FRONT ELEVATION:

DRAWING INDEX	
SHEET NUMBER	SHEET NAME
A0	COVER SHEET
A1	GENERAL NOTES & PLAN PREVIEW
A2	MAIN FLOOR PLAN
A3	UPPER FLOOR PLAN
A4	ROOF LAYOUT
A5	FRONT & REAR ELEVATIONS
A6	RIGHT & LEFT ELEVATIONS PERSPECTIVE
A7	VIEWS
A8	BUILDING CROSS-SECTION & SCHEDULES
A9	DETAILS AND NOTES
A9.1	PROJECT DETAILS
A10	SCHEDULES
	STRUCTURAL PLAN
S1.00	GENERAL NOTES & DESIGN CRITERIA
S2.00	TYPICAL DETAILS 1
S3.00	TYPICAL DETAILS 2
S4.00	TYPICAL DETAILS 3
S5.00	TYPICAL DETAILS 4
S6.00	FOUNDATION/ BASEMENT FRAMING PLAN
S7.00	UPPER FLOOR FRAMING PLAN
S8.00	ROOF FRAMING PLAN

PROJECT DESCRIPTION:

PROPOSED NEW 2-STORY SINGLE-FAMILY RESIDENCE (2 598S.F.)
W/ ATTACHED 2 - CAR GARAGE (420 S.F.).

PROJECT NAME:

RESIDENCE PLAN

3D RENDERING NOTES:

3D ELEVATIONS ARE FOR REFERENCE ONLY. THESE SHOULD NOT BE USED TO DETERMINE ANY PORTION OF THE CONSTRUCTION OTHER THAN GENERAL MATERIAL AND APPEARANCE. REFER TO ELEVATION SHEETS FOR DETAILS.

PROJECT DATA:

LEGAL DESCRIPTION:

PARCEL NO.:
PROPERTY TYPE:
LAND AREA:
ACRES:
Q.S.T.R.:
ADDRESS:

ZONING:
SETBACKS:

MAX. HEIGHT:

COVERAGE
BUILDING LOT COVERAGE:

DESIGN TEAM:

STRUCTURAL ENGINEER:

OWNER(S):

BUILDING DEPARTMENT NOTES:

SHEET NUMBER

A0

GENERAL NOTES

INTERNATIONAL RESIDENTIAL CODE 2018 EDITION AND ALL APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION TO BE FOLLOWED.
2018 INTERNATIONAL RESIDENTIAL CODE

CONTRACTOR SHALL VERIFY ALL NOTES, DIMENSIONS & CONDITIONS PRIOR TO CONSTRUCTION & PROVIDE TEMPORARY BRACING AS REQUIRED UNTIL ALL PERMANENT CONNECTIONS HAVE BEEN INSTALLED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY

REPETITIVE FEATURES NOT NOTED ON THE DRAWINGS SHALL BE COMPLETELY PROVIDED AS IF DRAWN IN FULL

CONTRACTOR SHALL VERIFY ALL ROUGH-IN DIMENSIONS FOR ALL EQUIPMENT TO BE INSTALLED

SITE WORK

GENERAL
UNLESS A SOILS INVESTIGATION BY A QUALIFIED SOILS ENGINEER IS PROVIDED, FOUNDATION DESIGN IS BASED ON AN ASSUMED AVERAGE SOIL BEARING OF 1500 PSF.
EXTERIOR FOOTINGS SHALL BEAR 18" (MINIMUM) BELOW FINISHED GRADE. ALL FOOTINGS TO BEAR ON FIRM UNDISTURBED EARTH BELOW ORGANIC SURFACE SOILS.
BACK FILL TO BE THOROUGHLY COMPACTED.
FOUNDATION VENTS SHALL NOT INTERFERE WITH DIRECT LOAD PATH OF COLUMNS.

CONCRETE

MIX AND 28 DAY STRENGTH OF CONCRETE

- BASEMENT WALLS & FOUNDATIONS & OTHER CONCRETE NOT EXPOSED TO WEATHER:	PER STRUCTURAL S-SHEETS
- BASEMENT SLABS & INTERIOR SLABS & INTERIOR SLABS ON GRADE, EXCEPT GARAGE DOOR SLABS	PER STRUCTURAL S-SHEETS
- BASEMENT WALLS & FOUNDATION WALLS, EXTERIOR WALLS & OTHER VERTICAL CONCRETE WORK EXPOSED TO THE WEATHER:	PER STRUCTURAL S-SHEETS
- PORCHES, CARPORT SLABS & STEPS EXPOSED TO WEATHER, & GARAGE	PER STRUCTURAL S-SHEETS

FLOOR SLABS:

GARAGE FLOORS TO SLOPE 1/8"/FT. MIN. TOWARDS OPENING AS REQUIRED FOR DRAINAGE. CONCRETE SLABS TO HAVE CONTROL JOINTS AT 25' FT. (MAX.) INTERVALS EA. WAY. SLABS ARE TO BE 5-AIR ENTRAINED
CONCRETE SIDEWALKS TO HAVE 3/4" IN. TOOLED JOINTS AT 5' FT. (MIN.) O.C.

CONCRETE COVER OF REINFORCING

3" CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.
1 1/2" CONCRETE EXPOSED TO EARTH OR WEATHER.
1 1/2" BEAMS AND COLUMNS NOT EXPOSED TO EARTH OR WEATHER.
3/4" SLABS AND WALLS NOT EXPOSED TO EARTH OR WEATHER.
LAP COLUMN VERTICALS. CLASS "A" CONCRETE AND MASONRY COLUMN AND WALL VERTICALS 52 DIAMETERS.
LAP ALL OTHER REINFORCING 24 DIAMETERS. SPLICES AT TENSION REGIONS SHALL NOT BE PERMITTED.

CARPENTRY

GENERAL
ALL FRAMING TO COMPLY WITH ENGINEERING S-SHEETS FOR NAIL SIZES AND SPACING.

ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED.

6" MIN. CLEARANCE BETWEEN WOOD AND EARTH.
18" MIN. CLEARANCE BETWEEN FLOOR JOIST AND EARTH.
12" MIN. CLEARANCE BETWEEN FLOOR BEAMS AND EARTH.

FASTENERS FOR PRESSURE PRESERVATIVE AND FIRE-RETARDANT-TREATED WOOD SHALL BE OF HOT-DIPPED GALVANIZED STEEL.

BOLT HEADS AND NUTS BEARING AGAINST WOOD TO BE PROVIDED WITH 3"X3"X.224" PLATE WASHERS. WOOD BEARING ON OR INSTALLED WITHIN 1" OF MASONRY OR CONCRETE TO BE TREATED WITH AN APPROVED PRESERVATIVE. SOLID BLOCKING OF NOT LESS THAN 2 X THICKNESS SHALL BE PROVIDED AT ENDS AND AT ALL SUPPORT OF JOISTS AND RAFTERS. BETWEEN SUPPORTS PROVIDED AT ENDS AND AT ALL SUPPORT OF JOISTS AND RAFTERS, JOISTS, 10'-0" FOR ROOF JOISTS. TYPICAL SILL BOLTS TO BE 5/8" DIAMETER AT 6'-0" O.C. MINIMUM 7" EMBED. ALL METAL FRAMING ANCHORS AND HANGERS SHOWN ON DRAWINGS SHALL BE STRONG TIE CONNECTORS AS MANUFACTURED BY SIMPSON COMPANY.

PLYWOOD
PLYWOOD WALL AND ROOF SHEATHING SHALL BE 3/4" CDX, UNLESS OTHERWISE SPECIFIED. PLYWOOD FLOOR SHEATHING SHALL BE 3/4" CDX T&G. UNLESS OTHERWISE SPECIFIED. STAGGER END LAPS AT ROOF AND FLOOR SHEATHING.
OSB SHEATHING PRODUCTS OF EQUIVALENT SPAN RATINGS SHALL BE ALLOWED.

WOOD TRUSSES
ALL ROOF TRUSSES SHALL BE FRAMED AND TIED INTO THE FRAME WORK AND SUPPORTING WALLS SO AS TO FROM AN INTEGRAL PART OF THE WHOLE BUILDING. ROOF TRUSSES SHALL HAVE JOINTS WELL FITTED AND SHALL HAVE ALL TENSION MEMBERS WELL TIGHTENED BEFORE ANY LOAD IS PLACED UPON THE TRUSS. DIAGONAL AND SWAY BRACING SHALL BE USED TO BRACEALL TRUSSES.

INSULATION AND MOISTURE PROTECTION

GENERAL
INSULATION BAFFLES TO MAINTAIN 1" ABOVE BATT INSULATION
BAFFLES TO EXTEND 6" ABOVE BATT INSULATION
BAFFLES TO EXTEND 12" ABOVE LOOSE FILL INSULATION
INSULATE BEHIND TUBS/SHOWERS, PARTITIONS AND CORNERS FACE STAPLE BATTS
FRICTION FIT FACED BATTS
USE 4 MIL POLY VAPOR RETARDER AT WALLS.
* R-10 RIGID FOAM INSULATION ON 4X EVADERS AT EXTERIOR WALLS.

INFILTRATION CONTROL

1. EXTERIOR JOINTS AROUND WINDOWS AND DOOR FRAMES, OPENINGS BETWEEN WALLS AND FOUNDATIONS, BETWEEN WALLS AND ROOF AND BETWEEN WALL PANELS, OPENINGS AT PENETRATIONS OF UTILITY SERVICES THROUGH WALLS, FLOOR AND ROOFS, AND ALL OTHER SUCH OPENINGS IN THE BUILDING ENVELOPE, INCLUDING ACCESS PANELS INTO UNHEATED SPACES, SHALL BE SEALED, CAULKED, GASKETED OR WEATHER-STRIPPED TO LIMIT AIR LEAKAGE. ALL OPENINGS SHALL BE FLASHED. APPROVED CORROSION-RESISTIVE FLASHING SHALL BE PROVIDED IN THE EXTERIOR WALL ENVELOPE
IN SUCH A MANNER AS TO PREVENT ENTRY OF WATER INTO THE WALL CAVITY OR PENETRATION OF WATER TO THE BUILDING STRUCTURAL FRAMING COMPONENTS. THE FLASHING SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH AND SHALL BE INSTALLED TO PREVENT WATER FROM REENTERING THE EXTERIOR WALL ENVELOPE. APPROVED CORROSION-RESISTANT FLASHING SHALL BE INSTALLED AT ALL OF THE FOLLOWING LOCATIONS:

1. AT TOP OF ALL EXTERIOR WINDOW AND DOOR OPENINGS IN SUCH A MANNER AS TO BE LEAKPROOF, EXCEPT THAT SELF-FLASHING WINDOWS HAVING A CONTINUOUS LAP OF NOT LESS
THAN 1-1/8" OVER THE SHEATHING MATERIAL AROUND THE PERIMETER OF THE OPENING, INCLUDING CORNERS, DO NOT REQUIRE ADDITIONAL FLASHING. JAMB
FLASHING MAY ALSO BE OMITTED WHEN SPECIFICALLY APPROVED BY THE BUILDING OFFICIALS.
2. AT THE INTERSECTION OF CHIMNEYS OR OTHER MASONRY CONSTRUCTION WITH FRAME OR WALLS, WITH PROJECTING LIPS ON
BOTH SIDES UNDER STUCCO COPINGS.
3. UNDER AND AT THE ENDS OF MASONRY, WOOD OR METAL COPINGS AND SILLS.
4. CONTINUOUSLY ABOVE ALL PROJECTING WOOD TRIM.
5. WHERE EXTERIOR PORCHES, DECKS OR STAIRS ATTACH TO A
WALL OR FLOOR ASSEMBLY OF WOOD-FRAME CONSTRUCTION.
6. AT WALL AND ROOF INTERSECTIONS.
7. AT BUILT-IN GUTTERS.

ALL EXTERIOR DOORS, OTHER THAN FIRE-RATED DOORS, SHALL BE DESIGNED TO LIMIT AIR LEAKAGE AROUND THEIR PERIMETER WHEN IN A CLOSED POSITION. DOORS BETWEEN RESIDENCE AND GARAGE ARE NOT CONSIDERED FIRE-RATED AND MUST MEET THE ABOVE REQUIREMENT.

ALL EXTERIOR WINDOWS SHALL BE DESIGNED TO LIMIT INFILTRATION INTO OR FROM THE BUILDING ENVELOPE.

- RECESSED LIGHTING FIXTURES: WHEN INSTALLED IN THE BUILDING ENVELOPE, RECESSED LIGHTING FIXTURES SHALL BE TYPE IC RATED AND CERTIFIED TO HAVE NO MORE THAN 2.0 CFM AIR MOVEMENT FROM THE CONDITIONED SPACE TO THE CEILING CAVITY.
THE LIGHTING FIXTURE SHALL BE TESTED AT 75 PASCAL'S OR 1.57 LBS/FT2 PRESSURE DIFFERENCE AND HAVE A LABEL ATTACHED, SHOWING COMPLIANCE WITH THIS TEST METHOD. RECESSED LIGHTING FIXTURES SHALL BE INSTALLED
WITH A GASKET OR CAULK BETWEEN THE FIXTURE AND CEILING
TO PREVENT AIR LEAKAGE.

VAPOR BARRIERS/ GROUND COVERS
AN APPROVED VAPOR BARRIER SHALL BE PROPERLY INSTALLED IN ROOF DECKS, IN ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS, AND AT EXTERIOR WALLS, INSET STAPLED BATTS WITH A PERM RATING LESS THAN ONE MAY BE INSTALLED IF THE VAPOR BARRIER IS TO THE WARM SIDE. STAPLES ARE PLACED NOT MORE THAN 8 INCHES ON CENTER AND GAPS BETWEEN THE FACING AND THE FRAMING
DO NOT EXCEED 1/16 INCH.

A GROUND COVER OF 6 MIL (0.006")BLACK POLYETHYLENE OR EQUIVALENT, SHALL BE LAID OVER THE GROUND IN ALL CRAWL SPACES. THE GROUND COVER SHALL BE OVERLAPPED
ONE FOOT AT EACH JOINT AND SHALL EXTEND TO THE FOUNDATION WALL.

WINDOWS, DOORS, HVAC, & ELECT. EQUIP.

GLAZING MAXIMUM:
ALL CLIMATE ZONES:
GLAZING "U" VALUE: VERTICAL (MAX): .28
OVERHEAD (MAX): .50
DOOR "U" VALUE (MAX): .20
(DOORS W/ MORE THAN 50
CONSIDERED A WINDOW)
RECESSED LIGHT FIXTURES: IC RATED

DOORS, WINDOWS AND SKYLIGHTS

GENERAL
DOORS TO THE EXTERIOR SHALL HAVE MAX. 3" STEP TO MIN. 36" DEEP LANDING. .

BEDROOM EMERGENCY EGRESS WINDOWS MINIMUM NET CLEAR OPENING OF 5.7 SQ. FT. MIN. NET CLEAR OPEN ABLE WIDTH OF 20" AND MINIMUM NET CLEAR OPENING HEIGHT OF 24", MAXIMUM FINISHED SILL HEIGHT OF 44" ABOVE FLOOR.

FACTORY BUILT WINDOWS TO BE CONSTRUCTED TO PERMIT MAXIMUM INFILTRATION OF 0.5 CFM PER LINEAL FOOT OF OPERABLE SASH PERIMETER AS TESTED BY ASTM STANDARDS. SITE BUILT AND MILL WORK SHOP BUILT WOODEN SASH ARE EXEMPT FROM INFILTRATION CRITERIA ABOVE, BUT MUST BE MADE TIGHTLY FITTING AND WEATHER STRIPPED OR CAULKED. SLIDING GLASS DOORS TO PERMIT MAXIMUM INFILTRATION OF 0.5 CFM INFILTRATION PER SQUARE FOOT OF DOOR AREA.

SAFETY GLAZING SHALL BE LOCATED WITHIN

1. INGRESS AND EGRESS DOORS
2. SLIDING GLASS DOORS, SWINGING GLASS DOORS
3. SHOWER AND BATHTUB ENCLOSURE'S
4.GLAZING W/ THE EXPOSED EDGE WITHIN A 24" ARC OF EITHER VERTICAL EDGE OF A DOOR IN THE CLOSED PORTION& BOTTOM EDGE IS LESS THAN 60" ABOVE THE WALKING SURFACE
GLAZING GREATER THAN 9 S.F. LESS THAN 13"ABOVE FINISHED FLOOR.
WINDOW SILLS: 612.2, 24" MINIMUM SILL HEIGHT EXCEPTIONS ALLOW FOR OPENING LIMITING DEVICE FOR 4" DIAMETER SPHERE AND WINDOW FALL PREVENTION DEVICE THAT COMPLIES WITH R312.2.

STRUCTURAL NOTES

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE CONTRACT DRAWINGS.
2. DURING THE CONSTRUCTION PERIOD THE CONTRACTOR SHALL BE
RESPONSIBLE FOR THE SAFETY OF THE BUILDING.
3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION PROCEDURES INCLUDING BRACING, SHORING AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS AND
UTILITIES IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL SAFETY ORDINANCES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND SHALL CHECK ALL DIMENSIONS. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF ENGINEER.
5. ALL DETAILS DESIGNATED AS STANDARD OR TYPICAL SHALL OCCUR IN ADDITION TO ANY OTHER SPECIFIC DETAIL CALLED OUT
6. COORDINATE WITH MECHANICAL, PLUMBING, AND ELECTRICAL REQUIREMENTS FOR SIZE AND LOCATION OF ALL OPENINGS REQUIRED FOR DUCTS, PIPES, AND PIPE SLEEVES, ELECTRICAL CONDUITS, AND OTHER ITEMS TO BE EMBEDDED IN CONCRETE OR OTHERWISE INCORPORATED IN STRUCTURAL WORK.
7. PROVIDE OPENINGS AND SUPPORTS, AS REQUIRED PER STANDARD
DETAILS FOR HEATERS, MECHANICAL EQUIPMENT, VENTS, DUCTS, PIPING, ETC. ALL SUSPENDED MECHANICAL EQUIPMENT
SHALL BE SWAY OR LATERALLY BRACED.

TYPE OF CONSTRUCTION

V-B

UNPROTECTED WOOD FRAME
(EXAMPLES OF CONSTRUCTION ARE SINGLE FAMILY HOMES AND
GARAGES. THEY OFTEN HAVE EXPOSED WOOD SO THERE IS NO
FIRE RESISTANCE.)

PLAN PREVIEW

NOT TO SCALE

SHEET NUMBER

A1

TYPICAL FLOOR NOTES:

1. INSTALL SMOKE DETECTORS IN ALL SLEEPING ROOMS AND AT AREAS ADJACENT TO SLEEPING ROOMS, AND AT CEILING HEIGHT CHANGES GREATER THAN 24". SMOKE DETECTORS TO BE HARD-WIRED AND INTERCONNECTED, WITH BATTERY BACK-UP PER CODE.
2. INSTALL CARBON MONOXIDE SENSORS ADJACENT TO SLEEPING AREAS.
3. ALL INTERIOR WALLS TO BE 2x4 @ 16" O.C. (U.N.O.)
4. ALL EXTERIOR WALLS TO BE 2x6 @ 16" O.C. (U.N.O.)
5. FLOOR HEADERS PER STRUCTURAL @ 9'-0" A.F.F. (U.N.O.)
6. WINDOW SIZES ARE NOMINAL ROUGH OPENING, WIDTH AND HEIGHT.
7. DOOR SIZES NOTED ARE SLABS NOT ROUGH OPENINGS
8. PROVIDE FIREBLOCKING AT ALL PLUMBING OPENINGS.
9. PROVIDE SOLID BLOCKING OVER SUPPORTS.
10 WHEN THERE IS USABLE SPACE BOTH ABOVE AND BELOW THE CONCEALED SPACE OF A FLOOR-CEILING ASSEMBLY, DRAFTSTOPS SHALL BE INSTALLED SO THAT THE AREA OF CONCEALED SPACE DOES NOT EXCEED 1000 SF. DRAFTSTOPPING SHALL DIVIDE THE CONCEALED SPACE INTO APPROXIMATELY EQUAL AREAS AND SHALL BE OF 1/2" GYP BOARD OR OTHER APPROVED MATERIALS INSTALLED PARALLEL TO THE FLOOR FRAMING MEMBERS PER CODE.
11. PROVIDE FIREBLOCKING TO CUT OFF ALL CONCEALED HORIZONTAL AND VERTICAL DRAFT OPENINGS AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE. FIREBLOCKING SHALL CONSIST OF NOT LESS THAN 2" NOMINAL LUMBER OR OTHER APPROVED MATERIAL.
12. ASPHALT-SATURATED FELT FREE FROM HOLES OR BREAKS, WEIGHING NOT LESS THAN 14 POUNDS PER 100 SQUARE FEET AND COMPLYING WITH ASTM D 226 OR OTHER APPROVED WEATHER RESISTANT MATERIAL SHALL BE APPLIED OVER SHEATHING OF ALL EXTERIOR WALLS. APPROVED ALTERNATIVE WEATHERPROOF MEMBRANES SHALL BE USED FOR OPEN JOINT RAIN SCREEN SIDING. WEATHER RESISTANT MATERIALS SHALL BE APPLIED HORIZONTALLY PERMANUFACTURERS RECOMMENDATIONS, WITH THE UPPER LAYER LAPPED OVER THE LOWER LAYER NOT LESS THAN 2 INCHES AND NOT LESS THAN 6 INCHES WHERE JOINTS OCCUR PER CODE.
13. APPROVED CORROSION-RESISTIVE FLASHING SHALL BE PROVIDED IN THE EXTERIOR WALL ENVELOPE IN SUCH A MANNER AS TO PREVENT ENTRY OF WATER INTO THE WALL CAVITY OR PENETRATION OF WATER TO THE BUILDINGS STRUCTURAL FRAMING COMPONENTS. THE FLASHING SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL SURFACE AND SHALL BE INSTALLED TO PREVENT WATER FROM REENTERING THE EXTERIOR WALL ENVELOPE. FLASHING SHALL BE INSTALLED AT, BUT NOT LIMITED TO THE FOLLOWING LOCATIONS:
-THE TOP OF ALL EXTERIOR WINDOW & DOOR OPENINGS
-INTERSECTIONS OF FRAME WALLS AND MASONRY OR STUCCO
-UNDER MASONRY, WOOD OR METAL COPINGS AND SILLS
-CONTINUOUSLY ABOVE ALL PROJECTING WOOD TRIM
-WHERE EXTERIOR PORCHES, DECKS OR STAIRS ATTACH TO A WALL
-AT WALL AND ROOF OR SOFFIT INTERSECTIONS
-AT BUILT-IN GUTTERS
14. EXTERIOR LOCATIONS FOR ENVIRONMENTAL AIR DUCT EXHAUST & INTAKE OPENINGS TO BE A MINIMUM OF 3'-0" FROM PROPERTY LINE & MINIMUM 3'-0" FROM BUILDING OPENINGS. EQUIP ALL DUCTS W/ BACK-DRAFT DAMPERS.
15. AIR EXHAUST & INTAKE OPENINGS THAT TERMINATE OUTDOORS SHALL BE PROTECTED W/ CORROSION RESISTANT SCREENS, LOUVERS, OR GRILLS W/ 1/4" MINIMUM & 1/2" MAX OPENINGS IN ANY DIMENSION. OPENINGS SHALL BE PROTECTED AGAINST LOCAL WEATHER CONDITIONS PER 2018 IRC.
16. DUCTS FOR KITCHEN RANGES SHALL BE OF METAL AND BE EQUIPPED W/ BACK-DRAFT DAMPERS PER CODE.
17. ALL INTERIOR FINISHES TO MEET MINIMUM FLAME SPREAD INDEX AND SMOKE DEVELOPMENT INDEX AS REQUIRED BY 2018 IRC.
18. UNDER FLOOR CLEANOUT NOT MORE THAN 20' FROM ACCESS DOOR WITH AN UNOBSTRUCTED 30" WIDE X 18" HIGH PATH PATHWAY. CLEANOUTS ARE ACCESSIBLE. 12" CLEARANCE REQUIRED AT LINES LESS THAN OR EQUAL TO 2", 18" CLEARANCE AT LINES GREATER THAN 2". (UPC 707.9)
19. GLAZING IN ALL FIXED AND OPERABLE PANELS OF SWINGING, SLIDING AND BIFOLD DOORS SHALL BE CONSIDERED A HAZARDOUS LOCATION, SAFETY GLAZING.

MAIN FLOOR PLAN

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

AREA SUMMARY:		
MAIN FLOOR:	1,156	SF.
UPPER FLOOR:	1,442	SF.
TOTAL (LIVING/HEATED SPACE):	2,598	SF.
GARAGE:	420	SF.
ENTRY PORCH (FRONT):	194	SF.
COV'D PATIO @ MAIN FLOOR (REAR):	125	SF.
BALCONY @ UPPER FLOOR (FRONT):	16	SF.

GARAGE NOTES:

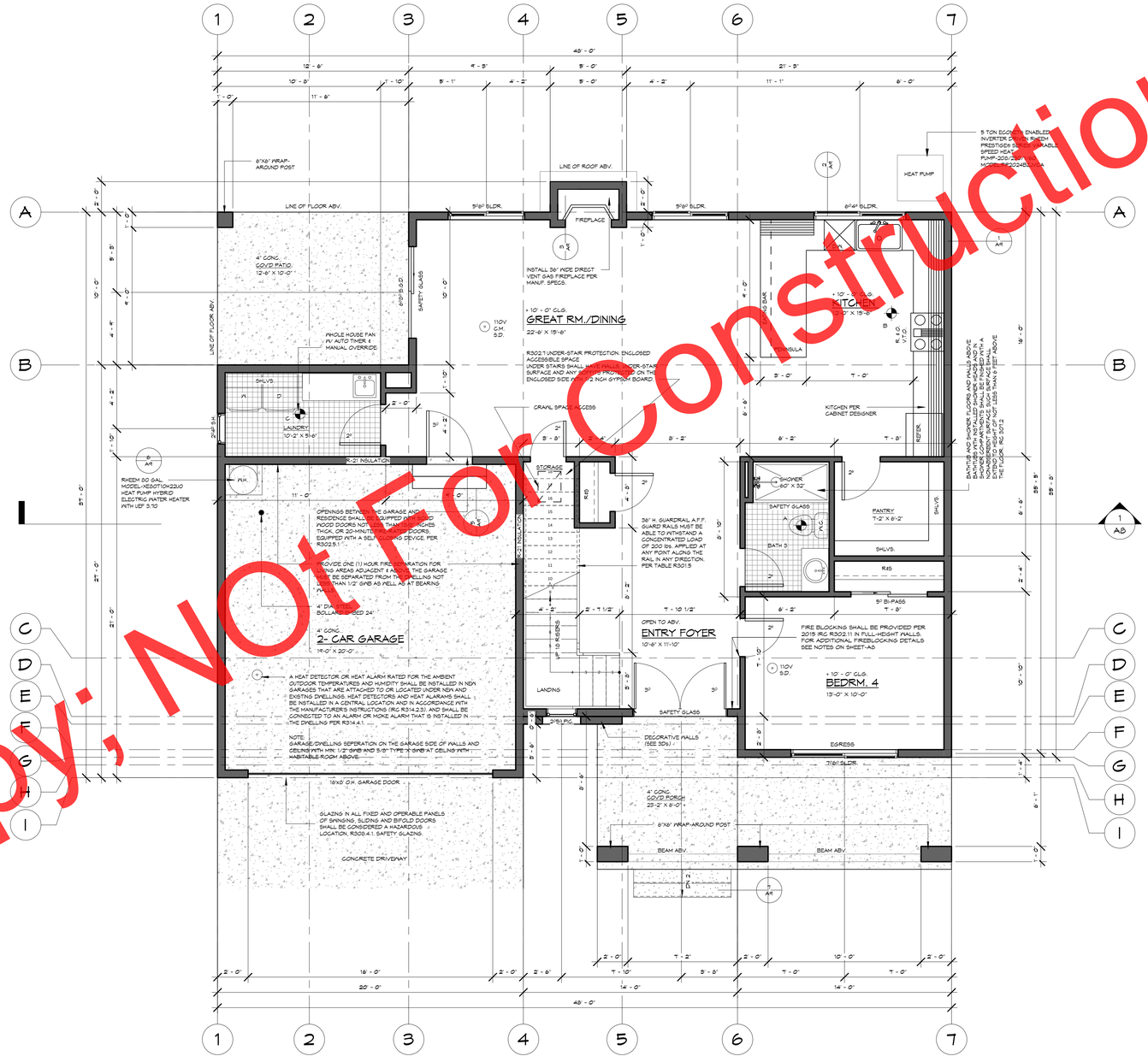
1. GARAGES SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NOT LESS THAN 5/8" TYPE X GWB APPLIED TO THE GARAGE SIDE. WHERE THE SEPARATION IS A FLOOR-CEILING ASSEMBLY, THE STRUCTURE SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED BY NOT LESS THAN 5/8" TYPE X GYPSUM BOARD OR EQUIVALENT.
2. OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHALL BE EQUIPPED WITH SOLID WOOD DOORS NOT LESS THAN 1 3/8" IN THICKNESS, SOLID OR HONEYCOMB CORE STEEL DOORS NOT LESS THAN 1 3/8" THICK, OR 20-MINUTE FIRE-RATED DOORS.
3. DUCTS IN THE GARAGE AND DUCTS PENETRATING THE WALLS OR CEILINGS SEPARATING THE DWELLING FROM THE GARAGE SHALL BE CONSTRUCTED OF A MINIMUM NO. 26 GAGE SHEET STEEL OR OTHER APPROVED MATERIALS AND SHALL HAVE NO OPENINGS INTO THE GARAGE. IRC R309.1.1
4. IN SIESMIC ZONES 3 & 4, WATER HEATERS SHALL BE ANCHORED TO RESIST HORZ. DISPLACEMENT DUE TO EARTHQUAKE MOTION. STRAPPING SHALL BE @ POINTS WITHIN THE UPPER ONE THIRD AND LOWER ONE THIRD PER UPC SEC. 510.5
5. PROVIDE OUTDOOR COMBUSTION AIR FOR WATER HEATER.
6. GARAGE FLOOR SURFACES SHALL BE OF APPROVED NONCOMBUSTIBLE MATERIAL AND THE AREA USED FOR THE PARKING OF AUTOMOBILES OR OTHER VEHICLES SHALL BE SLOPED TO FACILITATE THE MOVEMENT OF LIQUIDS TO A DRAIN OR TOWARD THE MAIN VEHICLE ENTRY DOOR WAY.

NOTE:
CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS OF PROJECT AND REPORT ANY OMISSIONS / DISCREPANCIES TO DESIGNER PRIOR TO COMMENCING WORK. DESIGNER SHALL NOT BE RESPONSIBLE FOR DISCREPANT CONDITIONS RESULTING FROM UNAUTHORIZED WORK PERFORMED BY THE CONTRACTOR.

FOR SMOKE & CARBON MONOXIDE ALARMS SEE SHEET A5

NOTE:
EACH DOOR TO BE UNDERCUT A MINIMUM OF 1/2-INCH TO ASSURE FREE FLOW OF FRESH AIR THROUGHOUT HABITABLE ROOMS

NOTE:
REFER TO STRUCTURAL SHEETS FOR SHEAR WALL SCHEDULE AND ENGINEERING PLAN WHICH CONTAIN REFERENCES AND/OR INSTRUCTIONS PERTAINING TO EACH SHEAR WALL INDICATED IN THIS PLAN



SHEET NUMBER

A2

TYPICAL FLOOR NOTES:

1. INSTALL SMOKE DETECTORS IN ALL SLEEPING ROOMS AND AT AREAS ADJACENT TO SLEEPING ROOMS, AND AT CEILING HEIGHT CHANGES GREATER THAN 24". SMOKE DETECTORS TO BE HARD-WIRED AND INTERCONNECTED, WITH BATTERY BACK-UP PER CODE.
2. INSTALL CARBON MONOXIDE SENSORS ADJACENT TO SLEEPING AREAS.
3. ALL INTERIOR WALLS TO BE 2x4 @ 16" O.C. (U.N.O.)
4. ALL EXTERIOR WALLS TO BE 2x6 @ 16" O.C. (U.N.O.)
5. FLOOR HEADERS PER STRUCTURAL @ 8'-0" A.F.F. (U.N.O.)
6. WINDOW SIZES ARE NOMINAL ROUGH OPENING, WIDTH AND HEIGHT.
7. DOOR SIZES NOTED ARE SLABS NOT ROUGH OPENINGS
8. PROVIDE FIREBLOCKING AT ALL PLUMBING OPENINGS.
9. PROVIDE SOLID BLOCKING OVER SUPPORTS.
10 WHEN THERE IS USABLE SPACE BOTH ABOVE AND BELOW THE CONCEALED SPACE OF A FLOOR-CEILING ASSEMBLY, DRAFTSTOPS SHALL BE INSTALLED SO THAT THE AREA OF CONCEALED SPACE DOES NOT EXCEED 1000 SF. DRAFTSTOPPING SHALL DIVIDE THE CONCEALED SPACE INTO APPROXIMATELY EQUAL AREAS AND SHALL BE OF 1/2" GYP BOARD OR OTHER APPROVED MATERIALS INSTALLED PARALLEL TO THE FLOOR FRAMING MEMBERS PER CODE.
11. PROVIDE FIREBLOCKING TO CUT OFF ALL CONCEALED HORIZONTAL AND VERTICAL DRAFT OPENINGS AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STOIRES, AND BETWEEN A TOP STORY AND THE ROOF SPACE. FIREBLOCKING SHALL CONSIST OF NOT LESS THAN 2" NOMINAL LUMBER OR OTHER APPROVED MATERIAL.
12. ASPHALT-SATURATED FELT FREE FROM HOLES OR BREAKS, WEIGHING NOT LESS THAN 14 POUNDS PER 100 SQUARE FEET AND COMPLYING WITH ASTM D 226 OR OTHER APPROVED WEATHER RESISTANT MATERIAL SHALL BE APPLIED OVER SHEATHING OF ALL EXTERIOR WALLS. APPROVED ALTERNATIVE WEATHERPROOF MEMBRANES SHALL BE USED FOR OPEN JOINT RAIN SCREEN SIDING. WEATHER RESISTANT MATERIALS SHALL BE APPLIED HORIZONTALLY PERMANUFACTURERS RECOMMENDATIONS, WITH THE UPPER LAYER LAPPED OVER THE LOWER LAYER NOT LESS THAN 2 INCHES AND NOT LESS THAN 6 INCHES WHERE JOINTS OCCUR PER CODE.
13. APPROVED CORROSION-RESISTIVE FLASHING SHALL BE PROVIDED IN THE EXTERIOR WALL ENVELOPE IN SUCH A MANNER AS TO PREVENT ENTRY OF WATER INTO THE WALL CAVITY OR PENETRATION OF WATER TO THE BUILDINGS STRUCTURAL FRAMING COMPONENTS. THE FLASHING SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL SURFACE AND SHALL BE INSTALLED TO PREVENT WATER FROM REENTERING THE EXTERIOR WALL ENVELOPE. FLASHING SHALL BE INSTALLED AT, BUT NOT LIMITED TO THE FOLLOWING LOCATIONS:
-THE TOP OF ALL EXTERIOR WINDOW & DOOR OPENINGS
-INTERSECTIONS OF FRAME WALLS AND MASONRY OR STUCCO
-UNDER MASONRY, WOOD OR METAL COPINGS AND SILLS
-CONTINUOUSLY ABOVE ALL PROJECTING WOOD TRIM
-WHERE EXTERIOR PORCHES, DECKS OR STAIRS ATTACH TO A WALL
-AT WALL AND ROOF OR SOFFIT INTERSECTIONS
-AT BUILT-IN GUTTERS
14. EXTERIOR LOCATIONS FOR ENVIRONMENTAL AIR DUCT EXHAUST & INTAKE OPENINGS TO BE A MINIMUM OF 3'-0" FROM PROPERTY LINE & MINIMUM 3'-0" FROM BUILDING OPENINGS. EQUIP ALL DUCTS W/ BACK-DRAFT DAMPERS.
15. AIR EXHAUST & INTAKE OPENINGS THAT TERMINATE OUTDOORS SHALL BE PROTECTED W/ CORROSION RESISTANT SCREENS, LOUVERS, OR GRILLS W/ 1/4" MINIMUM & 1/2" MAX OPENINGS IN ANY DIMENSION. OPENINGS SHALL BE PROTECTED AGAINST LOCAL WEATHER CONDITIONS PER 2018 IRC.
16. DUCTS FOR KITCHEN RANGES SHALL BE OF METAL AND BE EQUIPPED W/ BACK-DRAFT DAMPERS PER CODE.
17. ALL INTERIOR FINISHES TO MEET MINIMUM FLAME SPREAD INDEX AND SMOKE DEVELOPMENT INDEX AS REQUIRED BY 2018 IRC.
18. UNDER FLOOR CLEANOUT NOT MORE THAN 20' FROM ACCESS DOOR WITH AN UNOBSTRUCTED 30" WIDE X 18" HIGH PATH PATHWAY. CLEANOUTS ARE ACCESSIBLE. 12" CLEARANCE REQUIRED AT LINES LESS THAN OR EQUAL TO 2", 18" CLEARANCE AT LINES GREATER THAN 2". (UPC 707.9)
19. GLAZING IN ALL FIXED AND OPERABLE PANELS OF SWINGING, SLIFDING AND BIFOLD DOORS SHALL BE CONSIDERED A HAZARDOUS LOCATION, SAFETY GLAZING.

SMOKE & CARBON MONOXIDE ALARMS: SEE SHEET A5

UPPER FLOOR PLAN

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

AREA SUMMARY:		
MAIN FLOOR:	1,156	SF.
UPPER FLOOR:	1,442	SF.
TOTAL (LIVING/HEATED SPACE):	2,598	SF.
GARAGE:	420	SF.
ENTRY PORCH (FRONT):	194	SF.
COV'D PATIO @ MAIN FLOOR (REAR):	125	SF.
BALCONY @ UPPER FLOOR (FRONT):	16	SF.

NOTE:
CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS OF PROJECT AND REPORT ANY OMISSIONS / DISCREPANCIES TO DESIGNER PRIOR TO COMMENCING WORK. DESIGNER SHALL NOT BE RESPONSIBLE FOR DISCREPANT CONDITIONS RESULTING FROM UNAUTHORIZED WORK PERFORMED BY THE CONTRACTOR.

EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL BE INSTALLED IN EVERY SLEEPING ROOM BELOW THE 4TH STORY AND IN BASEMENTS.
OPENABLE W/O KEYS OR SPECIAL TOOLS
* MIN. 5.7 SF NET CLR OPENABLE AREA
* MIN. 24" NET CLR OPENABLE HEIGHT
* MIN. 20" NET CLR OPENABLE WIDTH
* MAX. 44" FINISHED SILL HEIGHT
IRC R310 & IBC 1030.

NOTE:
ALL SHOWERHEAD AND KITCHEN SINK FAUCETS INSTALLED IN THE HOUSE SHALL BE RATED AT 1.75 GPM OR LESS. ALL OTHER LAVATORY FAUCETS SHALL BE RATED AT 1.0 GPM OR LESS.

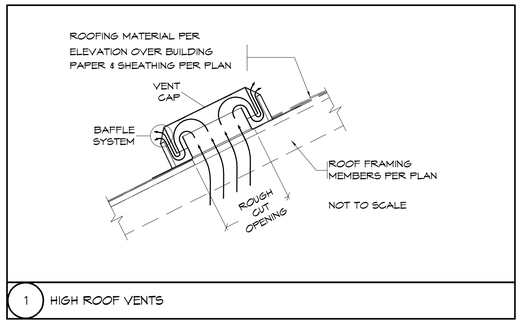
NOTE:
NO OPERABLE WINDOW SHALL BE INSTALLED LESS THAN 24 INCHES ABOVE FINISHED FLOOR THAT IS GREATER THAN 72 INCHES ABOVE THE FINISH GRADE OR OTHER SURFACE BELOW ON THE EXTERIOR OF THE BUILDING.

NOTE:
REFER TO STRUCTURAL SHEETS FOR SHEAR WALL SCHEDULE AND ENGINEERING PLAN WHICH CONTAIN REFERENCES AND/OR INSTRUCTIONS PERTAINING TO EACH SHEAR WALL INDICATED IN THIS PLAN

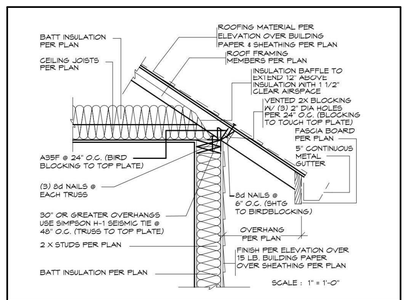
NOTE:
EACH DOOR TO BE UNDERCUT A MINIMUM OF 1/2-INCH TO ASSURE FREE FLOW OF FRESH AIR THROUGHOUT HABITABLE ROOMS

SHEET NUMBER

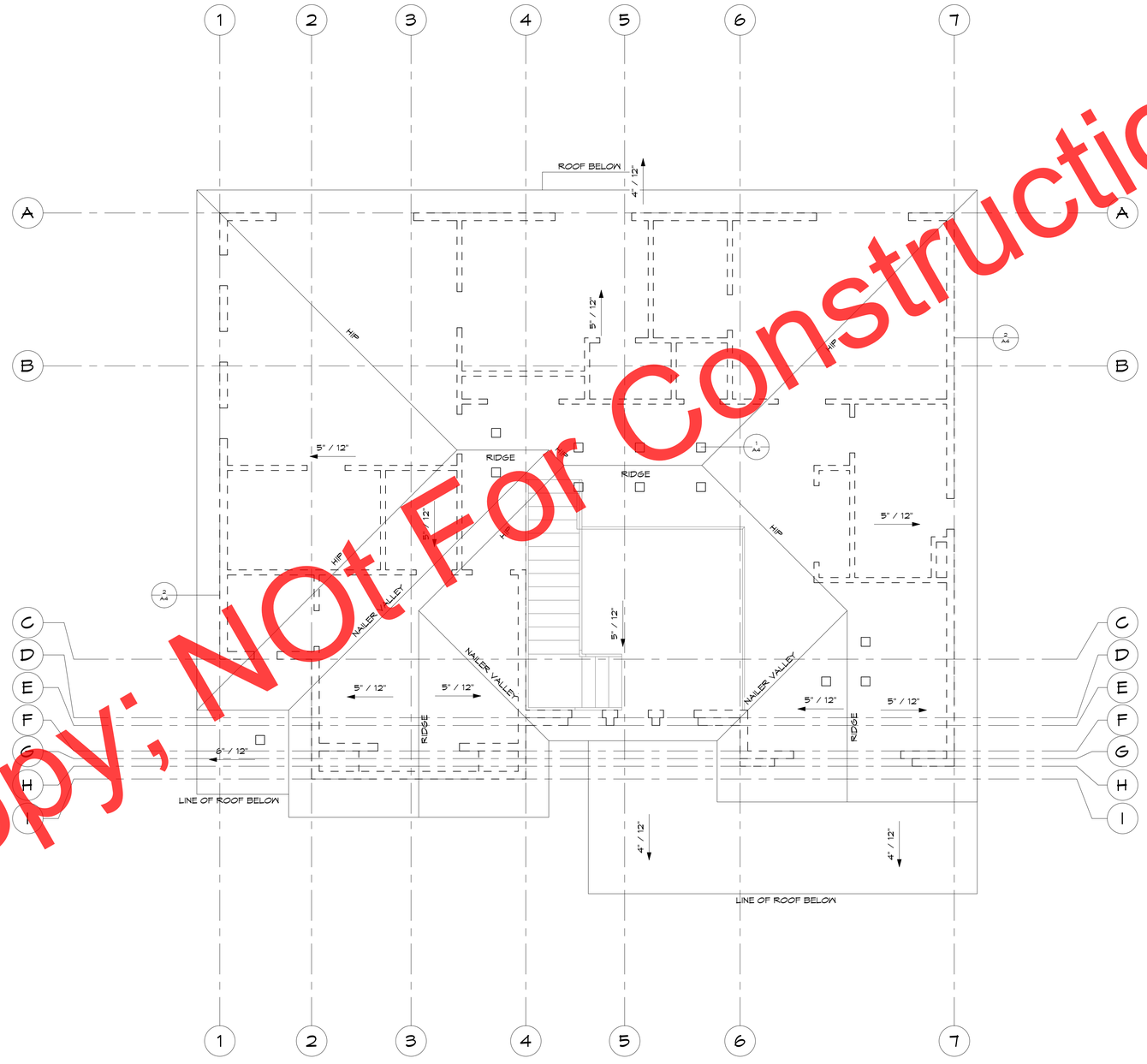
A3



1 HIGH ROOF VENTS



2 FLAT CEILING AND EAVE



ROOF LAYOUT

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

SHEET NUMBER

A4

ELEVATION NOTES:

1. VERIFY SHEAR WALL NAILING & HOLDOWNS PER PLAN PRIOR TO INSTALLING SIDING.

2. CAULK ALL EXTERIOR JOINTS & PENETRATIONS.

3. PROVIDE APPROVED CORROSION RESISTANT FLASHING AT EXTERIOR WALL ENVELOPE PER I.R.C. R703.8

4. PROVIDE FLASHING AT ROOF PENETRATIONS PER I.R.C. R905.2.8

5. PROVIDE WEATHER STRIPPING AT ALL EXTERIOR & GARAGE-INTERIOR DOORS.

6. PROVIDE CONTINUOUS GUTTERS & DOWNSPOUTS @ ALL EAVES, TYP.

7. ADDRESS OR HOUSE NUMBER TO BE POSTED AND PLAINLY VISIBLE FROM THE STREET FRONTAGE. MIN. 4" HEIGHT, 1/2" STROKE WIDTH AND CONTRASTING BACKGROUND.

8. PROVIDE STAIRWAY ILLUMINATION PER I.R.C. R303.6

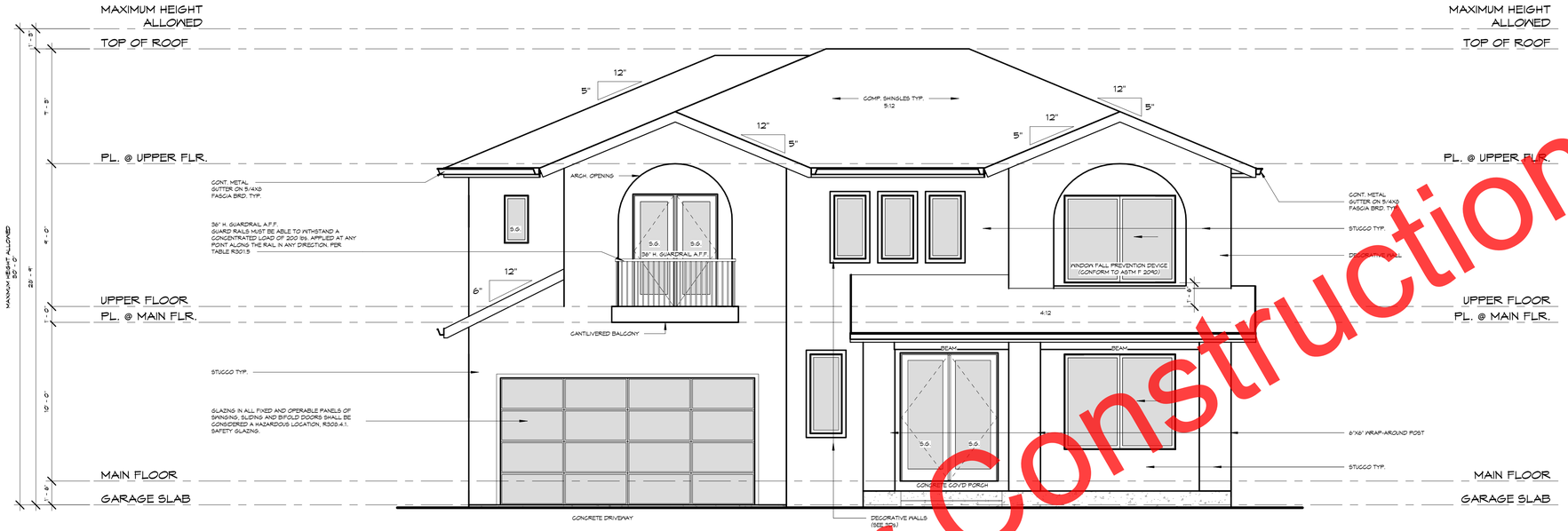
9. SEE SHEET A1 FOR ADDITIONAL NOTES.

10. PROVIDE SURFACE DRAINAGE 6" : 10' MIN. AWAY FROM HOUSE FOOTPRINT IRC R401.3

NOTE:
NO OPERABLE WINDOW SHALL BE INSTALLED LESS THAN 24 INCHES ABOVE FINISHED FLOOR THAT IS GREATER THAN 72 INCHES ABOVE THE FINISH GRADE OR OTHER SURFACE BELOW ON THE EXTERIOR OF THE BUILDING.

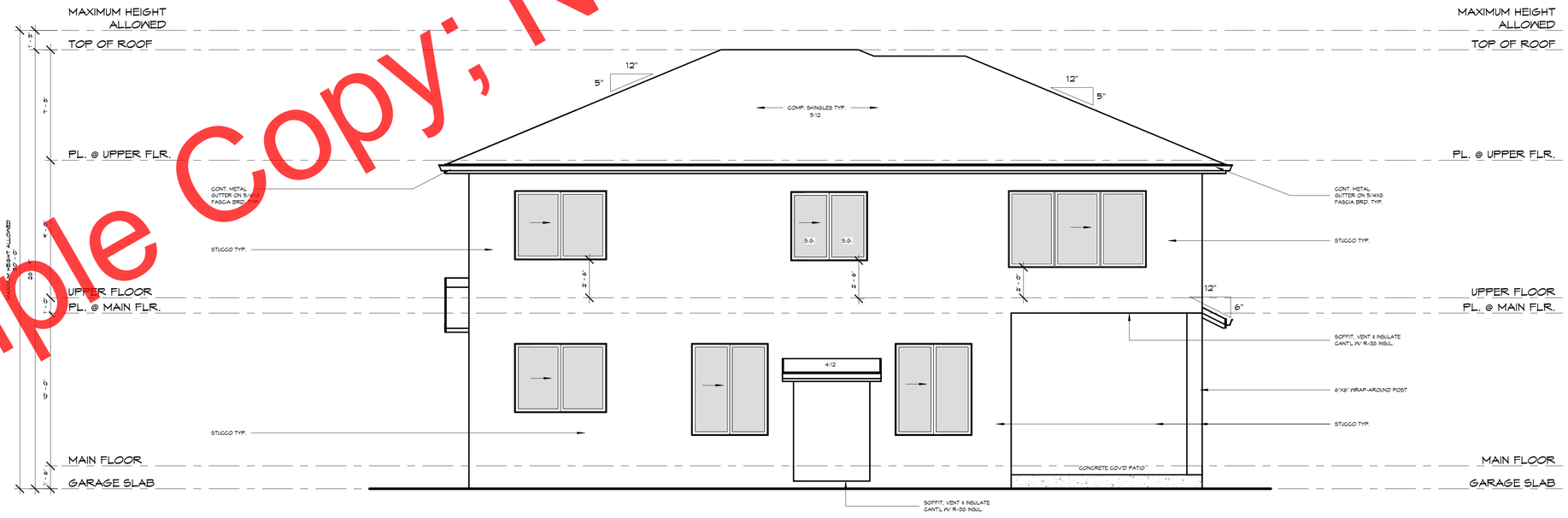
NOTE:
CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS OF PROJECT AND REPORT ANY OMISSIONS / DISCREPANCIES TO DESIGNER PRIOR TO COMMENCING WORK. DESIGNER SHALL NOT BE RESPONSIBLE FOR DISCREPANT CONDITIONS RESULTING FROM UNAUTHORIZED WORK PERFORMED BY THE CONTRACTOR.

SMOKE & CARBON MONOXIDE ALARMS:
SMOKE AND CARBON MONOXIDE ALARMS MUST BE PROVIDED IN ALL REQUIRED LOCATIONS AND MUST BE:
* AUDIBLE IN ALL PARTS OF THE HOUSE
* INSTALLED PER MANUFACTURER'S INSTRUCTIONS
NEW HOUSES (IRC R314 & R315)
SMOKE ALARMS AND CARBON MONOXIDE ALARMS ARE REQUIRED AND MUST BE CONNECTED TO THE MAIN ELECTRICAL SYSTEM WITH BATTERY BACKUP.
CARBON MONOXIDE ALARMS ARE REQUIRED IN ALL NEW AND EXISTING HOMES, APARTMENTS, CONDOMINIUMS, AND OTHER MULTI-FAMILY UNITS.
REQUIRED LOCATIONS
* SMOKE ALARMS SHALL BE LOCATED IN EACH SLEEPING ROOM AND IN NAPPING AREAS IN A FAMILY HOME CHILD CARE.
* SMOKE ALARMS AND CARBON MONOXIDE ALARMS SHALL BE LOCATED OUTSIDE EACH SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
* SMOKE ALARMS AND CARBON MONOXIDE ALARMS SHALL BE LOCATED ON EVERY FLOOR LEVEL, INCLUDING BASEMENTS (DOES NOT INCLUDE CRAWLSPACE AND UNINHABITABLE ATTICS).
* IN SPLIT LEVEL FLOOR PLANS, AT THE UPPER LEVEL, PROVIDED THERE IS NO INTERVENING DOOR BETWEEN ADJACENT LEVELS AND THE LOWER LEVEL IS LESS THAN A FULL STORY BELOW THE UPPER LEVEL
* A CARBON MONOXIDE ALARM IS REQUIRED IN A BEDROOM WHEN A FUELBURNING
APPLIANCE IS INSTALLED IN THE BEDROOM OR ITS ATTACHED BATHROOM.
* A COMBINATION ALARM (COMBINED SMOKE AND CARBON MONOXIDE ALARM) IS ACCEPTABLE IN ANY REQUIRED LOCATION.
*WALL MOUNTED ALARMS MUST BE NOT MORE THAN 12 INCHES FROM THE ADJOINING CEILING SURFACE.
* AVOID PLACING ALARMS LESS THAN 3 FEET FROM SUPPLY REGISTERS OF
A FORCED AIR HEATING OR COOLING SYSTEM AND DO NOT PLACE ALARMS
IN THE DIRECT AIRFLOW OF THE REGISTERS.
* AVOID PLACING ALARMS WITHIN 3 FEET HORIZONTALLY FROM DOORS TO BATHROOMS CONTAINING A BATHTUB OR SHOWER.
* DO NOT PLACE ALARMS IN SPACES WHERE TEMPERATURES MAY BE ABOVE OR BELOW THE ALARM'S OPERATING TEMPERATURE RANGE.
* DO NOT PLACE ALARMS WITHIN 3 FEET OF THE BLADES OF A CEILING FAN.
* ALARMS IN PEAKED OR SLOPED CEILINGS MUST BE WITHIN 3 FEET OF THE PEAK, MEASURED HORIZONTALLY, BUT NOT IN THE HIGHEST 4 INCHES OF THE
CEILING, MEASURED VERTICALLY.
A. PHOTOELECTRIC SMOKE ALARMS MUST NOT BE LESS THAN 6 FEET FROM
A PERMANENT COOKING APPLIANCE.
B. IONIZATION SMOKE ALARMS WITH AN ALARM-SILENCING SWITCH MUST NOT
BE LESS THAN 10 FEET FROM A PERMANENT COOKING APPLIANCE.
C. IONIZATION SMOKE ALARMS WITHOUT AN ALARM-SILENCING SWITCH MUST NOT BE LESS THAN 20 FEET FROM A PERMANENT COOKING APPLIANCE
CARBON MONOXIDE ALARM LOCATION LIMITATIONS
* DO NOT PLACE ALARMS DIRECTLY ABOVE OR BESIDE FUEL-BURNING APPLIANCES.
* DO NOT PLACE ALARMS IN DIRECT SUNLIGHT.
* DO NOT PLACE ALARMS IN LOW AREAS WHERE CHILDREN CAN REACH. DO
NOT PLACE ALARMS BEHIND CURTAINS OR ANY STRUCTURE THAT MIGHT PREVENT CARBON MONOXIDE FROM REACHING THE SENSOR.



FRONT (WEST) ELEVATION

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



REAR (EAST) ELEVATION

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

SHEET NUMBER

A5

ELEVATION NOTES:

1. VERIFY SHEAR WALL NAILING & HOLDOWNS PER PLAN PRIOR TO INSTALLING SIDING.

2. CAULK ALL EXTERIOR JOINTS & PENETRATIONS.

3. PROVIDE APPROVED CORROSION RESISTANT FLASHING AT EXTERIOR WALL ENVELOPE PER I.R.C. R703.8

4. PROVIDE FLASHING AT ROOF PENETRATIONS PER I.R.C. R905.2.8

5. PROVIDE WEATHER STRIPPING AT ALL EXTERIOR & GARAGE-INTERIOR DOORS.

6. PROVIDE CONTINUOUS GUTTERS & DOWNSPOUTS @ ALL EAVES, TYP.

7. ADDRESS OR HOUSE NUMBER TO BE POSTED AND PLAINLY VISIBLE FROM THE STREET FRONTAGE. MIN. 4" HEIGHT, 1/2" STROKE WIDTH AND CONTRASTING BACKGROUND.

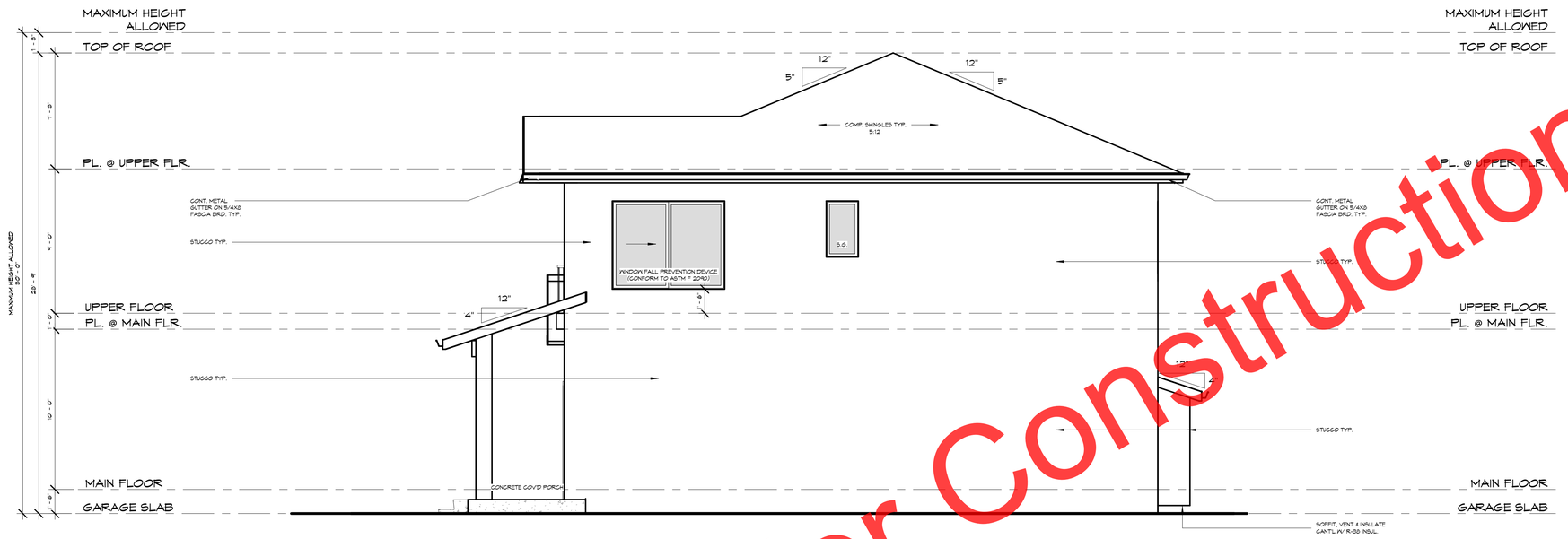
8. PROVIDE STAIRWAY ILLUMINATION PER I.R.C. R303.6

9. SEE SHEET A1 FOR ADDITIONAL NOTES.

10. PROVIDE SURFACE DRAINAGE 6" : 10' MIN. AWAY FROM HOUSE FOOTPRINT IRC R401.3

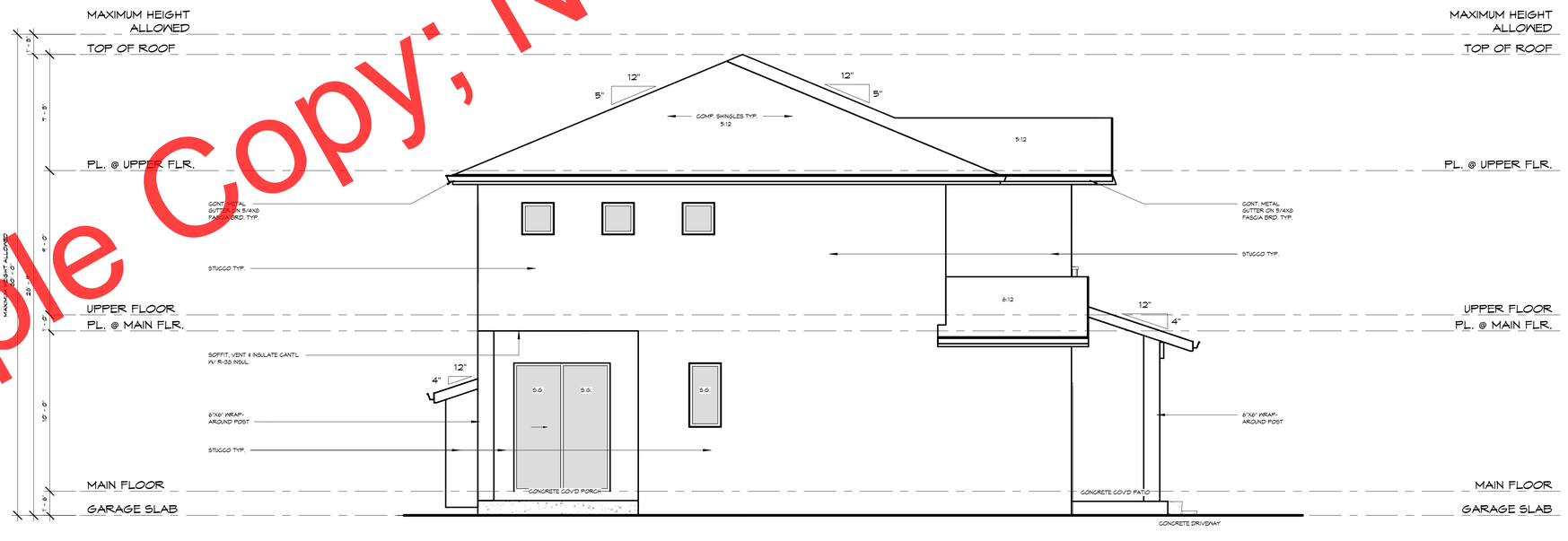
NOTE:
NO OPERABLE WINDOW SHALL BE INSTALLED LESS THAN 24 INCHES ABOVE FINISHED FLOOR THAT IS GREATER THAN 72 INCHES ABOVE THE FINISH GRADE OR OTHER SURFACE BELOW ON THE EXTERIOR OF THE BUILDING.

NOTE:
CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS OF PROJECT AND REPORT ANY OMISSIONS / DISCREPANCIES TO DESIGNER PRIOR TO COMMENCING WORK. DESIGNER SHALL NOT BE RESPONSIBLE FOR DISCREPANT CONDITIONS RESULTING FROM UNAUTHORIZED WORK PERFORMED BY THE CONTRACTOR.



RIGHT (SOUTH) ELEVATION

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



LEFT (NORTH) ELEVATION

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

SHEET NUMBER

A6

PERSPECTIVE VIEW: FRONT VIEW

PERSPECTIVE VIEW: FRONT / RIGHT ELEVATION

PERSPECTIVE VIEW: REAR ELEVATION

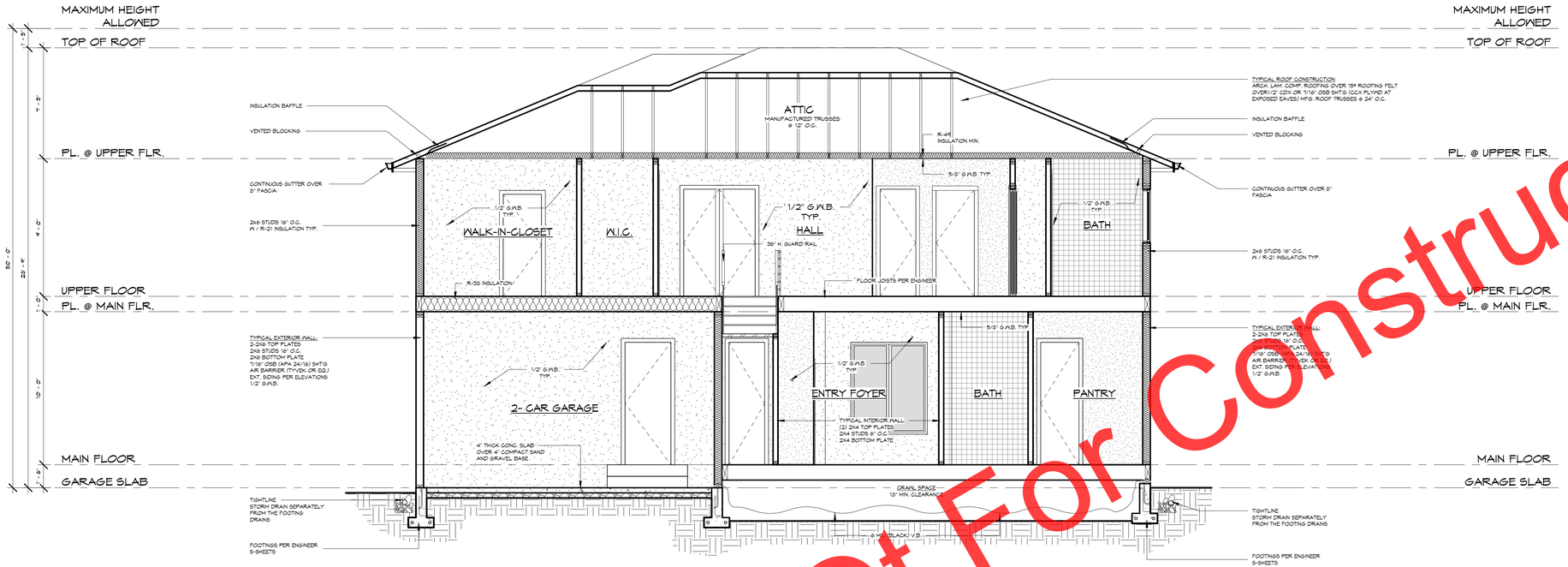
PERSPECTIVE VIEW: REAR / LEFT ELEVATION

PERSPECTIVE VIEW:

PERSPECTIVE VIEWS ARE FOR REFERENCE ONLY.
THEY SHOULD NOT BE USED TO DETERMINE ANY PORTION OF THE CONSTRUCTION OTHER THAN GENERAL MATERIAL APPEARANCE. REFER TO ELEVATION SHEETS FOR DETAILS.

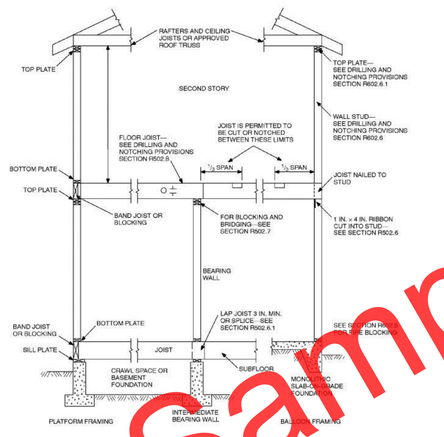
SHEET NUMBER

A7



BUILDING CROSS-SECTION - 'A'

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



2018 IRC SECTION R302.11 FIREBLOCKING:
IN COMBUSTIBLE CONSTRUCTION, FIREBLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS(BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE. FIREBLOCKING SHALL BE PROVIDED IN WOOD-FRAME CONSTRUCTION IN THE FOLLOWING LOCATIONS:
1) IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES AND PARALLEL RONS OF STUDS OR STAGGERED STUDS AS FOLLOWS:
A) VERTICALLY AT THE CEILING AND FLOOR LEVELS.
B) HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET.
2) AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS AND COVE CEILINGS.
3) IN CONCEALED SPACES AT STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN. ENCLOSED SPACES UNDER STAIRS SHALL COMPLY WITH SECTION R302.7.
4) AT OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES AND WIRES AT CEILING AND FLOOR LEVEL, WITH AN NONCOMBUSTIBLE MATERIAL TO RESIST THE FREE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION. THE MATERIAL FILLING THIS ANNULAR SPACE SHALL NOT BE REQUIRED TO MEET THE ASTM E 136 REQUIREMENTS.
5) FOR THE FIREBLOCKING OF CHIMNEYS AND FIREPLACES, SEE SECTION R1003.19.
FIREBLOCKING OF CORNICES OF A TWO-FAMILY DWELLING IS REQUIRED AT THE LINE OF DWELLING UNIT SEPARATION. FIRE BLOCKING MATERIALS SHALL CONSIST OF MATERIAL LISTED IN SECTION R302.11.1. LOOSE-FILL INSULATION MATERIAL SHALL NOT BE USED AS A FIREBLOCK UNLESS SPECIFICALLY TESTED IN THE FORM AND MANNER INTENDED. THE INTEGRITY OF ALL FIREBLOCKS SHALL BE MAINTAINED. DRAFTSTOPPING WHEN THERE IS USABLE SPACE BOTH ABOVE AND BELOW A CONCEALED SPACE OF A FLOOR/CEILING ASSEMBLY, DRAFTSTOPS SHALL BE INSTALLED SO THAT THE AREA OF THE CONCEALED SPACE DOES NOT EXCEED 1000 SQUARE FEET. DRAFTSTOPS SHALL DIVIDE THE CONCEALED SPACE INTO APPROXIMATELY EQUAL AREAS. DRAFTSTOPPING MATERIALS SHALL CONSIST OF MATERIALS LISTED IN SECTION R302.12.1. DRAFTSTOPPING MATERIALS SHALL NOT BE LESS THAN S INCH GYPSUM, 3/8 INCH WOOD STRUCTURAL PANELS OR OTHER APPROVED MATERIALS ADEQUATELY SUPPORTED. THE INTEGRITY OF THE DRAFTSTOPS SHALL BE MAINTAINED.

SECTION 312.12: RODENT PROOFING:
STRAINER PLATES ON DRAIN INLETS SHALL BE DESIGNED AND INSTALLED SO THAT NO OPENING EXCEEDS 1/2 OF AN INCH IN THE LEAST DIMENSION.
312.12.1:
METER BOXES SHALL BE CONSTRUCTED IN SUCH A MANNER THAT RATS CANNOT ENTER A BUILDING BY FOLLOWING THE SERVICE PIPES FROM THE BOX INTO THE BUILDING.
312.12.2: METAL COLLARS.
IN OR ON BUILDINGS WHERE OPENINGS HAVE BEEN MADE IN WALLS, FLOORS, OR CEILINGS FOR THE PASSAGE OF PIPES, SUCH OPENINGS SHALL BE CLOSED AND PROTECTED BY THE INSTALLATION OF APPROVED METAL COLLARS SECURELY FASTENED TO THE ADJOINING STRUCTURE.
312.12.3: TUB WASTE OPENINGS.
TUB WASTE OPENINGS IN FRAMED CONSTRUCTION TO CRAWL SPACES AT OR BELOW THE FIRST FLOOR SHALL BE PROTECTED BY THE INSTALLATION OF APPROVED METAL COLLARS OR METAL SCREEN SECURELY FASTENED TO THE ADJOINING STRUCTURE WITH NO OPENING GREATER THAN 1/2 OF AN INCH IN THE LEAST DIMENSION.
* 2018 UNIFORM PLUMBING CODE

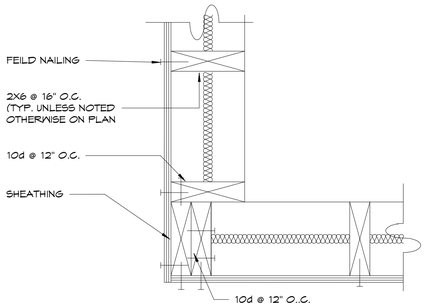
NOTE:
CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS OF PROJECT AND REPORT ANY OMISSIONS / DISCREPANCIES TO DESIGNER PRIOR TO COMMENCING WORK. DESIGNER SHALL NOT BE RESPONSIBLE FOR DISCREPANT CONDITIONS RESULTING FROM UNAUTHORIZED WORK PERFORMED BY THE CONTRACTOR.

NOTE:
FOR MORE DETAILS SEE STRUCTURAL ENGINEERING PLAN.

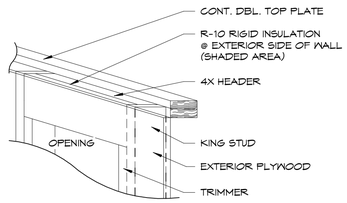
NOTE:
REFER TO STRUCTURAL SHEETS FOR SHEAR WALL SCHEDULE AND ENGINEERING PLAN WHICH CONTAIN REFERENCES AND/OR INSTRUCTIONS PERTAINING TO EACH SHEAR WALL INDICATED IN THIS PLAN

SHEET NUMBER

A8

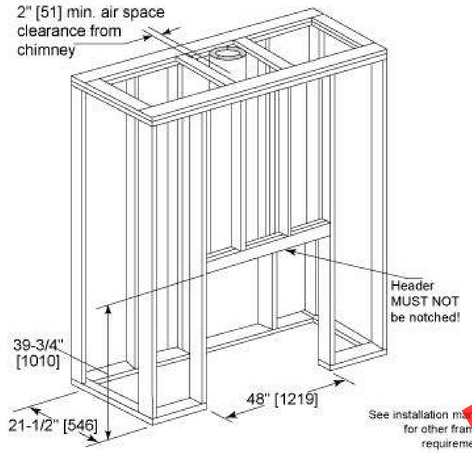


1 CORNER FRAMING

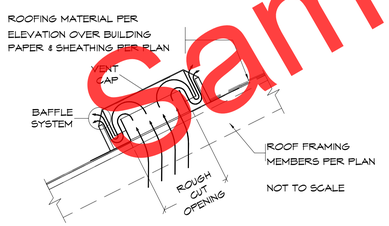


NOT TO SCALE

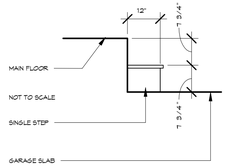
2 HEADER/ INSULATION



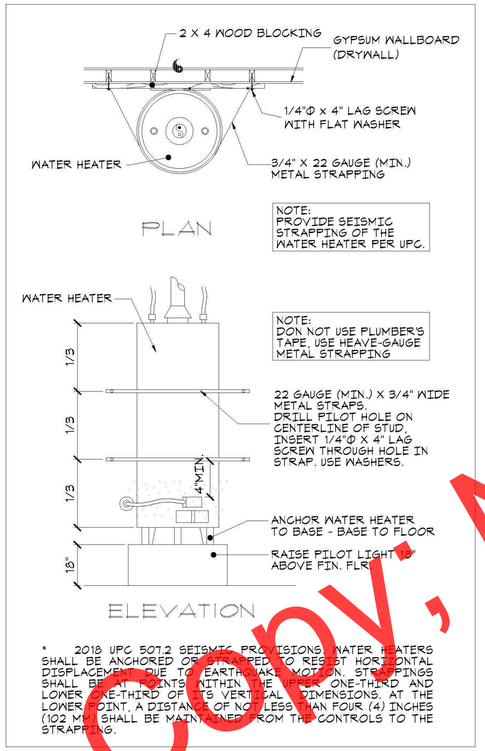
3 FIREPLACE FRAMING



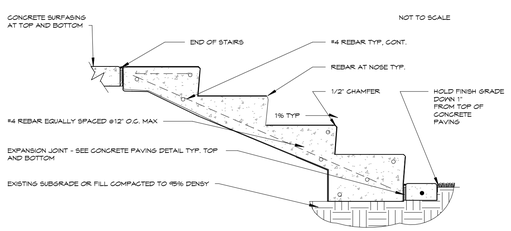
4 HIGH ROOF VENTS



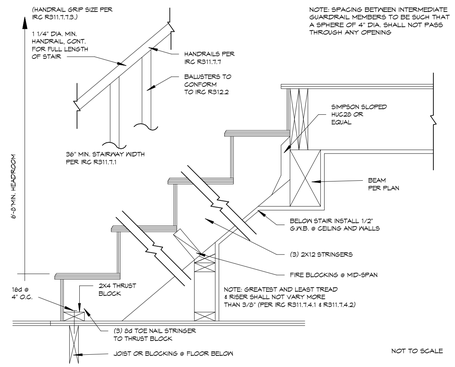
5 GARAGE STEP



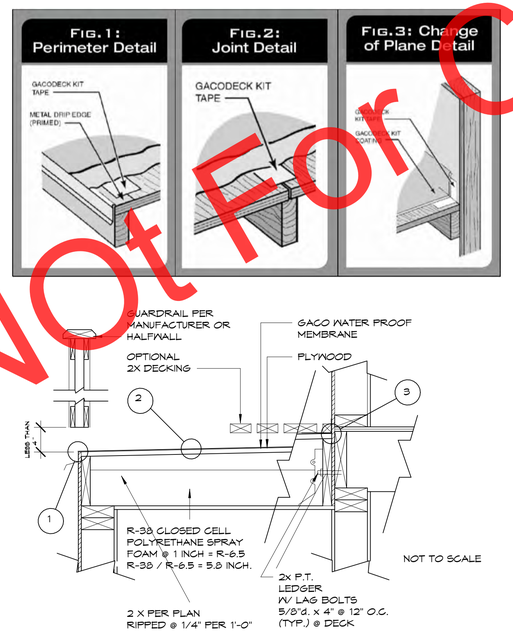
6 WATER HEATER ANCHORAGE



7 EXTERIOR STAIR



8 INTERIOR STAIR



INSTALLATION:
ALL PANEL EDGES, INCLUDING TONGUE AND GROOVE PLYWOOD, SHOULD BE SUPPORTED ON BLOCKING OR PRIMARY FRAMING. PLYWOOD SHOULD BE CONTINUOUS ACROSS SUPPORTS WITH ALL EDGES IN MODERATE CONTACT. IDEALLY, JOINTS AND CRACKS SHOULD BE 1/16" - 1/8" WIDE.
THICKNESS OF PLYWOOD AND SPANS SHOULD MEET THE FOLLOWING MINIMUMS:
1/2" FOR PLANK OR OTHER SOLID SUBSTRATES ONLY
5/8" FOR SUPPORTS 16" OC
3/4" FOR SUPPORTS 24" OC
1-1/8" FOR SUPPORTS 48" OC
STAGGER JOINTS WHEN INSTALLING PLYWOOD OVER SHEATED OR DIMENSIONAL (PLANKED) DECKS.
NAILING:
USE NON-RUSTING SCREWS, NON-RUSTING RING SHANK NAILS, OR HOT-DIPPED GALVANIZED BOX NAILS ONLY. THE NAILS SHOULD BE 6D FOR 3/4" OR LESS PLYWOOD, 8D FOR 7/8" OR MORE, AND 10D FOR 1-1/8" PLYWOOD. SPACE FASTENERS 6" ON CENTER, ALONG PANEL EDGES, AND 12" ON CENTER IN ALL DIRECTIONS IN THE FIELD. DRIVE NAILS FLUSH WITHOUT INDENTING PLYWOOD.
PLYWOOD:
GRADES: PLYWOOD SHOULD CARRY THE TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION. GRADES "EXTERIOR/APA A/C GROUP 1" AND "EXTERIOR/APA B/C GROUP 1" ARE SUITABLE, AS WELL AS "MARINE" GRADE PLYWOOD. UNSUITABLE GRADES ARE INTERIOR GRADE PLYWOOD WITH OR WITHOUT EXTERIOR GLUE, AND UNDERLAYMENT GRADE PLYWOOD, SUCH AS "C/C EXTERIOR," OSB, WAFERBOARD AND EXPOSURE 1 MARKINGS.
DO NOT USE UNSUITABLE GRADES. GACODECK KIT IS NOT RECOMMENDED FOR TEAK, CEDAR OR REDWOOD.

9 GACO FLEX / GACO WEATHER DECK

Figure 24. Example Guard Detail.

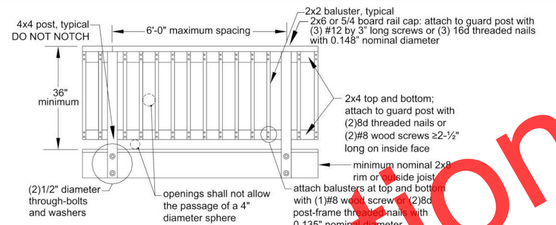


Figure 25. Guard Post to Outside-Joist Example.

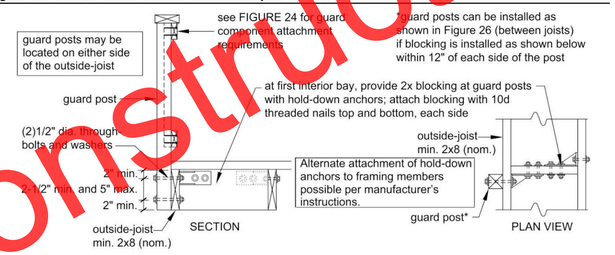
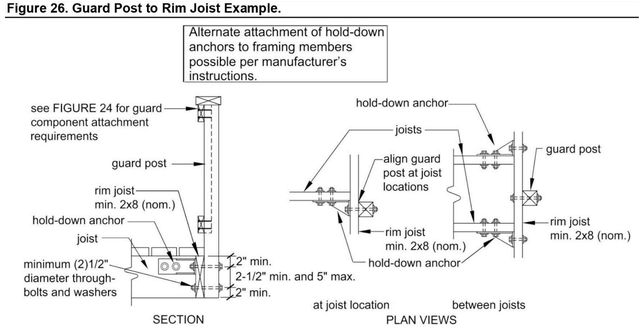
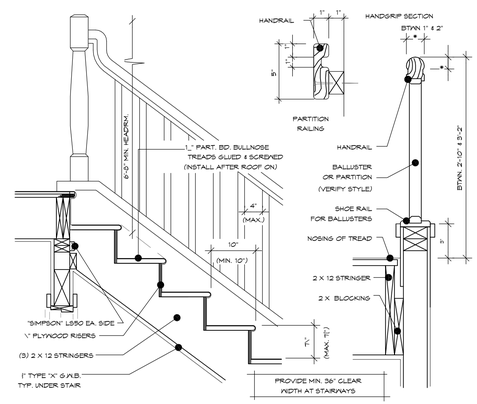


Figure 26. Guard Post to Rim Joist Example.



10 GUARD RAILING DETAIL



11 STAIR & RAILING DETAIL

SHEET NUMBER
A9

Basic Stairs

This tip sheet reflects code requirements of the 2018 International Residential Code (IRC) with Washington State Amendments.

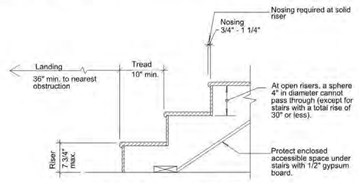


Figure 1: Typical Stair Treads and Risers

Stair Treads and Risers

- ☐ The largest tread or riser within any flight of stairs is not to exceed the smallest by more than 3/8 inches. (R311.7.5)

Illumination

- ☐ Interior stairways shall be provided with an artificial light source to illuminate landings and treads. There shall be a wall switch at each floor level to control the light source where the stairway has 6 or more risers. (R303.7)
- ☐ Exterior stairways shall be provided with an artificial light source located at the top landing of the stairway and located at the bottom landing where accessing a basement. (R303.8)

Handrails

- ☐ Handrails are required on at least one side for stairways with four or more risers. See Tip Sheet 2 for additional information regarding handrails. (R311.7.8)

Landings

- ☐ Landings are required at the top and the bottom of stairways. A floor landing is not required at the top of an interior flight of stairs, provided a door does not swing over the stairs. (R311.7.6)
- ☐ A landing extending the width of the stair and measuring a minimum of 36 inches in the direction of travel is required at the top and bottom of every stairway. (R311.7.6)

Circular, Winding, or Spiral Stairways

- ☐ For exceptions related to the construction of circular, winding, or spiral stairways, see IRC R311.7.5.2.1 and R311.7.10.

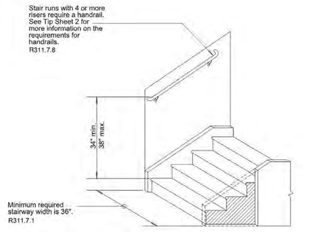


Figure 2: Typical Stair Elevation

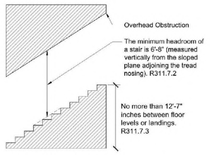


Figure 3: Headroom Clearance Requirements

1 BASIC STAIRS DETAIL

Residential Guards (Guardrails)

This tip sheet reflects code requirements of the 2018 International Residential Code (IRC) with Washington State Amendments.

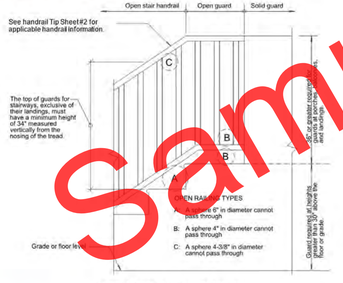


Figure 1: Guard Elevation (IRC R312)

Requirements

- ☐ Guards shall comply with IRC R312.1; refer to Figure 1 for major requirements.
- ☐ Guards shall be structurally designed to comply with IRC Table R301.5 (i.e., designed for a 200-pound load in any direction along the top and a 50-pound point load elsewhere).
- ☐ For glass guards or guards with glazing, see IRC R308.4.4.

2 GUARDRAILS DETAIL

Smoke, Heat, and Carbon Monoxide Alarms

This tip sheet reflects code requirements of the 2018 International Residential Code (IRC) with Washington State Amendments and the 2016 edition of NFPA 72.

Definitions

- ☐ **Smoke alarm:** A device designed to respond when it senses *smoke*, typically as an indicator of fire.
- ☐ **Heat alarm:** A device designed to respond when it senses a rise in temperature, typically as an indicator of fire.
- ☐ **Carbon monoxide alarm:** A device designed to respond when it senses carbon monoxide, a poisonous gas.
- ☐ **All alarms** shall be UL listed and installed per manufacturer instructions. (R314.1.1, R315.1.1)

New Construction

- ☐ Smoke alarms and carbon monoxide alarms shall be installed throughout each dwelling unit in **all required locations**. (R314.2.1, R315.2.1)
- ☐ A heat detector shall be provided in each new attached garage. (R314.2.3)
- ☐ Smoke alarms, heat alarms, and carbon monoxide alarms shall receive their **primary power** from the building wiring where such wiring is served from a commercial source and, where primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection. (R314.6, R315.6)
- ☐ Where more than one smoke alarm is required to be installed within an individual dwelling unit, the alarm devices shall be **interconnected** in such a manner that the actuation of one alarm will activate all of the alarms in the individual dwelling unit. (R314.4, R315.5)
- ☐ Heat alarms shall be **connected** to a heat alarm or smoke alarm that is installed in the dwelling unit. Alarms that are installed for this purpose shall be located in a **hallway**, room, or other location that will provide occupant notification. (R314.4.1)
- ☐ Physical interconnection of smoke alarms shall not be required where **listed wireless alarms** are installed and all alarms sound upon activation of one alarm. (R314.4, R315.5)

Alterations, Repairs, and Additions

- ☐ In a dwelling unit where alterations, repairs or additions occur, smoke alarms and carbon monoxide alarms shall be installed throughout each dwelling unit, in **all required locations**, where not already present. (R314.2.2, R315.2.2)
- ☐ Smoke and carbon monoxide alarms can be powered by the building wiring or batteries. (R314.6, R315.6)
- ☐ Smoke alarms shall be **interconnected** within an individual dwelling except where such existing smoke alarms are not interconnected or where such new smoke alarm or alarm is not capable of being interconnected to the existing smoke alarms. (R314.4)
- ☐ Carbon monoxide alarms shall be **interconnected** except where the permit related work does not provide access to the building wiring (such as removing interior walls or ceiling finishes) and there is no attic, crawlspace, or basement available. (R315.5)

Required Locations

- ☐ A **smoke alarm** shall be located in each sleeping room or sleeping loft. (R314.3)
- ☐ A **smoke alarm** shall be located in each napping area of a family home childcare. (R314.3)
- ☐ A **smoke alarm** and a **carbon monoxide alarm** (or combination smoke and carbon monoxide alarm) shall be located outside each sleeping area in the immediate vicinity of the bedroom(s). (R314.3, R315.3)
- ☐ At least one **smoke alarm** and one **carbon monoxide alarm** shall be located on each floor level, including basements and habitable attics. (R314.3, R315.3)
- ☐ In split level floor plans, at the upper level, provided there is no intervening door between adjacent levels and the lower level is less than a full story below the upper level. (R314.3)
- ☐ A **carbon monoxide alarm** is required in a bedroom when a fuel-burning appliance is installed in the bedroom or its attached bathroom. (R315.3)
- ☐ A combination alarm (**combined smoke and carbon monoxide alarm**) is acceptable in any required location. (R314.5, R315.4)
- ☐ A **heat alarm** is required in each new attached garage. (R314.2.3)

Alarms and Detectors on Walls and Sloped/Peaked/Coffered Ceilings per NFPA 72

- ☐ **Wall mounted** alarms must be not more than 12 inches from the adjoining ceiling surface. (NFPA 72 29.8.3.3)
- ☐ Alarms in **peaked** or **sloped ceilings** must be within 3 feet horizontally and no closer than 4 inches vertically to the peak. Avoid placing alarms in **dead air spaces**; refer to Figure 1. (NFPA 72 29.8.3.1, 29.8.3.2, 29.8.3.4 (9), (10))
- ☐ For coffered ceilings, alarms shall be installed on the highest portion of the ceiling or on the sloped portion of the ceiling within 12 inches vertically down from the highest point. (NFPA 72 29.8.3.4 (11))

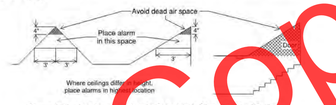


Figure 1: Smoke Alarms and Smoke Detectors in Sloped Peaked Ceilings

Specific Location Requirements per NFPA 72

- ☐ Do not place alarms in spaces where **temperatures** may be above or below the alarm's operating temperature range. (NFPA 72 29.8.3.4 (1), (2), (3))
- ☐ Avoid placing alarms within 3 feet horizontally from doors or openings to **bathrooms** containing a bathtub or shower. (NFPA 72 29.8.3.4 (6))
- ☐ Do not place alarms within 3 feet from a **supply register** of a forced air heating or cooling system and shall be installed outside of the direct airflow from those registers. (NFPA 72 29.8.3.4 (7))
- ☐ Do not place alarms within 3 feet of the blades of a **ceiling fan**. (NFPA 72 29.8.3.4 (8))

Alarms and Detectors Near Cooking Appliances per NFPA 72

Refer to Figure 2:

A. **Photoelectric** smoke alarms shall not be installed less than 6 feet horizontally from a permanently installed cooking appliance. (NFPA 72 29.8.3.4 (4))

B. **Ionization** smoke alarms with an alarm-silencing switch must not be less than 10 feet from a permanent cooking appliance. (NFPA 72 29.8.3.4 (4))

C. **Ionization** smoke alarms without an alarm-silencing switch must not be less than 20 feet from a permanent cooking appliance. (NFPA 72 29.8.3.4 (4))

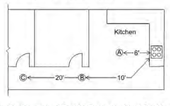


Figure 2: Smoke Alarms and Smoke Detectors Near Cooking Appliances

Carbon Monoxide Alarm Location Limitations

- ☐ Do not place alarms directly above or beside fuel-burning appliances.
- ☐ Do not place alarms in direct sunlight.
- ☐ Do not place alarms in low areas where children can reach. Do not place alarms behind curtains or any structure that might prevent carbon monoxide from reaching the sensor.

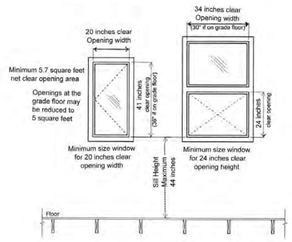
3 ALARMS DETAIL

Residential Emergency Egress Openings

This Tip Sheet reflects code requirements of the 2018 International Residential Code (IRC) with Washington State Amendments.

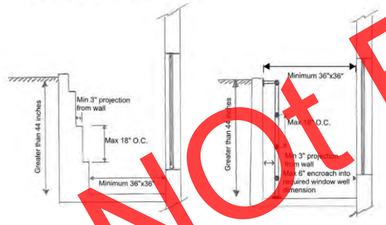
Emergency Escape and Rescue Opening

- ☐ Basements, habitable attics and every sleeping room shall have not less than one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, an emergency escape and rescue opening shall be required in each sleeping room. Emergency escape and rescue openings shall be operational from the inside without the use of keys, tools, or special knowledge, and open directly into a public way, or to a yard or court that opens to a public way. (R310.1)
- ☐ Where bars, grilles, covers, screens, or opening control devices are placed on emergency escape and rescue openings, area or window wells, the minimum net clear opening sizes shall comply and such devices shall be releasable or removable from the inside without the use of key, tool, special knowledge, or force greater than that required for normal operation of the escape and rescue opening. (R310.4)



Window Wells in Conjunction with Emergency Escape and Rescue Openings

- ☐ The horizontal area of the window well shall be not less than 9 square feet, with a horizontal projection and width not less than 36 inches. The area of the window well shall allow the emergency escape and rescue opening to be fully opened. (R310.3.2)
- ☐ Window wells with a vertical depth greater than 44 inches shall be equipped with a permanently affixed ladder or steps useable with the emergency escape and rescue opening in the fully opened position and shall not encroach into the required dimensions of the window well. (R310.3.2.2)
- ☐ Ladder rungs or steps shall have an inside width of not less than 12 inches, shall project not less than 3 inches from the wall, and be spaced not more than 18 inches on center vertically for the full height of the window well. (R310.3.2.2)



4 EMERGENCY EGRESS DETAIL

Safety Glazing

This Tip Sheet reflects code requirements of the 2018 International Residential Code (IRC) with Washington State Amendments.

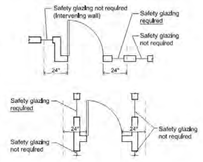
What is Safety Glazing?

Safety glazing is glass that is less dangerous when it breaks, such as tempered or laminated glass.

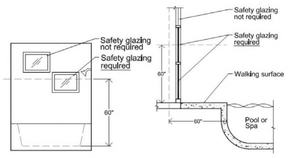
Per R308.1, where safety glazing is required, each pane must be provided with a manufacturer's label defining the type of glass and safety glazing standard to which it complies. For tempered glazing the label must be permanently etched, fired, or embossed, on the glass or be a type that once applied cannot be removed without being destroyed. For other types of safety glazing, a certificate, affidavit or other evidence confirming compliance with the code shall be provided at time of inspection.

Required Safety Glazing in Hazardous Locations

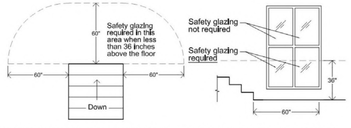
1. **Glazing in Doors:** Safety glazing is required in fixed and operable panels of swinging, sliding, and bifold doors. Safety glazing is not required in a door if the glazed openings do not allow the passage of a 3-inch sphere, or if the glazing in the door is decorative. (R308.4.1)
2. **Glazing Adjacent to Doors:** Glazing adjacent to doors is required in the following locations if the bottom edge of the glazing is less than 60 inches above the walking surface: Within 24 inches of either side of the door in the plane of the door in a closed position, or if glazing is in a wall less than 180 degrees from the plane of the door in a closed position and within 24 inches of the hinge side of an in-swinging door. Safety glazing is not required if there is an intervening wall or permanent barrier between the door and the glazing. (R308.4.2)



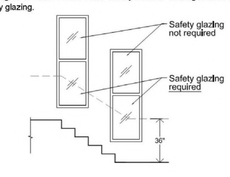
3. **Glazing in Windows:** Safety glazing in windows is required if the individual panel meets all of the following requirements (R308.4.3):
   a. Exposed area of the individual panel is greater than 9 square feet.
   b. The bottom edge of the glazing is less than 18 inches from the floor.
   c. The top edge of the glazing is more than 36 inches above the floor.
   d. There is a walking surface within 36 inches, measured horizontally, from the glazing.
   Exceptions:
   i. Decorative glazing.
   ii. Where a horizontal rail capable of resisting 50 pounds per linear foot of force without making contact with the glass is installed on the accessible side of the glazing 34 to 38 inches above the walking surface.
4. **Glazing in Railings and Guards:** All glazing in railings and guards, including structural baluster panels and nonstructural in-fill panels, is required to be safety glazing. (R308.4.4)
5. **Glazing and Wet Surfaces:** Glazing in walls, enclosures, or fences around showers, bathtubs, pools, hot tubs, spas, saunas, and steam rooms where the bottom edge of the glazing is less than 60 inches from the standing or walking surface is required to be safety glazing. Safety glazing is not required where the glazing is more than 60 inches, horizontally, from the edge of the water. (R308.4.5)



6. **Glazing Adjacent to Bottom Stair Landings:** Glazing adjacent to the landing at the bottom of a stairway where the glazing is less than 36 inches above the landing and within a 60-inch horizontal arc from the bottom tread must be safety glazing. (R308.4.7)



7. **Glazing Adjacent to Stairs and Ramps:** Glazing where the bottom edge is less than 36 inches above the plane of the adjacent walking surface of stairways, ramps, and landings between stair flights and ramp runs, must be safety glazing. (R308.4.6)
   Exceptions:
   1. Where a horizontal rail capable of resisting 50 pounds per linear foot of force without making contact with the glass is installed on the accessible side of the glazing 34 to 38 inches above the walking surface.
   2. Glazing more than 36 inches horizontally from the walking surface is not required to be safety glazing.



5 SAFETY GLAZING DETAIL

Window Fall Protection

This Tip Sheet reflects code requirements of the 2018 International Residential Code (IRC) and the 2018 International Building Code (IBC) with Washington State Amendments.

Requirements

- ☐ Where the sill height above finished grade on the exterior side of an operable window opening is greater than 72 inches, and the sill height above the finished floor on the interior side of the operable window opening is less than 24 inches (or 36 inches in dwelling units regulated by the IBC) (see Figure 1), then window fall protection shall be provided by one of the following (R312.2.1, R312.2.2; IBC 1015.8):
  1. Operable windows with openings that, when in their largest opened position, will not allow the passage of a 4-inch sphere (see Figure 2).
  2. Operable windows that are provided with window fall prevention devices that comply with ASTM F 2090 (see Figure 2).
  3. Operable windows that are provided with opening control devices that comply with ASTM F 2090 (see Figure 2). (Note: When installed on required emergency egress windows, these devices must not reduce the net clear opening to less than the minimum required size or dimensions; see Tip Sheet 10 for more information.)
  4. In dwelling units regulated by the IBC where the sill height of an operable window above exterior finished grade is more than 75 feet, provide window fall prevention devices complying with ASTM F 2006 (see Figure 2).

Standards

- ☐ ASTM F 2006: Standard Safety Specification for Window Fall Prevention Devices for Non-Emergency Escape (Egress) and Rescue (Ingress) Windows
- ☐ ASTM F 2090: Specification for Window Fall Prevention Devices with Emergency Escape (Egress) Release Mechanisms.

Egress Windows

- ☐ Egress windows must meet minimum size requirements. Minimum clear opening size of 5.7 square feet (5 square feet on the grade level) with minimum clear height of 24 inches and minimum clear width of 20 inches.
- ☐ For additional emergency egress window requirements refer to Tip Sheet 10.

Safety Glazing

- ☐ For additional safety glazing requirements refer to Tip Sheet 19.

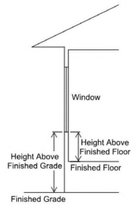


Figure 1: Sill height above finished grade on the exterior side of an operable window opening

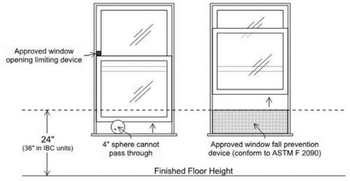


Figure 2: Window fall protection

Table 1: Summary of Requirements

Exterior Sill Height Above Finished Grade	Interior Sill Height Above Finished Floor	Can be used for Egress	Safety Glazing Required	Fall Protection Required
72 inches or less	Greater than 44 inches	No	-	No
	Between 18 and 44 inches	Yes	-	No
	Sill below 18 inches, top of window above 36 inches, and individual pane of glass is greater than 9 square feet	Yes	Yes	No
Greater than 72 inches	Greater than 44 inches	No	-	No
	Between 24 and 44 inches (IRC dwelling units)	Yes	-	No
	Less than 24 inches (IRC dwelling units)	Yes	-	Yes
	Between 36 and 44 inches (IBC dwelling units)	Yes	-	No
	Less than 36 inches (IBC dwelling units)	Yes	-	Yes
	Sill below 18 inches, top of window above 36 inches, and individual pane of glass is greater than 9 square feet	Yes	Yes	Yes
Greater than 75 feet	Less than 36 inches (IBC dwelling units)	No	-	Yes

6 WINDOW FALL PROTECTION

SHEET NUMBER

A9.1

GLAZING SCHEDULE

ROOM	# OF WNDS.	WND. H.	WND. W.	MANUF.	FRAME TYPE	WDW. TYPE	MODEL NO.	AIR GAP	GAS	LO-E	U-VAL. (1)	AREA	N.A.
MAIN FLOOR													
ENTRY FOYER	1	2.00	5.00	MILGARD	VINYL	PICTURE	5320	1/2"	AIR	YES	0.28	10.00	2.80
BEDRM.	1	7.00	6.00	MILGARD	VINYL	SLIDER	5120	1/2"	AIR	YES	0.28	42.00	11.76
KITCHEN	1	6.00	4.60	MILGARD	VINYL	SLIDER	5120	1/2"	AIR	YES	0.28	64.00	17.92
GREAT RM./DINI	2	5.00	6.00	MILGARD	VINYL	SLIDER	5120	1/2"	AIR	YES	0.28	60.00	16.80
GREAT RM./DINI	1	6.00	8.00	MILGARD	VINYL	S.G.D.	5621	1/2"	AIR	YES	0.28	48.00	13.44
LAUNDRY	1	2.00	4.00	MILGARD	VINYL	S.HUNG	5220	1/2"	AIR	YES	0.28	8.00	2.24
UPPER FLOOR													
BEDRM. 2	1	5.00	7.00	MILGARD	VINYL	S.G.D.	5621	1/2"	AIR	YES	0.28	0.28	0.08
POWDER	1	1.60	3.00	MILGARD	VINYL	PICTURE	5320	1/2"	AIR	YES	0.28	4.80	1.34
MSTR. SUITE	3	2.00	2.00	MILGARD	VINYL	PICTURE	5320	1/2"	AIR	YES	0.28	12.00	3.36
MSTR. SUITE	1	9.00	5.00	MILGARD	VINYL	SLIDER	5120	1/2"	AIR	YES	0.28	45.00	12.60
MSTR. BATH	1	5.00	4.60	MILGARD	VINYL	SLIDER	5120	1/2"	AIR	YES	0.28	23.00	6.44
BEDRM. 3	1	6.00	4.60	MILGARD	VINYL	SLIDER	5120	1/2"	AIR	YES	0.28	27.60	7.73
BATH	1	2.00	3.60	MILGARD	VINYL	PICTURE	5320	1/2"	AIR	YES	0.28	7.20	2.02
LEUISRE RM	2	7.00	5.60	MILGARD	VINYL	SLIDER	5120	1/2"	AIR	YES	0.28	78.40	21.95
O.T.B	3	2.00	4.00	MILGARD	VINYL	PICTURE	5320	1/2"	AIR	YES	0.28	24.00	6.72
												454.28	**127.20**
DOORS WITH MORE THAN 50% GLASS													
ENTRY FOYER	1	8.00	6.00	MILGARD	VINYL	S.G.D.	5621	1/2"	AIR	YES	0.2	48.00	9.60
											DOORS WITH MORE THAN 50% GLASS-TOTAL:	**48.00**	**9.60**
											AVG. U-VALUE (VERTICAL GLASS):		**9.60**
SKYLIGHTS AND SKYWALLS													
											SKYLIGHT TOTAL:	0.00	0.00
											AVG. U-VALUE (OVERHEAD GLASS):		0.00

	AREA	UA
	502.28	136.80
	TOTAL 1	TOTAL 2

GLAZING % = TOTAL 1 / HEATED AREA = 502.28 S.F. / 2598.00 S.F. = 19.33%

AVG. U-VALUE = UA TOTAL (TOT. 2) / AREA TOTAL (TOT. 1) = 136.80 UA / 502.28 A = 0.27 U-VALUE

ROOF VENTILATION

Standard Truss / Scissor Truss Roof Framing Assembly:		**MAIN ROOF**
Roof Area :	1636 s.f.	
Ventilation Required:	1636 s.f. x 144 s.i. / s.f. / 300 =	785,28 s.i. Req'd
Provide 1/2 ventilation at eaves, 1/2 above midpoint & min. 3 ft. above eave vents		
Eave Ventilation:		
Birdblocking =	4,71 s.i. / l.f. - 25% reduction =	3,53 s.i. / l.f.
Eave Ventilation Req'd =	785,28 s.i. / 2 / s.i. per l.f. =	111,15 l.f.
Provide :	112 l.f. birdblocking. Ventilation =	395,64 s.i.
Min. Ventilation Provided =	395,64 s.i. is greater than	392,64 s.i. Req'd
Upper Roof Ventilation:		
7"x7" Attic Roof Jack =	49 s.i. each - 25% screen reduction =	36,75 s.i. each.
Upper Ventilation Req'd =	785,28 s.i. / 2 / s.i. of each vent =	10,68 vents
Provide:	11 -7"x7" roof jacks. Ventilation =	404,25 s.i.
Ventilation Provided =	404,25 s.i. is greater than	392,64 s.i. Req'd
Use : (minimum)	**112 l.f. birdblocking. Ventilation =**	**395,64 s.i.**
Use : (minimum)	**11 -7"x7" roof jacks. Ventilation =**	**404,25 s.i.**
Total Min. Ventilation Provided =	**799,89 s.i. IS GREATER THAN :**	**785,28 s.i. Req'd**

ROOF VENTILATION

Standard Truss / Scissor Truss Roof Framing Assembly:		**LOWER ROOF**
Roof Area :	47 s.f.	
Ventilation Required:	47 s.f. x 144 s.i. / s.f. / 300 =	22,56 s.i. Req'd
Provide 1/2 ventilation at eaves, 1/2 above midpoint & min. 3 ft. above eave vents		
Eave Ventilation:		
Birdblocking =	4,71 s.i. / l.f. - 25% reduction =	3,53 s.i. / l.f.
Eave Ventilation Req'd =	22,56 s.i. / 2 / s.i. per l.f. =	3,19 l.f.
Provide :	4 l.f. birdblocking. Ventilation =	14,13 s.i.
Min. Ventilation Provided =	14,13 s.i. is greater than	11,28 s.i. Req'd
Upper Roof Ventilation:		
7"x7" Attic Roof Jack =	49 s.i. each - 25% screen reduction =	36,75 s.i. each.
Upper Ventilation Req'd =	22,56 s.i. / 2 / s.i. of each vent =	0,31 vents
Provide:	1 -7"x7" roof jacks. Ventilation =	36,75 s.i.
Ventilation Provided =	36,75 s.i. is greater than	11,28 s.i. Req'd
Use : (minimum)	**4 l.f. birdblocking. Ventilation =**	**14,13 s.i.**
Use : (minimum)	**1 -7"x7" roof jacks. Ventilation =**	**36,75 s.i.**
Total Min. Ventilation Provided =	**50,88 s.i. IS GREATER THAN :**	**22,56 s.i. Req'd**

SHEET NUMBER

A10

GENERAL NOTES:

1. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS.
2. THE 2018 EDITION OF THE SEATTLE BUILDING CODE, AND APPLICABLE EDITIONS OF THE FOLLOWING CODES AND STANDARDS SHALL APPLY.
3. FIELD MEASUREMENTS SHALL BE TAKEN AT THE SITE BY THE CONTRACTOR TO VERIFY AND SUPPLEMENT ALL DIMENSIONS AND ADDITIONS AFFECTED BY EXISTING WORK OR SEATTLE THAT HAS ALREADY BEEN INSTALLED. ANY DISCREPANCIES FROM THE INFORMATION SHOWN ON PLANS SHALL BE REPORTED TO AND COORDINATED WITH THE ARCHITECT.
4. BEFORE COMMENCEMENT OF ANY WORK AND/OR FABRICATION, THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT FOR HIS APPROVAL CONCRETE MIX DESIGNS FOR EACH TYPE OF CONCRETE TO BE USED, MILL REPORTS FOR STEEL, STRUCTURAL PENETRATIONS AND SHOP DRAWINGS FOR ALL STRUCTURAL TRADES AND OTHER DOCUMENTS AS REQUIRED PER PROJECT SPECIFICATIONS.
5. SUBMIT SHOP DRAWINGS SHOWING REINFORCEMENT PROPERLY POSITIONED IN CONCRETE WORK. (SEE SPECIFICATIONS)
6. THE CONTRACTOR SHALL ADEQUATELY PROTECT (BRACE, SHORE, SUPPORT, ETC.) THE STRUCTURE DURING THE ENTIRE CONSTRUCTION PERIOD. SUCH PROTECTION SHALL BE DESIGNED, INSPECTED AND FILED WITH DOB BY A QUALIFIED PROFESSIONAL ENGINEER AS REQUIRED.
7. MEMBERS WITH SIZES INDICATED ON THE DRAWINGS ARE NEW UNLESS OTHERWISE NOTED (UON).
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL ROOF, FLOOR AND WALL PENETRATIONS, PATCHING, REPAIRING AND FLASHING AS REQUIRED.
9. UNLESS OTHERWISE RECOMMENDED BY THE GEOTECHNICAL ENGINEER'S REPORT, SLABS ON GRADE SHALL BE SUPPORTED BY A COMPACTED POROUS FILL AT LEAST 6 INCHES THICK. AT INTERIOR SLABS A VAPOR BARRIER AT LEAST 15 MILS THICK SHALL BE PLACED BETWEEN THE SLAB AND THE POROUS FILL. THE POROUS FILL SHALL, IN TURN, BE SUPPORTED BY EITHER CLEAN, INORGANIC ORIGINAL SOIL OR A COMPACTED FILL WITH A MODIFIED PROCTOR DENSITY OF 90.

FOUNDATION NOTES:

1. ALL FOOTINGS SHALL BEAR ON FIRM, UNDISTRIBUTED SOIL OR APPROVED FILL 12" MINIMUM BELOW FINISHED GRADE, FINISHED GRADE DEFINED AS TOP OF SLAB FOR INTERIOR FOOTING AND LOWEST ADJACENT GRADE EXTENDING UP TO 5 FEET FROM WALL FOR PERIMETER FOOTINGS.
2. WHERE REQUIRED BY THE BUILDING OFFICIAL, THE CLASSIFICATION AND INVESTIGATION OF THE SOIL SHALL BE PERFORMED BY A REGISTERED DESIGN PROFESSIONAL BC 1806.2 UNLESS A SOIL INVESTIGATION IS PROVIDED. FOUNDATION DESIGN IS BASED ON ASSUMED AVERAGE SOIL BEARING OF 1500PSF. ORGANIC SILT, ORGANIC CLAYS, PEAT OR UNPREPARED FILL SHALL NOT BE ASSUMED TO HAVE A PRESUMPTIVE LOAD-BEARING CAPACITY UNLESS DATA TO SUBSTANTIATE THE USE OF SUCH VALUE ARE SUBMITTED.
3. THE GROUND IMMEDIATELY ADJACENT TO THE FOUNDATION SHALL BE SLOPED AWAY FROM THE BUILDING AT A SLOPE OF 1:1 MINIMUM.
4. WALLS SHALL BE TEMPORARILY BRACED AGAINST EARTH PRESSURE AND OTHER FORCES UNTIL SLABS, BEAMS AND OTHER MEMBERS DESIGNED TO BRACE THE FINISHED STRUCTURE HAVE BEEN IN PLACE AND HAVE ATTAINED REQUIRED CONCRETE ULTIMATE STRENGTH.

CAST-IN-PLACE CONCRETE NOTES:

1. CONCRETE TYPES

   A. FOOTINGS & FOUNDATIONS NOT EXPOSED TO WEATHER – 3,000 PSI
   B. SLABS ON GRADE, GARAGE SLAB – 3,000 PSI

2. BAR REINFORCEMENT SHALL CONFORM TO ASTM A-615, GRADE 60 UNLESS HIGHER GRADE IS INDICATED ON DRAWINGS.
3. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 70,000 PSI.
4. CONCRETE SHALL BE CAST MONOLITHICALLY EXCEPT WHERE OTHERWISE SHOWN.
5. REINFORCEMENT MARKED "CONT." (CONTINUOUS) SHALL BE LAPPED A PROPER DISTANCE AT SPLICES AND CORNERS AND SHALL BE HOOKED OR EXTENDED A PROPER DISTANCE AT NON-CONTINUOUS ENDS AS PER SPLICE AND DEVELOPMENT LENGTH REQUIREMENTS SHOWN ON THE DRAWINGS. ALL HORIZONTAL WALL REINFORCING SHALL BE CONTINUOUS.
6. REINFORCEMENT SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS UNLESS OTHERWISE SHOWN ON DRAWINGS. THE CONTRACTOR SHALL LOCATE CONSTRUCTION JOINTS AT POINTS OF MINIMUM SHEAR.
7. SPLICES FOR MAIN REINFORCEMENT IN SHEAR WALLS SHALL BE TENSION SPLICES UNLESS OTHERWISE NOTED.
8. REINFORCING BARS SHALL HAVE THE FOLLOWING CONCRETE PROTECTION:

CONCRETE CAST AGAINST EARTH	–	3"
EXPOSED TO EARTH OR WEATHER	–	2"
SLABS AND WALLS NOT EXPOSED	–	3/4" OR BAR DIAMETER
SLABS IN PARKING AREAS	–	2" TOP BARS ONLY
BEAMS AND GIRDERS NOT EXPOSED	–	1-1/2" TO STIRRUPS
COLUMNS NOT EXPOSED	–	1-1/2" TO TIES

9. MAXIMUM LENGTH OF CONCRETE POUR (DISTANCE BETWEEN CONSTRUCTION JOINTS) SHALL BE 50 FEET DURING JUNE, JULY, AUGUST AND SEPTEMBER AND 75 FEET DURING THE REST OF THE YEAR. LOCATION OF CONSTRUCTION JOINTS, IF REQUIRED, SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT.
10. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND LOCATIONS OF ALL OPENINGS, PIPE SLEEVES, ANCHOR BOLTS, ETC. AS REQUIRED BY TRADES BEFORE CONCRETE IS POURED.
11. THE CONTRACTOR SHALL PROVIDE SLAB BOLSTERS, HIGH CHAIRS AND ALL ACCESSORIES REQUIRED FOR PROPER PLACEMENT OF REINFORCING BARS AND WIRE MESH AS PER A.C.I. & C.R.S.I. STANDARDS.
12. CONCRETE MAY BE CONVEYED BY PUMPING. PUMPING METHODS SHALL COMPLY WITH REQUIREMENTS ESTABLISHED BY A.C.I. COMMITTEE 304, PLACING CONCRETE PUMPING METHODS.
13. PRIOR TO PLACING CONCRETE, ALL REINFORCEMENT SHALL BE FREE OF LOOSE FLAKY RUST, MUD, OIL OR OTHER COATING THAT WILL DESTROY, REDUCE OR HAMPER FULL BOND CAPACITY.
14. REINFORCEMENT IN EXPOSED AREAS INCLUDING BUT NOT LIMITED TO BALCONIES, CONCRETE EYEBROWS AND ROOF PARKING DECKS SHALL BE EPOXY COATED IN CONFORMANCE WITH ASTM A-175
15. CONTROL AND EXPANSION JOINTS SHALL BE PROVIDED TO MINIMIZE CRACKING AS PER ARCHITECTURAL AS WELL AS STRUCTURAL REQUIREMENTS AND IN ACCORDANCE WITH STANDARD PRACTICES ACCEPTED IN THE INDUSTRY.
16. THE FOLLOWING CRITERIA SHALL BE MET WITH REGARDS TO PLACEMENT OF CONDUITS, PIPES, ETC. IN CONCRETE SLABS.

   A. ALL CONDUITS SHALL BE CENTERED AT MID-DEPTH OF SLAB. CONDUIT DIAMETER SHALL NOT EXCEED 1/3 OF SLAB THICKNESS. CLEAR DISTANCE BETWEEN TWO ADJACENT CONDUITS SHALL BE A MINIMUM OF 3 DIAMETERS OF LARGER OF THE TWO CONDUITS.
   B. VERTICAL SLEEVES, PIPES, ETC. THROUGH SLAB EITHER CLUSTERED OR INDIVIDUAL, SHALL NOT INTERRUPT MORE THAN 1/8 OF THE WIDTH OF COLUMN STRIP.
   C. NO REINFORCEMENT BARS SHALL BE CUT, BENT, SHIFTED OR OTHERWISE ALTERED AS CONDUITS, PIPES, ETC. AS COMPARED TO WHAT IS SHOWN ON THESE DRAWINGS.
   D. ANY DEVIATIONS FROM ABOVE REQUIREMENTS SHALL BE SHOWN ON THE SHOP DRAWINGS AND SUBMITTED FOR APPROVAL BY THIS OFFICE.

TIMBER CONSTRUCTION NOTES:

1. LUMBER SHALL BE DOUGLAS FIR NO. 2 (OR EQUAL) U.O.N. WITH THE FOLLOWING ALLOWABLE UNIT STRESSES:

   FB = 900 PSI
   FB = 1035 PSI (REPETITIVE MEMBERS)
   FV = 180 PSI
   E = 1,600,000 PSI
   COMPRESSION MEMBERS:
   FC = 1400 PSI (PARALLEL TO GRAIN)
   FC = 625 PSI (PERPENDICULAR TO GRAIN)

2. TJI PREFABRICATED WOOD I-JOISTS SHALL BE WEYERHAEUSER TJI AS SHOWN ON PLAN OR BETTER (OR EQUAL) U.O.N. WITH THE FOLLOWING ALLOWABLE UNIT CAPACITIES:

   BENDING MOMENT = 9500 FT-LBS
   STIFFNESS EI = 636,000,000 LBS-IN2

TYPE AND GRADE SHALL BE STAMPED ON SIDE OF MEMBERS BY SUPPLIERS AND SHALL NOT BE REMOVED.

3. LVL SHALL BE BROADSPAN 2.0E-3100FB LVL (OR EQUAL) U.O.N. WITH THE FOLLOWING ALLOWABLE UNIT STRESSES:

   FRAMING MEMBERS:
   FB = 3100 PSI
   FV = 290 PSI
   E = 2,000,000 PSI
   COMPRESSION MEMBERS:
   FC = 750 PSI (PERPENDICULAR TO GRAIN)
   FC = 3000 PSI (PARALLEL TO GRAIN)

TYPE AND GRADE SHALL BE STAMPED ON SIDE OF MEMBERS BY SUPPLIERS AND SHALL NOT BE REMOVED.

4. MOISTURE CONTENT SHALL NOT EXCEED 19 PERCENT.
5. LUMBER SHALL BE SOUND, THOROUGHLY SEASONED, WELL MANUFACTURED AND FREE FROM WARPS.
6. PROVIDE BRIDGING OF SIZE RECOMMENDED BY MANUFACTURER FOR LUMBER SIZE USED. BLOCKING SHALL BE PERPENDICULAR TO FRAMING AND SHALL LINE UP ON CENTERS SPECIFIED ON DRAWINGS.
7. CONNECTIONS SHALL BE ADEQUATE TO DEVELOP THE FULL STRENGTH OF THE MEMBERS.
8. ROOF MEMBERS SHALL BE SECURELY FASTENED TO THE EXTERIOR WALLS WITH APPROVED ANCHORS OR CLIPS.
9. NEW FRAMING SHALL BE ANCHORED TO MASONRY WALLS AS PER BUILDING CODE.
10. FOR ROOF SLOPES, MANSARD DIMENSIONS, OTHER ARCHITECTURAL DIMENSIONS AND DETAILS, SEE ARCHITECTURAL DRAWINGS. THE CONTRACTOR SHALL COORDINATE BETWEEN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
11. NOTCHES IN SOLID LUMBER JOISTS, RAFTERS AND BEAMS SHALL NOT EXCEED ONE-SIXTH OF THE DEPTH OF THE MEMBER, SHALL NOT BE LONGER THAN ONE-THIRD OF THE DEPTH OF THE MEMBER AND SHALL NOT BE LOCATED IN THE MIDDLE ONE-THIRD OF THE SPAN. NOTCHES AT THE ENDS OF THE MEMBER SHALL ONT EXCEED ONE-FOURTH THE DEPTH OF THE MEMBER. THE TENSION SIDE OF MEMBERS 4 INCHES OR GREATER IN NOMINAL THICKNESS SHALL NOT BE NOTCHED EXCEPT AT THE ENDS OF THE MEMBERS. THE DIAMETER OF HOLES BORED OR CUT INTO MEMBERS SHALL NOT EXCEED ONE-THIRD THE DEPTH OF THE MEMBER. HOLES SHALL NOT BE CLOSER THAN 2 INCHES TO THE TOP OR BOTTOM OF THE MEMBER, OR TO ANY OTHER HOLE LOCATED IN THE MEMBER. WHERE THE MEMBER IS ALSO NOTCHED, THE HOLE SHALL NOT BE CLOSER THAN 2 INCHES TO THE NOTCH.
12. CUTS, NOTCHES AND HOLES BORED IN TRUSSES, STRUCTURAL COMPOSITE LUMBER, STRUCTURAL GLUE-LAMINATED MEMBERS, CROSS-LAMINATED TIMBER MEMBERS OR I-JOISTS ARE PROHIBITED EXCEPT WHERE PERMITTED BY THE MANUFACTURER'S RECOMMENDATIONS OR WHERE THE EFFECTS OF SUCH ALTERATIONS ARE SPECIFICALLY CONSIDERED IN THE DESIGN OF THE MEMBER BY A REGISTERED DESIGN PROFESSIONAL.

PLYWOOD SHEATHING NOTES:

1. APA STRUCTURAL RATED SHEATHING EXP 1, 24/0 SHALL BE USED FOR FLOOR AND ROOF SHEATHING.
2. THE STANDARD 4' x 8' PANELS SHALL BE PLACED WITH STAGGERED JOINTS.
3. FASTENING SHALL BE AS PER THE TYPICAL FLOOR CONSTRUCTION DETAIL.
4. LAY THE PLYWOOD PANELS SUCH THAT THE LONG DIMENSION IS PERPENDICULAR TO THE SPAN DIRECTION OF THE JOIST.

PROVIDE BLOCKING AT UNSUPPORTED PLYWOOD PANEL EDGES.

POST INSTALLED ANCHORS

1. ANCHOR CAPACITY SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY THE ANCHOR MANUFACTURER OR OTHER METHOD AS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD (ENGINEER).
2. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS SHALL BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO USE. CONTRACTOR SHALL PROVIDE CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. SUBSTITUTIONS SHALL BE EVALUATED BY THEIR HAVING AN INTERNATIONAL CODE COUNCIL EVALUATION SERVICE REPORT (ICC ESR) SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION SHALL CONSIDER EFFECTS OF CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE.
3. ANCHORS SHALL BE INSTALLED PER THE MANUFACTURER INSTRUCTIONS INCLUDED IN THE ANCHOR PACKAGING.
4. OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED USING THE HILTI PROFI SYSTEM OR OTHER MANUFACTURER'S EQUAL OR BETTER SYSTEM, IF APPROVED BY THE ENGINEER IN ADVANCE.
5. THE CONTRACTOR SHALL ARRANGE ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE ENGINEER MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF THEIR INSTALLATION.
6. ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO THE EDGE OF CONCRETE. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH SPACING AND EDGE DISTANCES INDICATED ON THE STRUCTURAL DRAWINGS.
7. REINFORCING BARS OR OTHER ELEMENTS EMBEDED IN THE EXISTING CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. UNLESS NOTED ON THE DRAWINGS THAT THE BARS, ETC. CAN BE CUT, THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE EMBEDED BARS, ETC. BY GROUND PENETRATING RADAR (GPR), X-RAY, CHIPPING OR OTHER MEANS.
8. CONTINUOUS OR PERIODIC SPECIAL INSPECTIONS FOR POST INSTALLED ANCHORS SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 4.4 OF THE INDIVIDUAL INTERNATIONAL CODE COUNCIL-EVALUATION SERVICE (ICC- ES) REPORT FOR THE INDIVIDUAL ANCHOR. THE CONTRACTOR SHALL GIVE THE SPECIAL INSPECTOR SUFFICIENT ADVANCE NOTICE TO ALLOW ENOUGH TIME FOR PROPER INSPECTION OF HOLE PREPARATION, ANCHOR INSTALLATION, TIGHTENING, ETC. ANCHORS INSTALLED WITHOUT INSPECTION AT ALL THESE PHASES SHALL BE REJECTED AND WILL HAVE TO BE REPLACED AT CONTRACTOR'S EXPENSE.

SPECIAL INSPECTION NOTES:

THE FOLLOWING IS A PARTIAL LIST OF SPECIAL INSPECTION ITEM(S) RELATED TO STRUCTURAL WORK SHOWN ON STRUCTURAL DRAWINGS AS REQUIRED BY BUILDING CODE. THE CONTRACTOR IS OBLIGATED TO NOTIFY THE INSPECTOR AT LEAST 72 HOURS BEFORE INSTALLATION OF SUCH ITEMS SO THAT PROPER INSPECTION CAN BE MADE. IN NO CASE SHALL SUCH ITEMS BE INSTALLED OR CONSTRUCTED WITHOUT COMPLETE APPROVAL OF THE INSPECTOR. UNAPPROVED INSTALLATION IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S SOLE EXPENSE.

1. ANCHORAGE – PERIODIC INSPECTIONS OF POST INSTALLED (EPOXY) ANCHORAGE GOR USE WITH HOLDOWNS AND TENSION APPLICATIONS.
2. CONCRETE – VERIFICATION OF HIGH STRENGTH ANCHORAHE PRIO POUR; VERIFICATION OF CONCRETE STRENGTH
3. WOOD CONSTRUCTION – PERIODIC VERIFICATION OF SHEATHING/ NAILS, AND NAIL PATTERN FOR SHEAR WALLS WITH 3" OR TIGHTER EDGE SPACING

ALL SPECIAL INSPECTIONS SHALL BE PERFORMED BASED ON APPROVED SHOP DRAWINGS. INSPECTIONS PERFORMED BASED ON UNAPPROVED DRAWINGS SHALL BE CONSIDERED INVALID AND SHALL BE REJECTED.

BIDDER'S WARRANTY:

BY THE ACT OF SUBMITTING A BID FOR THE PROPOSED CONTRACT, THE BIDDER WARRANTS THAT:

1. THE BIDDER AND ALL SUBCONTRACTORS HE INTENDS TO USE HAVE CAREFULLY AND THOROUGHLY REVIEWED THE DRAWINGS, SPECIFICATIONS AND OTHER CONSTRUCTION CONTRACT DOCUMENTS AND HAVE FOUND THEM COMPLETE AND FREE FROM AMBIGUITIES AND SUFFICIENT FOR THE CONTRACTOR TO BID, FABRICATE, AND INSTALL THE WORK ON TIME, FURTHER THAT,
2. THE BIDDER AND ALL WORKMEN, EMPLOYEES AND SUBCONTRACTORS HE INTENDS TO USE ARE SKILLED AND EXPERIENCED IN THE TYPE OF CONSTRUCTION REPRESENTED BY THE CONSTRUCTION CONTRACT DOCUMENTS BID UPON; FURTHER THAT,
3. NEITHER THE BIDDER NOR ANY OF HIS EMPLOYEES, AGENTS INTENDED SUPPLIERS OR SUBCONTRACTORS HAVE RELIED UPON ANY VERBAL REPRESENTATIONS, ALLEGEDLY AUTHORIZED OR UNAUTHORIZED FROM THE OWNER, HIS EMPLOYEES OR AGENTS INCLUDING ARCHITECTS, ENGINEERS OR CONSULTANTS, IN ASSEMBLING THE BID FIGURE; AND FURTHER THAT, THE BID FIGURE IS BASED SOLELY UPON THE CONSTRUCTION CONTRACT DOCUMENTS AND PROPERLY ISSUED WRITTEN ADDENDA AND NOT UPON ANY OTHER WRITTEN REPRESENTATION.
4. THE BIDDER ALSO WARRANTS THAT HE HAS CAREFULLY EXAMINED THE SITE OF THE WORK AND THAT FROM HIS OWN INVESTIGATIONS HE HAS SATISFIED HIMSELF AS TO THE NATURE AND LOCATION OF THE WORK AND THE CHARACTER, QUALITY, QUANTITIES OF MATERIALS AND DIFFICULTIES TO BE ENCOUNTERED, THE KIND AND EXTENT OF EQUIPMENT AND OTHER FACILITIES NEEDED FOR THE PERFORMANCE OF THE WORK, THE GENERAL AND LOCAL CONDITIONS, AND OTHER ITEMS WHICH MAY, IN ANY WAY, AFFECT THE WORK OR ITS PERFORMANCE.

SUBMITTAL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING, PREPARING AND DELIVERING ALL SHOP DRAWINGS AND OTHER SUBMITTALS (SUBMITTALS) REQUIRED BY THE CONTRACT DOCUMENTS IN A TIMELY MANNER. ALL MATERIAL SHALL BE DELIVERED GRADUALLY SO AS TO AVOID SUBMISSION OF LARGE NUMBER OF SUBMITTALS NOT ALLOWING THE ENGINEER TIMELY REVIEW.
2. THE STRUCTURAL ENGINEER OF RECORD (EOR) SHALL REVIEW SUBMITTALS PERTINENT TO STRUCTURAL DESIGN (SHOP DRAWINGS AND OTHER PERTINENT DOCUMENTS SUCH AS MATERIAL, PRODUCT, ASSEMBLY INFORMATION, ENGINEERING CALCULATIONS, ETC.) SUBMITTED BY THE CONTRACTOR. THE ENGINEER SHALL COMMENT ON THE SUBMITTALS AND APPROVE OR DISAPPROVE WITH COMMENTS, AS APPROPRIATE, FOR GENERAL CONFORMANCE WITH THE INFORMATION GIVEN AND THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS. REVIEW OF SUCH SUBMITTALS SHALL NOT BE FOR THE PURPOSE OF DETERMINING THE ACCURACY AND COMPLETENESS OF OTHER INFORMATION SUCH AS DIMENSIONS, QUANTITIES, INSTALLATION OR PERFORMANCE OF EQUIPMENT OR SYSTEMS, ETC. WHICH SHALL BE THE CONTRACTOR'S RESPONSIBILITY. ENGINEER'S REVIEW SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS/HER RESPONSIBILITY TO ACCURATELY AND COMPLETELY INTERPRET THE CONTRACT DOCUMENTS.
3. IF REQUIRED BY SPECIFICATIONS, SHOP DRAWINGS AND OTHER DOCUMENTS SHALL BEAR THE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS TO BE CONSTRUCTED.
4. BEFORE SUBMITTING A SHOP DRAWING OR ANY OTHER DOCUMENT TO THE ENGINEER, THE CONTRACTOR SHALL REVIEW AND APPROVE EACH SUCH SUBMITTAL FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS. EVERY COPY OF EACH SUBMITTAL SHALL BEAR THE CONTRACTOR'S REVIEW STAMP SHOWING THAT THEY HAVE BEEN REVIEWED AND APPROVED. THE ENGINEER SHALL RETURN WITHOUT REVIEW MATERIAL WHICH HAS NOT BEEN APPROVED BY THE CONTRACTOR.
5. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND OPERATIONS OF CONSTRUCTION, SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO, INCLUDING REFLECTION OF EXISTING FIELD CONDITIONS. APPROVAL OF ANY SUBMITTAL BY THE ENGINEER SHALL NOT BE CONSTRUED AS ACCEPTANCE OF ANY OF THE FOREMENTIONED ASPECTS OF CONTRACTOR'S WORK.
6. THE ENGINEER SHALL ASSUME THAT NO SUBMITTED SHOP DRAWING OR OTHER DOCUMENT COMPRISES A VARIATION FROM THE CONTRACT UNLESS THE CONTRACTOR ADVISES THE ENGINEER OTHERWISE IN WRITING. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK RELATED TO SUCH VARIATION BEFORE RECEIPT OF ENGINEER'S WRITTEN ACCEPTANCE.
7. IN CASE RESUBMISSION OF SHOP DRAWINGS, CALCULATIONS AND OTHER WRITTEN SUBMITTALS INCLUDING ADDITIONS, DELETIONS OR CORRECTIONS THE CONTRACTOR SHALL CIRCLE OR OTHERWISE IDENTIFY ALL CHANGES FROM THE PRIOR ISSUE. ALL MATERIAL SUBMITTED EACH CHANGE CLEARLY IDENTIFIED SHALL BE RETURNED WITHOUT REVIEW FOR RESUBMISSION.
8. THE RETURNED SHOP DRAWINGS AND OTHER SUBMITTALS SHALL BE STAMPED BY THE ENGINEER. THE STAMP SHALL DENOTE REVIEW STATUS WHICH MAY OR MAY NOT REQUIRE FURTHER RESUBMISSION AS PER THE FOLLOWING:

STATUS:		RESUBMISSION:
A	NO EXCEPTION TAKEN	NOT REQUIRED
N	EXCEPTIONS NOTED	REQUIRED FOR RECORD ONLY
NR	EXCEPTIONS NOTED, REVISE & RESUBMIT	REQUIRED
RR	REJECTED	REQUIRED

9. CORRECTIONS OR COMMENTS MADE ON THE SHOP DRAWINGS AND OTHER REVIEWED DOCUMENTS SHALL NOT RELIEVE THE CONTRACTOR FROM STRICT COMPLIANCE WITH THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS OR FROM HIS RESPONSIBILITY FOR ERRORS AND OMISSIONS ON SUCH DRAWINGS AND/OR OTHER DOCUMENTS. DRAWINGS AND DOCUMENTS RETURNED WITH 'NO EXCEPTION TAKEN' OF A PARTICULAR ITEM SHALL NOT BE INTERPRETED AS 'NO EXCEPTION TAKEN' OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT.
10. THE CONTRACTOR SHALL PERFORM NO PORTION OF THE WORK REQUIRING SUBMISSION AND REVIEW OF SHOP DRAWINGS OR OTHER MATERIAL UNTIL THE RESPECTIVE SUBMITTAL HAS BEEN APPROVED BY THE ENGINEER. SUCH WORK SHALL BE PERFORMED IN ACCORDANCE ONLY WITH THE SUBMITTALS MARKED "NO EXCEPTION TAKEN" OR "EXCEPTIONS NOTED". THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND BEAR ALL THE COSTS WHICH MAY RESULT FROM ORDERING OF ANY MATERIAL OR FROM PROCEEDING WITH ANY PART OF THE WORK PRIOR TO THE RECEIPT OF APPROVED RESPECTIVE SUBMITTALS.

WOOD TRUSSES (BC 2303.4)

1. WOOD TRUSSES TO BE DESIGNED PER BC 2303.4.1.1 TO CARRY LOADS LISTED IN THE DESIGN CRITERION AND NY ADDITIONAL POINT LOADS, UNIFORM LOADS, OR DRAG STRUT FORCES NOTED ON FRAMING PLANS.
2. NON-ATTIC STORAGE TRUSSES SHALL BE DESIGNED WITH A LIVE LOAD OF 20PSF LOCATED IN THE PLANE OF THE TRUSS. THE MAXIMUM STORAGE SPACE ABOVE THE BOTTOM CHORD SHALL BE LESS THAN 42" HIGH AND 24" WIDE.
3. TRUSS DESIGN DRAWINGS AND DOCUMENT SUBMITTAL (2303.4.1.1) SHALL INCLUDE STRESS ANALYSIS AND PICTORIAL DEPICTION OF EACH TRUSS TYPE FOR THE PROJECT AND INCLUDING A TRUSS PLACEMENT DIAGRAM (2303.4.2) TRUSS INSTALLATION DRAWINGS SHALL BEAR THE SEAL AND SIGNATURE OF A LICENSED ENGINEER IN THE STATE OF WASHINGTON. APPROVED TRUSS DOCUMENTS SHALL REMAIN ON THE JOB SITE FOR INSPECTION.
4. ALTERATIONS (2303.4.5): TRUSS MEMBERS SHALL NOT BE NOTCHED, DRILLED, SPLICED, OR OTHERWISE ALTERED IN ANY WAY WITHOUT WRITTEN APPROVAL OF THE TRUSS DESIGNER ALTERATIONS RESULTING IN THE ADDITION OF LOADS TO ANY MEMBER (E.G. HVAC EQUIPMENT, PIPING, ETC) SHALL NOT BE PERMITTED WITHOUT APPROVAL OF TRUSS DESIGNER.
5. TPI 1 SPECIFICATIONS: THE DESIGN, MANUFACTURE, FABRICATION, AND QUALITY ASSURANCE OF METAL-PLATE-CONNECTED WOOD TRUSSES SHALL BE IN ACCORDANCE WITH TPI 1.
6. THE TRUSS TEMPORARY AND PERMANENT BRACING SHALL BE PER IRC SECTIONS 502.11.2 AND 802.10.3 AS WELL AS TRUSS PLATE INSTITUTES' BUILDING COMPONENT SAFETY INFORMATION.
7. UNLESS NOTED OTHERWISE ON PLANS, ALL TRUSSES SHALL HAVE SIMPSON H-1 CLIPS AT EXTERIOR BEARING ALLS. AT GABLE END TRUSSES, PROVIDE SIMPSON A35 AT 24" O.C.
8. PROVIDE STC CLIPS AT ALL TRUSSES OVER NON-BEARING WALLS.
9. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE AVAILABLE ON THE JOB SITE AT THE TIME OF INSPECTION, FOR INSPECTOR'S USE AND REFERENCE.

PROJECT DESCRIPTION:

XXXXXXXXX

NOTE: THIS APPLICATION IS FOR STRUCTURAL AND FOUNDATION WORK ONLY

ZONING INFORMATION:

PROJECT LOCATION:
XXXXX
BLOCK: XXX
LOT No: XXX
ZONING DISTRICT: XXX
LOT AREA: XXXX SF

NOTE: ZONING INFORMATION SHOWN ON ARCHITECTURAL DRAWINGS SHALL GOVERN.

2018 INTERNATIONAL BUILDING CODE & ASCE 7-16 BUILDING DESIGN INFORMATION SUMMARY

NO.	TOPIC	CODE SECTION
1.	SNOW LOADING CRITERIA	GROUND SNOW LOAD, P_g = 25 P.S.F
		SNOW IMPORTANCE FACTOR, C_e = 1.0
		THERMAL EXPOSURE FACTOR, C_t = 1.0
		SNOW IMPORTANCE FACTOR, I_s = 1.0
		FLAT-ROOF SNOW LOAD, P_f = 25 PSF
2.	SEISMIC LOADING CRITERIA	SEISMIC IMPORTANCE FACTOR = 1.0
		SITE CLASS = D
		SPECTRAL RESPONSE COEFFICIENTS, S_{DS} = 1.214, S_{D1} = 0.620
		SEISMIC DESIGN CATEGORY = D
		SHORT PERIOD DESIGN SPECTURAL REPONSE, S_s = 1.517g
		ONE SECOND DESIGN SPECTURAL REPONSE, S_1 = 0.517g
		MINIMUM SEISMIC BASE SHEAR, V = 14.87 KIPS
		SEISMIC RESPONSE COEFFICIENTS, C_S = 0.187
		SEISIMIC REDUDANCY FACTOR, RHO = 1.0
		RESPONSE MODIFICATION FACTOR, R = 6.5
		LATERAL FORCE RESISTING SYSTEM : ORDINARY MASONRY SHEAR WALLS
		ANALYSIS PROCEDURE : WOOD SHEAR WALLS
3.	WIND LOADING CRITERIA	BASIC WIND SPEED (3 SECOND GUST) = 110 M.P.H.
		BUILDING STRUCTURE CATEGORY = II
		WIND IMPORTANCE FACTOR = 1.0
		WIND EXPOSURE CATEGORY = C
		INTERNAL PRESSURE COEFFICENT GC_{pi} = 0.18
		MINIMUM WIND BASE SHEAR, V = 4.48 KIPS

ABBREVIATIONS

@	= AT	JT.	= JOINT
ADJ.	= ADJUSTABLE	K, KIP	= 1000 LBS
ADD'L	= ADDITIONAL	KLF	= KIP(S) PER FOOT
ALN.	= ALIGN	KSF	= KIP(S) PER SQUARE FOOT
ALT.	= ALTERNATE	KSI	= KIP(S) PER SQUARE INCH
ARCH.	= ARCHITECTURAL	L.L.	= LIVE LOAD
B, BOT.	= BOTTOM	L.L.H.	= LONG LEG HORIZONTAL
B.F.	= BRACED FRAME	L.L.V.	= LONG LEG VERTICAL
B.P.	= BASE PLATE, BEARING PLATE	Ldc	= COMPRESSION DEVELOPMENT LENGTH
BH.	= BULKHEAD	Ldt	= TENSION DEVELOPMENT LENGTH
BLDG.	= BUILDING	Lsc	= COMPRESSION SPLICE LENGTH
BM.	= BEAM	Lst	= TENSION SPLICE LENGTH
BRDG.	= BRIDGING	LB(S).	= POUND(S)
BRNG.	= BEARING	LG.	= LONG
BSMT.	= BASEMENT	M.C.	= MOMENT CONNECTION
℄, CL.	= CENTRE LINE	M.D.	= METAL DECK
C.A.	= COLUMN ABOVE	MACH.	= MACHINE
C.B.	= COLUMN BELOW	MAX.	= MAXIMUM
C.J.	= CONSTRUCTION JOINT, CONTROL JOINT	MECH.	= MECHANICAL
		MEZZ.	= MEZZANINE
CANT.	= CANTILEVER	MIN.	= MINIMUM
CLR.	= CLEARANCE, CLEAR	MISC.	= MISCELLANEOUS
COL.	= COLUMN	MOM.	= MOMENT
CONC.	= CONCRETE	N.I.C.	= NOT IN CONTRACT
CONN.	= CONNECTION	N.F.	= NEAR FACE
CONST.	= CONSTRUCTION	N.S.	= NON-SHRINK
CONT.	= CONTINUOUS	N.T.S.	= NOT TO SCALE
ø, DIA.	= DIAMETER	NO.	= NUMBER
D.L.	= DEAD LOAD	N-S	= NORTH-SOUTH
DET.	= DETAIL	O.C.	= CENTRE TO CENTRE
DIAG.	= DIAGONAL	O.F.	= OUTSIDE FACE
DIM.	= DIMENSION	O.W.S.J.	= OPEN WEB STEEL JOIST
DWG(S).	= DRAWING(S)	OPNG.	= OPENING
DWL(S).	= DOWEL(S)	P.C.	= PRECAST, PILE CAP
E.E.	= EACH END	ℙL, PL.	= PLATE
E.F.	= EACH FACE	PLF	= POUND(S) PER FOOT
E.J.	= EXPANSION JOINT	PROJ.	= PROJECTION
E.M.R.	= ELEVATOR MACHINE ROOM	PSF	= POUND(S) PER SQUARE FOOT
E.S.	= EACH SIDE	PSI	= POUND(S) PER SQUARE INCH
E.W.	= EACH WAY	R	= RADIUS
EA.	= EACH	RM.	= ROOM
EL.	= ELEVATION	REF.	= REFERENCE
ELEV.	= ELEVATOR	REINF.	= REINFORCE, REINFORCEMENT
ELECT.	= ELECTRICAL	REQ'D.	= REQUIRED
Em	= EMBEDMENT LENGTH IN MASONRY	REV.	= REVISION, REVISED
		R/W	= REINFORCE WITH
EMBED.	= EMBEDMENT	S.F.	= SQUARE FOOT
EQ.	= EQUAL	S.L.H.	= SHORT LEG HORIZONTAL
EXIST.	= EXISTING	S.L.V.	= SHORT LEG VERTICAL
EXP.	= EXPANSION	S.O.G.	= SLAB ON GRADE
EXT.	= EXTERIOR	SECT.	= SECTION
E-W	= EAST-WEST	SL.	= SLAB, SLOPE
F.F.	= FAR FACE	Sm	= SPLICE LENGTH IN MASONRY
FDN.	= FOUNDATION	SPEC(S).	= SPECIFICATION(S)
FIN.	= FINISHED	SQ.	= SQUARE
FL.	= FLOOR	STD.	= STANDARD
FT.	= FOOT	STL.	= STEEL
FTG.	= FOOTING	T	= TOP
FT-K	= FOOT-KIP	T.O.S.	= TOP OF SLAB
GA.	= GAUGE	TEMP.	= TEMPORARY
GALV.	= GALVANIZED	THK.	= THICKNESS
GEN.	= GENERAL	TYP.	= TYPICAL
H.S.C.	= HORIZONTALLY SLOTTED CONNECTION	U.O.N.	= UNLESS OTHERWISE NOTED
		VERT.	= VERTICAL
HORIZ.	= HORIZONTAL	W.P.	= WATERPROOFING
I.F.	= INSIDE FACE	W.W.F.	= WELDED WIRE FABRIC
IN.	= INCH	WF.	= WIDE FLANGE
INT.	= INTERIOR	WD.	= WOOD

DRAWING INDEX

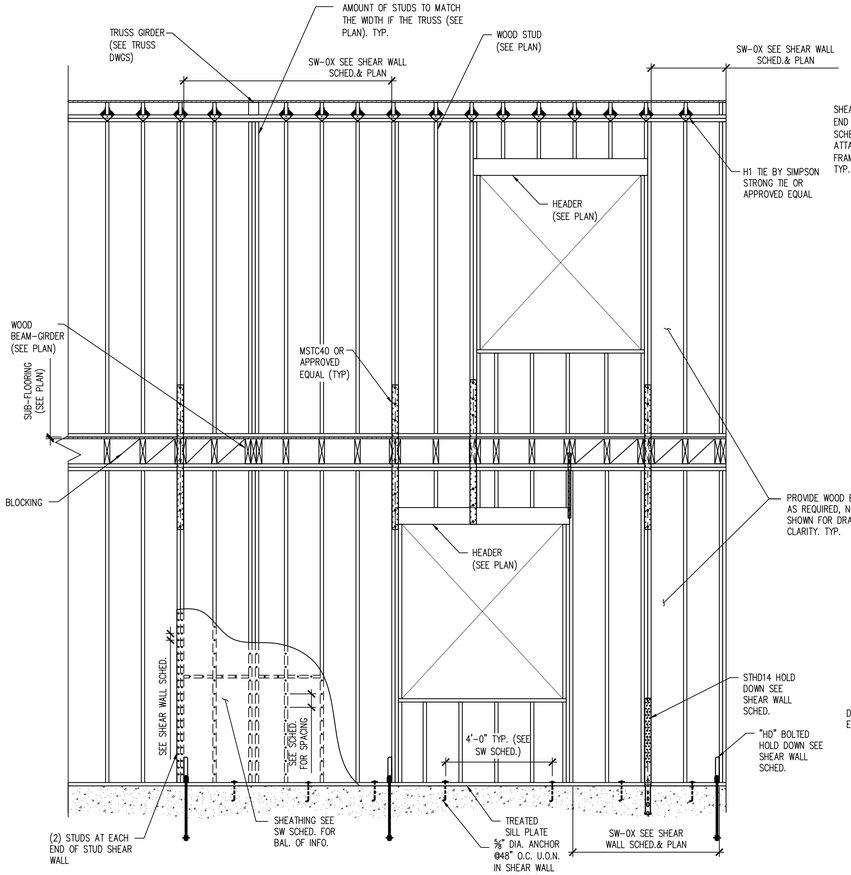
S1.00	GENERAL NOTES & DESIGN CRITERIA
S2.00	TYPICAL DETAILS 1
S3.00	TYPICAL DETAILS 2
S4.00	TYPICAL DETAILS 3
S5.00	TYPICAL DETAILS 4
S6.00	FOUNDATION/MAIN FLOOR FRAMING PLAN
S7.00	UPPER FLOOR FRAMING PLAN
S8.00	ROOF FRAMING PLAN

LOADING SCHEDULE (PSF)

LEVEL	OCCUPANCY	DEAD LOAD							LIVE LOAD	TOTAL
		SLAB	STEEL	CLNG.	FIN.	PART	RFG. & INSUL.	TOTAL		
MAIN FLR	RESIDENTIAL	3	–	–	5	5	–	13	40	53
	GARAGE	50	–	2	4	8	–	64	50	104
UPPER FLR	RESIDENTIAL	3	–	–	5	5	–	13	40	53
ROOF	RESIDENTIAL	5	–	–	8	–	4	17	25	42

SHEET NUMBER:

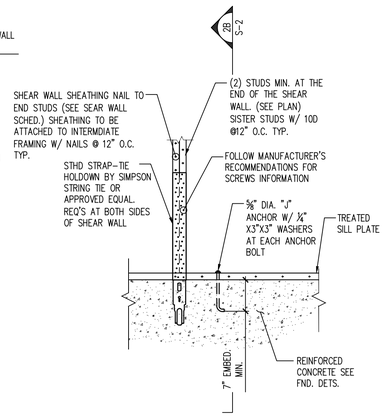
S1.00



1 TYPICAL SHEAR WALL ELEVATION

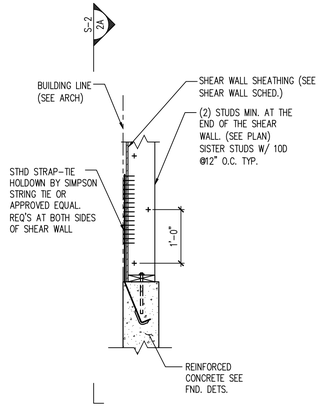
3/8"=1'-0"

NOTES:
THIS ELEVATION DOES NOT REPRESENT A SPECIFIC SHEAR WALL TYPE OR LOCATION.
REFER TO PLAN AND SHEAR WALL SCHEDULE FOR SPECIFIC SHEAR WALL INFORMATION



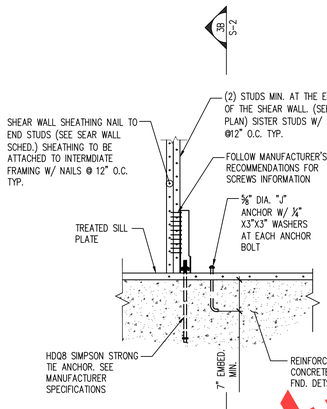
2A TYPICAL DETAIL STRAP HOLDOWN

3/4"=1'-0"



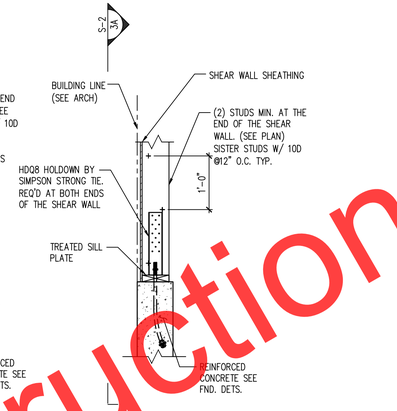
2B TYPICAL DETAIL STRAP HOLDOWN

3/4"=1'-0"



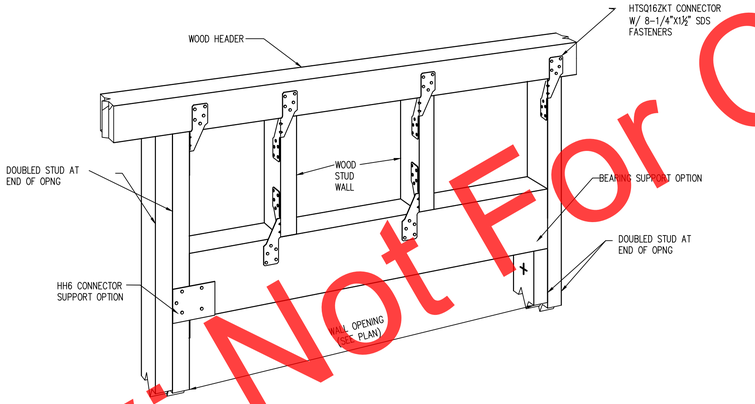
3A TYPICAL DETAIL STRAP HOLDOWN

3/4"=1'-0"



3B TYPICAL DETAIL STRAP HOLDOWN

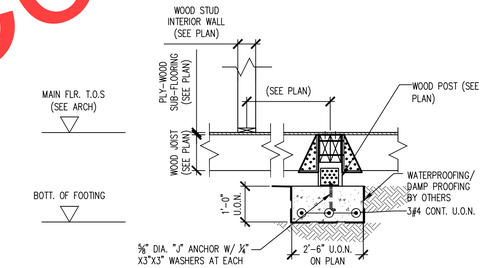
3/4"=1'-0"



4 TYPICAL WOOD HEADER CONNECTION DETAIL

N.T.S

NOTES: ALL CONNECTORS PROVIDED BY SIMPSON STRONG-TIE



5 TYPICAL WOOD SHORT POST SUPPORTED BY CONCRETE FOOTING

1/2" = 1'-0"

SHEAR WALL SCHEDULE

WALL TYPE	SHEATHING	EDGE NAILING LENGTH X GAGE	FIELD NAILING LENGTH X GAGE	SOLE PLATE NAILING	SILL PLATE CONN. @ FND	HOLD DOWN TYPES	END POST
SW-01	7/16" OSB ONE FACE	8d @ 4" O.C. (2½"X0.131")	8d @12 O.C. (2½ "X0.131")	16d @ 6" O.C.	⅝" DIA. @36" O.C. W/ 2x BTM. PLATE. (2) MIN.	SEE PLAN FOR HOLD DOWN	(2) 2X6
SW-02	15/32" OSB ONE FACE	8d @ 4" O.C. (2½"X0.131")	8d @12 O.C. (2½ "X0.131")	16d @ 4" O.C.	⅝" DIA. @20" O.C. W/ 2x BTM. PLATE	SEE PLAN FOR HOLD DOWN	(2) 2X6
SW-03	7/16" OSB ONE FACE	8d @ 6" O.C. (2½"X0.131")	8d @12 O.C. (2½ "X0.131")	16d @ 8" O.C.	⅝" DIA. @48" O.C. W/ 3x BTM. PLATE	SEE PLAN FOR HOLD DOWN	(2) 2X6
SW-04	19/32" OSB ONE FACE	10d @ 4" O.C. (3"X0.131")	10d @12 O.C. (3"X0.131")	16d @ 4" O.C.	⅝" DIA. @20" O.C. W/ 3x BTM. PLATE	SEE PLAN FOR HOLD DOWN	(3) 2X6

NOTES:

1. SHEAR WALLS NOTED IN SCHEDULE ARE WALLS WITH ADDITIONAL EDGE NAILING, ABUTTING HORIZONTAL AND VERTICAL EDGE FRAMING, AND ANCHOR BOLT SPACING. FIELD NAIL SIZE SHALL MATCH THE EDGE FRAMING SPECIFIED AND BE SPACED AT 12" O.C. SHEAR NAILING APPLIES TO ALL VERTICAL AND HORIZONTAL ABUTTING SHEATHING EDGES, DOUBLE TOP PLATES, AND SOLE PLATES.

2. ALL EXTERIOR WALLS NOT SPECIFIED IN SHEAR WALL SCHEDULE SHALL BE DESIGNATED AS MINIMUM SHEAR PANELS WITH EDGE NAIL SIZE MATCHING SPECIFIED NAILS IN SCHEDULE AND SPACED AT 6" O.C. FIELD NAIL SPACING SHALL BE 12" O.C.

3. SHEATHING SHALL BE ⅞" OSB UNLESS SPECIFIED OTHERWISE IN SCHEDULE.

4. EXTERIOR SHEAR WALL FRAMING SHALL BE DF / DOUG FIR. FRAMING SHALL BE SPACED AT 16" ON CENTER.

5. INTERIOR SHEAR WALL FRAMING SHALL BE 2X4 (OR 2X6) AS SHOWN ON PLAN SPACED AT 16" O.C.

6. EDGE FRAMING OR END OF SHEAR WALLS SHALL BE FRAMED WITH: (2) MINIMUM 2X6, (2) 2X4, OR SOLID SAWN POSTS AS NOTED IN THE SCHEDULE.

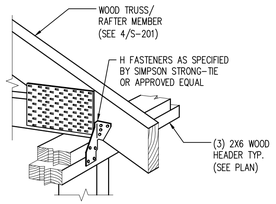
7. BLOCK ALL UNSUPPORTED HORIZONTAL SHEATHING EDGES WITH 2X6 OR 3X6 AS SHOWN IN SCHEDULE. ALL VERTICAL ABUTTING SHEATHING EDGES SHALL BE 2X6 FOR EXTERIOR WALLS OR 2X4 FOR INTERIOR WALLS.

8. SOLE PLATE SHALL BE 2X6 FOR EXTERIOR WALLS. SOLE PLATE SHALL BE 2X4 FOR INTERIOR WALLS (OR MATCH THE WIDTH OF THE STUDS), SOLE PLATE NAILING SHALL BE 16D SPACED 12" O.C. (MAX OR LESS AS SPECIFIED IN SCHEDULE)

9. MUD SILLS SHALL BE 2X6 HF #2 P.T. CONT. AROUND PERIMETER OF FOUNDATION WALL.

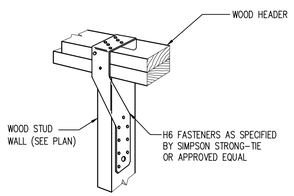
10. FOUNDATION ANCHOR SHALL BE ⅝" DIA. WITH 7" OF EMBED. MIN. IF NOT SPECIFIED BY THE SHEAR WALL SCHEDULE, ANCHOR BOLTS SHALL BE SPACED NO MORE THAN 4'-0" O.C.

11. PROVIDE 3"X3"X¼" GALV. WASHERS FOR EACH ANCHOR BOLT. THE CONTRACTOR MAY USE 3"X3"X¼" GALV. WASHERS WITH DIAGONAL SLOTTED HOLES IF STANDARD CUT WASHERS ARE USED AND PLACED ABOVE THE SLOTTED PLATE WASHERS.



6A ROOF TRUSS CONNECTION

N.T.S

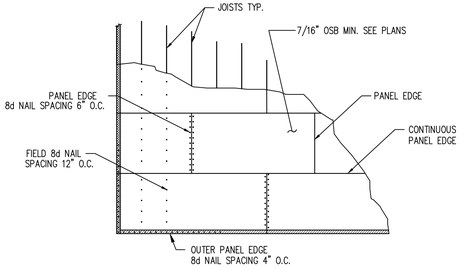


6B TYPICAL STUD WALL CONNECTION

N.T.S

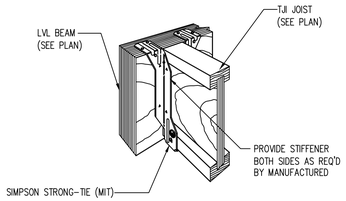
SHEET NUMBER:

S2.00



1 TYPICAL PARTIAL PLAN OF WOOD FLOOR SHEATHING DETAIL

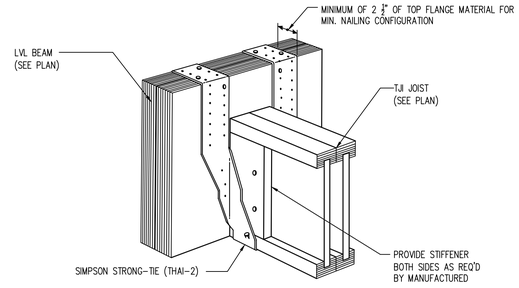
1/2" = 1'-0"



2A TYPICAL TJI TO LVL CONNECTION

N.T.S

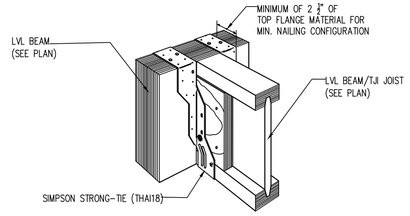
NOTES: ALL CONNECTORS PROVIDED BY SIMPSON STRONG-TIE



2B TYPICAL TJI TO LVL CONNECTION

N.T.S

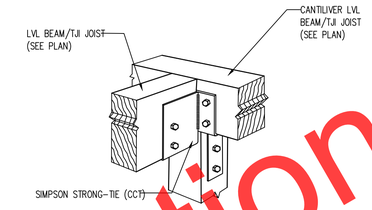
NOTES: ALL CONNECTORS PROVIDED BY SIMPSON STRONG-TIE



2C TYPICAL TJI TO LVL CONNECTION

N.T.S

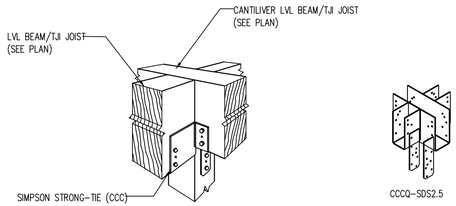
NOTES: ALL CONNECTORS PROVIDED BY SIMPSON STRONG-TIE



3 TYPICAL T-CONNECTION DETAIL OPTION B

N.T.S

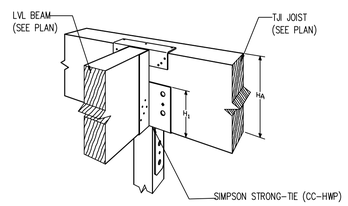
NOTES: ALL CONNECTORS PROVIDED BY SIMPSON STRONG-TIE



4 TYPICAL CROSS CONNECTION DETAIL

N.T.S

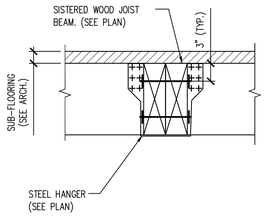
NOTES: ALL CONNECTORS PROVIDED BY SIMPSON STRONG-TIE



5 TYPICAL T-CONNECTION DETAIL OPTION A

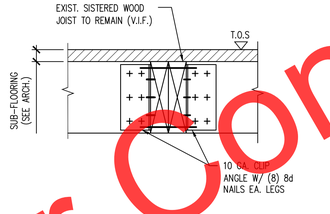
N.T.S

NOTES: ALL CONNECTORS PROVIDED BY SIMPSON STRONG-TIE



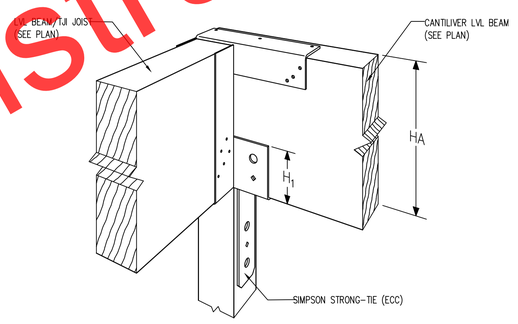
6A TYPICAL JOIST BRIDLE HANGER CONNECTION – WOOD JOIST TO LVL

1" = 1'-0"



6B TYPICAL CLIP ANGLE CONNECTION – WOOD JOIST TO LVL

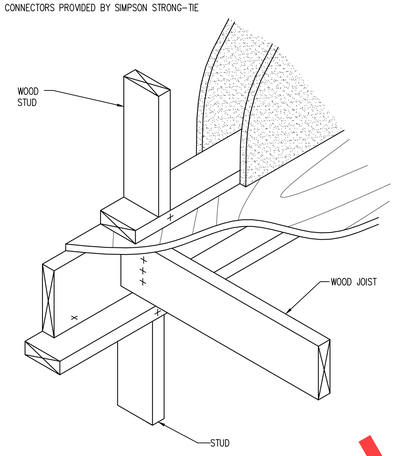
1" = 1'-0"



7 TYPICAL CORNER CONNECTION DETAIL

N.T.S

NOTES: ALL CONNECTORS PROVIDED BY SIMPSON STRONG-TIE

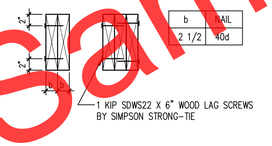


8 TYPICAL LOAD BEARING WALL – EXTERIOR WALL

3/4" = 1'-0"

NOTES:

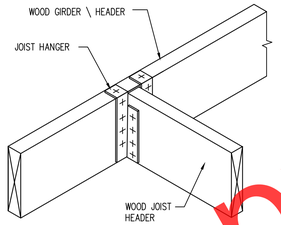
1. ATTACH PLYWOOD TO JOIST AT 12" O.C. IN FIELD OF BOARD AND 6" O.C. AT ENDS.



12 TYPICAL MULTIPLE SISTERED WOOD MEMBERS

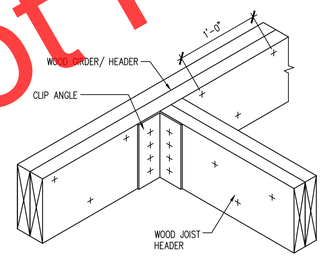
3/4" = 1'-0"

NOTE: FOR MEMBERS UP TO 9 1/2" PROVIDE 2 ROW OF NAILS.
FOR MEMBERS GREATER THAN 9 1/2" DEEP PROVIDE 3
ROW OF NAILS. FOR BEAMS MORE THAN 4 MEMBERS OR TOTAL
WIDTH 7" OR GREATER USE 1/2" DIA. THROUGH BOLTS OR 1
KIP SDWS22 X 6" WOOD LAG SCREWS BY SIMPSON
STRONG-TIE.
SCREWS TO BE SPACED 12" MAX.



9 TYPICAL FLOOR FRAMING – JOIST HANGER CONNECTION

3/4"=1'-0"

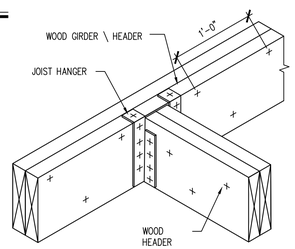


10 TYPICAL FLOOR SYSTEMS FRAMING AT FLOOR OPENING– CLIP ANGLE CONNECTION

3/4"=1'-0"

NOTES

1. NO. OF FASTENERS WILL VARY WITH STRENGTH REQUIRED.
2. FOR JOIST SISTERING DETAILS REFER TO TYPICAL MULTIPLE MEMBER BEAMS ON DETAIL 9 ON SHEET NUMBER S-004.

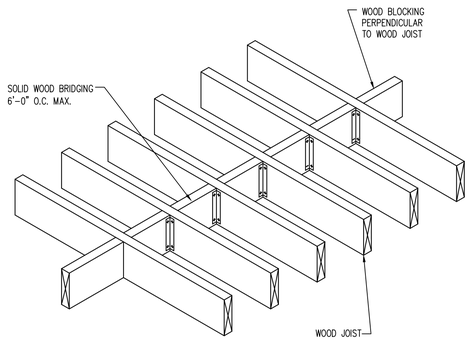


13 TYPICAL HEADER FLOOR FRAMING AT FLOOR OPENING –JOIST HANGER CONNECTION

3/4"=1'-0"

NOTES:

1. FOR JOIST SISTERING DETAILS REFER TO TYPICAL MULTIPLE MEMBER BEAMS ON DETAIL 9 ON SHEET NUMBER S-004



11 TYPICAL BRIDGING AND BRACING – FLOOR BRIDGING

3/4" = 1'-0"

SHEET NUMBER:

S3.00

STRAIGHT BAR DEVELOPMENT LENGTHS FOR CONCRETE 'Ld' (in.)

SIZE	fy (ksi)	4000 psi		
		TENSION Ldt		COMP. Lct
		TYP.	TOP	
#3	60	14	18	8
#4	60	19	25	9
#5	60	24	31	12
#6	60	36	47	14
#7	60	42	54	17
#8	60	48	62	19
#9	60	54	70	21
#10	60	61	79	24
#11	75	84	109	27

LAP SPLICE LENGTHS FOR CONCRETE 'Ls' (in.)

SIZE	fy (ksi)	4000 psi		
		TENSION Lst		Lct COMP.
		TYP.	TOP	
#3	60	18	24	12
#4	60	25	32	15
#5	60	31	40	19
#6	60	46	60	23
#7	60	54	70	27
#8	60	62	80	30
#9	60	70	91	34
#10	60	79	102	39
#11	75	109	142	62

HOOKED BAR TENSION DEVELOPMENT LENGTHS FOR CONCRETE 'Ldh' (in.)

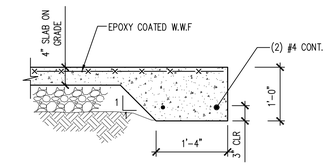
SIZE	fy (ksi)	4000 psi
#3	60	8
#4	60	10
#5	60	12
#6	60	15
#7	60	17
#8	60	19
#9	60	22
#10	60	25
#11	75	34

NOTES:

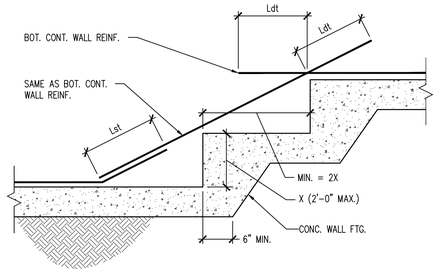
1. THESE DEVELOPMENT AND SPLICE LENGTHS ARE COMPUTED FOR UNCOATED BARS IN ELEMENTS OF NORMAL WEIGHT CONCRETE WITH A MIN. CLEAR COVER OF 1 BAR DIAMETER, AND A MIN. CLEAR SPACING OF 1 BAR DIAMETER IN BEAMS AND COLUMNS, AND 2 TIMES THE BAR DIAMETER IN OTHER ELEMENTS.
2. THESE DEVELOPMENT AND SPLICE LENGTHS SHALL BE MULTIPLIED BY ALL OF THE APPLICABLE FACTORS THAT FOLLOW:

REINFORCING WITH COVER OR SPACING LESS THAN THAT SPECIFIED IN NOTE 1	x	1.30
EPOXY-COATED REINFORCING (FOR TYP. REINF.)	x	1.50
EPOXY-COATED REINFORCING (FOR TOP REINF.)	x	1.31
REINFORCING PLACED IN LIGHTWEIGHT CONCRETE	x	1.30

3. 'Ld' CAN BE USED AS ACI CLASS A SPLICE.
   'Ls' CAN BE USED AS ACI CLASS B SPLICE.
4. USE TOP CONDITION FOR ANY HORIZONTAL BARS WITH MORE THAN 12 INCH OF FRESH CONCRETE BELOW.

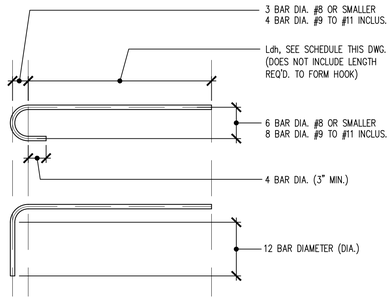


4 TYPICAL THICKENED EDGE SLAB
3/4" = 1'-0"



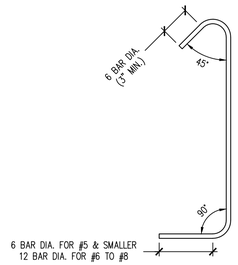
5 TYPICAL STEPPED WALL
1/2" = 1'-0"

NOTES: 1. Ldt INDICATES TENSION DEVELOPMENT LENGTH. SEE SCHEDULE.
2. Lst INDICATES TENSION SPLICE LENGTH. SEE SCHEDULE.



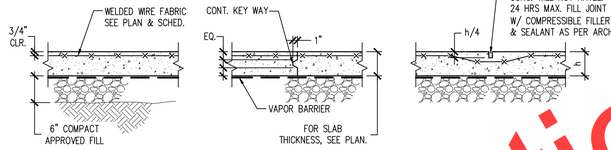
1 TYPICAL STANDARD HOOK
3/4" = 1'-0"

NOTE: FOR DEVELOPMENT LENGTH Ldh SEE SCHEDULE



2 TYPICAL TIE HOOK (HAIR PIN)
3/4" = 1'-0"

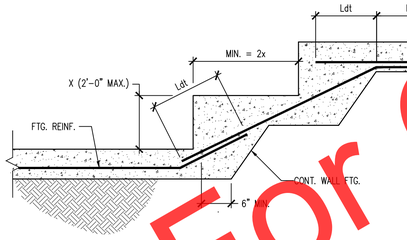
REINFORCEMENT SCHEDULE	
SLAB THICKNESS	REINF.
4"	6x6-W1.4xW1.4



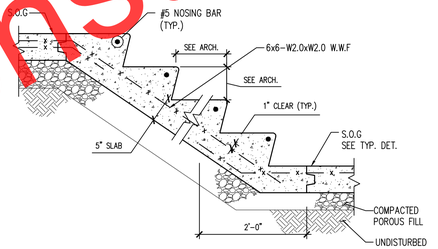
TYPICAL SLAB-ON-GRADE | CONSTRUCTION JOINT | CONTROL JOINT

NOTE: SEE LOCATION ON ARCHITECTURAL DRAWING.

3 TYPICAL SLAB-ON-GRADE
3/4" = 1'-0"

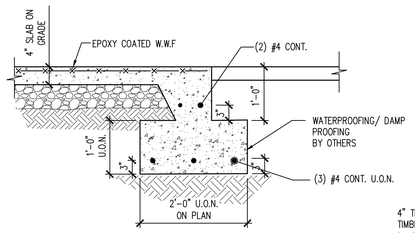


6 TYPICAL STEPPED FOOTING
1/2" = 1'-0"

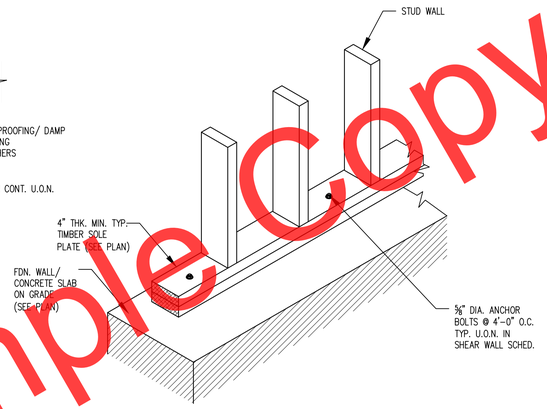


TYPICAL CONCRETE STAIR SUPPORTED ON GRADE

7
¾" = 1'-0"

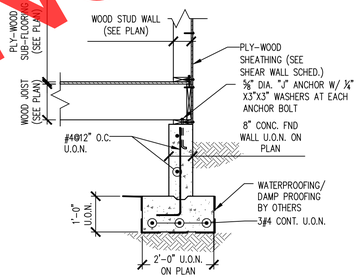


8 SECTION
3/4" = 1'-0"

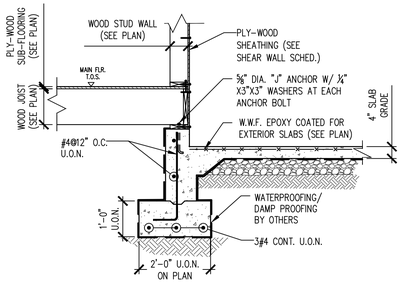


TYPICAL STUD TO CONCRETE SLAB CONNECTION

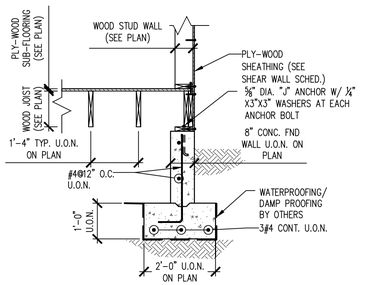
9
N.T.S.



10 TYPICAL NEW CONCRETE FOUNDATION WALL SECTION
1/2" = 1'-0"



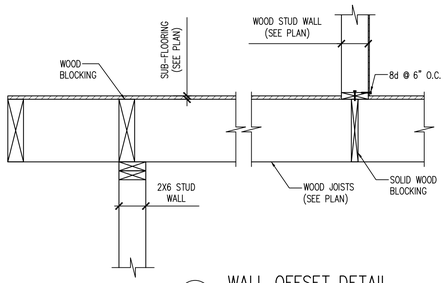
12 TYPICAL NEW CONCRETE FOUNDATION WALL SECTION
1/2" = 1'-0"



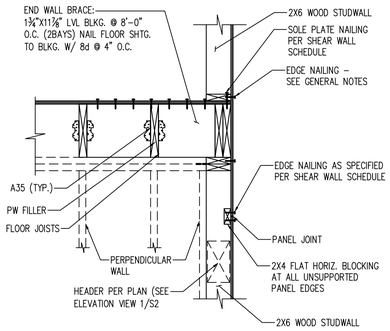
11 TYPICAL NEW CONCRETE FOUNDATION WALL SECTION
1/2" = 1'-0"

SHEET NUMBER:

S4.00



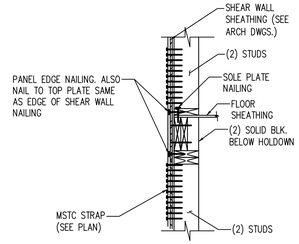
1 WALL OFFSET DETAIL
3/4" = 1'-0"



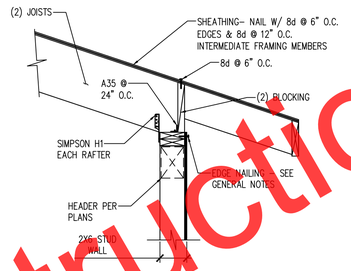
2 SECTION
3/4" = 1'-0"

NOTES:

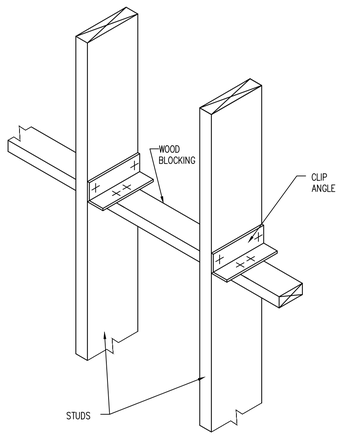
1. BLOCKING MAY BE ELIMINATE IF PERPENDICULAR WALL OCCURS WHERE BLOCKING IS REQUIRED.



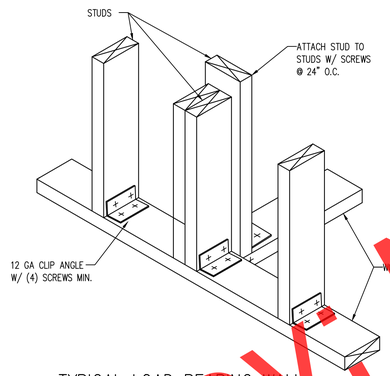
3 SHEAR WALL DETAIL W/ SIMPSON MSTC STRAP HOLDOWN (PER PLAN)
3/4" = 1'-0"



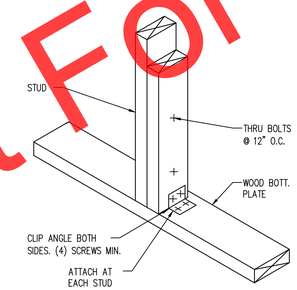
4 SECTION
3/4" = 1'-0"



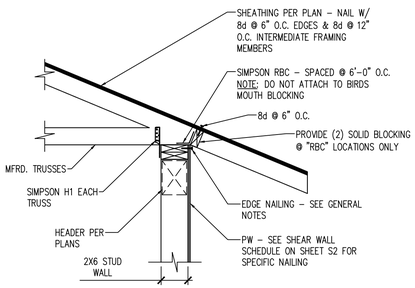
5 TYPICAL BRIDGING AND BRACING – CONTINUOUS BRIDGING
3/4" = 1'-0"



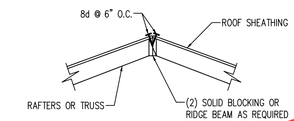
6 TYPICAL LOAD BEARING WALL – PARTITION INTERSECTION
3/4" = 1'-0"



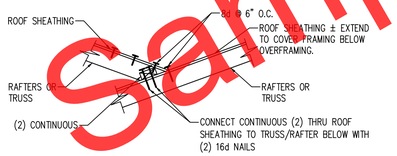
7 TYPICAL LOAD BEARING WALL – DOUBLED STUDS
3/4" = 1'-0"



8 SECTION
3/4" = 1'-0"

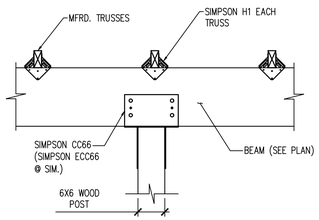


TYPICAL HIP DETAIL

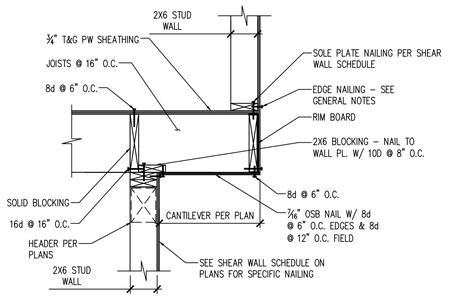


VALLEY DETAIL

9 SECTION
3/4" = 1'-0"



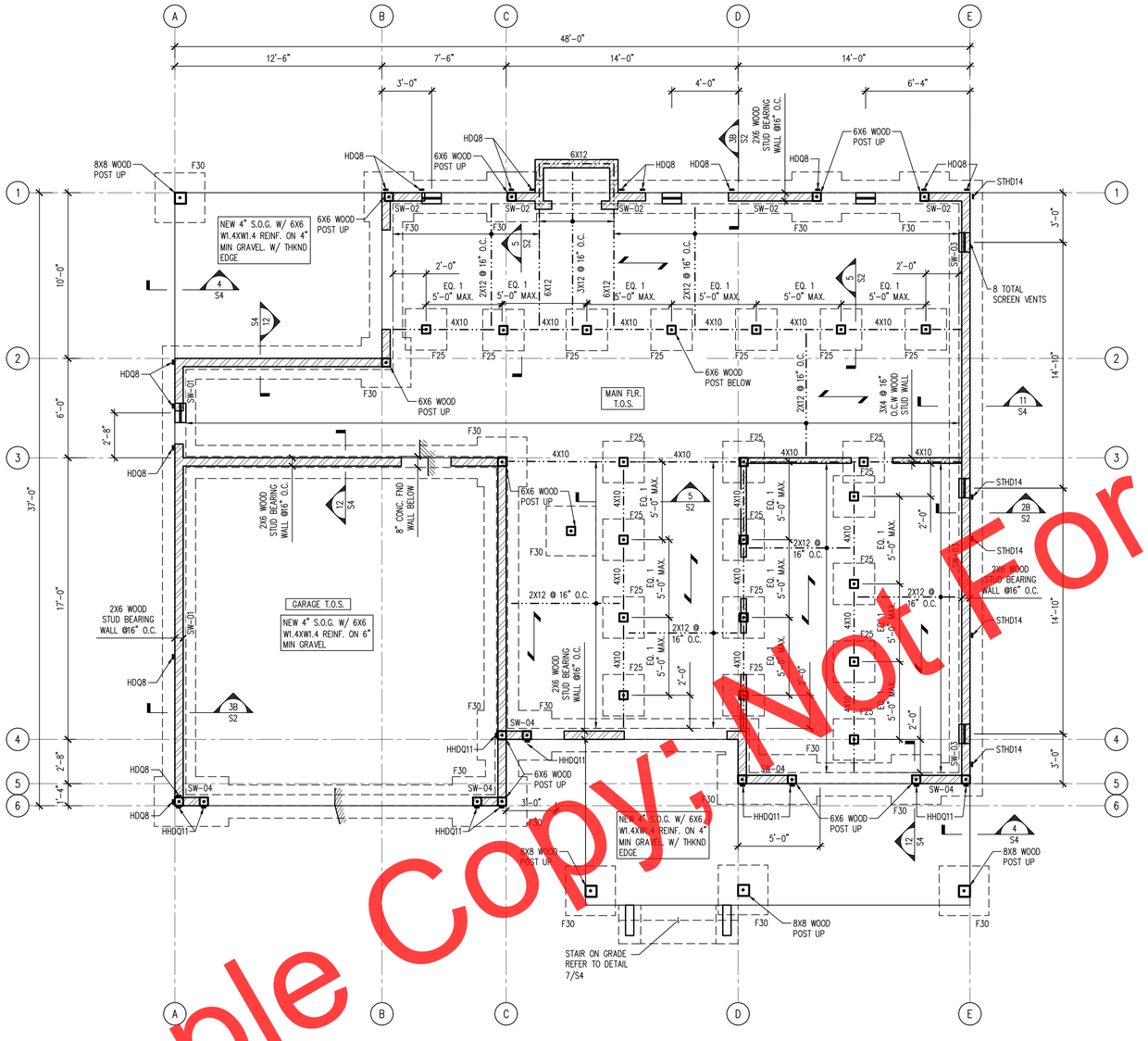
10 SECTION
3/4" = 1'-0"



11 SECTION
3/4" = 1'-0"

SHEET NUMBER:

S5.00



FOOTING SCHEDULE			
MARK	SIZE	THICKNESS	REINFORCING (EACH WAY)
F30	3'-0" x 3'-0"	1'-0"	4#4 BOTT.
F25	2'-6" x 2'-6"	1'-0"	3#4 BOTT.

1ST FLR./MAIN FRAMING PLAN

1/4" = 1'-0"

NOTES:

1. DENOTES NEW CONCRETE FOUNDATION WALL BELOW.
2. DENOTES NEW 2X6 NO.2 DOUGLAS FIR WOOD STUD SHEAR WALL.
3. XXX — DENOTES NEW DOUGLAS FIR NO.2 WOOD JOIST SPACED 16" O.C. PROVIDE BLOCKING AND BRIDGING AS REQUIRED.
4. DENOTES MULTIPLE WOOD JOISTS SISTERED TOGETHER, SEE NOTATION FOR JOIST TYPE
5. FXX — DENOTES NEW CONCRETE FOOTING REFER TO CONCRETE FOOTING SCHEDULE FOR BALANCE OF INFORMATION
6. SPAN DIRECTION OF (1) LAYER OF ¾" THK. PLYWOOD OR APPROVED EQUAL DIRECTION OF ALL SUB FLOOR SHALL BE PERPENDICULAR TO SPAN OF FLOOR JOISTS

7. ALL FOOTINGS SHALL BEAR ON FIRM UNDISTURBED GLACIAL TILL OR STRUCTURAL FILL. SEE GENERAL NOTES FOR ASSUMED ALLOWABLE BEARING PRESSURES.

8. THE BOTTOMS OF FOOTING EXCAVATIONS SHALL BE LEVEL, CLEAN, AND FREE OF LOOSE MATERIAL OR WATER WHEN CONCRETE IS PLACED.

9. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND COORDINATE ALL ARCHITECTURAL, MEP AND STRUCTURAL DRAWINGS.

10. PROVIDE CRAWL SPACE VENTILATION AS PER IBC SEC. 1203.3.1 "CRAWLSPACE AREA" X $\frac{1}{150}$ = TOTAL VENT AREA REQUIRED (S.F.) QTY. OF 7X14 VENTS REQUIRED = 7

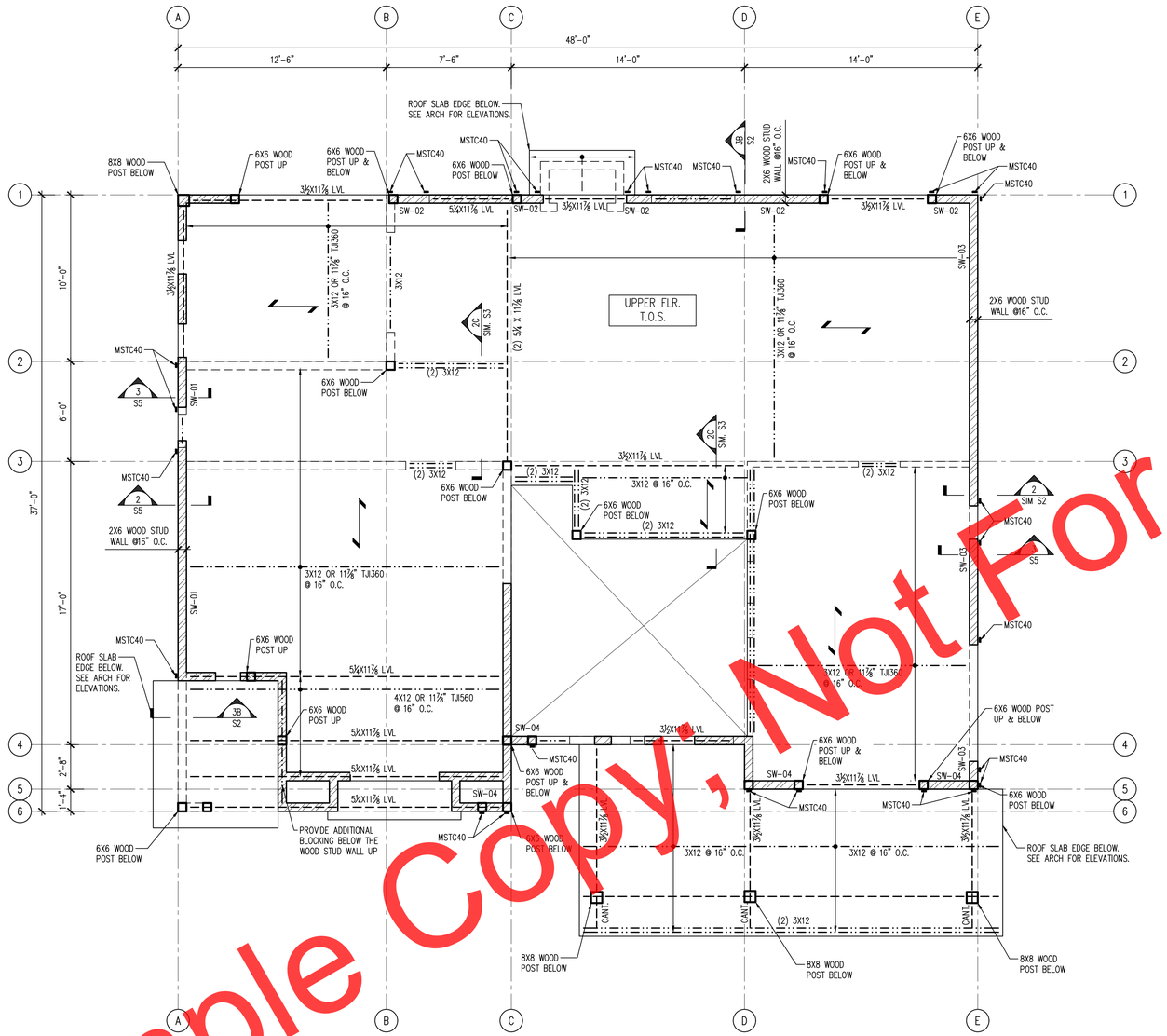
FOUNDATION VENTILATION

Crawlspace Area:	1068 s.f.		
Ventilation Required:	1068 s.f. / 300 =		512.64 s.i. Req'd
Use:	14" x 7"	Foundation Vents	
Vent Area =	98 s.i. - 25% reduct.,1/4"mesh =		73.5 s.i.
Vents Required =	512.64 s.i. / Vent Area =		6.97 s.i.
Provide : 7	14" x 7"	Vents, Area =	512.64 s.i.
Ventilation Provided :	512.64 s.i. is Greater than		512.64 s.i. Req'd
Use: 7	**14" x 7"**	**Foundation Vents**	

FOUNDATION VENTS SHALL NOT INTERFERE WITH DIRECT LOAD PATH OF COLUMNS
INSTALL 6 MIL BLACK POLYETHYLENE VAPOR RETARDER GROUND COVER
LOCATE VENTS SO AS TO PROVIDE CROSS-VENTILATION OF CRAWL SPACE
LOCATE ONE VENT WITHIN 3 FEET OF EACH CORNER OF THE BUILDING
NO OPERABLE LOUVERS AT VENTS

SHEET NUMBER:

S6.00



UPPER FLOOR FRAMING PLAN

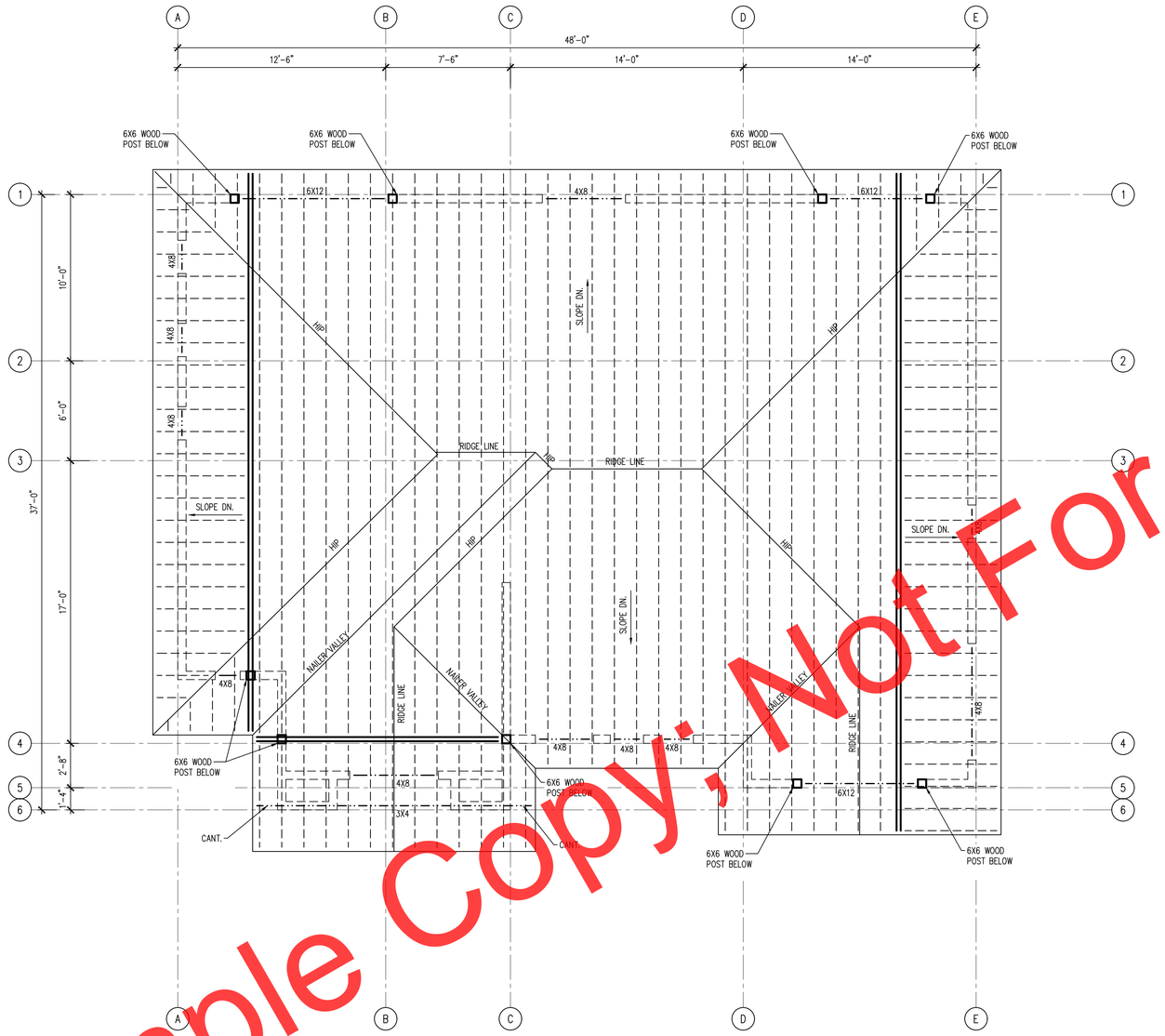
1/4" = 1'-0"

NOTES:

1. DENOTES WOOD STUD WALL BELOW.
2. DENOTES NEW DOUGLAS FIR NO.2 WOOD JOIST SPACED 16" O.C. PROVIDE BLOCKING AND BRIDGING AS REQUIRED BY MANUFACTURER.
3. DENOTES MULTIPLE WOOD JOISTS SISTERED TOGETHER, SEE NOTATION FOR JOIST TYPE
4. PROVIDE ATTIC ACCESS PANEL PER CURRENT IRC, IBC, AND ARCHITECTURAL PLANS
5. REFER TO ARCHITECTURAL DRAWING FOR ROOFING, WATER PROOFING & FIRE PROOFING DETAILS
6. CONTRACTOR TO FIELD VERIFY ALL DIMENSION AND COORDINATE ALL ARCHITECTURAL, MEP AND STRUCTURAL DRAWINGS.
7. SPACING OF THE WOOD STUD IN THE WOOD STUD WALLS TO MATCH SPACING OF THE FLOOR JOISTS DIRECTLY SUPPORTED BY STUDS. EACH JOIST SHALL BE SUPPORTED BY AND CENTERED ON STUD. ANY WOOD BEAM CONSISTING OF (2) WOOD JOISTS AND MORE TO BE SUPPORTED BY WOOD STUD POST CONSISTING OF SISTERING WOOD STUDS TO MATCH THE WIDTH OF THE WOOD BEAM. WOOD POST SHALL BE CONTINUOUS DOWN TO A FLOOR LEVEL BELOW UNTIL IT SUPPORTED EITHER BY STEEL/ WOOD BEAM OR A CONCRETE MEMBER
8. REFER TO S1 SHEET FOR TRUSS NOTES
9. CONTRACTOR TO REFER TO TRUSS MANUFACTURER DRAWINGS FOR TRUSS LAYOUT AND TYPES. USE THIS DRAWINGS FOR LOCATION OF SPECIAL BEAM SIZES, GIRDER TRUSS AND BUILT-UP POST LOCATION ONLY.

SHEET NUMBER:

S7.00



ROOF FRAMING PLAN

1/4" = 1'-0"

NOTES:

1. DENOTES WOOD STUD WALL BELOW.
2. XXX DENOTES NEW DOUGLAS FIR NO.2 WOOD JOIST SPACED 16" O.C. PROVIDE BLOCKING AND BRIDGING AS REQUIRED BY MANUFACTURER.
3. DENOTES MULTIPLE WOOD JOISTS SISTERED TOGETHER, SEE NOTATION FOR JOIST TYPE
4. PROVIDE ATTIC ACCESS PANEL PER CURRENT IRC, IBC, AND ARCHITECTURAL PLANS
5. REFER TO ARCHITECTURAL DRAWING FOR ROOFING, WATER PROOFING & FIRE PROOFING DETAILS
6. CONTRACTOR TO FIELD VERIFY ALL DIMENSION AND COORDINATE ALL ARCHITECTURAL, MEP AND STRUCTURAL DRAWINGS.
7. SPACING OF THE WOOD STUD IN THE WOOD STUD WALLS TO MATCH SPACING OF THE FLOOR JOISTS DIRECTLY SUPPORTED BY STUDS. EACH JOIST SHALL BE SUPPORTED BY AND CENTERED ON STUD. ANY WOOD BEAM CONSISTING OF (2) WOOD JOISTS AND MORE TO BE SUPPORTED BY WOOD STUD POST CONSISTING OF SISTERING WOOD STUDS TO MATCH THE WIDTH OF THE WOOD BEAM. WOOD POST SHALL BE CONTINUOUS DOWN TO A FLOOR LEVEL BELOW UNTIL IT SUPPORTED EITHER BY STEEL/ WOOD BEAM OR A CONCRETE MEMBER
8. REFER TO S1 SHEET FOR TRUSS NOTES
9. CONTRACTOR TO REFER TO TRUSS MANUFACTURER DRAWINGS FOR TRUSS LAYOUT AND TYPES. USE THIS DRAWINGS FOR LOCATION OF SPECIAL BEAM SIZES, GIRDER TRUSS AND BUILT-UP POST LOCATION ONLY.

SHEET NUMBER:

S8.00