING IN DOORS & SIDELIGHTS AND ANY WINDOW LESS THAN 18" ABOVE FLOOR OR WITHIN 24" IN ANY ADJOINING PLANE TO BE TEMPERED GLASS. WINDOWS ABOVE TUBS & SHOWERS TO BE TEMPERED GLASS IF LESS THAN
- \* ALL HALF WALLS AND RAILINGS TO BE MIN. 36" IN HEIGHT AND RAILINGS CONSTRUCTED SUCH THAT A 4" SPHERE CANNOT PASS THRU. THE TRIANGULAR PORTION BETWEEN BOTTOM RAIL AND TREAD AND RISER TO SUCH AS NOT TO ALLOW A 6" SPHERE TO PASS THRU.
- \* MIN. 2% SLOPE 10 FEET AWAY FROM HOUSE
- OCCUPANCY SEPERATION SHALL BE 5/8" FIRECODE SHEETROCK COMMON WALLS AND CEILING CONNECTED 6" O/C AT CLG. & 7" O/C AT WALLS. FIRECODE SHEETROCK AT ALL WALLS AND CLG. WHEN GARAGE IS UNDER LIVING AREA. DOORS SHALL BE SELF-CLOSING, SOLID CORE OR 20 MIN. LABELED AND TIGHT FITTING. ATTIC ACCESS DOOR TO BE 1 HR. FIRE RESTRICTIVE MATERIAL WITH HINGE AND POSITIVE LATCH.
- \* CLOTHES CHUTES SHALL BE LINED WITH SHEETROCK AND MIN. 26 GA. SHEETMETAL HAVING LOCKLAPPED JOINTS. OPENINGS TO HAVE TIGHT FITTING, SELF-CLOSING DRS.
- STUDS AT BRICK VENEER AREAS SHALL BE NO MORE THAN 16" O/C AND BRICK TIES SHALL BE 22 GA. AT 16" O/C WITH #9 WIRE IN BED JOINTS WITH TIES. USE 15# FELT UNDER ALL BRICK APPLICATIONS
- \* ALL EXTERIOR DECKS, BALCONIES AND STAIRS SHALL BE POSITIVELY ANCHORED TO THE DWELLING.
- 3' LANDINGS AT ABOVE GRADE EXTERIOR DOOR OPENINGS
- \* GARAGE FL. 6 BAG MIX, 4" THICK. BSM'T 5-1/2 BAG, 4" THICK SMOKE DETECTOR TO BE INSTALLED AT ALL LEVELS INCL. BSM'T AND IN ALL SLEEPING ROOMS. DETECTORS SHALL BE 110V. WIRED TOGETHER IN SERIES WITH BATTERY BACK-UP.

PROVIDE CARBON MONOXIDE DETECTOR ON EACH LEVEL.

\* MULTIPLE VERSA-LAM BEAMS OR DIMENSIONAL LUMBER BEAMS TO BE GLUED AND NAILED WITH 3 ROWS 16d NAILS 12" O.C. SIMPSON ACE USED AT POST / BEAM CONNECTION ON SPANS 8' OR GREATER

- \* ALL BRACED WALLS TO USE 4' X 8', 1/2" SHEETROCK GLUED AND FASTENED.
- BLOCK EXT. STUD WALLS 4' UP AT SHEETROCK EDGE ON UNBRACED WALL SECTIONS IN EXCESS OF 34' IN LENGTH.
- \* BSM'T AREA COMBUSTION AIR IS TO BE PROVIDED TO THE FURNACE AND W.H. WITH 2 VERTICAL VENTS EA. HAVING 1 SQ. IN. / 4000 BTU INPUT OF APPLIANCES.

FASTENERS TO BE 11 GUAGE NAILS OR SCREWS 7" O.C.

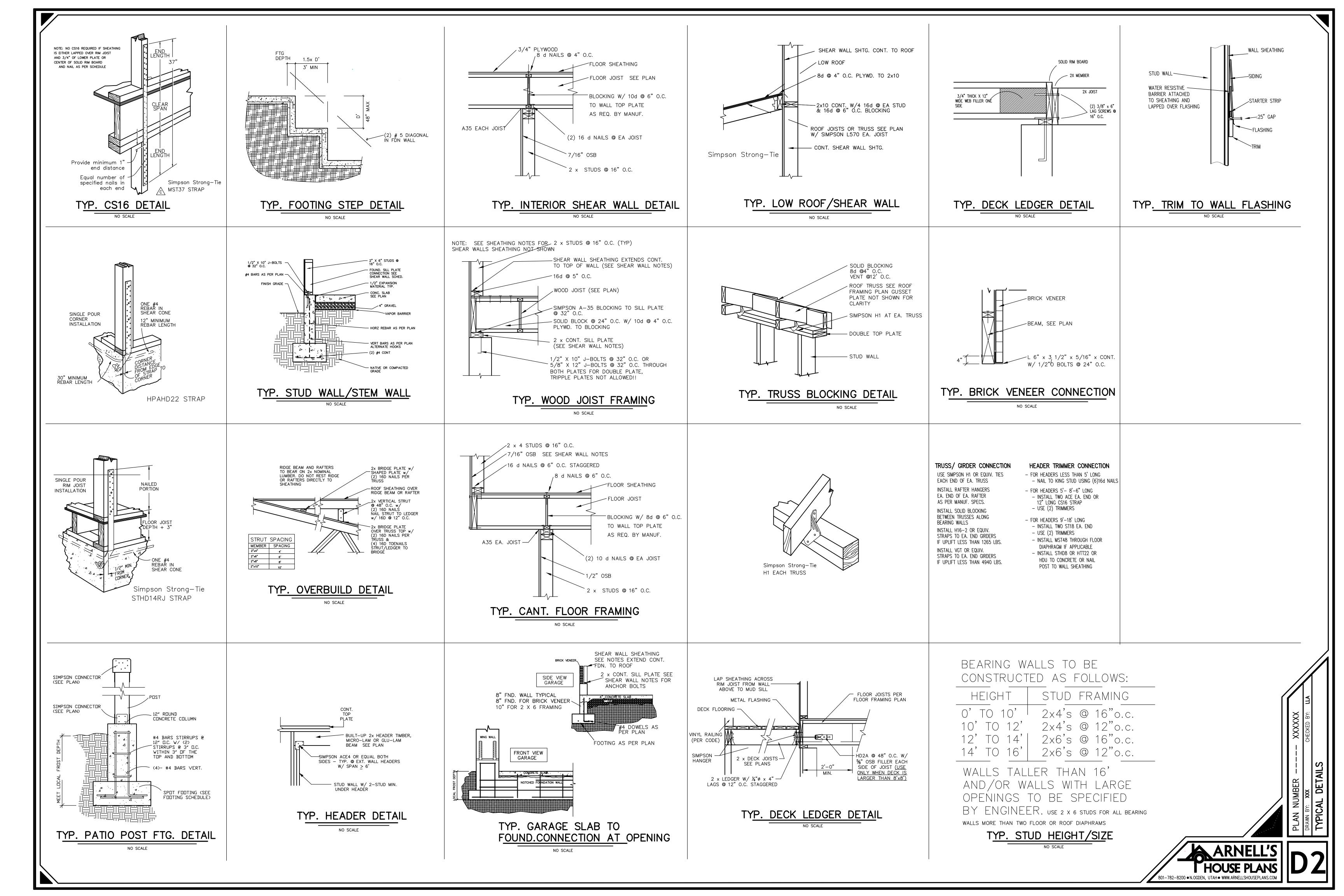
- INSULATE FLOORS AND/OR WALLS BETWEEN HEATED AND UNHEATED AREAS. OR PROVIDE 3-1/2" FURRING AND INSUL. AT BSM'T WALLS.
- HANDRAILS ON STAIRS MORE THAN 2 RISERS TO BE 34"-38" ABOVE TREAD NOSE AND HAVE 1-1/4" - 2-5/8" CROSS SECTIONAL AREA. STAIRWAY TO HAVE MIN. 6'-8" HEADROOM CLEARANCE AND 5/8" SHEETROCK UNDER RUNS.
- \* ALL OVERHANGING FLOORS SHALL HAVE INSUL. WITH THERMAL TRANSMITTANCE VALUE GREATER THAN .044 UO. FLOOR JOIST SYSTEM SHALL BE ATTACHED TO BEARING WALL USING SIMPSON H4 CLIPS EVERY OTHER JOIST
- \* FURNACE DUCTS IN UNHEATED BSM'T AREAS SHALL BE INSULATED
- WITH NOT LESS THAN R-4.0 INSULATION \* PROVIDE SOLID BLOCKING BETWEEN TRUSSES AND ANCHOR CLIPS 24" O/C.
- FLASHING TO BE INSTALLED SO AS TO PREVENT MOISTURE FROM ENTERING THE WALL OR REDIRECT IT TO OUTSIDE. FLASHING TO BE INSTALLED AT PERIMETERS OF EXT. DOORS, WINDOWS, PENETRATIONS AND TERMINATIONS OF EXT WALL ASSEMB. EXT WALL INTERSECTIONS WITH ROOF, CHIMNEYS, PORCHES, DECKS, BALCONIES, BUILT IN GUTTERS AND ALL LOCATIONS WHERE WATER COULD ENTER WALL. FLASHING WITH PROJECTED FLANGES AT BOTH SIDES AND ENDS OF COPINGS, UNDER SILLS AND CONT. ABOVE PROJECTED TRIM. FLASHIING SHALL BE INSTALLED AT INTERSECTION

OF FOUND. TO STUCCO MASONARY SIDING BRICK OR ROCK VENEER. THE FLASHING TO APPROVED CORROSION RESISTANT WITH 1/2" DRIP LEG EXTENDING PAST EXT. SIDE OF FOUND. SEC. 1405.3 IBC

ALL WORK IS TO BE PERFORMED UNDER THE DIRECTION OF A LICENSED CONTRACTOR IN ACCORDANCE WITH THE BEST PRACTICES OF THE RESPECTIVE BUILDING CODES. CONTRACTOR IS TO CHECK AND VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO BEGINNING CONSTRUCTION.

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CONTRACTOR AND ALL SUBCONTRACTORS SHALL PERFORM THEIR TRADES AND DUTIES IN A MANNER CONFORMING TO THE PROCEDURES AND REQ. OF THE ADOPTED CODES AND PRACTICES OF THE COMMUNITY OR AREA IN WHICH THE CONSTRUCTION SHALL TAKE PLACE.

### FOOTINGS, FOUNDATIONS AND SLAB ON GRADE

PREP. OF THE SITE WILL CONSIST OF REMOVAL OF ALL SURFACE VEGETATION. TOPSOIL, NON-ENGINEERED FILL, AND OTHER MATERIALS FROM ALL AREAS WHICH WILL ULTIMATELY BE STRUCTURALLY LOADED.

ALL FOOTINGS ARE BASED ON THE ALLOWABLE SOIL BEARING PRESSURE INDICATED IN DESIGN CRITERIA. ANY SOIL CONDITIONS ENCOUNTERED DURING EXCAVATION THAT IS CONTRARY TO THOSE USED FOR DESIGN OF FOOTINGS AS OUTLINED IN WORKING DRAWINGS SHALL BE BROUGHT TO THE ATTENT. OF THE ENG. BEFORE PROCEEDING.

ALL FOOTINGS SHALL BEAR ON UNDISTURBED NATIVE SOIL OR ENGINEERED GRANULAR FILL COMPACTED TO 95% OF MAX DENSITY, BASED ON ASTM D1557 METHOD OF COMPACTION. FILL SHALL BE COMPACTED UNDER ALL CONCRETE WORK ON THE SITE.

NO FOOTINGS SHALL BE INSTALLED UPON LOOSE OR DISTURBED SOILS, SOD, RUBBISH, CONSTRUCTION DEBRIS. NON-ENGINEERED FILL. FROZEN SOIL. IN WATER, OR OTHER DELETERIOUS MATERIALS. IF SUITABLE FILL BECOMES LOOSE OR DISTURBED, THEY MUST BE COMPACTED TO THE REQ. STATED ABOVE.

ALL EXCAVATION ADJACENT TO AND BELOW FOOTING ELEV. FOR OTHER TRADES SHALL BE ACCOMPLISHED PRIOR TO POURING ANY FOOTING.

ALL EXTERIOR WALL FOOTINGS SHALL BE CONTINUOUS AND POURED MONOLITHIC. ALL CHANGES IN VERT. ELEV. SHALL BE STEPPED. STEP HEIGHT SHALL NOT BE HIGHER THAN 2/3 OF THE STEP LENGTH, BUT IN NO CASE SHALL THE STEP HEIGHT BE GREATER THAN 2'-6". THE MINIMUM THICKNESS OF THE VERT. STEP SHALL BE 10".

ALL FOOTINGS SHALL BE PLACED 12" MIN. BELOW UNDISTURBED EARTH NO FOOTINGS SHALL HAVE LESS THAN 30", OR LOCAL FROST DEPTH, BETWEEN THE FINISHED GRADE AND THE BOTTOM OF THE FOOTING.

ALL FOOTING REINFORCEMENT AND WALL COLUMN DOWELS SHALL BE SECURELY TIED IN PLACE PRIOR TO POURING CONCRETE. PROVIDE DOWELS IN FOOTINGS AND FOUND. TO MATCH ALL VERT. BARS IN WALLS AND COLUMNS ABOVE, UNLESS NOTED OTHERWISE.

ALL SLABS ON GRADE SHALL BE IMMEDIATELY UNDERLAIN BY 4" OF FREE DRAINING GRANULAR MATERIAL, SUCH AS "PEA" GRAVEL OR THREE QUARTERS OF 1" MINUS CLEAN GAP-GRADED GRAVEL. GRAVEL MAY BE PLACED UPON PROPERLY PREPARED SUITABLE NATURAL SOILS, AND/OR STRUCTURAL FILL EXTENDING TO SUITABLE NATURAL SOILS.

FOUNDATION WATER PROOFING SHALL BE ASPHALT EMULSION.

ANCHOR BOLTS SHALL BE EMBEDDED IN AT LEAST 7" OF CONCRETE @ 32" O.C. (MAX) AND WITHIN 12" OF EACH END AND SPLICE OF SILL PLATE (MIN. 2 BOLTS PER WALL SECTION). SEE SHEAR WALL SCHEDULE FOR SIZE AND SPACING.

TOPS OF FOUNDATIONS SHALL BE 6" MIN. ABOVE FINISH GRADE. FINISH GRADE SHALL HAVE A SLOPE AWAY FROM THE BUILDING OF 6" MIN. FOR THE FIRST 10' AND A 2% SLOPE THEREAFTER. ALL DRAINAGE FROM THE LOT SHALL DRAIN INTO APPROVED

STABILITY OF SLOPED SITES SHALL BE VERIFIED BY SOIL ENGINEER OR OTHER QUALIFIED PROFESSIONAL

ALL FTGS, FOUND, AND INT. SLABS SHALL BE NORMAL WEIGHT CONCRETE WITH A COMPRESSIVE EQUAL TO AT LEAST 3,000 PSI WITHIN 28 DAYS AFTER POURING. THE WATER/CEMENT RATIO SHALL BE NO GREATER THAN 0.50 AND SLUMP SHALL BE 3" OR LESS. MIN. CONCRETE CONTENT SHALL BE 504 LBS. PER CU. YD.

ALL CONCRETE WORK SHALL BE PLACED, CURED, STRIPPED, AND PROTECTED AS DIRECTED BY THE SPECS AND ACI STANDARDS AND PRACTICES.

BEFORE CONC. IS POURED CHECK WITH ALL TRADES TO INSURE PROPER PLACEMENT OF ALL OPENINGS, SLEEVES, CONDUITS, BOLTS, INSERTS, ETC.

SITE SPECIFIC SOILS REPORTS SHALL BE GIVEN PRECEDENCE OVER THE SPECS LISTED

## CONCRETE REINFORCING

ALL REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI DETAILING MANUAL 315-77 AND ACI STANDARD 318-83.

ALL METAL REINFORCEMENT SHALL BE DEFORMED TYPE BARS (EXCEPT #2 BARS) AND SHALL CONFORM TO THE REQUIREMENTS OF THE "STANDARD SPECIFICATIONS" A.S.T.M. A615

ALL SPLICES IN CONTINUOUS CONCRETE REINFORCING BARS SHALL LAP 36 BAR DIA. ALL SUCH SPLICES SHALL BE MADE IN A REGION OF COMPRESSION UNLESS OTHERWISE SHOWN. ALL CONTINUOUS REINFORCEMENT SHALL TERMINATE WITH A 90 DEGREE TURN OR

REINFORCEMENT SHALL BE FREE OF MUD, OIL, OR OTHER NON-METALLIC COATINGS THAT ADVERSELY AFFECT BONDING CAPACITY.

ALL OPENINGS IN CONCRETE WALLS SHALL BE REINFORCED WITH 2 #5 BARS EXTENDING 2'-0" MIN. BEYOND THE EDGE OF THE OPENING AT EACH FACE OF OPENING PLUS 2 # 4 X 3 '-0". AT EACH CORNER PLACED 45 DEG. TO THE HORIZ.

## HOLDDOWN NOTES

EMBEDDED HOLDOWN ANCHORS ARE REQ. TO RESIST LATERAL OVERTURNING FORCES. HOLDOWN SIZE AND LOCATIONS ARE INDICATED ON THE FOOTING AND FOUND. PLAN AND OR IN THE HOLDOWN NOTES.

ANCHORS SHALL BE INSTALLED FOLLOWING MANUFACT. SPECS. ALL FASTENERS SHALL BE INSTALLED AND MINIMUM EDGE/CORNER DISTANCES SHALL BE MET.

## PORCHES - WALKS - DRIVEWAYS - PATIOS

EXT. DOORS TO HAVE MIN. 36" X 36" LANDING - WITH STEPS AS REQ. BY GRADE.

MIN. THICKNESS SHALL BE 4". NORMAL WGT. CONC , COMPRESSIVE STRENGTH EQUAL TO AT LEAST 4000 PSI WITHIN 28 DAYS. WATER/CEMENT RATIO NO GREATER THAN 0.50 AND SLUMP 3" OR LESS. MIN. CEMENT TO BE 575 LBS PER CU. YD.

## MASONRY

MASONRY AND STONE VENEER NOT EXCEEDING 5" IN THICKNESS MAY BE ANCHORED DIRECTLY TO STRUCTURAL STUDS.

WALL TIES SHALL BE CORROSION RESISTANT, AND IF MADE OF SHEET METAL, SHALL HAVE A MINIMUM THICKNESS OF 0.030 INCH (NO. 22 GALVANIZED SHEET GAGE) BY 3/4" OR, IF OF WIRE, SHALL HAVE A MIN. DIAMETER OF 0.148 INCH (NO. 9 B.W. GAGE). WALL TIES SHALL BE SPACED SO AS TO SUPPORT NOT MORE THAN 2 SQ. FT. OF WALL AREA BUT SHALL NOT BE MORE THAN 24" IN CENTER HORIZ.

IN SEISMIC ZONES 3 AND 4, WALL TIES SHALL HAVE A LIP OR HOOK ON THE EXTENDING LEG THAT WILL ENGAGE OR ENCLOSE A HORIZ. JOINT REINFORCEMENT WIRE HAVING A DIAMETER OF 0.148 INCH (NO 9 B.W. GAGE) OR EQUIVALENT. THE JOINT REINFORCEMENT SHALL BE CONTINUOUS WITH BUTT SPLICES BETWEEN TIES PERMITTED.

STUDS SHALL BE SPACED A MAX. OF 16" O.C. AND APPROVED PAPER SHALL FIRST BE APPLIED OVER THE SHEATHING OR WIRES BETWEEN STUDS EXCEPT AS OTHERWISE PROVIDED IN SECTION 1402, AND MORTAR SHALL BE SLUCHED INTO THE 1" SPACE

PROVIDE FLASHING AT WALL AND ROOF, OR ROOF AND CHIMNEY. SECTION 607-4.8 FIREPLACE CHIMNEYS SHALL EXTEND AT LEAST 2'-0" ABOVE THE ROOF OPENING OR ANY PART OF THE BUILDING WITHIN 10'-0".

### FACTORY BUILT CHIMNEYS AND FIREPLACES

EXACT ACCORDANCE WITH THE TERMS OF THEIR LISTINGS AND THE MANUFACTURERS INSTRUCT. SPECIFIC APPROVAL NUMBERS AND INSTALLATION STANDARDS MUST BE MADE AVAILABLE TO THE BLDG. OFFICIAL.

HEARTH EXT. OF LISTED FACTORY BUILT FIREPLACES SHALL CONFORM TO THE CONDITIONS OF LISTING AND MANUFACTURERS INSTALLATION INSTRUCTIONS.

FACTORY BUILT CHIMNEYS AND FIREPLACES SHALL BE LISTED BY AN APPROVED

TESTING AGENCY AND HAVE AN ICBO APPROVAL NUMBER. THEY SHALL BE INSTALLED IN

### MASONRY AND CONCRETE FIREPLACES

UNLESS A SPECIFIC DESIGN IS PROVIDED, EVERY MASONRY OR CONCRETE CHIMNEY IN SEISMIC 70NES 2. 3 AND 4 SHALL BE REINFORCED WITH NOT LESS THAN #4 STEEL REINFORCING BARS CONFORMING TO THE PROVISIONS OF U.B.C. CHAPTER 19 OR 21. THE BARS SHALL EXTEND THE FULL HEIGHT OF THE CHIMNEY AND SHALL BE SPLICED IN ACCORDANCE WITH THE APPLICABLE REQ. OF U.B.C. CHAPTER 19 OR 21. IN MASONRY CHIMNEYS THE VERT. BARS SHALL HAVE A MIN. COVER OF 1/2" OF GROUT OR MORTAR TEMPERED TO A POURING CONSISTENCY. THE BARS SHALL BE TIED HORIZ. AT 18" INTERVALS WITH NOT LESS THAN 1/4" DIAMETER STEEL TIES. THE SLOPE OF THE INCLINED PORTION OF THE OFFSET IN VERT. BARS SHALL NOT EXCEED 2 UNITS VERT. IN 1 UNIT HORIZ. TWO TIES SHALL ALSO BE PLACED AT EACH BEND IN VERT. BARS. WHERE THE WIDTH OF THE CHIMNEY EXCEEDS 40", TWO ADDITIONAL #4 VERTICAL BARS SHALL BE PROVIDED FOR EACH ADDITIONAL FLUE INCORPORATED IN THE CHIMNEY OR FOR EACH ADDITIONAL 40" IN WIDTH OR FRACTION THEREOF.

IN SEISMIC ZONES 2, 3 AND 4, ALL MASONRY AND CONCRETE CHIMNEYS SHALL BE ANCHORED AT EACH FLOOR OR CEILING LINE MORE THAN 6' ABOVE GRADE, EXCEPT WHEN CONSTRUCTED COMPLETLY WITHIN THE EXT. WALLS OF THE RIDG. ANCHORAGE SHALL CONSIST OF 2: 3/16" BY 1" STEEL STRAPS CAST AT LEAST 12" INTO THE CHIMNEY WITH A 80 - DEGREE BEND WITH A 6" EXTENSION AROUND THE VERTICAL REINFORCING BARS IN THE OUTER FACE OF THE CHIMNEY.

EACH STRAP SHALL BE FASTENED TO THE STRUCTURAL FRAMEWORK OF THE BLDG. WITH TWO 1/2" DIAMTER BOLTS PER STRAP. WHERE THE JOISTS DO NOT HEAD INTO THE CHIMNEY, THE ANCHOR STRAP SHALL BE CONNECTED TO 2" X 4" TIES CROSSING A MIN. OF 4 JOISTS. THE TIES SHALL BE CONNECTED TO EACH JOIST WITH TWO 16D NAILS. AS AN ALTERNATIVE TO THE 2" BY 4" TIES, EACH ANCHOR STRAP SHALL BE CONNECTED TO THE STRUCTURAL FRAMEWORK BY TWO 1/2" DIAMETER BOLTS IN AN APPROVED MANNER.

TWO OR MORE FLUES IN A CHIMNEY SHALL BE SEPARATED BY MASONRY NOT LESS THAN 4" INCHES THICK BONDED INTO THE MASONRY WALL OF THE CHIMNEY.

MASONRY WALLS OF FIREPLACES SHALL NOT BE LESS THAN 8" IN THICKNESS. WALLS OF FIREBOXES SHALL NOT BE LESS THAN 10" IN THICKNESS, EXCEPT THAT WHERE A LINING OF FIREBRICK IS USED, SUCH WALLS SHALL NOT BE LESS THAN A TOTAL OF 8" IN THICKNESS. THE FIREBOX SHALL BE AT LEAST 20" IN DEPTH. JOINTS IN FIREBRICK

COMBUSTIBLE MATERIALS SHALL NOT BE PLACED WITHIN 6" OF THE FIREPLACE OPENING. NO SUCH COMPUSTIBLE MATERIAL WITHIN 12" OF THE OPENING SHALL PROJECT MORE THAN 1/8" FOR EACH 1" CLEARANCE FROM SUCH OPENING.

THE HEARTH SHALL EXTEND AT LEAST 16" FROM THE FRONT OF AND AT LEAST 8" BEYOND EACH SIDE OF THE FIREPLACE OPENING. WHERE THE FIREPLACE OPENING IS 6 SQ. FT. OR LARGER, THE HEARTH EXTENSION SHALL EXTEND AT LEAST 20" IN FRONT OF, AND AT LEAST 12" BEYOND EACH SIDE OF THE FIREPLACE OPENING.

EXCEPT FOR FIREPLACES WHICH OPEN TO THE EXTERIOR OF THE BUILDING, THE HEARTH SLAB SHALL BE READILY DISTINGUISHABLE FROM THE SURROUNDING OR ADJACENT

MASONRY FIREPLACES AND CHIMNEYS SHALL HAVE AT LEAST 2" OF CLEARANCE TO

ANY INT. COMBUSTIBLE CONSTRUCTION. CLEARANCE TO EXT. COMBUSTIBLE CONSTRUCTIONS

D	JOISTS
_	POST
	PRE—FAB TRUSSES/JOISTS

ALL MULTIPLE PLATES AND LEDGERS SHALL BE NAILED TOGETHER WITH 16D NAILS AT

(PRESSURE TREATED FOR MOISTURE PROTECTION)

STUD WALLS SHALL RUN CONTINUOUS BETWEEN POINTS OR HORIZ. SUPPORT. PROVIDE BRACING WHERE OTHERWISE.

BLOCK ALL HORIZ. EDGES OF PLYWOOD WALL SHEATHING WITH 2" NOMINAL BLOCKING. BLOCK EDGES OF PLYWOOD ON FLOORS AND ROOF AS DIRECTED ON DRAWINGS.

PLACE 2 STUDS MINIMUM AT ALL BEAMS, HEADERS, AND GIRDER TRUSS BEARING POINTS UNLESS NOTED OTHERWISE.

## EXTERIOR WALLS

SIDING: PER OWNER & SUBDIVISION COVENANTS STUCCO: SYNTHETIC STUCCO PRODUCT (SEE PLAN - CHECK WITH OWNER) MASONRY VENEER: FACE BRICK OR ROCK (SEE PLAN - CHECK WITH OWNER) EXTERIOR PAINTING: PENETRATING STAIN OR OIL BASE ENAMEL

WOOD MEMBERS SHALL NOT BE USED TO PERMANENTLY SUPPORT THE DEAD LOAD OF ANY MASONRY EXCEPT; NONSTRUCTURAL FLOOR OR ROOF SURFACING NOT MORE THAN 4" THICK, OR INTERIOR WALL FINISH OF MASONRY VENEER, WHEN ROOF SUPPORTING MEMBERS ARE DESIGNED TO SUPPORT THE ADDITIONAL LOAD AND TO LIMIT THE DEFLECTION AND SHRINKAGE TO 1/500 OF THE SPAN.

BRICK TIES SHALL BE 22 GA. AT 16" O.C. EACH WAY WITH NO. 9 WIRE BED JOINTS

ALL WEATHER EXPOSED SURFACES SHALL HAVE A WEATHER-RESISTIVE BARRIER TO PROTECT THE INTERIOR WALL COVERING. BUILDING PAPER SHALL BE FREE FROM HOLES AND BREAKS OTHER THAN THOSE CREATED BY FASTENERS AND CONSTRUCTION SYSTEM DUE TO ATTACHING OF THE BUILDING PAPER. AND SHALL BE APPLIED OVER THE STUDS OR SHEATHING OF ALL EXTERIOR WALLS. SUCH FELT OR PAPER SHALL BE APPLIED HORIZ, WITH THE UPPER LAYER LAPPED OVER THE LOWER LAYER NOT LESS THAN 2". WHERE VERT. JOINTS OCCUR, FELT OR PAPER SHALL BE LAPPED NOT LESS THAN 6". BARRIER SHALL EXTEND ABOVE SOFFIT AND FASCIA TO TOP PLATE (PROVIDE 2 LAYERS BEHIND STUCCO SURFACES). ALSO PROVIDE METAL OR EQUAL FLASHING AT FOUND. AND BRICK VENEER OR STONE HALF WALLS WHERE WATER FROM WEATHER BARRIER COULD ENTER

STUCCO SYSTEM SHALL BE AN APPROVED SYSTEM WITH ICBO EVAL. SERVICE NUMBER. ALL "SYSTEMS" MUST BE APPLIED IN STRICT COMPLIANCE WITH THE MANUFACTURERS' RECOMMENDATIONS INCLUDING REQUIREMENTS FOR SELF-FURRING LATH, FLASHINGS, CORNER TREATMENT AND EXPANSION CONTROL JOINTS. CONTRACTOR WILL BE RESPONSIBLE TO PROVIDE ICBO NUMBER.

PROVIDE COUNTERFLASHING AND CAULKING OF ALL EXTERIOR DOORS AND WINDOWS.

## SHEAR WALL NOTES

ALL EXTRIOR WALLS, INTERIOR WALLS INDICATED ON THE PLANS, AND VERT. SURFACES AT STEPS IN ROOF SHALL BE SHEATHED WITH APA RATED 24/0 (OR BTR.) CDX STRUCTURAL II PANEL SIDING OR OTHER GRADES COVERED IN CURRENT BLDG. CODE. TYPICAL NAILING SHALL BE INDICATED IN THE SHEAR WALL SCHEDULE.

BLOCK ALL HORIZ. PANEL EDGES WITH 2" NOMINAL OR WIDER FRAMING. FRAMING AT ADJOINING PANEL EDGES SHALL BE 3" NOMINAL OR WIDER AND NAILS SHALL BE STAGGERED WHERE NAILS ARE SPACED 3" OR LESS O.C.

STAPLES OR T-NAILS MAY BE USED IN PLACE OF NAILS FOR SHEATHING PROVIDED THE PROPER EQUIVALENT SIZE AND SPACING ARE USED ( SEE TABLE OF EQUIVALENT

SHEATHING SHALL EXTEND CONTINUOUS FROM THE FLOOR FRAMING TO HIGH ROOF FRAMING ON UPPER LEVEL EXT. WALLS (VERT. SURFACES AT STEPS IN ROOF).

NAILS SHALL BE SPACED NOT LESS THAN 3/8" FROM THE EDGES AND ENDS OF

SHEATHING AND SHALL BE DRIVEN FLUSH BUT SHALL NOT FRACTURE THE SURFACE OF THE ALL SHEATHING SHALL EXTEND CONTINUOUS FROM SILL PLATE TO ROOF OR FLOOR

## PARTITION FRAMING

JOISTS UNDER AND PARALLEL TO BEARING PARTITIONS SHALL BE DOUBLED. JOISTS UNDER AND PARALLEL TO ALL OTHER PARTITIONS SHALL BE DOUBLED WHEN THE LENGTH OF SUCH WALL EXCEEDS 1/3 THE LENGTH OF JOISTS 12' AND LONGER.

FIREBLOCK STUD SPACES OVER 10' IN HEIGHT, FURRED SPACES, SOFFITS, DROPPED CEILINGS, COVE CEILINGS, STAIRS STRINGERS AT TOP AND BOTTOM OF STAIRS, BEARING WALLS, AND CEILING JOIST LINES, ETC. FIRESTOPPING SHALL CONSIST OF 2" NOMINAL

FIREBLOCK OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS, AND FIREPLACES AT CEILING AND FLOOR LEVELS WITH APPROVED NONCOMBUSTIBLE MATERIALS.

### ROOF FRAMING & TRUSS NOTES

TRUSSES AND GIRDER LOADS SHALL BE DESIGNED FOR ALL TRIBUTARY LOADING. ROOF TRUSSES SHALL BE DESIGNED FOR UNBALANCED SNOW LOADS, EAVE LOADS, DRIFT,

TRUSSES AND GIRDER LOADS SHALL BE DESIGNED TO SUPPORT ALL MECHANICAL LOADS FROM APPLICABLE HVAC EQUIPMENT

DESIGN TRUSSES TO LIMIT DEFLECTION TO THE SPAN. CHECK DIMENSIONS WITH DRAWINGS AND FIELD VERIFY WITH CONTRACTOR. TRUSS

MANUFACTURER IS RESPONSIBLE TO PROVIDE WEB AND CHORD MEMBERS TO SATISFY LOADING AND CONNECTION REQUIREMENTS. ALTHOUGH SUGGESTED CONNECTION HANGER SIZES MAY BE INDICATED ON THE

PLANS, ALL TRUSS HANGER CONNECTIONS (I.E. TRUSS TO BEAM, TRUSS TO GRIDER TRUSS, AND GRIDER TRUSS TO GRIDER TRUSS) SHALL BE DESIGNED BY THE TRUSS SUPPLIER/MANUFACTURER. CONNECTION HANGER SIZE AND ENGINEERING SHALL BE INCLUDED WITH THE SHOP DRAWINGS.

TRUSS PRE-ENGINEERED JOINT CONNECTORS SHALL HAVE I.C.B.O. CERT.

OVERBUILD SHALL BE CONSTRUCTED USING 2 X 6 MINIMUM SPACED AT LEAST 24" O.C. WITH 8'-0" MAX. SPAN. SUPPORT OVERBUILD JOISTS AT PANEL POINTS OF TRUSSES. SEE OVERBUILD DETAIL.

PROVIDE ATTIC ACCESS WITH MIN. 22" X 30" OPENING FOR EACH ROOF. SEE PLAN FOR LOCATION.

## DECKS - HANDRAILS - GUARDRAILS

DECKS SHALL BE CONSTRUCTED TO PROVIDE ADEQUATE SUPPORT FOR APPLICABLE HORIZ. AND VERT. LOADING INC. MIN. 60 PSF LIVE LOAD.

DECK AND BALCONY RAILINGS AND GUARDRAILS SHALL BE CAPABLE OF SUPPORTING A MINIMUM OF 20 PLF APPLIED HORIZONTALLY AT RIGHT ANGLES TO THE RAIL THE MOUNTING OF HANDRAILS SHALL BE SUCH THAT THE COMPLETED HANDRAIL AND SUPPORTING STRUCTURE ARE CAPABLE OF WITHSTANDING A LOAD APPLIED IN ANY

DIRECTION OF AT LEAST 200 LBS.

ENTRY DOOR: STEEL INSULATED OTHER EXTERIOR DOORS: STEEL INSULATED ADDITIONAL INFORMATION: KEY ALL EXTERIOR DOORS ALIKE INTERIOR DOORS: 6-PANEL (SEE PLAN FOR SIZES - ALL DOORS ARE 6'-8" IN HEIGHT UNLESS NOTED OTHERWISE) CASINGS: COLONIAL TYPE

BASE: COLONIAL TYPE SPECIALTY MOLDINGS: SEE PLAN FOR APPLICATION - CHECK WITH OWNER FOR SIZE AND

ADDITIONAL INFORMATION: DOORS TO BE PAINT GRADE UNLESS SPECIFIED BY OWNER

TREADS: 3/4" FIR OR PARTICLE BOARD - ATTACH WITH ADHESIVE NAILS RISERS: 3/4" PINE OR EQUAL STRINGERS: 2" X 12" FIR

HANDRAIL: TO MEET LOCAL BUILDING CODES (CHECK WITH OWNER FOR STYLE AND

RUN OR RISER WITHIN ANY FLIGHT OF STAIRS SHALL NOT EXCEED THE SMALLEST BY MORE WINDERS IN WINDING STAIRWAYS NEED A MIN. 6" DIMENSION TREAD ON THE INSIDE OF THE STEP WITH A 9" TREAD REQUIRED AT A POINT 12" FROM THE NARROW SIDE.

SHALL BE 9" (LENGTH OF TREAD MEASURED FROM NOSE TO NOSE). THE LARGEST TREAD

STAIRWAYS SHALL HAVE A MAX. RISE OF 8" AND A MIN. RISE OF 4". THE MIN. RUN

STAIRWAYS IN HOMES SHALL NOT BE LESS THAN 36" IN WIDTH.

EVERY STAIRWAY SHALL HAVE A LANDING WITH A DIMENSION EQUAL TO THE WIDTH OF THE STAIR MEASURED IN THE DIRECTION OF TRAVEL (NEED NOT EXCEED 44").

STAIRWAYS WITH 4 OR MORE RISERS SHALL HAVE AT LEAST ONE HANDRAIL (EXCEPT THE STAIRWAYS OPEN ON ONE OR BOTH SIDES SHALL HAVE HANDRAILS PROVIDED ON OPEN SIDE OR SIDES). HANDRAILS SHALL BE PLACED 34"-38" ABOVE THE NOSE OF THE TREADS VERT. TO THE TOP OF THE RAIL. THEY SHALL BE CONTINUOUS THE FULL LENGTH OF THE STAIRS. THE HANDGRIP PORTION SHALL BE NOT LESS THAN 1 1/4" NOR MORE THAN 2" IN CROSS-SECTIONAL DIMENSIONS. HANDRAILS PROJECTING FROM A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1 1/2" BETWEEN THE WALL AND THE HANDRAIL. ENDS SHALL BE RETURNED TO THE WALL OR TERMINATE IN NEWEL POSTS OR SAFETY TERMINALS.

EVERY STAIRWAY SHALL HAVE A HEADROOM CLEARANCE OF NOT LESS THAN 6'-8". SUCH CLEARANCE SHALL BE MEASURED VERT. FROM A LINE ALONG THE TREAD NOSING TO THE SOFFIT ABOVE AT ALL POINTS.

ENCLOSED USABLE SPACE UNDER STAIRS SHALL HAVE THE WALLS AND SOFFITS PROTECTED ON THE ENCLOSED SIDE AS REQUIRED FOR ONE-HOUR FIRE RESISTIVE

GUARDRAILS SHALL BE PROVIDED TO PROTECT UNENCLOSED SIDES OF ROOMS, CORRIDORS, STAIRS, RAMPS, ETC. WHICH ARE MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW. THE GUARDRAIL SHALL BE AT LEAST 36" HIGH AND SHALL HAVE INTERMEDIATE RAILS OR AN ORNAMENTAL PATTERN SUCH THAT A SPERE 4" IN DIAMETER CANNOT PASS THROUGH. THE TRIANGULAR SPACE CREATED BY THE STAIR AND A BOTTOM RAIL MAY BE CONSTRUCTED SO A 6" SPHERE WILL NOT PASS THROUGH.

STAIRS, LANDINGS, AND BALCONIES SHALL BE POSITIVELY ANCHORED TO THE HOUSE.

## CRAWL SPACES

WOOD GIRDERS SHALL BE LOCATED NO LESS THAN 12" ABOVE EXPOSED GROUND.

CRAWL SPACES SHALL BE PROVIDED WITH AN 18" X 24" ACCESS HOLE. IF A FURNACE IS LOCATED IN THE CRAWL SPACE THE MIN. ACCESS HOLE SHALL NOT BE LESS THAN 30" X 30", OR SIZE OF THE EQUIPTMENT IF LARGER.

CRAWL SPACE VENTILATION SHALL BE PROVIDED BY OPENINGS IN THE EXTERIOR FOUNDATION WALLS. SUCH OPENINGS SHALL HAVE A NET AREA OF NOT LESS THAN 1 SQ. FT. FOR EACH 150 SQ. FT. OF UNDER FLOOR AREA. OPENINGS SHALL BE LOCATED AS CLOSE TO THE CORNERS AS POSSIBLE AND SHALL PROVIDE CROSS VENTILATION. OPENINGS ARE TO BE PROVIDED WITH A 1/4" CORROSION RESISTANT MESH. WHERE GROUND WATER IS NOT A PROBLEM. THE BUILDING OFFICIAL MAY ALLOW OPERABLE LOUVERS AND MAY ALLOW VENT OPENINGS TO BE REDUCED 10% OF THE REQUIREMENT, PROVIDED THE UNDER-FLOOR GROUND SURFACE IS COVERED WITH AN APPROVED VAPOR

NOTE: SEE PLAN FOR APPLICATION.

### OCCUPANCY SEPARATION

FIRE SEPARATION IS REQUIRED BETWEEN A RESIDENCE AND AN ATTACHED GARAGE. IN THIS CASE FIRE RESISTIVE CONSTRUCTION MAY BE LIMITED TO MATERIALS APPROVED FOR ONE-HOUR CONSTRUCTION ON THE GARAGE SIDE.

FIRE-RESISTIVE PROTECTION OF SEPARATION SHALL BE VERT. AND/OR HORIZ. PROTECTION MUST EXTEND UNINTERRUPTED FROM CONCRETE TO EXTERIOR SHEATHING. WALLS COMMON TO HOUSE AND GARAGE MUST BE COMPLETELY PROTECTED. ALL STRUCTURAL MEMBERS SUPPORTING THE FIRE SEPARATION, SUCH AS, BEARING WALLS, COLUMNS AND BEAMS MUST ALSO BE PROTECTED.

TYPICAL GARAGE WALLS AND CEILINGS SHALL BE: USE (2) 1/2" TYPE "X" GYP. BD. ON CEILING & (1) 5/8" TYPE "X" GYP. BD. ON ALL WALLS. PROVIDE 2 LAYERS OF 5/8" TYPE "X" GYP. BD. WHERE I-JOISTS OR RAFTERS FORM PART OF THE GARAGE FIRE SEPARATION PROVIDE FULL INSUL IN ALL AREAS BORDERING HOME

ANY DOOR BETWEEN THE HOUSE AND GARAGE SHALL BE A SELF CLOSING, TIGHT FITTING SOLID WOOD DOOR, 1 3/8" THICK OR A 20 MINUTE LABELED DOOR.

ATTIC ACCESS DOORS LOCATED IN GARAGES SHALL BE OF ONE-HOUR FIRE-RESISTIVE CONSTRUCTION AND HAVE A POSITIVE LATCH AND HINGE. THE SUPPORT MEMBERS SHALL BE OF 2" NOMINAL MATERIALS: ALL FASTENERS SHALL BE SCREWED INTO A SOLID MEMBER (NO SCREWING HINGES AND LATCHES INTO SHEETROCK ONLY).

DUCT PENETRATIONS SHALL BE A MIN. 26 GAUGE SHEET METAL, WITH ANY OPENINGS INTO THE GARAGE PROTECTED BY FIRE DAMPERS.

NO WINDOWS ARE PERMITTED IN GARAGE FIRE WALL OR IN DOOR BETWEEN THE HOUSE AND GARAGE

FIRE-RESISTIVE WALLS AND PARTITIONS MAY HAVE OPENINGS FOR STEEL ELECTRICAL OUTLET BOXES NOT EXCEEDING 16 SQ. INCHES IN AREA, PROVIDED THE AGGREGATE AREA OF SUCH OPENINGS IS NOT MORE THAN 100 SQ. INCHES FOR ANY 100 SQ. FT. OF WALL OR PARTITION AREA. OUTLET BOXES ON OPPOSITE SIDES OF WALLS AND PARTITIONS SHALL BE SEPARATED BY A HORIZ. DISTANCE OF AT LEAST 24". ELECTRICAL BOXES IN WALL BETWEEN HOUSE AND GARAGE SHALL BE STEEL OR RATED FOR AT LEAST 1-HOUR CONTRUCTION BY AN APPROVED TESTING AGENCY.

FIRE SEPARATION NEED NOT BE PROVIDED BETWEEN A HOUSE AND A CARPORT HAVING NO ENCLOSED USES ABOVE, PROVIDED THE CARPORT IS ENTIRELY OPEN ON TWO OR MORE SIDES.

UNDER NO CIRCUMSTANCES SHALL A GARAGE HAVE ANY OPENING INTO A ROOM USED FOR SLEEPING PURPOSES.

## **INSULATION** ( REFER TO RESCHECK FOR EXACT REQUIREMENTS.)

CEILING: R-38 MIN. BLOWN IN CELLULOSE. WALLS: R-13 MIN. 2X4 WALLS OR R-19 MIN 2X6 WALLS BLOWN IN CELLULOSE. BASEMENT WALLS: R-13 MIN. 2X4 WALLS OR R-19 MIN. 2X6 WALLS BLOWN IN CELLULOSE WHERE APPLICABLE. (TO MEET LOCAL BUILDING CODES). RIM JOISTS: R-11 MIN. FIBERGLASS BAT VAPOR BARRIER: MIN. OF 4 MIL. POLYETHYLENE TO BE INSTALLED OVER INSULATION ON COLD WALL APPLICATIONS AND UN-VENTED CEILINGS.

EXPANDING FOAM TO BE USED AROUND ALL WINDOWS, DOORS AND OTHER EXTERIOR OPENINGS.

PROVIDE INSULATION BAFFLES IN ATTIC SPACE -CONTRACTOR TO VERIFY. THE INSULATION AROUND THE PERIMETER OF A SLAB ON GRADE FLOOR SHALL EXTEND DOWNWARD FROM THE TOP OF THE SLAB FOR A MIN. OF 24" OR DOWNWARD TO THE BOTTOM OF THE SLAB AND THEN HORIZ. BENEATH THE SLAB FOR A MIN. DISTANCE OF

DUCTS, PLENUMS, AND ENCLOSURES INSTALLED IN CRAWL SPACE, GARAGE. UN-INSULATED BASEMENT, ATTIC, OR OTHER UN-INSULATED SPACE SHALL BE THERMALLY INSULATED WITH INSULATION HAVING A THERMAL RESISTANCE (R) VALUE OF NOT LESS

TYVEK OR EQUIV. WEATHER BARRIER ON SHEATHING BETWEEN SHEATHING AND

## CEILINGS, ROOM DIMENSIONS, ETC.

CEILING HEIGHT IS REQ. TO A MIN. OF 7'-6" IN ALL HABITABLE ROOMS. KITCHENS, HALLS AND BATHROOMS MAY HAVE A CEILING OF 7'-0". THE BOTTOM OF EXPOSED BEAMS SPACED 48" OR MORE O.C. MAY BE ALSO 7'-0". A FURRED CEILING MAY BE AS LOW AS 7'-0", BUT 2/3 OF THE ROOM MUST HAVE A CEILING HEIGHT OF 7'-6" OR MORE. A SLOPED CEILING REQ. THE PRESCRIBED CEILING HEIGHT IN AT LEAST 1/2 OF THE ROOM; NO PORTION OF THE ROOM MAY BE USED TO COMPUTE MIN. AREA WHERE THE CEILING IS

HOUSES SHALL HAVE AT LEAST ONE ROOM WHICH SHALL HAVE NOT LESS THAN 120 SQ. FT. OF FLOOR AREA. OTHER HABITABLE ROOMS, EXCEPT KITCHENS, SHALL HAVE AN AREA OF NOT LESS THAN 70 SQ. FT.

HABITABLE ROOMS OTHER THAN A KITCHEN SHALL BE NOT LESS THAN 7' IN ANY

HALLWAYS SHALL NOT BE LESS THAN 36" WIDE. HALLWAYS SHALL HAVE A CLEAR CEILING HEIGHT OF NOT LESS THAN 7' MEASURED TO THE LOWEST PROJECTION.

CLOTHES CHUTES WHICH PASS THROUGH MORE THAN ONE FLOOR CANNOT EXCEED 9 SQ. FT. AND SHALL BE LINED WITH SHEETROCK COVERED WITH 26 GA. SHEET METAL HAVING LOCKLAPPED JOINTS. ALL OPENINGS INTO THE ENCLOSURE SHALL HAVE TIGHT FITTING, SELF-CLOSING DOORS

AN ATTIC ACCESS OPENING, NOT LESS THAN 22" X 30", SHALL BE PROVIDED AT

"OCCUPANCY SEPARATION" FOR ATTIC ACCESS LOCATED IN GARAGE AREAS.

SHINGLES: 240# 25 YEAR ASPHALT SHINGLES. SEE PLAN FOR ITEM USED.

FLASHING TO BE INSTALLED AS REQ'D PER ALL APPLICABLE CODES

COUNTER FLASHING SHALL BE INSTALLED AT ROOF AND WALL JUNCTURES.

STEP FLASHING SHALL BE USED WHERE THE ROOF MEETS A VERT SURFACE.

PROVIDE ICE AND WATER SHEILD CONSISTING OF TWO LAYERS OF NONPERFORATED

TYPE 15 FELT APPLIED SHINGLE FASHION. STARTING WITH A 18" WIDE SHEET AND A 36"

WIDE SHEET OVER IT AT THE EAVES, SUCH SUBSEQUENT SHEET SHALL BE LAPPED 19"

HORIZ., ADDITIONAL THE 2 LAYERS SHALL BE SOLID MOPPED TOGETHER WITH APPROVED

CEMENTING MATERIAL BETWEEN THE PLIES EXTENDING FROM THE EAVE UP THE ROOF TO A POINT 24" INSIDE THE EXTERIOR WALL LINE OF THE BUILDING, OR USE APPROVED ICE AND

ROOFING, GUTTERS & DOWNSPOUTS

BUILT-UP ROOFING: FELT FROM EAVE TO 12" INSIDE WALL.

METAL EDGING: ALUMINUM "D" DRIP METAL EDGING

SHEATHING: (SEE ROOF SHEATHING NOTES)

UNDERLAYMENT: ONE (1) LAYER 15# FELT

FLASHING: GALVANIZED METAL OR ALUMINUM

GUTTERS & DOWNSPOUTS: ALUMINUM

WATER SHIELD. (CONTARTOR TO VERIFY).

### LIGHT. VENTILATION & SANITATION ROOF/CEILING AREAS. THERE SHALL BE 30" OF HEADROOM OVER THE OPENING. IF THERE IS LESS THAN 30" MAX. HEIGHT IN THE ATTIC. ACCESS NEED NOT BE PROVIDED. THE OPENING SHALL BE LOCATED IN THE HALLWAY OR OTHER READILY ACCESSIBLE AREA. SEE

ALL HABIATBLE ROOMS (BEDROOMS, LIVING ROOMS, KITCHENS, DINING ROOMS, FAMILY ROOMS, ETC.) SHALL BE PROVIDED WITH NATURAL LIGHT BY MEANS OF EXTERIOR GLAZED OPENINGS WITH AN AREA OF NOT LESS THAN 1/10TH OF THE FLOOR AREA OF SUCH ROOMS WITH A MIN. OF 10 SQ. FT. KITCHENS MAY BE PROVIDED WITH ARTIFICIAL LIGHT.

WINDOWS: WOOD OR VINYL: DBL. PANE (SEE PLAN-CHECK WITH OWNER)

PROVIDE SCREENS ON ALL OPENABLE WINDOWS AND DOORS.

1" DIAMETER GRAVEL TO BE AT A MIN. OF 6" BELOW THE WINDOW SILL.

GLASS IN DOORS SHALL BE SAFETY GLAZED.

SURFACE MUST BE SAFETY GLAZED.

SUFACE MUST BE SAFETY GLAZED.

GYPSUM BOARD AT ALL SPLASH AREAS

PRIMER PAINT: PVA PRIMER

FLOOR COVERINGS

FACING, HEARTH, MANTLE PER OWNER

EXIT FACILITIES

POSITIVLEY ANCHORED TO THE HOUSE.

WITHOUT THE USE OF SEPARATE TOOLS.

MIN. EGRESS REQUIREMENTS WILL BE AS FOLLOWS:

2. MIN. NET CLEAR OPENING HEIGHT DIMENSION OF 24"

MIN. NET CLEAR OPENING WIDTH DIMENSION OF 20"

1. MIN. NET CLEAR OPENING OF 5.7 SQ. FT

RESCUE WINDOWS SHALL COMPLY WITH THE FOLLOWING:

FULL INSUL. IN ALL AREAS BORDERING HOME.

A CERAMIC TILE OR WOOD SILL INSTALLED (CHECK WITH OWNER).

CASINGS: IF WOOD WINDOWS ARE USED, CASINGS TO MATCH DOOR CASINGS. IF ALUMINUM

OF HOLLOW VINYL WINDOWS ARE USED, THEN DRYWALL TO BE RETURNED TO WINDOW WITH

UNLESS OTHERWISE SPECIFIED, ALL BASEMENT WINDOWS NOT FULLY 8" ABOVE

WINDOW WELLS WILL BE DUG OUT TO A DEPTH BELOW THE WINDOW SILL TO ALLOW 10" OF

GLAZING IN FIXED OR OPERABLE PANELS ADJACENT TO DOOR WHERE THE NEAREST

GLAZING PANELS LARGER THAN 9 SQ. FT. LOCATED LESS THAN 18" FROM THE FLOOR

GLAZING IN DOORS AND ENCLOSURES FOR HOT TUBS, WHIRLPOOLS, SAUNAS, STEAM

GLAZING IN WALLS ENCLOSING STAIRWAY LANDINGS OR WITHIN 5' OF THE BOTTOM

ROOMS, SHOWER AND BATHTUBS SHALL BE SAFETY GLAZED. GLAZING IN ANY PORTION OF

SURFACE AND DRAIN INLET, INCLUDING ANY WALLS, WINDOWS IN WALLS AND DOORS SHALL

AND TOP OF STAIRWAYS WHERE THE BOTTOM EDGE IS LESS THAN 60" ABOVE A WALKING

WALLS AND CEILINGS: 1/2" GYPSUM BOARD. CLGS. WITH 24" SPACING 5/8" SHEETROCK

GARAGE WALLS AND CEILINGS: USE (2) 1/2" TYPE "X" GYP. BD. ON CEILING AND (1) 5/8"

CONTRACTOR WILL PROVIDE 3/8" PARTICLE BOARD UNDERLAYMENT IN ALL AREAS

WHERE LINOLEUM OR VINYL FLOOR COVERINGS ARE TO BE USED. CHECK WITH OWNER FOR

APPLIANCES: PROVIDE OVEN AND/OR RANGE, RANGE HOOD, DISHWASHER, AND DISPOSAL

ALL HOUSES SHALL HAVE AT LEAST ONE 3'-0" X 6'-8" SWINGING TYPE EXIT DOOR

LANDINGS ARE REQUIRED ON BOTH SIDES OF EXTERIOR DOORS. DOOR MAY OPEN AT

TO THE EXTERIOR. HOUSES EXCEEDING 3,000 SQ. FT. SHALL HAVE TWO COMPLYING EXIT

A LANDING THAT IS NOT MORE THAN 8" LOWER THAN THE FLOOR LEVEL. PROVIDED THE

DOOR DOES NOT SWING OVER THE LANDING. LANDING SHALL BE EQUAL TO THE DOOR OR

STAIRWAY WIDTH AND SHALL BE AT LEAST 36" DEEP. STAIRS AND LANDINGS SHALL BE

EVERY SLEEPING ROOM AND BASEMENT SHALL HAVE AT LEAST ONE OPERABLE,

FXTFRIOR WINDOW OR EXTERIOR DOOR APPROVED FOR EMERGENCY ESCAPE OR RESCUE.

THE UNITS SHALL BE OPERABLE FROM THE INSIDE TO PROVIDE A FULL CLEAR OPENING

(WINDOW OPENING ONLY 24" HIGH MUST BE AT LEAST 34.2" WIDE)

(WINDOW OPENING ONLY 20" WIDE MUST BE AT LEAST 41.1" HIGH)

ESCAPE AND RESCUE WINDOWS WITH A FINISHED SILL HEIGHT BELOW THE ADJACENT

1. THE CLEAR HORIZ. DIMENSIONS SHALL ALLOW THE WINDOW TO BE FULLY OPENED

AND PROVIDE A MIN. ACCESSIBLE NET CLEAR OPENING OF 9 SQ. FT, WITH MIN. DIMENSIONS

WITH AN APPROVED PERMANENTLY AFFIXED LADDER OR STAIRS THAT ARE ACCESSIBLE WITH

THE WINDOW IN THE FULLY OPENED POSITION. THE LADDER OR STAIRS SHALL NOT

ENCROACH INTO THE DIMENSIONS OF THE WINDOW WELL BY MORE THAN 6".

2. WINDOW WELLS WITH A VERTICAL DEPTH OF MORE THAN 44" SHALL BE EQUIPPED

4. MAX. FINISHED SILL HEIGHT OF NOT MORE THAN 44" ABOVE THE FLOOR

GROUND FLEVATIONS SHALL HAVE A WINDOW WELL. WINDOW WELLS AS ESCAPE OR

JOINT TREATMENT: PERFA-TAPE & 3 COATS JOINT COMPOUND (PROVIDE WATERPROOF

TYPE "X" GYP. BD. ON ALL WALLS. PROVIDE 2 LAYERS OF 5/8" TYPE "X" GYP. BD.

PAINT: 2 COATS OIL BASE ENAMEL (SEMI-GLOSS) (CHECK WITH OWNER).

KITCHEN CABINETS: OAK - OR OTHER HARDWOOD - PER OWNER

BATHROOM VANITIES: OAK - OR OTHER HARDWOOD - PER OWNER

COUNTER TOPS: LAMINATE - OR OTHER - PER OWNER

TYPE: GAS DIRECT VENT, UNLESS OTHERWISE SPECIFIED

(SFF CABINET MAKER FOR LOCATION — CHECK WITH OWNER

WIRE OVEN AND/OR RANGE AS REQUIRED BY CODE

WIRE AND PLUMB FOR WASHER AND DRYER (VENT DRYER TO OUTSIDE)

EDGING: LAMINATE - OR OTHER - PER OWNER

WHERE I-JOISTS OR RAFTERS FORM PART OF THE GARAGE FIRE SEPARATION. PROVIDE

EXPOSED EDGE IS WITHIN A 24" ARC OF EITHER VERT. EDGE OF THE DOOR IN A CLOSED

OR WALKING SURFACE SHALL BE SAFETY GLAZED. IN LIEU OF SAFETY GLAZING, GLASS

RESISTING 50 LBS. PER LINEAR FOOT, LOCATED BETWEEN 34" AND 38" ABOVE WALKING

MAY BE PROTECTED BY A HORIZ. MEMBER AT LEAST 1 1/2" IN HEIGHT. CAPABLE OF

A BUILDING WALL FNCLOSING SUCH COMPARTMENTS WITHIN 60" ABOVE A STANDING

POSITION AND WHERE THE BOTTOM EDGE IS WITHIN 60" OF THE FLOOR OR WALKING

FINISHED GRADE SHALL BE PROTECTED BY GALVANIZED OR CONCRETE WINDOW WELLS.

ALL HABITABLE ROOMS SHALL BE PROVIDED WITH NATURAL VENTILATION BY MEANS OF OPENABLE EXTERIOR OPENINGS WITH AN AREA NOT LESS THAN 1/20TH OF THE FLOOR AREA OF SUCH ROOMS WITH A MIN. OF 5 SO. FT. IN LIFLL OF RED. EXTERIOR OPENINGS. FOR NATURAL VENTILATION, A MECHANICAL VENTILATING SYSTEM MAY BE PROVIDED. SUCH SYSTEM SHALL BE CAPABLE OF PROVIDING TWO AIR CHANGES PER HOUR WITH A MIN. OF 15 CUBIC FT. PER MINUTE OF OUTSIDE AIR PER OCCUPANT DURING SUCH TIME AS THE BUILDING IS OCCUPIED.

FOR THE PURPOSE OF LIGHT AND VENTILATION, A ROOM MAY BE CONSIDERED AS A PORTION OF AN ADJOINING ROOM WHEN 1/2 OF THE AREA OF THE COMMON WALL IS OPEN AND UNOBSTRUCTED AND PROVIDES AN OPENING OF NOT LESS THAN 1/10TH OF THE FLOOR AREA OF THE INTERIOR ROOM, OR 25 SQ. FT. WHICH EVER IS GREATER.

## LIGHT, VENTILATION & SANITATION (CONT.)

ALL BATHROOMS, WATER CLOSET COMPARTMENTS, LAUNDRY ROOMS AND SIMILIAR ROOMS SHALL BE PROVIDED WITH NATURAL VENTILATION BY MEANS OF OPENABLE EXTERIOR OPENINGS WITH AN AREA OF NOT LESS THAN 1/20TH OF THE FLOOR AREA OF SUCH ROOMS WITH A MIN. OF 1 1/2 SQ. FT. A FAN CONNECTED DIRECTLY TO THE OUTSIDE CAPABLE OF PROVIDING 5 AIR CHANGES PER HOUR MAY BE SUBSTITUTED. FAN MUST DISCHARGE AT LEAST 3' FROM ANY OPENING INTO THE ROOM. BATHROOMS WHICH CONTAIN ONLY A WATER CLOSET OR LAVATORY OR BOTH, MAY BE VENTILATED WITH AN APPROVED MECHANICAL RECIRCULATING FAN.

EVERY HOUSE SHALL HAVE AT LEAST ONE WATER CLOSET, LAVATORY, BATHTUB OR SHOWER, AND KITCHEN SINK EQUIPPED WITH HOT AND COLD RUNNING WATER NECESSARY FOR NORMAL OPERATION.

DRYER, BATHROOM, LAUNDRY ROOM AND KITCHEN RANGE VENTILATION SHALL TERMINATE OUTSIDE THE BUILDING AND SHALL BE EQUIPPED WITH BACK DRAFT DAMPERS.

ENCLOSED ATTICS AND ENCLOSED RAFTER SPACES SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW. THE NET FREE VENTILATING AREA SHALL NOT BE LESS THAN 1/150TH OF THE AREA OF THE SPACE VENTILATED, EXCEPT THAT THE AREA MAY BE 1/300TH, PROVIDED THAT AT LEAST 50% OF THE REQ. VENTILATING AREA IS LOCATED IN THE UPPER 3' OF THE ATTIC AND THE REMAINDER IS PROVIDED BY SOFFIT VENTS. WHERE SOFFIT VENTS ARE USED, AN INSULATION DAM MUST BE PROVIDED. ATTIC VENTILATION MAY ALSO BE 1/300TH WHEN A VAPOR BARRIER IS USED AT THE WARM SIDE OF THE CEILING. OPENINGS SHALL BE COVERED WITH 1/4" MESH.

### ELECTRICAL

SERVICE: 100 AMPS MINIMUM (ELECTRICIAN TO VERIFY) SPECIAL OUTLETS: DRYER, RANGE AND/OR OVEN - 220 VOLT EACH SERVICE TO BE IN 2" CONDUIT, 18" DEEP, WITHIN 1" OF PEDESTAL PROVIDE U-FER GROUND AS REQ'D.

ELECTRICAL PANELS SHALL COMPLY WITH N.E.C. AND SHALL HAVE A CLEAR WORKING SPACE 30" WIDE, 36" DEEP AND 6'-6" HIGH IN FRONT. ELECTRICAL PANELS CANNOT BE LOCATED IN BATHROOMS.

PROVIDE A SECONDARY GROUNDING SYSTEM WHEN USING THE WATER SERVICES AS THE PRIMARY GROUND. PROVIDE A SEPARATE 20 AMP CIRCUIT BREAKER FOR BATHROOM OUTLETS. ELECTRICIAN TO VERIFY. SMOKE DETECTORS

REQUIRED SMOKE DETECTORS SHALL RECIEVE THEIR PRIMARY POWER FROM THE BUILDING WIRING AND BE FOUIPPED WITH A BATTERY BACKUP, WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQ. FOR OVERCURRENT PROTECTION.

SMOKE DETECTORS SHALL BE LOCATED AS FOLLOWS:

1. MOUNTED ON THE CEILING OR ON THE WALL, NOT MORE THAN 12" FROM THE CEILING. AT A POINT CENTRALLY LOCATED IN THE CORRIDOR OR AREA GIVING ACCESS TO EACH SEPARATE SLEEPING AREA AND IN EVERY BEDROOM. 2. WHEN THE DWELLING HAS MORE THAN 1 STORY, AND IN DWELLINGS WITH BASEMENTS, OR MULTILEVEL HOMES A DETECTOR SHALL BE INSTALLED ON EACH LEVEL

3. WHERE THE CEILING HEIGHT OF A ROOM OPEN TO THE HALLWAY SERVING THE BEDROOMS EXCEEDS THAT OF THE HALLWAY BY 24" OR MORE, SMOKE DETECTORS SHALL BE INSTALLED IN THE HALLWAY AND IN THE ADJACENT ROOM. 4. DETECTORS SHALL BE WIRED IN SERIES SO THAT AN AUDIBLE ALARM SOUNDS IN ALL SLEEPING AREAS AT THE SAME TIME. (SEE PLAN FOR LOCATION OF SMOKE

DETECTORS.)

INCLUDING THE BASEMENT

AT LEAST ONE WALL SWITCH CONTROLLED LIGHTING OUTLET SHALL BE INSTALLED IN EACH HABITABLE ROOM, BATHROOMS, HALLWAYS, STAIRWAYS, ATTACHED AND DETACHED GARAGES WITH FLECTRICAL POWER AND AT OUTDOOR ENTRANCES (NOT INCLUDING GARAGE OVERHEAD OR VEHICLE DOORS). IN HABITABLE ROOMS, OTHER THAN KITCHENS AND BATHROOMS, RECEPTACLES CONTROLLED BY A WALL SWITCH IS PERMITTED IN LIEU OF LIGHTING OUTLETS

AT LEAST ONE SWITCH CONTROLLED LIGHTING OUTLET IS REQ. AT THE ENTRY TO THE ATTIC, CRAWL SPACE, UTILITY ROOM, AND BASEMENT. A LIGHTING OUTLET SHALL BE PROVIDED AT OR NEAR EQUIPTMENT REQ. SERVICING.

LIGHTING OUTLETS AT STAIRS SHALL BE SWITCHED AT EACH FLOOR LEVEL WHERE THE DIFFERENCE BETWEEN FLOOR LEVELS IS SIX STEPS OR MORE.

FIXTURES IN CLOSETS SHALL BE A MIN. OF 12" FROM ANY SHELF EDGE, MEASURED HORIZ. THE DIMENSION FOR SHELVES LESS THAN 12" WIDE WILL CONSIDER THE EDGE OF THE SHELF 12" FROM THE WALL. FIXTURES OVER BATHTUBS AND SHOWERS SHALL BE THE TYPE MARKED "SUITABLE FOR WET OR DAMP LOCATIONS". SWITCHES SHALL NOT BE INSTALLED IN TUB OR SHOWER SPACES.

CEILING FANS REQ. APPROVED BOXES AND ADDITIONAL SUPPORT.

ALL HABITABLE ROOMS SHALL HAVE RECEPTACLE OUTLETS INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY WALL SPACE IN MORE THAN 6' HORIZ. FROM AN OUTLET. THE WALL SPACE AFFORDED BY FIXED ROOM DIVIDERS, SUCH AS, FREE STANDING COUNTERS OR RAILINGS SHALL BE INCLUDED IN THE 6' MEASUREMENT. ANY WALL OR SPACE 2' OR MORE IN WIDTH SHALL BE CONSIDERED SEPARATLEY FROM OTHER WALL

KITCHEN AND DINING AREA COUNTER TOPS SHALL HAVE GCFI RECEPTACLE OUTLETS AT EACH COUNTER SPACE WIDER THAN 12". RECEPTACLES SHALL BE INSTALLED SO THAT NO POINT ALONG THE WALL LINE, ISLAND COUNTER, OR PENINSULAR COUNTER IS MORE THAN 24" HORIZ. FROM A RECEPTACLE OUTLET. ONE OUTLET WILL BE REQ. FOR EACH ISLAND OR PENINSULAR COUNTER TOPS INSTALLED ABOVE OR WITHIN 12" BELOW THE

COUNTER TOP. RECEPTACLES SHALL NOT BE INSTALLED IN A FACE UP POSITION. A 120 VOLT GFI RECEPTACLE SHALL BE LOCATED WITHIN 10' OF THE FURNACE AND

AIR CONDITIONING EQUIPMENT FOR SERVICE AND MAINTENANCE. GCFI OUTLETS SHALL BE INSTALLED IN BATHROOMS ADJACENT TO EA. BASIN LOC. ALL EXTERIOR MOUNTED OUTLETS SHALL BE WATERPROOF GFCI RECEPTACLES. THERE SHALL BE ONE OUTLET AT EACH EXIT FROM DWELLING.

AT LEAST ONE GFCI SEPARATE CIRCUIT RECEPTACLE OUTLET INSTALLED FOR THE

AT LEAST ONE OUTLET, IN ADDITION TO ANY PROVIDED FOR LAUNDRY, SHALL BE

INSTALLED IN EACH BASEMENT NEAR FURNACE LOCATION. PROVIDE 4 WIRE GROUNDED 220V OUTLET FOR ALL OVENS AND STOVES.

FOR HALLWAYS 10' OR MORE LONG, ONE OUTLET SHALL BE INSTALLED. OUTLETS SHALL NOT BE INSTALLED IN GARAGES WITHIN 18" OF THE FLOOR. APPLIANCE OUTLETS SHALL BE INSTALLED WITHIN 6' OF THE INTENDED LOCATION OF

## GROUND FAULT CIRCUIT INTERRUPTERS

GROUND FAULT CIRCUIT INTERRUPTERS (GFCI) ARE REQ. IN THE FOLLOWING

LIGHT FIXTURES OVER THEM

THE APPLIANCE.

PLACEMENT WITH OWNER.

1. ALL RECEPTACLES IN BATHROOMS 2. RECEPTACLES IN GARAGES (EXCEPT CEILING AND DEDICATED)

6. RECEPTACLES WITHIN 10' OF HOT TUBS AND WIRLPOOL TUBS AND

TUBS. PERMANENT ACCESS MUST BE PROVIDED TO ALL EQUIPMENT REQ. SERVICE

 ALL RECEPTACLES OUTDOORS (INCLUDING SOFFIT MOUNT). 4. RECEPTACLES IN CRAWL SPACES & UNFIN. BSMT. (EXCEPT DEDICATED) . ALL KITCHEN RECEPTACLES SERVING COUNTERTOP LOCATIONS.

OUTLETS AND SWITCHES ARE NOT PERMITTED WITHIN 5' OF HOT TUBS OR WHIRLPOOL

(PROVIDE ACCESS LOCATION TO JETTED TUB MOTORS IF APPLICABLE). ARC-FAULT CIRCUIT INTERRUPTORS AT BEDROOM LOCATIONS PER LOCAL OFFICIALS. (SEE PLAN FOR LAYOUT. CONTRACTOR & ELECTRICIAN TO VERIFY FINAL OUTLET

## PLUMBING AND MECHANICAL

EACH WATER CLOSET STOOL SHALL BE LOCATED IN A CLEAR SPACE NOT LESS THAN 30" IN WIDTH (15" FROM CENTER TO ANY OBSTRUCTION) AND HAVE A CLEAR SPACE IN FRONT OF NOT LESS THAN 24". WATER CLOSETS SHALL HAVE A MAX. FLOW RATE OF 1.6

A SHOWER MUST BE A MIN. OF 1024 SQ. IN. IN FLOOR AREA WITH DIMENSIONS SUCH THAT A 30" CIRCLE CAN BE ENCOMPASSED WITHIN THE COMPARTMENT FROM THE TOP OF THE THRESHOLD TO 70" ABOVE THE DRAIN. PROVIDE A 22" WIDE (MIN.) SHOWER DOOR.

PROVIDE ANTI-SCALE SHOWER VALVES ON ALL SHOWER AND TUB-SHOWER COMBINATION INSTALLATIONS.

WHEN GYPSUM IS USED AS A BASE FOR TILE AND WALL PANELS FOR TUB. SHOWER OR WATER CLOSET COMPARTMENT WALLS WATER RESISTANT GYPSLIM BACKING BOARD SHALL BE USED. WATER RESISTANT GYPSUM BOARD SHALL NOT BE USED IN THE FOLLOWING LOCATIONS:

1. OVER A VAPOR BARRIER 2. IN AREAS SUBJECT TO CONTINUOUS HIGH HUMIDITY.

SHOWER HEADS SHALL HAVE A MAX. FLOW RATE OF 2.5 G.P.M.

3. ON CEILINGS WHERE FRAME SPACING EXCEEDS 12" O.C.

PROVIDE NON-FREEZE TYPE BACK FLOW PREVENTER HOSE BIBBS. BACKWATER VALVES ON FIXTURES AS REQ'D PER IRC P3008.1

ALL PLUMBING VENTS THRU ROOF TO BE MIN. 2" PIPE (CONTR. TO VERIFY)

PRESSURE RELIEF VALVES SHALL BE PROVIDED WITH A FULL SIZED DRAIN WHICH SHALL EXTEND FROM THE VALVE TO THE FLOOR DRAIN OR OTHER APPROVED LOCATION. GAS FIRED FURNACES AND WATER HEATERS SHALL NOT BE LOCATED IN THE

BEDROOM, BATHROOM, CLOSET OR IN ANY ENCLOSED SPACE WITH ACCESS ONLY THROUGH

ALL APPLIANCES (WATER HEATER, BOILER, STEAM GENERATOR, ETC.) WHICH REQUIRE

SUCH A ROOM OR SPACE.

A WARM AIR FURNACE SHALL NOT BE INSTALLED UNDER A STAIRWAY. JOINTS FOR RESIDENTIAL HEATING DUCTS SHALL BE MECHANICALLY FASTENED BY MEANS OF AT LEAST 3 SHEET METAL SCREWS EVENLY SPACED. SUPPORT DUCTS WITH APPROVED METAL SUPPORTS. DUCTS IN GARAGE AREAS MUST BE A MIN. OF 26 GAGE

NO CLOTH TYPE DUCT TAPE IS ALLOWED. METALLIC OR FOIL TAPE MUST BE USED.

ALL JOINTS, TRANSVERSE AND LONGITUDINAL SEAMS AND CONNECTIONS MUST BE PROPERLY SEALED WITH TAPE OR MASTIC.

GAS LINES SHALL NOT PASS THROUGH OR PENETRATE ANY DUCT OR PLENUM.

WATER HEATERS OR HEATING APPLIANCES LOCATED IN GARAGES WHICH GENERATE A GLOW, SPARK, OR FLAME SHALL BE INSTALLED WITH THE PILOTS, BURNERS, OR HEATING ELEMENTS AND SWITCHES AT LEAST 18" ABOVE THE FLOOR LEVEL.

WATER HEATERS OR HEATING APPLIANCES INSTALLED IN GARAGES WHERE THEY MAY

THE WATER HEATER SPACE AND FURNACE ROOM SHALL HAVE AN OPENING OR DOOR WITH A CONTINUOUS PASSAGEWAY AT LEAST 2' IN WIDTH AND LARGE ENOUGH TO PERMIT REMOVAL OF THE LARGEST EQUIPMENT IN THE ROOM. AN UNOBSTRUCTED WORKING SPACE AT LEAST 30" DEEP AND 36" WIDE SHALL BE PROVIDED IMMEDIATELY IN FRONT OF THE FIREBOX ACCESS OPENING OF THE WATER

HEATER. AN UNOBSTRUCTED WORKING SPACE AT LEAST 30" DEEP AND THE HEIGHT OF

BE DAMAGED SHALL BE SUITABLY GUARDED.

THE COMBUSTION CHAMBER OPENING SIDE.

RANGE TOP AND COOKING SURFACE.

OR DEEP SEAL DESIGN.

THE FURNACE (30" MIN.) SHALL BE PROVIDED ALONG THE ENTIRE FRONT OR FIREBOX SIDE COMBUSTION AIR FOR ALL FUEL BURNING APPLIANCES SHALL BE OBTAINED FROM THE OUTDOORS OR FROM SPACES FREELY COMMUNICATING WITH THE OUTDOORS. 1/2 OF THE REQ. COMBUSTION AIR OPENING SHALL BE LOCATED WITHIN THE UPPER 12" OF THE AREA AND 1/2 WITHIN THE LOWER 12". COMBUSTION AIR OPENINGS SHALL NOT BE DAMPERED. TWO VERT. OPENINGS, EACH WITH 1 SQ. IN. PER 4,000 BTU/H OR HORIZ. OPENINGS, EACH WITH 1 SQ. IN. PER 2,000 BTU/H OF THE TOTAL INPUT RATING OF ALL APPLIANCES SHALL BE PROVIDED. (WHEN CALCULATING FREE AREA OF LOUVERS AND GRILLES. IT MAY BE ASSUMED THAT WOOD LOUVERS WILL HAVE 20%-25% FREE AREA AND METAL LOUVERS AND

GRILLES WILL HAVE 60%-75% FREE AREA. A FURNACE SHALL NOT BE INSTALLED IN A CLOSET OR ALCOVE LESS THAN 1:

WIDER THAN THE FURNACE AND SHALL PROVIDE A MIN. WORKING SPACE OF 3" ALONG THE SIDES, BACK, AND TOP. A FURNACE SHALL NOT BE INSTALLED WITH A CLEARANCE OF LESS THAN 6" ALONG

GAS APPLIANCES SHALL NOT BE INSTALLED IN ANY LOCATION WHERE FLAMMABLE VAPORS ARE LIKELY TO BE PRESENT DUCTS USED FOR KITCHEN RANGE, DRYER, BATHROOM, AND LAUNDRY ROOM

VENTILATION SHALL HAVE A SMOOTH, NON-COMBUSTIBLE, NON-ABSORBANT SURFACE.

DUCTS SHALL TERMINATE OUTSIDE THE BUILDING AND SHALL BE EQUIPPED WITH BACK

DRAFT DAMPERS. MAX. LENGTH OF A DRYER DUCT IS 14' WITH 2 ELBOWS. DEDUCT 2' OF LENGTH FOR

EACH ADDITIONAL ELBOW. NO UNPROTECTED COMBUSTIBLE SURFACE SHALL BE LOCATED WITHIN 30" OF A

AN EVAPOATIVE COOLER MUST BE LOCATED A MIN. OF 10' FROM ALL VENTS, FLUES, AND EXHAUST TERMINATIONS. FLUES MAY BE EXTENDED 3' ABOVE INTAKE OPENINGS OF EVAPORATIVE COOLER IN LIEU OF 10' HORIZ. SEPARATION.

METAL PAN AND MIN. 1-1/2" DRAIN TO AN APPROVED RECEPTOR. PROVIDE PRIMER TRAP

WATER HEATERS LOCATED ON WOOD FLOORS SHALL BE PROVIDED WITH AN APPROVED

PLUMBER WILL PROVIDE SEISMIC ANCHORAGE TO ALL WATER HEATERS. CONTRACTOR

ALL PLUMBING PENETRATIONS THROUGH GARAGE FIRE WALL MUST BE WITH METAL PIPING. THIS INCLUDES WASTE LINES, VACUUM LINES, ETC. AN APPROVED FIRE STOP

TO VERIFY. STRAP TO TOP AND BOTTOM 1/3. CONTRACTOR AND PLUMBER WILL VERIFY ACCESS TO JETTED TUB MOTOR PRIOR TO INSTALLATION AND ADJUST AS REQUIRED.

PLUMBING PENETRATIONS THROUGH GARAGE WALL MUST BE WITH METAL PIPING.

THIS INCLUDES WASTE LINES, VACUUM LINES, ETC. AN APPROVED FIRE STOP MATERIAL MUST BE USED. SLIP JOINT PLUMBING CONNECTIONS ARE NOT ALLOWED IN

CONCEALED CONSTRUCTION AREAS.

GAS LOG APPLIANCES WITHOUT A FLAME SAFEGUARD DEVICE SHALL NOT BE PERMITTED.

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