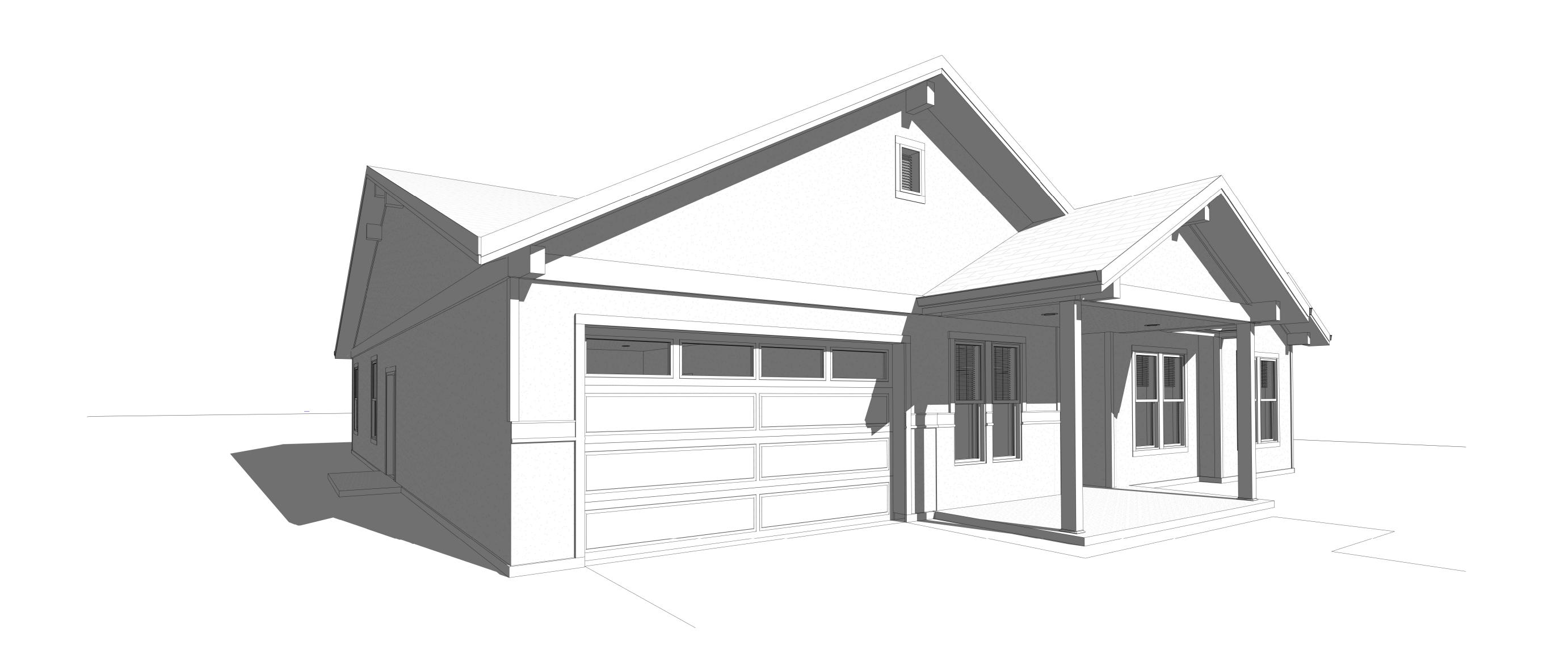
# SHENANDOAH

	SHEET LIST - CONSTRUCTION
SHEET NUMBER	SHEET NAME
C-0	COVER SHEET
C-1	SITE PLAN
E-1	FRONT & REAR ELEVATIONS
E-2	LEFT & RIGHT ELEVATIONS
E-3	ROOF OVERVIEW
F-1	FOUNDATION PLAN & DETAILS
F-2	FLOOR PLAN
F-3	FRAMING PLAN
F-4	ROOF FRAMING PLAN
H-0	MECHANICAL NOTES
H-1	ELEC & HVAC
S-1	DETAILS, SECTIONS & GLAZING SHED.



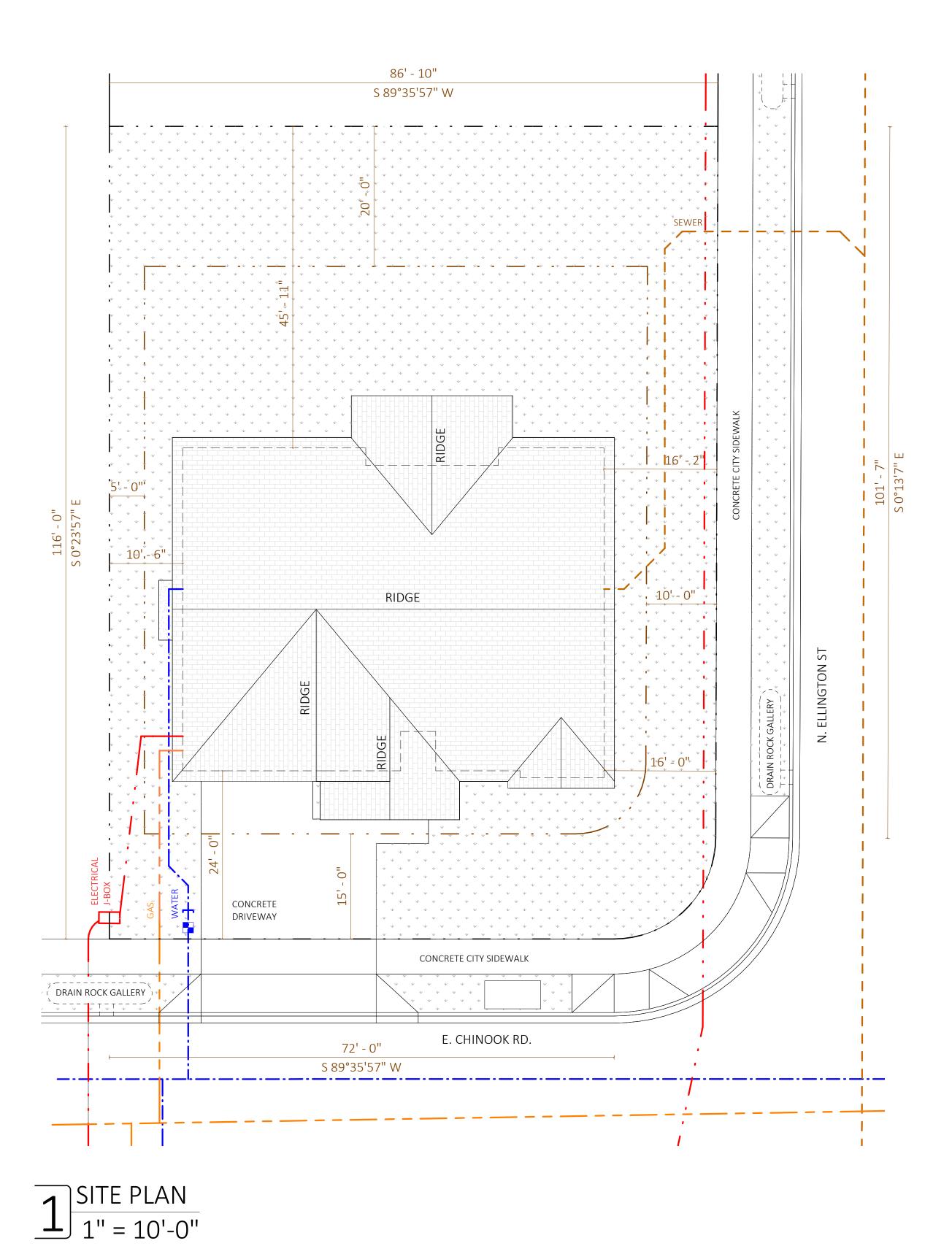
22" x 3 10.5 F 549.9 SF 138.0 SF 182.9 SF 563.8 SF

DAR AND SAGE GARA
HOMES FROM
REAR

SLAB ON GRADE FOUNDATION

customhome.ai

DATE:



2018 WASHINGTON STATE ENERGY CODE- TABLE R402.1.1 INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT A

				. I.A. II.O. II. II. QOIII		····· ··· · · · · · · · · · · · · · ·			
CLIMATE ZONE 5	FENESTRATION		CEILING W /	VAULTED	WOOD	FLOOR	BELOW	SLAB ON	
MARINE 4	VERTICAL	SKYLIGHT	GLAZED	ATTIC	C CEILING FRAMED WA	FRAMED WALL	L	GRADE WALL	GRADE
R - VALUE	N/A	N/A	N/A	R-49	R-38	R-21	30	R-10/15/21 + 5TB	R-10 2'
U FACTOR	0.30	0.50	N/A	0.020	0.026	0.056	0.029	0.042	N / A

# NOTES

• ALL SETBACKS TO COMPLY W / ALL CODES & ZONING REQUIREMENTS TO BE VERIFIED.

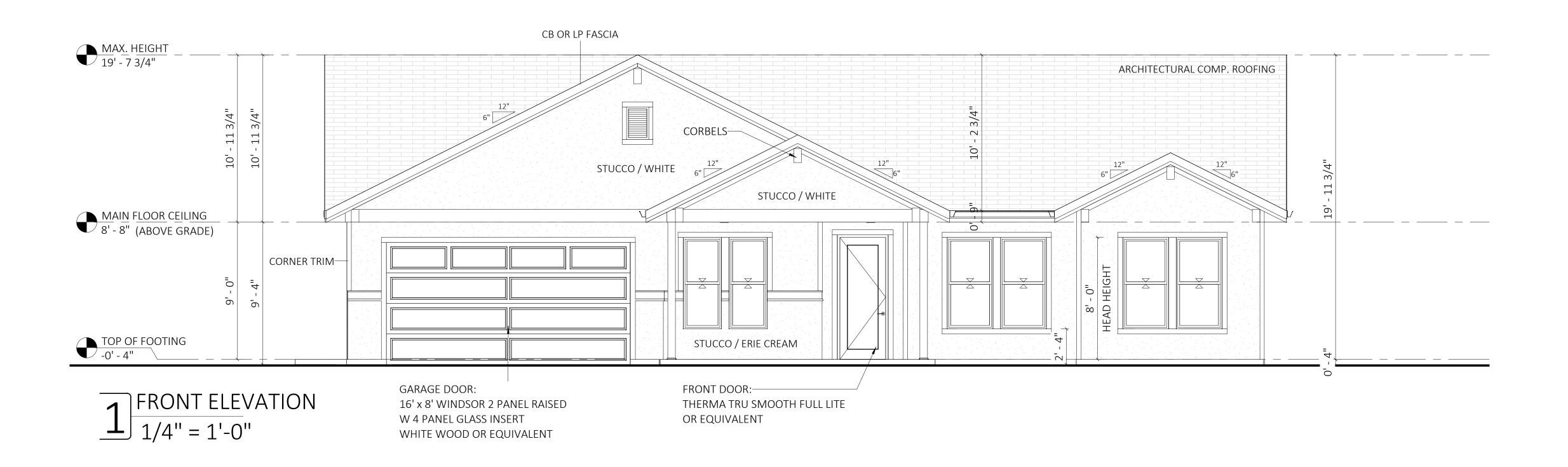
WATER & SEWER BY CITY OR LOCAL WATER REQURED.

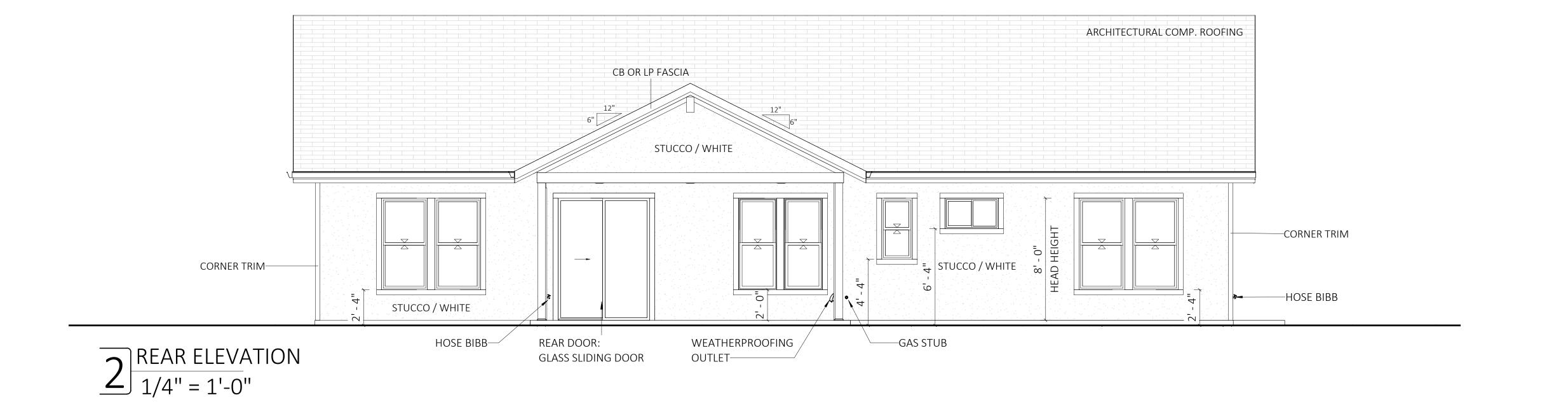
• ALL UTILITIES TO BE RUN UNDERGROUND.

• ALL DETAILS SHALL BE VERIFIED W / CURRENT PLAT MAP ON FILE W / CITY / COUNTY AS REQURED.

• CONTRACTOR SHALL VERIFY ALL DIMENSIONS, SPECIFICATIONS & ELEVATIONS PRIOR TO CONSTRUCTION.







VERIFY SHEAR WALL NAILING AND HOLDOWNS ARE PER PLAN AND SCHEDULE PRIOR TO INSTALLING

MASONRY AND WOOD FRAME CHIMNEYS ARE TO BE CONSTRUCTED PER I.R.C.
PROVIDE GALVANIZED SHEET METAL FLASHING AND COUNTER FLASHING AT ALL ROOF/ WALL

INTERSECTIONS, CHIMNEYS AND SKYLIGHTS.
• PROVIDE WEATHER-STRIPPING AND FLASHING AT ALL DOORS AND WINDOWS AS REQUIRED. • CAULK ALL EXTERIOR JOINTS AND PENETRATIONS. • POST ADDRESS ON THE BLDG. PRIOR TO FINAL INSPECTION.

 SLOPE SHALL BE GRADED AS TO DRAİN SURFACE
 WATER AWAY FROM FOUNDATİON WALL. SLOPE SHALL
 BE 6 İN FİRST 10FT OR DRAİNS OR SWALES SHALL BE
 PROVİDED TO ENSURE DRAİNAGE AWAY FROM STRUCTURE.

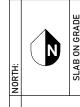
FASTENER TO BE HOT DIPPED GALV. STEEL, STAINLESS OR ALUM. (CORROSION RESISTANT).
WINDOW GRIDS IN FRONT ELEVATION ONLY

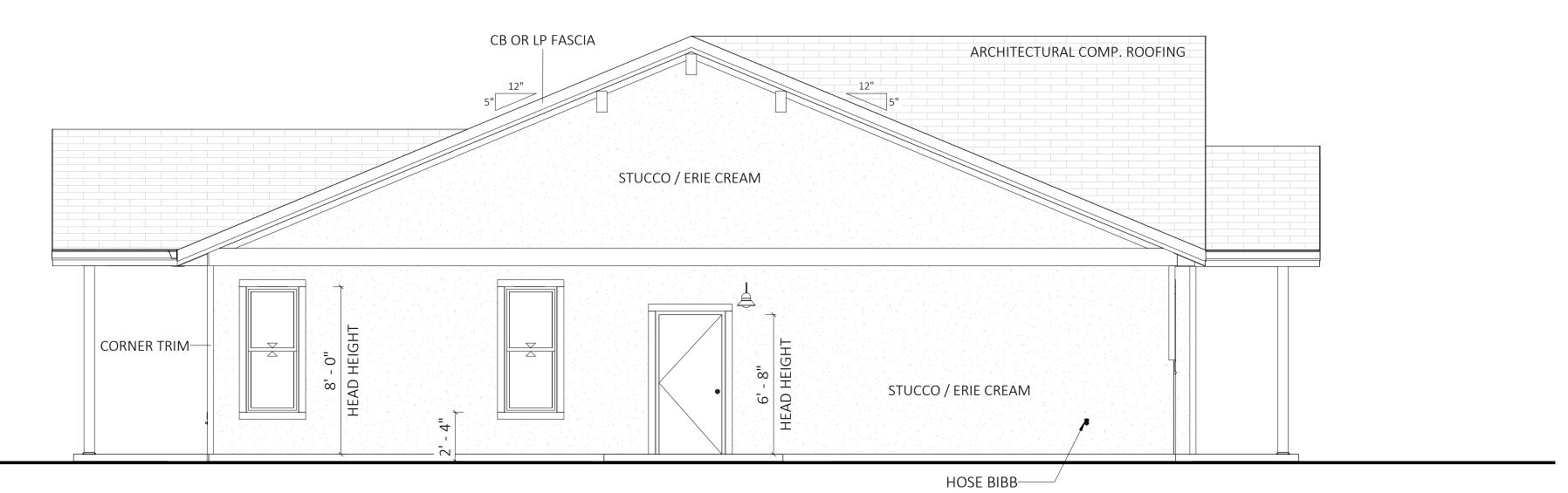
**NOTE:** APPROVED NUMBERS OR ADDRESSES SHALL BE PROVIDED FOR ALL NEW BUILDINGS IN SUCH A POSITION AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY.

**NOTE:** PROVIDE CONTINUOUS PRE-PAINTED G.I. "Z" FLASHING AT ALL EXT. DOOR & WINDOW HEADERS.



22" x 34" SCALE: 1/4" = 1'-0"





2 LEFT ELEVATION
1/4" = 1'-0"

 VERIFY SHEAR WALL NAILING AND HOLDOWNS ARE PER PLAN AND SCHEDULE PRIOR TO INSTALLING

MASONRY AND WOOD FRAME CHIMNEYS ARE TO BE CONSTRUCTED PER I.R.C.
PROVIDE GALVANIZED SHEET METAL FLASHING AND COUNTER FLASHING AT ALL ROOF/ WALL INTERSECTIONS, CHIMNEYS AND SKYLIGHTS.
PROVIDE WEATHER-STRIPPING AND FLASHING AT ALL

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CAULK ALL EXTERIOR JOINTS AND PENETRATIONS.
POST ADDRESS ON THE BLDG. PRIOR TO FINAL INSPECTION.

SLOPE SHALL BE GRADED AS TO DRAİN SURFACE
 WATER AWAY FROM FOUNDATION WALL. SLOPE SHALL
 BE 6 IN FIRST 10FT OR DRAİNS OR SWALES SHALL BE
 PROVIDED TO ENSURE DRAİNAGE AWAY FROM
 STRUCTURE.

FASTENER TO BE HOT DİPPED GALV. STEEL, STAİNLESS OR ALUM. (CORROSION RESISTANT).
 WINDOW GRIDS IN FRONT ELEVATION ONLY

NOTE: APPROVED NUMBERS OR ADDRESSES SHALL BE PROVIDED FOR ALL NEW BUILDINGS IN SUCH A POSITION AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY.

**NOTE:** PROVIDE CONTINUOUS PRE-PAINTED G.I. "Z" FLASHING AT ALL EXT. DOOR & WINDOW HEADERS.

STUCCO / ERIE CREAM

22" x 34"

REVISED BY: SCALE:

1/4" = 1'-0"

TOTAL UNDER ROOF

TOTAL UNDER ROOF

TOTAL UNDER ROOF

TOTAL UNDER ROOF

TOTAL UNDER ROOF

TOTAL UNDER ROOF

TOTAL UNDER ROOF

TOTAL UNDER ROOF

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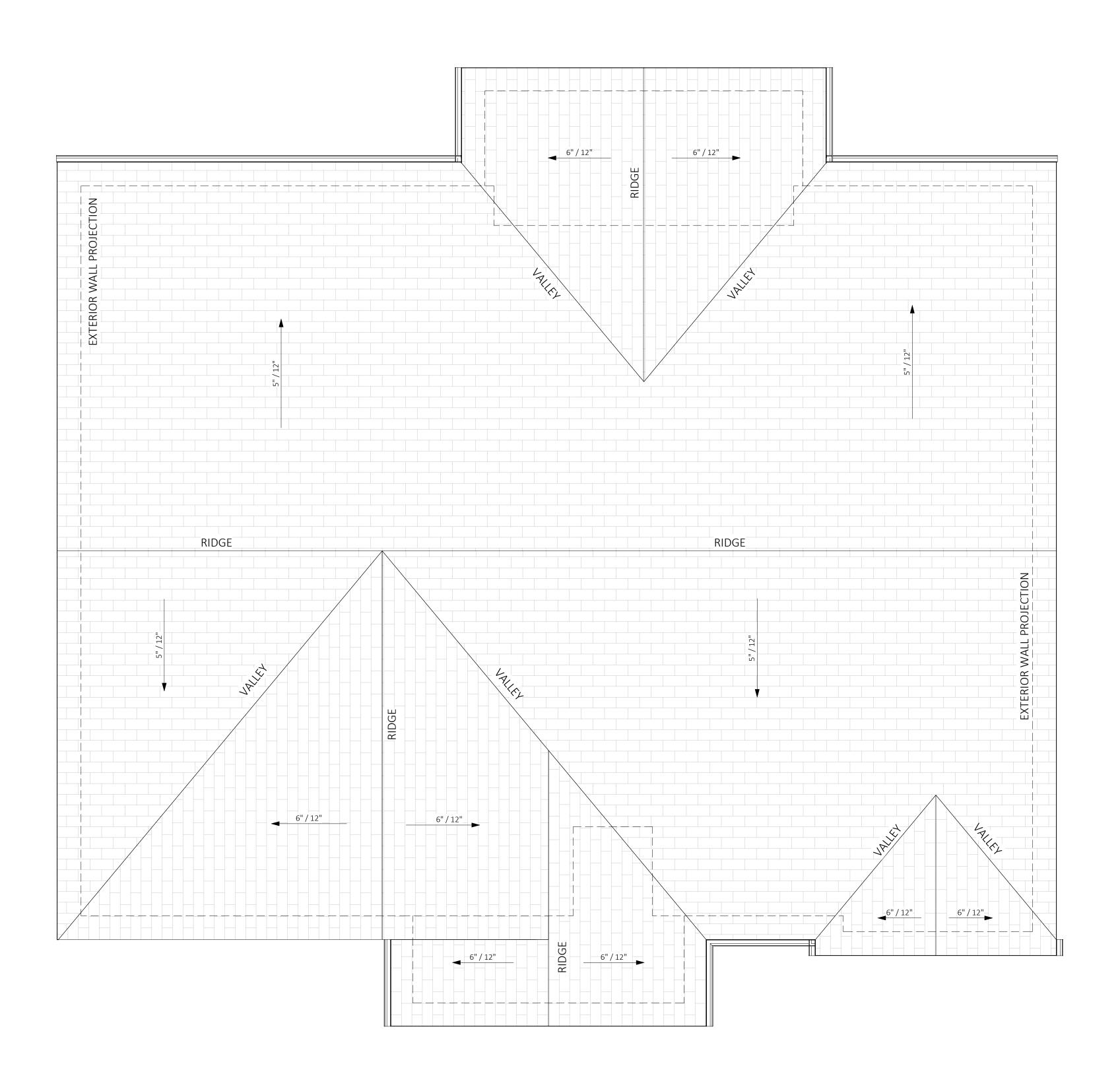
TOTAL UNDER ROOF

CEDAR AND SAGE HOMES

NORTH:

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E-2



$$\frac{1}{1/4'' = 1'-0''}$$

MAIN FLOOR

• ALL DOOR/WINDOW HEADERS TO BE 4X10 DF#2 AT 2X6 BEARING WALLS, U.N.O., 6 -0 MAX. SPAN.

• ALL DOOR/WINDOW HEADERS TO BE 4X10 DF#2 AT 2X4 BEARING WALLS, U.N.O., 6• -0 MAX. SPAN. • WINDOWS HEADERS AT 8-0 ABOVE THE FLOOR U.N.O.

• PROVIDED FIRE BLOCKING AS REQUIRED PER IRC.

• EXTERIOR WALLS TO BE 2X6 AT 16 (MAX) O.C U.N.O. • INTERIOR PARTITIONS TO BE 2X4 AT 16 O.C (2X6 @ PLUMBING WALLS, U.N.O.)

• DUCTS THROUGH WALL OR CELLING COMMON TO HOUSE MIN. 26 GAGE STEEL. NO DUCT OPENING IN GARAGE.

• PROVIDE SOLID FRAMING EQUAL TO THE WIDTH OF THE MEMBER BEING SUPPORTED (U.N.O.) • FLOOR ELEVATIONS AT THE REQUIRED EGRESS DOORS. LANDINGS OR FINISHED FLOORS AT THE REQUIRED EGRESS DOOR SHALL NOT BE MORE THAN 1 ½ LOWER THE TOP OF THE THRESHOLD.

PROVIDED THE DOOR DOES NOR SWING OVER THE LANDING OR THE FLOOR IRC R311.3.1. • EXCEPTION: THE LANDING OR THE FLOOR ON THE EXTERIOR SIDE SHALL NOT BE MORE THAN 7 3/4 BELOW THE TOP OF THE THRESHOLD PROVIDED THE DOOR DOES NOT SWING OVER THE LANDING OR FLOOR IRC R311.3.2.

## VENTILATION SCHEDULE

# SYMBOLS

lacklacklack3	Kitchens	100 CFM intermittent or 25 CFM continuous.
<b>•</b> 3	Bathrooms- Toilet rooms & Laundry rooms	Mechanical Exhaust capacity of 50 CFM intermittent or 20 CFM continuous.

Exhaust fans providing whole house ventilation shall have a flow rate at 0.25 inches water gauge as specified in table m1505.4.3 (1). Manufacturer's fan flow rating shall be determined according to hvi 916 or fan airflow rating shall be in accordance with ANSI/AMCA 210-ANSI/ASHRAE 51.

Exception: The whole-house mechanical ventilation system is permitted to operate intermittently where the system has controls that enable operation for not less than 25-percent of each 4-hour segment and the ventilation rate prescribed in table M1505.4.3(1) is multiplied by the factor determined in accordance with table M1505.4.3(2).

VENTILATION RATE FOR THE WHOLE HOUSE FAN TO BE 60 AIRFLOW IN CFM PER TABLE M1505.4.3(1) HVAC CONTACTOR TO SPECIFY LOCATION.

## SMOKE DETECTORS

SD INSTALL SMOKE DETECTORS PER CODE

110V INTERCONNECTED W/ BATTERY BACKUP

**EQUIPMENT PROVISIONS OF NFPA 72** 

INSTALLED ON EACH FLOOR, IN EACH SLEEPING AREA, AND OUTSIDE EACH SEPARATE SLEEPING AREA LISTED IN ACCORDANCE WITH UL 217 AND INSTALLED PER THE HOUSEHOLD FIRE WARNING

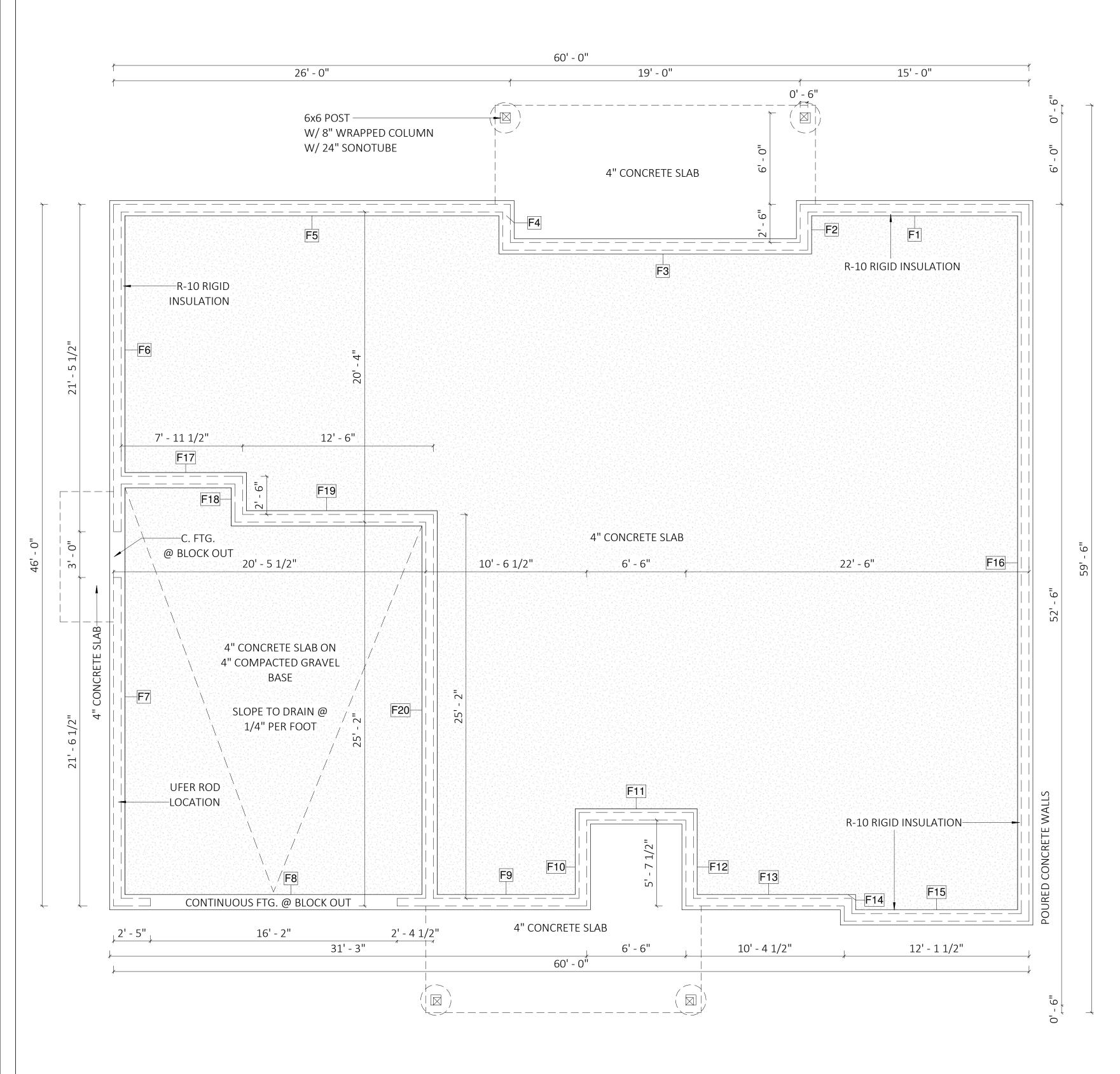
## CARBON MONOXIDE

SD/CM INSTALL SMOKE DETECTOR/ CARBON MONOXIDE ALARM PER CODE COMBINATION SMOKE ALARM & CARBON MONOXIDE ALARMS: SMOKE ALARM REQUIREMENTS AS LISTED ABOVE. INSTALL ON EACH FLOOR AND OUTSIDE EACH

SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS. CARBON MONOXIDE ALARMS LISTED AS COMPLYING WITH UL 2075 AND INSTALLED PER MANUFACTURER'S

INSTALLATION INSTRUCTION.





 $\frac{1}{1/4" = 1'-0"}$ 

FOOTING SCHEDULE P.T. POST ON 18" DIA. X 8" THICK CONC. FOOTING P.T. POST ON 24" DIA. X 12" THICK CONC. FOOTING P.T. POST ON 30" X 30" X 12" THICK CONC. FOOTING W/3- #5 BARS EACH WAY P.T. POST ON 36" X 36" X 12" THICK CONC. FOOTING W/3- #5 BARS EACH WAY P.T. POST 42" X 42" X 12" THICK CONC. FOOTING W/4- #5 BARS EACH WAY FOOTING SIZED BASED ON 1500 psf SOIL BEARING

## POURED CONCRETE WALLS & FOOTING

• 24" H. X 6" THICK CONC. POURED CONCRETE WALLS

• 6" X 12" THICK CONC. FOUNDATION SLAB W/2- #4 BARS EACH WAY

# **SITE WORK**

• UNLESS A SOILS INVESTIGATION BY A QUALIFIED SOILS ENGINEER IS PROVIDED, FOUNDATION DESIGN IS BASED ON AN ASSUMED AVERAGE SOIL BEARING U1500 PSF. EXTERIOR FOOTINGS SHALL BEAR 18" (MINIMUM) BELOW FINISHED GRADE. ALL FOOTINGS TO BEAR ON FIRM UNDISTURBED EARTH BELOW ORGANIC SURFACE SOILS. BACKFILL TO BE THOROUGHLY COMPACTED. BOLT HEADS AND NUTS BEARING AGAINST WOOD TO BE PROVIDED WITH 1/4"X3"X3" PLATE WASHERS. WOOD BEARING ON OR INSTALLED WITHIN 1" OF MASONRY OR CONCRETE TO BE PRESSURE TREATED WITH AN APPROVED

• FOUNDATION SILL BOLTS TO BE 5/8" DIAMETER AT 6' -0" O.C. U.N.O. WITH MIN. 7" EMBEDMENT METAL FRAMING CONNECTORS TO BE MANUFACTURED BY SIMPSON STRONG-TIE OR USP STRUCTURAL CONNECTORS.

**GENERAL** ALL NAMING TO COMPLY WITH REQUIREMENTS OF IRC TABLE R602.3 (1) GYPSUM WALL BOARD AT INTERIOR WALLS TO BE FASTENED ACCORDING TO TABLE R702.3.5 ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED. FIELD CUT ENDS, NOTCHES, AND DRILLED HOLES OF PRESSURE TREATED LUMBER SHALL BE RETREATED IN THE FIELD IN ACCORDANCE WITH AWP A M4. PER IRC 3173, FASTENERS FOR PRESSURE PRESERVATIVE AND FIRE RETARDANT TREATED WOOD SHALL BE OF HOT-DIPPED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE,

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

10" MIN. CLEARANCE BETWEEN FLOOR JOIST AND EARTH.

ALL NAILS SPECIFIED ON THIS PLAN SHALL BE COMMON OR GALVANIZED BOX (UNLESS NOTED OTHERWISE) OF THE DIAMETER AND LENGTH LISTED BELOW OR AS PER APPENDIX L OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS) 8D COMMON (0.131" DIA., 2-1/2" LENGTH), 8D BOX (0.113" DIA, 2-1/2" LONG), 10D COMMON (0.148" DIA., 3" LONG) 10D BOX (0.128" DIA., 3" LENGTH), 16D COMMON (0.162" DIA, 3-1/2" LONG), 16D SINKER (0.148 DIA, 3-1/4" LONG) 5D COOLER (0.086" DIA., 1-5/0" LONG), 6D COOLER (0.092" DIA., 1-7/8" LONG)

# INSULATION AND MOISTURE PROTECTION

MAINTAIN 1" CLEARANCE ABOVE INSULATION FOR FREE AIR FLOW. INSULATION BAFFLES TO EXTEND 6" ABOVE BATT INSULATION, INSULATION BAFFLES TO EXTEND 12" ABOVE LOOSE FILL INSULATION INSULATE BEHIND TUBS/SHOWERS, PARTITIONS AND CORNERS FACE-STAPLE FACED BATTS FRICTION-FIT UNFACED BATTS USE 4 MIL POLY VAPOR RETARDER AT EXTERIOR WALLS R-10 INSULATION UNDER ELECTRIC WATER HEATERS.

R-10 RIGID INSULATION INSIDE OF EXTERIOR FOUNDATION WALLS UNDER LIVING AREA.

• ALL DOOR/WINDOW HEADERS TO BE 4X10 DF#2 AT 2X6 BEARING WALLS, U.N.O., 6 - 0 MAX. SPAN.

• ALL DOOR/WINDOW HEADERS TO BE 4X10 DF#2 AT 2X4 BEARING WALLS, U.N.O., 6 - 0 MAX. SPAN. • WINDOWS HEADERS AT 8-0 ABOVE THE FLOOR U.N.O.

• PROVIDED FIRE BLOCKING AS REQUIRED PER IRC.

• EXTERIOR WALLS TO BE 2X6 AT 16 (MAX) O.C U.N.O.

• NO DUCT OPENING IN GARAGE.

• INTERIOR PARTITIONS TO BE 2X4 AT 16 O.C (2X6 @ PLUMBING WALLS, U.N.O.) • DUCTS THROUGH WALL OR CELLING COMMON TO HOUSE MIN. 26 GAGE STEEL.

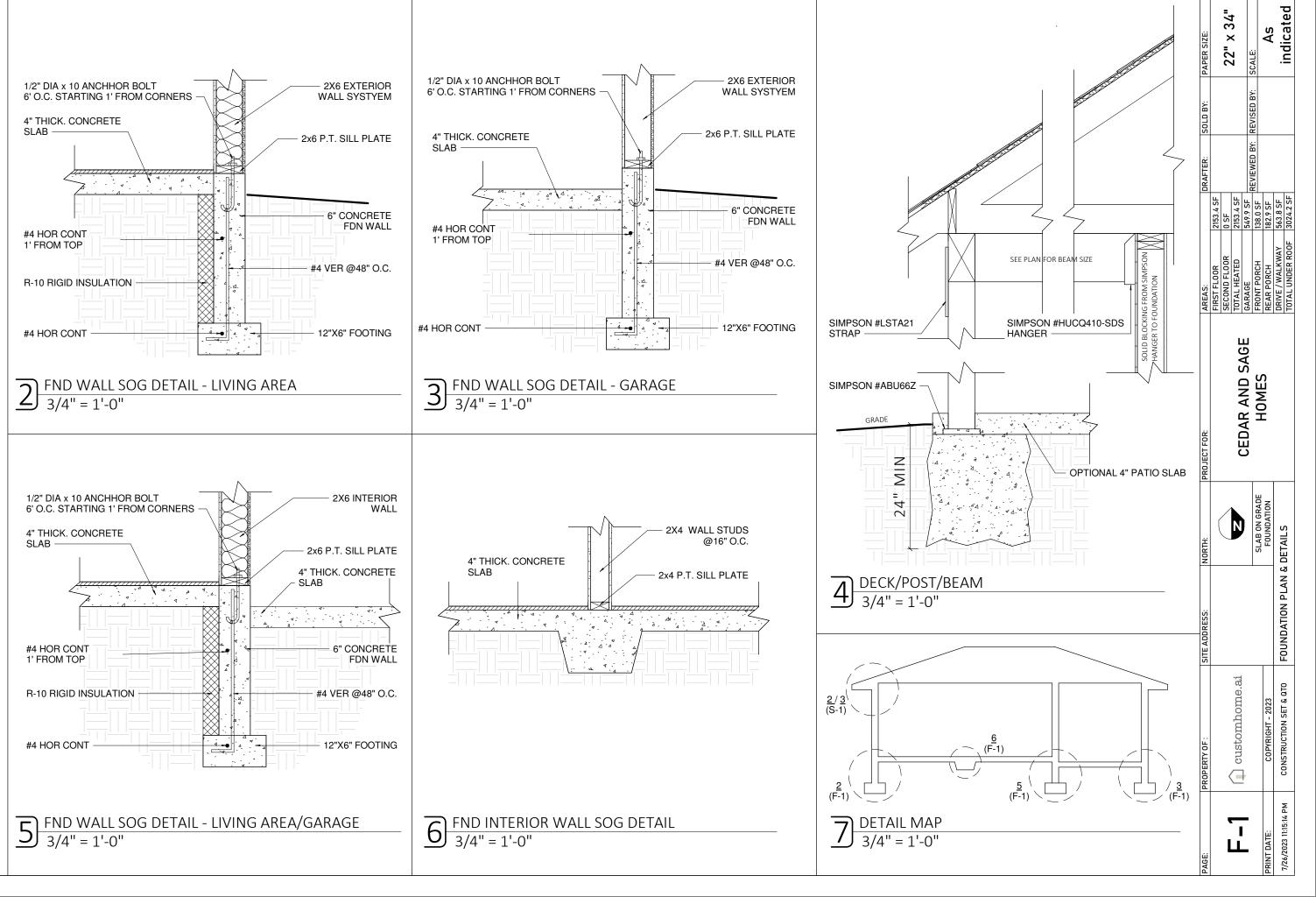
• PROVIDE SOLID FRAMING EQUAL TO THE WIDTH OF THE MEMBER BEING SUPPORTED (U.N.O.) • FLOOR ELEVATIONS AT THE REQUIRED EGRESS DOORS. LANDINGS OR FINISHED FLOORS AT THE REQUIRED EGRESS DOOR SHALL NOT BE MORE THAN 1 ½ LOWER THE TOP OF THE THRESHOLD. PROVIDED THE DOOR DOES NOR SWING OVER THE LANDING OR THE FLOOR IRC R311.3.1.

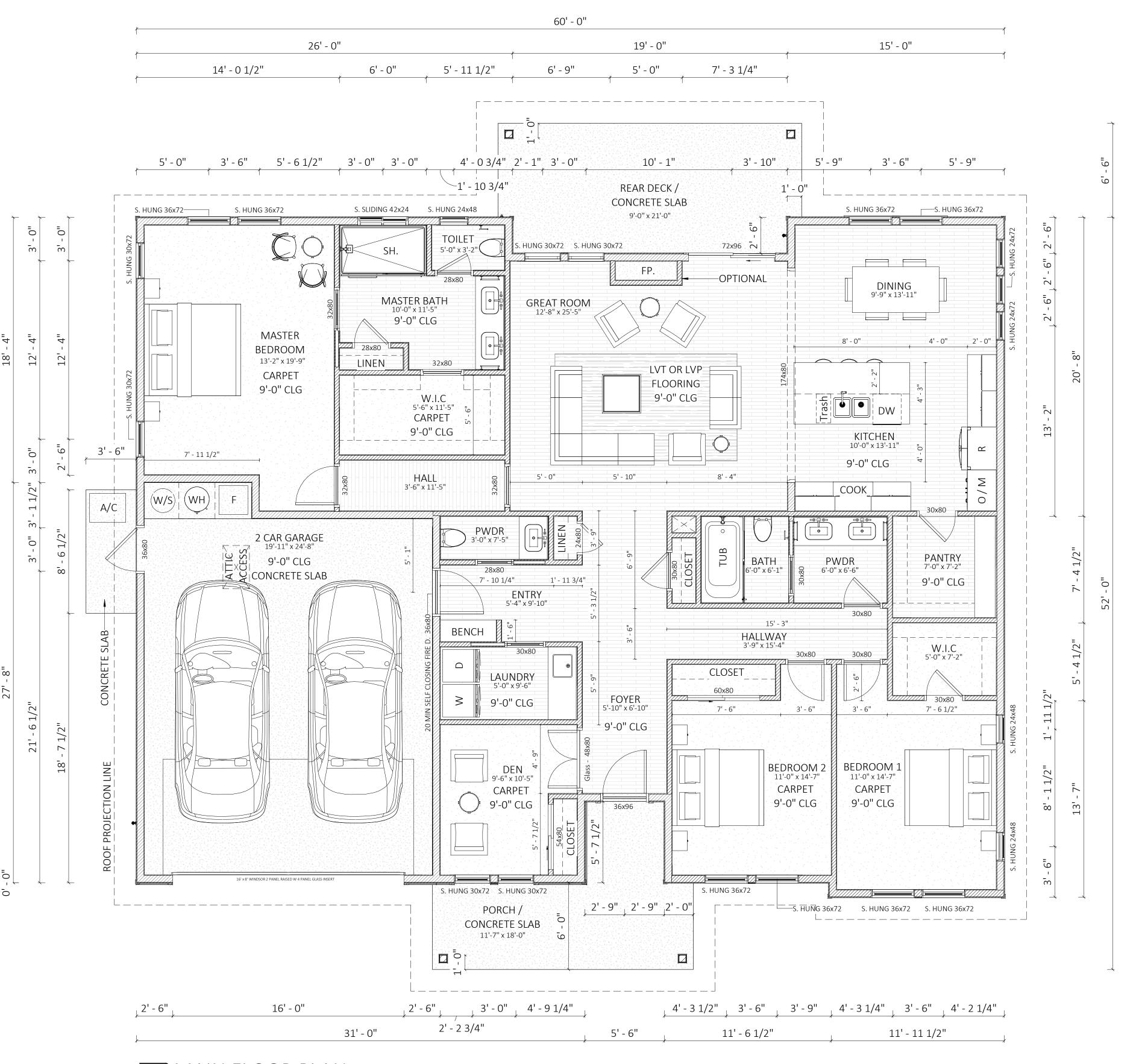
• EXCEPTION: THE LANDING OR THE FLOOR ON THE EXTERIOR SIDE SHALL NOT BE MORE THAN 7 ¾ BELOW THE TOP OF THE THRESHOLD PROVIDED THE DOOR DOES NOT SWING OVER THE LANDING OR FLOOR IRC R311.3.2.

FOUNDATION SCHEDULE						
Лark	Width	Thickness	Length	Volume		
	1' - 0"	0' - 6"	14' - 6"	6.75 CF		
	1' - 0"	0' - 6"	2' - 6"	1.25 CF		
	1' - 0"	0' - 6"	19' - 6"	9.75 CF		
	1' - 0"	0' - 6"	2' - 6"	1.25 CF		
I	1' - 0"	0' - 6"	26' - 0"	13.25 CF		
)	1' - 0"	0' - 6"	24' - 0"	8.79 CF		
,	1' - 0"	0' - 6"	27' - 8"	13.96 CF		
	1' - 0"	0' - 6"	19' - 11"	9.73 CF		
)	1' - 0"	0' - 6"	10' - 1"	4.52 CF		

F10 | 1' - 0" | 0' - 6" | 5' - 8" | 2.81 CF

FOUNDATION SCHEDULE						
Mark	Width	Thickness	Length	Volume		
F11	1' - 0"	0' - 6"	7' - 6"	4.00 CF		
F12	1' - 0"	0' - 6"	5' - 2"	2.81 CF		
F13	1' - 0"	0' - 6"	10' - 11"	4.69 CF		
F14	1' - 0"	0' - 6"	0' - 6"	1.00 CF		
F15	1' - 0"	0' - 6"	12' - 1"	5.31 CF		
F16	1' - 0"	0' - 6"	46' - 0"	23.75 CF		
F17	1' - 0"	0' - 6"	7' - 6"	3.98 CF		
F18	1' - 0"	0' - 6"	2' - 6"	0.75 CF		
F19	1' - 0"	0' - 6"	12' - 6"	6.25 CF		
F20	1' - 0"	0' - 6"	25' - 2"	13.08 CF		





 $\frac{1}{1/4" = 1'-0"}$ 

MAIN FLOOR

• ALL DOOR/WINDOW HEADERS TO BE 4X10 DF#2 AT 2X6 BEARING WALLS, U.N.O., 6 · -0 MAX. SPAN. • ALL DOOR/WINDOW HEADERS TO BE 4X10 DF#2 AT 2X4 BEARING WALLS, U.N.O., 6 - 0 MAX. SPAN. • WINDOWS HEADERS AT 8-0 ABOVE THE FLOOR U.N.O.

• PROVIDED FIRE BLOCKING AS REQUIRED PER IRC.

• EXTERIOR WALLS TO BE 2X6 AT 16 (MAX) O.C U.N.O. • INTERIOR PARTITIONS TO BE 2X4 AT 16 O.C (2X6 @ PLUMBING WALLS, U.N.O.)

• DUCTS THROUGH WALL OR CELLING COMMON TO HOUSE MIN. 26 GAGE STEEL. • NO DUCT OPENING IN GARAGE.

• PROVIDE SOLID FRAMING EQUAL TO THE WIDTH OF THE MEMBER BEING SUPPORTED (U.N.O.) • FLOOR ELEVATIONS AT THE REQUIRED EGRESS DOORS. LANDINGS OR FINISHED FLOORS AT THE REQUIRED EGRESS DOOR SHALL NOT BE MORE THAN 1 ½ LOWER THE TOP OF THE THRESHOLD. PROVIDED THE DOOR DOES NOR SWING OVER THE LANDING OR THE FLOOR IRC R311.3.1. EXCEPTION: THE LANDING OR THE FLOOR ON THE EXTERIOR SIDE SHALL NOT BE MORE THAN 7

34 BELOW THE TOP OF THE THRESHOLD PROVIDED THE DOOR DOES NOT SWING OVER THE LANDING OR FLOOR IRC R311.3.2.

## **VENTILATION SCHEDULE**

## SYMBOLS

STWIDGES						
<b>⊕</b> ₃	Kitchens	100 CFM intermittent or 25 CFM continuous.				
<b>⊕</b> ₃	Bathrooms- Toilet rooms & Laundry rooms	Mechanical Exhaust capacity of 50 CFM intermittent or 20 CFM continuous.				
♣3 Whole House Fan	Exhaust fans providing whole house ventila gauge as specified in table m1505.4.3 (1). Modernment according to hvi 916 or fan airfle ANSI/AMCA 210-ANSI/ASHRAE 51.					

Exception: The whole-house mechanical ventilation system is permitted to operate intermittently where the system has controls that enable operation for not less than 25-percent of each 4-hour segment and the ventilation rate prescribed in table M1505.4.3(1) is multiplied by the factor determined in accordance with table M1505.4.3(2).

VENTILATION RATE FOR THE WHOLE HOUSE FAN TO BE 60 AIRFLOW IN CFM PER TABLE M1505.4.3(1) HVAC CONTACTOR TO SPECIFY LOCATION.

## SMOKE DETECTORS

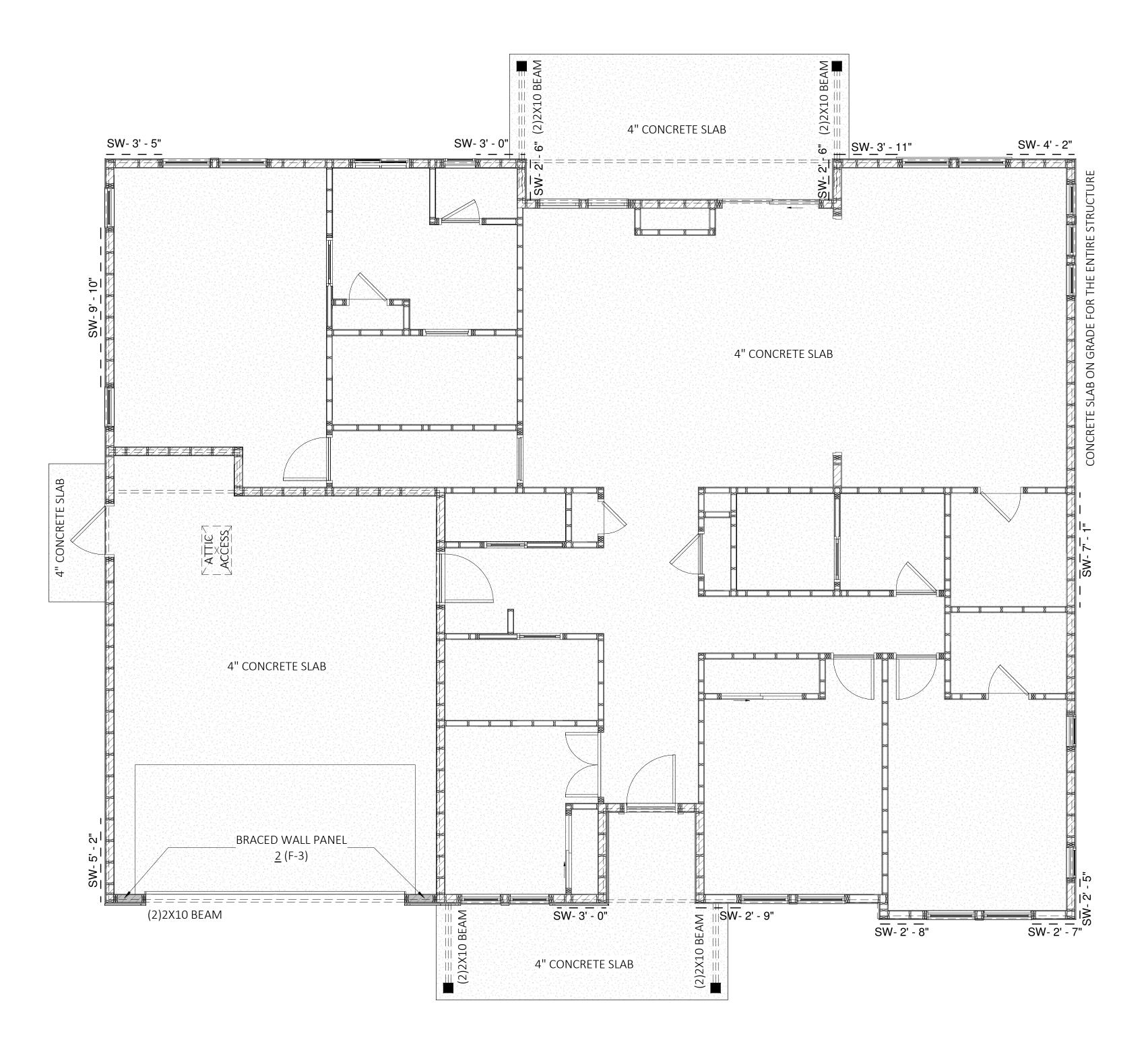
INSTALL SMOKE DETECTORS PER CODE

110V INTERCONNECTED W/ BATTERY BACKUP INSTALLED ON EACH FLOOR, IN EACH SLEEPING AREA, AND OUTSIDE EACH SEPARATE SLEEPING AREA LISTED IN ACCORDANCE WITH UL 217 AND INSTALLED PER THE HOUSEHOLD FIRE WARNING **EQUIPMENT PROVISIONS OF NFPA 72** 

# CARBON MONOXIDE

SD/CM INSTALL SMOKE DETECTOR/ CARBON MONOXIDE ALARM PER CODE **COMBINATION SMOKE ALARM & CARBON MONOXIDE ALARMS:** SMOKE ALARM REQUIREMENTS AS LISTED ABOVE. INSTALL ON EACH FLOOR AND OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS. CARBON MONOXIDE ALARMS LISTED AS COMPLYING WITH UL 2075 AND INSTALLED PER MANUFACTURER'S

INSTALLATION INSTRUCTION.



FRAMING PLAN

1/4" = 1'-0"

FOUNDATION / FRAMING PLAN

• ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED

• SOFFIT, VENT AND INSULATE ALL CANTILEVERED AREAS

PROVIDE SOLID BLOCKING OVER SUPPORTS

• ALL FOOTING TO REST ON THE UNDISTURBED SOIL • PROVIDE SOLID FRAMING EQUAL TO THE WIDTH OF THE MEMBER BEING SUPPORTED (U.N.O.) • PROVIDE COPY OF CONCRETE BATCH TICKET ON THE SITE FOR REVIEW BY BUILDING OFFICIAL.

• ALL DOOR/WINDOW HEADERS TO BE 4X10 DF#2 AT 2X6 BEARING WALLS, U.N.O., 6 · - 0 MAX. SPAN. • ALL DOOR/WINDOW HEADERS TO BE 4X10 DF#2 AT 2X4 BEARING WALLS, U.N.O., 6• -0 MAX. SPAN.

• WINDOWS HEADERS AT 8-0 ABOVE THE FLOOR U.N.O. .

 PROVIDED FIRE BLOCKING AS REQUIRED PER IRC. • EXTERIOR WALLS & GARAGE WALL TO BE 2X6 AT 16 O.C. (2X6 @ PLUMBING WALLS) U.N.O.

• INTERIOR PARTITIONS TO BE 2X4 AT 16 O.C (2X6 @ PLUMBING WALLS, U.N.O.) • DUCTS THROUGH WALL OR CELLING COMMON TO HOUSE MIN. 26 GAGE STEEL.

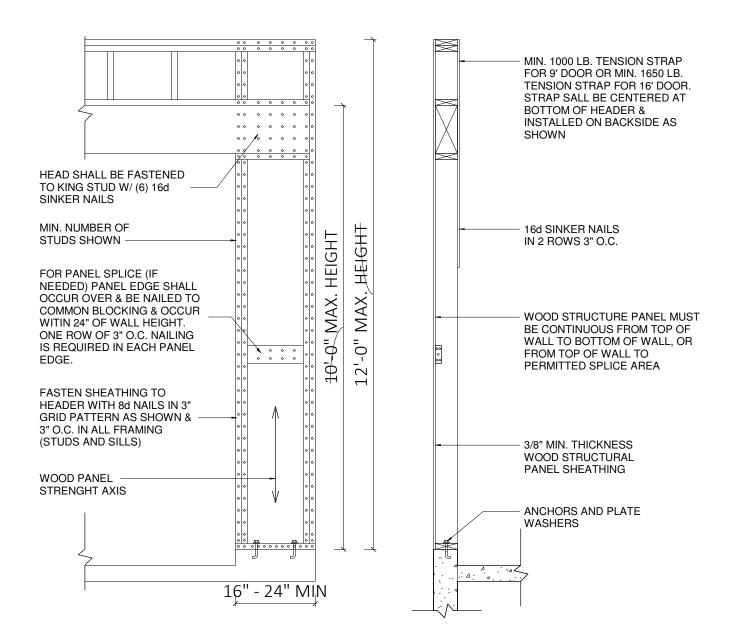
• NO DUCT OPENING IN GARAGE.

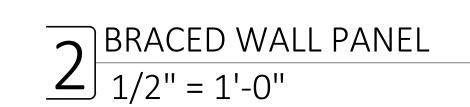
• PROVIDE SOLID FRAMING EQUAL TO THE WIDTH OF THE MEMBER BEING SUPPORTED (U.N.O.) • FLOOR ELEVATIONS AT THE REQUIRED EGRESS DOORS. LANDINGS OR FINISHED FLOORS AT THE REQUIRED EGRESS DOOR SHALL NOT BE MORE THAN 1 ½ LOWER THE TOP OF THE THRESHOLD. PROVIDED THE DOOR DOES NOR SWING OVER THE LANDING OR THE FLOOR IRC R311.3.1. • EXCEPTION: THE LANDING OR THE FLOOR ON THE EXTERIOR SIDE SHALL NOT BE MORE THAN 7 34 BELOW THE TOP OF THE THRESHOLD PROVIDED THE DOOR DOES NOT SWING OVER THE LANDING OR FLOOR IRC R311.3.2.

• ALL HEADERS TO BE 2X10 DF #2 AT 2X6 BEARING WALLS, U.N.O., 6'-0"MAX. SPAN

- SHADED AREAS INDICATE OVER FRAMING, 2X10 @ 24" O.C., U.N.O.
- PROVIDE VENTED BLOCKING AT REQUIRED TRUSS/RAFTER BAY.
- ALL MANUFACTURED TRUSSES:
- SHALL NOT BE FIELD ALTERED WITHOUT ENGINEER'S APPROVAL • SHALL HAVE DESIGN DETAILS AND DRAWINGS ON THE SITE FOR FRAMING INSPECTION
- SHALL BE INSTALLED AND BRACED TO MANUFACTURE S SPECIFICATION
- SHALL CARRY MANUFACTURE S STAMP ON EACH TRUSS
- IF AN ENGINEERED ROOF FRAMING LAYOUT IS PROVIDED BY THE TRUSS SUPPLIER, THAT TRUSS LAYOUT SHALL SUPERSEDE THE TRUSS LAYOUT INDICATED IN THE PLANS. PROVIDE THE TRUSS LAYOUT AND SPECS ON THE SITE FOR INSPECTION.
- PROVIDE SOLID FRAMING EQUAL TO THE WIDTH OF THE MEMBER BEING SUPPORTED (U.N.O.)
- TRUSS DISTANCES: @ 24" PROVIDE TRUSS DESIGN & HEIGHT

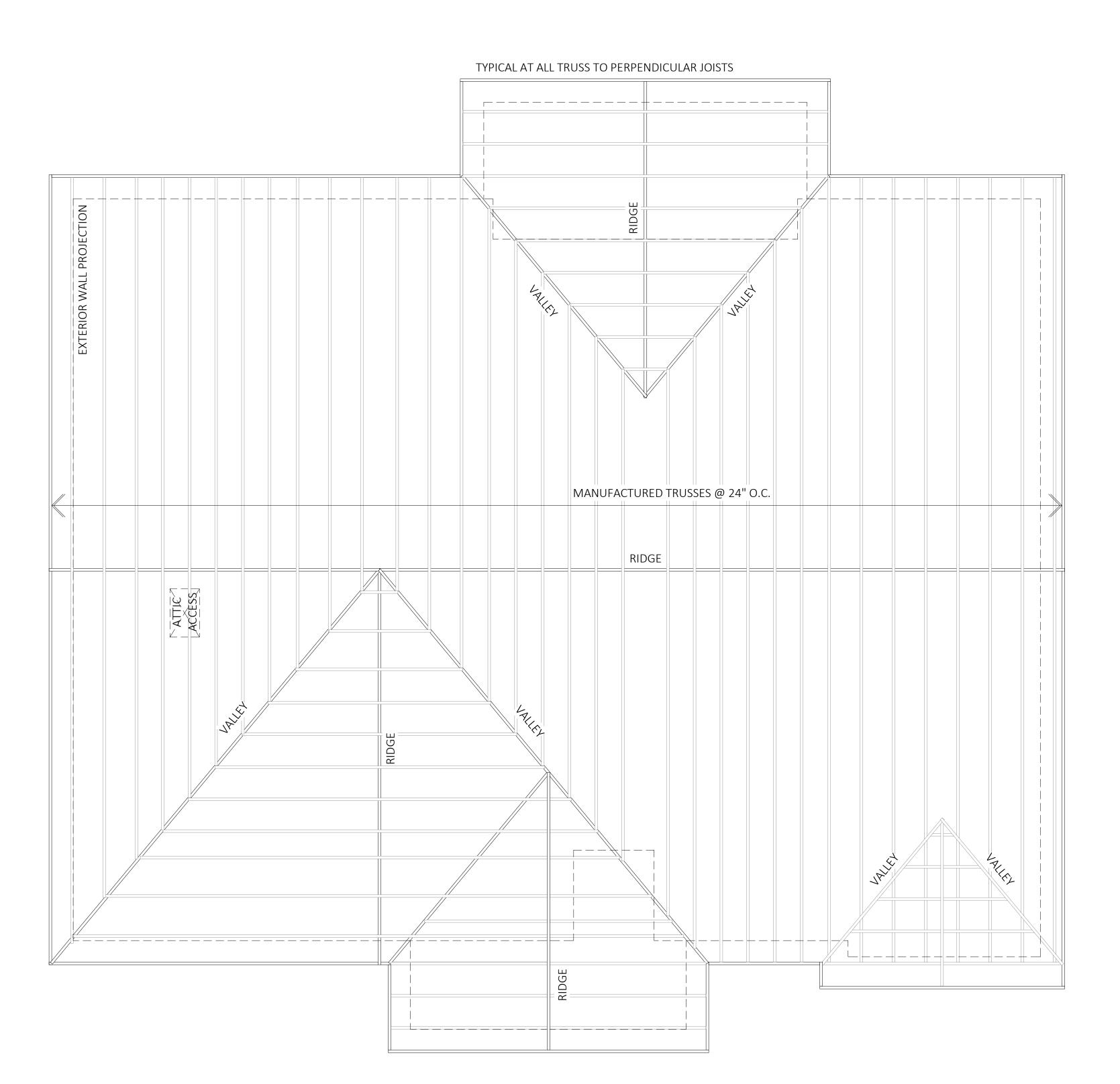
CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS OF THE PROJECT AND REPORT ANY CONDITIONS OF THE PROJECT AND REPORT ANY OMISSION/DISCREPANCIES TO THE DESIGNER PRIOR TO COMMENCING WORK. DESIGNER SHALL NOT BE RESPONSIBLE FOR DISCREPANT CONDITIONS RESULTING FROM UNAUTHORIZED WORK PERFORMED BY THE CONTRACTOR.





2153.4.SF 0.SF 2153.4.SF 549.9.SF 138.0.SF 182.9.SF 563.8.SF

3



 $\frac{1}{1/4"} = 1'-0"$ 

FOUNDATION / FRAMING PLAN
• ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED

• SOFFIT, VENT AND INSULATE ALL CANTILEVERED AREAS

PROVIDE SOLID BLOCKING OVER SUPPORTS

ALL FOOTING TO REST ON THE UNDISTURBED SOIL

• PROVIDE SOLID FRAMING EQUAL TO THE WIDTH OF THE MEMBER BEING SUPPORTED (U.N.O.) • PROVIDE COPY OF CONCRETE BATCH TICKET ON THE SITE FOR REVIEW BY BUILDING OFFICIAL.

## MAIN FLOOR FRAMING

• ALL DOOR/WINDOW HEADERS TO BE 4X10 DF#2 AT 2X6 BEARING WALLS, U.N.O., 6 - 0 MAX. SPAN. • ALL DOOR/WINDOW HEADERS TO BE 4X10 DF#2 AT 2X4 BEARING WALLS, U.N.O., 6 · -0 MAX. SPAN.

• WINDOWS HEADERS AT 8-0 ABOVE THE FLOOR U.N.O. .

• PROVIDED FIRE BLOCKING AS REQUIRED PER IRC.

• EXTERIOR WALLS & GARAGE WALL TO BE 2X6 AT 16 O.C. (2X6 @ PLUMBING WALLS) U.N.O. • INTERIOR PARTITIONS TO BE 2X4 AT 16 O.C (2X6 @ PLUMBING WALLS, U.N.O.) • DUCTS THROUGH WALL OR CELLING COMMON TO HOUSE MIN. 26 GAGE STEEL.

NO DUCT OPENING IN GARAGE.

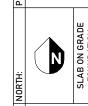
• PROVIDE SOLID FRAMING EQUAL TO THE WIDTH OF THE MEMBER BEING SUPPORTED (U.N.O.) • FLOOR ELEVATIONS AT THE REQUIRED EGRESS DOORS. LANDINGS OR FINISHED FLOORS AT THE REQUIRED EGRESS DOOR SHALL NOT BE MORE THAN 1 ½ LOWER THE TOP OF THE THRESHOLD. PROVIDED THE DOOR DOES NOR SWING OVER THE LANDING OR THE FLOOR IRC R311.3.1. • EXCEPTION: THE LANDING OR THE FLOOR ON THE EXTERIOR SIDE SHALL NOT BE MORE THAN 7 34 BELOW THE TOP OF THE THRESHOLD PROVIDED THE DOOR DOES NOT SWING OVER THE

LANDING OR FLOOR IRC R311.3.2.

## **ROOF FRAMING**

- ALL HEADERS TO BE 2X10 DF #2 AT 2X6 BEARING WALLS, U.N.O., 6'-0"MAX. SPAN
  SHADED AREAS INDICATE OVER FRAMING, 2X10 @ 24" O.C., U.N.O.
- PROVIDE VENTED BLOCKING AT REQUIRED TRUSS/RAFTER BAY. ALL MANUFACTURED TRUSSES:
- SHALL NOT BE FIELD ALTERED WITHOUT ENGINEER'S APPROVAL
- SHALL HAVE DESIGN DETAILS AND DRAWINGS ON THE SITE FOR FRAMING INSPECTION SHALL BE INSTALLED AND BRACED TO MANUFACTURE S SPECIFICATION
- SHALL CARRY MANUFACTURE S STAMP ON EACH TRUSS
- IF AN ENGINEERED ROOF FRAMING LAYOUT IS PROVIDED BY THE TRUSS SUPPLIER, THAT TRUSS LAYOUT SHALL SUPERSEDE THE TRUSS LAYOUT INDICATED IN THE PLANS. PROVIDE THE TRUSS LAYOUT AND SPECS ON THE SITE FOR INSPECTION.
- PROVIDE SOLID FRAMING EQUAL TO THE WIDTH OF THE MEMBER BEING SUPPORTED (U.N.O.) • TRUSS DISTANCES: @ 24"
- PROVIDE TRUSS DESIGN & HEIGHT

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



## MECHANICAL HEATING & COOLING EQUIPMENT

### M1411.2 REFRIGERATION COILS IN WARM-AIR FURNACES

WHERE A COOLING COIL IS LOCATED IN THE SUPPLY PLENUM OF A WARM-AIR FURNACE, THE FURNACE BLOWER SHALL BE RATED AT NOT LESS THAN 0.5-INCH WATER COLUMN (124 PA) STATIC PRESSURE UNLESS THE FURNACE IS LISTED AND LABELED FOR USE WITH A COOLING COIL. COOLING COILS SHALL NOT BE LOCATED UPSTREAM FROM HEAT EXCHANGERS UNLESS LISTED AND LABELED FOR SUCH USE. CONVERSION OF EXISTING FURNACES FOR USE WITH COOLING COILS SHALL BE PERMITTED PROVIDED THAT THE FURNACE WILL OPERATE WITHIN THE TEMPERATURE RISE SPECIFIED FOR THE FURNACE.

## M1411.3 CONDENSATE DISPOSAL

CONDENSATE FROM COOLING COILS AND EVAPORATORS SHALL BE CONVEYED FROM THE DRAIN PAN OUTLET TO AN APPROVED PLACE OF DISPOSAL. SUCH PIPING SHALL MAINTAIN A MINIMUM HORIZONTAL SLOPE IN THE DIRECTION OF DISCHARGE OF NOT LESS THAN 1/8 UNIT VERTICAL IN 12 UNITS HORIZONTAL (1-PERCENT SLOPE). CONDENSATE SHALL NOT DISCHARGE INTO A STREET, ALLEY OR OTHER AREA WHERE IT WOULD CAUSE

### **TABLE M1505.4.4** MINIMUM REQUIRED LOCAL EXHAUST RATES FOR ONE-AND TWO-FAMILY DWELLINGS AREA TO BE EXHAUSTED EXHAUSTED RATES **KITCHENS** 100 CFM INTERMITTENT OR 25 CFM CONTINUOUS. BATHROOMS - TOILET, ROOMS MECHANICAL EXHAUST CAPACITY OF 50 CFM LAUNDRY ROOMS INDOOR SWIMMING POOLS & SPAS INTERMITTENT OR 20 CFM CONTINUOUS.

### FOR S1: 1 CUBIC FOOT PER MINUTE=0.0004719 M/S<sup>3</sup>

R403.6.1 WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM FAN EFFICACY
FANS SHALL MEET THE EFFICACY REQUIREMENTS OF TABLE R403.6.1 AT ONE OR MORE RATING POINTS. FANS SHALL BE TESTED IN ACCORDANCE WITH HVI 916 AND LISTED. THE AIRFLOW SHALL BE REPORTED IN THE PRODUCT LISTING OR ON THE LABEL. FAN EFFICACY SHALL BE REPORTED IN THE PRODUCT LISTING OR SHALL BE DERIVED FROM THE INPUT POWER AND AIRFLOW VALUES REPORTED IN THE PRODUCT LISTING ON THE LABEL. FAN EFFICACY FOR FULLY DUCTED HRV, ERV. BALANCED. AND IN-LINE FANS SHALL BE DETERMINED AT A STATIC PRESSURE OF NOT LESS THAN 0.2 INCH W.C. (49.85 PA). FAN EFFICACY FOR DUCTED RANGE HOODS, BATHROOM AND UTILITY ROOM FANS SHALL BE DETERMINED AT A STATIC PRESSURE OF NOT LESS THAN 0.1 INCH W.C. (24.91 PA).

TABLE R403.6.1 WHOLE-DWELLING MECHANICAL VENTILATION SYSTEM FAN EFFICACY					
SYSTEM TYPE	AIR FLOW RATE (CFM)	MINIMUM EFFICACY (CFM/WATT)			
HRV, ERV OR BALANCED	ANY	1.2 CFM/WATT			
RANGE HOODS	ANY	2.8 CFM/WATT			
IN-LINE SUPPLY OR EXHAUST FAN	ANY	3.8 CFM/WATT			
OTHER EVILLIOT FAN	<90	2.8 CFM/WATT			
OTHER EXHAUST FAN	≥90	3.5 CFM/WATT			

## M1505.4.3 MECHANICAL VENTILATION RATE

THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM SHALL PROVIDE OUTDOOR AIR TO EACH HABITABLE SPACE AT A CONTINUOUS RATE OF NOT LESS THAN THAT DETERMINED IN ACCORDANCE WITH TABLE M1505.4.3(1)

THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM IS PERMITTED TO OPERATE INTERMITTENTLY WHERE THE SYSTEM HAS CONTROLS THAT ENABLE OPERATION FOR NOT LESS THAN 25 PERCENT OF EACH 4-HOUR SEGMENT AND THE VENTILATION RATE PRESCRIBED IN TABLE M1505.4.3(1) IS MULTIPLIED BY THE FACTOR DETERMINED IN ACCORDANCE WITH TABLE M1505.4.3(2)

TABLE M1505.4.3(1) CONTINUOUS WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM AIRFLOW RATE REQUIREMENTS									
	NUMBER OF BEDROOMS								
DWELLING UNIT FLOOR AREA (SQUARE FEET)	0 - 1	2 - 3	4 - 5	6 - 7	<7				
(OGO/IIIE I EEI)	AIRFLOW IN CFM								
<1,500	30	45	60	75	90				
1,501-3,000	45	60	75	90	105				
3,001-4,500	60	75	90	105	120				
4,501-6,000	75	90	105	120	135				
6,001-7,500	90	105	120	135	150				
>7,500	105	120	135	150	165				

DUCTS SHALL BE LEAK TESTED IN ACCORDANCE WITH WSU RS-33, USING THE MAXIMUM DUCT LEAKAGE RATES SPECIFIED.

# SECTION R402.4—AIR LEAKAGE

# R402.4.1.2 TESTING

THE BUILDING OR DWELLING UNIT SHALL BE TESTED AND VERIFIED AS HAVING AN AIR LEAKAGE RATE OF NOT EXCEEDING 5 AIR CHANGES PER HOUR. TESTING SHALL BE CONDUCTED WITH A BLOWER DOOR AT A PRESSURE OF 0.2 INCHES W.G. (50 PASCALS). FOR THIS TEST ONLY, THE VOLUME OF THE HOME SHALL BE THE CONDITIONED FLOOR AREA IN FT2 (M2) MULTIPLIED BY 8.5 FEET (2.6 M). WHERE REQUIRED BY THE CODE OFFICIAL, TESTING SHALL BE CONDUCTED BY AN APPROVED THIRD PARTY. A WRITTEN REPORT OF THE RESULTS OF THE TEST SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE CODE OFFICIAL. TESTING SHALL BE PERFORMED AT ANY TIME AFTER CREATION OF ALL PENETRATIONS OF THE BUILDING THERMAL ENVELOPE. ONCE VISUAL INSPECTION HAS CONFIRMED SEALING (SEE TABLE R402.4.1.1), OPERABLE WINDOWS AND DOORS MANUFACTURED BY SMALL BUSINESS SHALL BE PERMITTED TO BE SEALED OFF AT THE FRAME PRIOR TO THE TEST.

## 2018 WASHINGTON STATE ENERGY CODE- TABLE R402.1.1 INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT A

CLIMATE ZONE 5		FENESTRATION		CEILING W /	VAULTED	WOOD	FLOOR	BELOW	SLAB ON	
	MARINE 4	VERTICAL	SKYLIGHT	GLAZED	ATTIC	CEILING	FRAMED WALL	TLOOM	GRADE WALL	GRADE
	R - VALUE	N / A	N/A	N/A	R-49	R-38	R-21	30	R-10/15/21 + 5TB	R-10 2'
	U FACTOR	0.30	0.50	N/A	0.020	0.026	0.056	0.029	0.042	N / A

AT LEAST ONE THERMOSTAT SHALL BE PROVIDED FOR EACH SEPARATE HEATING AND COOLING SYSTEM R403.1.

TABLE M1505.4.3(2) INTERMITTENT WHOLE-HOUSE MECHANICAL VENTILATION RATE FACTORS A, B						
RUN-TIME PERCENTAGE IN EACH 4-HOUR SEGMENT	25%	33%	50%	66%	75%	100%
FACTOR	4	3	2	1.5	1.3	1.0

a. FOR VENTILATION SYSTEM RUN TIME VALUES BETWEEN THOSE GIVEN, THE FACTORS ARE PERMITTED TO BE DETERMINED BY INTERPOLATION.

b. EXTRAPOLATION BEYOND THE TABLE IS PROHIBITED.

YMBOLS		
<b>⊕</b> ₃	Kitchens	100 CFM intermittent or 25 CFM continuous.
lacklacklack3	Bathrooms- Toilet rooms & Laundry rooms	Mechanical Exhaust capacity of 50 CFM intermittent or 20 CFM continuous.
⊕ <sub>3</sub> Whole House Fan	Exhaust fans providing whole house ventilation shall have a flow rate specified in table m1505.4.3 (1). Manufacturer's fan flow rating shall be 916 or fan airflow rating shall be in accordance with ANSI/AMCA 210-	e determined according to hvi

	WHOLE HOUSE VENTILATION (PRESCRIPTIVE WHV)
1. INTERMITTENT WHV USING EX	HAUST FANS AND FRESH AIR INLETS (IRC M1505.4.1)
2. INTERMITTENT WHV USING INT	EGRATED WITH A FORCED AIR SYSTEM (IRC 1503.6.2)
3. INTERMITTENT WHV USING A S	UPPLY FAN (IRC M1505.4.1)
4. INTERMITTENT WHV USING A H	EAT RECOVERY VENTILATION SYSTEM (IRC M1505.4.1)
5. CONTINUOUS WHV SYSTEM AIR	RFLOW (IRC M1505.4.1)

# **ENERGY NOTES:**

WATER HEATER	GAS HIGH EFFICIENCY	MIN. 0.91 EF
HEATING	GAS FURNACE HEAT PUMP	90% AFUE U.N.O MIN. 9.5 HSPF
WATER HEATER	ELECTRIC HIGH EFFICIENCY	MIN 2.0 EF
HEATING	ELECTRIC FURNACE HEAT PUMP	90% U.N.O MIN 9.5 HSPF

<u>DUCT TESTING</u>
BASED ON THE PROTOCOL FOR TOTAL LEAKAGE TESTING, OR "LEAKAGE TO OUTDOORS" DUCT.

prescribed in table M1505.4.3(1) is multiplied by the factor determined in accordance with table M1505.4.3(2).

LEAKAGE IN NEW CONSTRUCTION SHALL NOT EXCEED 0.04 CFM25 X FLOOR AREA (IN SQ. FEET) SERVED BY THE SYSTEM FOR LEAKAGE TO OUTDOORS OR FOR TOTAL LEAKAGE WHEN TESTS POST CONSTRUCTION. WHEN TESTING AT A ROUGH- IN, TARGET SHOULD NOT EXCEED 0.04CFM25 X FLOOR AREA IN (SQ. FEET) FOR TOTAL LEAKAGE OR 0.03 CFM 25 X FLOOR AREA IN (SQ. FEET) IF THE AIR HANDLER IS NOT INSTALLED.

THE TOTAL LEAKAGE TEST IS NOT REQUIRED FOR DUCTS AND AIR HANDLERS LOCATED ENTIRELY WITHIN THE BUILDING THERMAL ENVELOPE. DUCTS LOCATED IN CRAWL SPACE DO NOT QUALIFY FOR THIS EXCEPTION. PROVIDE A COPY OF THE DUCT LEAKAGE AFFIDAVIT FOR NEW CONSTRUCTION TO THE BUILDING INSPECTOR PRIOR TO AN APPROVED FINAL INSPECTION.

# PROVIDE A WRITTEN REPORT OF THE BLOWER DOOR TEST RESULTS, SIGNED BY THE TESTING PARTY. TO THE BUILDING INSPECTOR, PRIOR TO THE APPROVED FINAL INSPECTION.

INSULATION CERTIFICATE
THE DESIGN PROFESSIONAL OR BUILDER SHALL COMPLETE AND POST AN INSULATION CERTIFICATE FOR RESIDENTIAL CONSTRUCTION" WITH 3' OF THE ELECTRICAL PANEL PRIOR TO THE FINAL INSPECTION.

### 1. EFFICIENT BUILDING ENVELOPE OPTIONS: 1.2 - CREDITS 1.0 PRESCRIPTIVE COMPLIANCE IS BASED ON TABLE R402.1.1 WITH THE FOLLOWING MODIFICATIONS: VERTICAL FENESTRATION U = 0.20.

3. HIGH EFFICIENCY HVAC EQUIPMENT OPTIONS: 3.5.1 - CREDITS 1.5
AIR-SOURCE, CENTRALLY DUCTED HEAT PUMP WITH MINIMUM HSPF OF 11.0. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS
SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE HEATING EQUIPMENT TYPE AND THE
MINIMUM EQUIPMENT EFFICIENCY.

# 5. EFFICIENT WATER HEATING OPTIONS: 5.5 - CREDITS 2.0

WATER HEATING SYSTEM SHALL INCLUDE ONE OF THE FOLLOWING:

ELECTRIC HEAT PUMP WATER HEATER MEETING THE STANDARDS FOR TIER III OF NEEA'S ADVANCED WATER HEATING SPECIFICATION OR,

### FOR R-2 OCCUPANCY, ELECTRIC HEAT PUMP WATER HEATER(S), MEETING THE

STANDARDS FOR TIER III OF NEEA'S ADVANCED WATER HEATING SPECIFICATION, SHALL SUPPLY DOMESTIC HOT WATER TO ALL UNITS. IF ONE WATER HEATER IS SERVING MORE THAN ONE DWELLING UNIT, ALL HOT WATER SUPPLY AND RECIRCULATION PIPING SHALL BE INSULATED WITH R-8 MINIMUM PIPE INSULATION.

TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE WATER HEATER EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY.

## 7. APPLIANCE PACKAGE OPTION: 7.1 - CREDITS 0.5

ALL OF THE FOLLOWING APPLIANCES SHALL BE NEW AND INSTALLED IN THE DWELLING UNIT AND SHALL MEET THE FOLLOWING STANDARDS: DISHWASHER – ENERGY STAR RATED

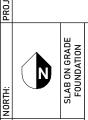
## REFRIGERATOR (IF PROVIDED) – ENERGY STAR RATED

WASHING MACHINE – ENERGY STAR RATED

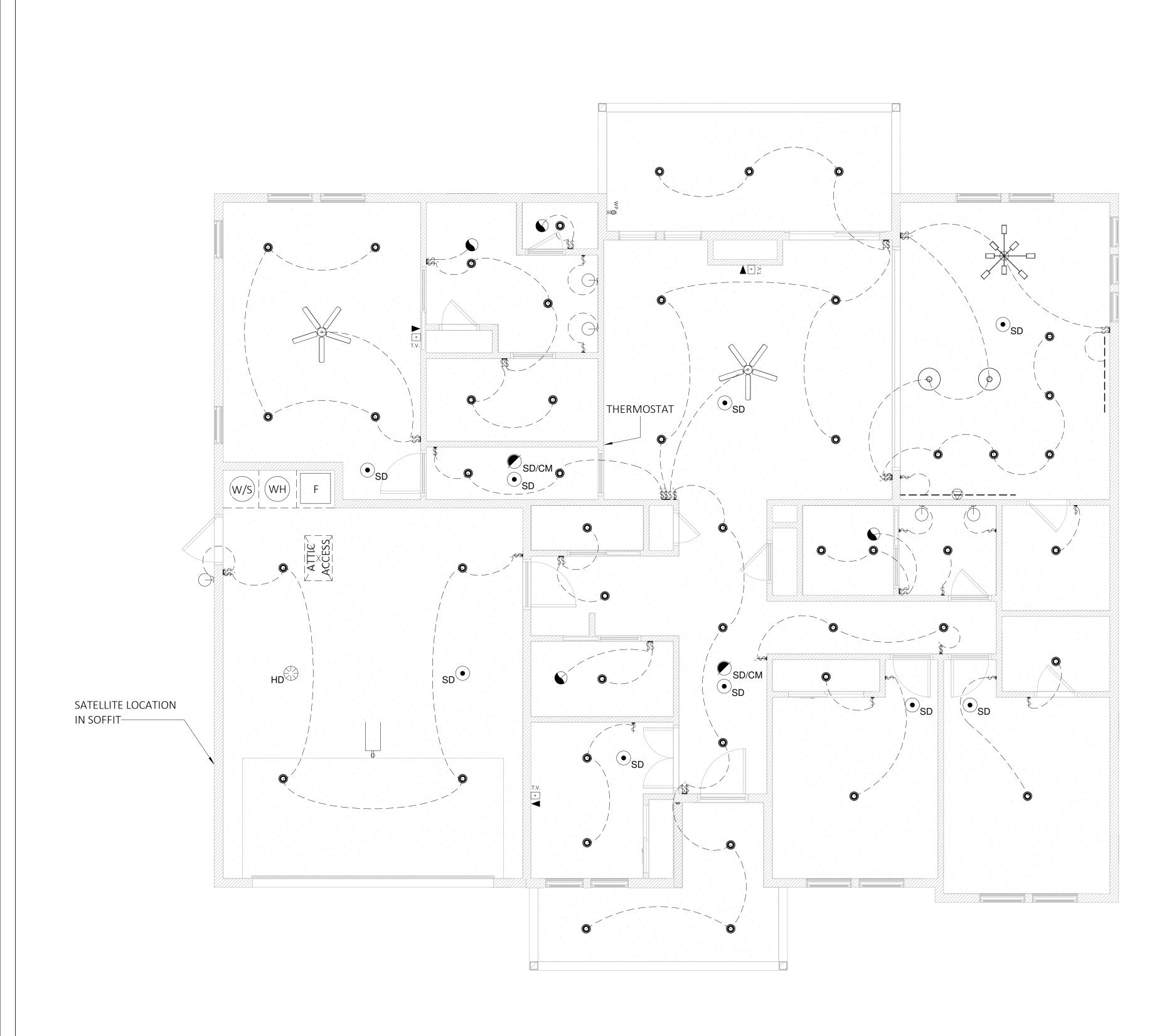
# DRYER - ENERGY STAR RATED, VENTLESS DRYER WITH A MINIMUM CEF RATING OF

TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SHOW THE APPLIANCE TYPE AND PROVIDE DOCUMENTATION OF ENERGY STAR COMPLIANCE. AT THE TIME OF INSPECTION, ALL APPLIANCES SHALL BE INSTALLED AND CONNECTED TO UTILITIES. DRYER DUCTS AND EXTERIOR DRYER VENT CAPS ARE NOT PERMITTED TO BE INSTALLED IN THE DWELLING UNIT.

2153 0 SF 2153 549.9 138.0 182.9 563.8



0



ELECTRICAL LEGEND SWITCH THREE WAY SWITCH CEILING FAN CHANDELIER CAN LIGHT 0 PENDANT LIGHT ---- UNDER CAB. LED LIGHT CABLE / T.V. OUTLET OUTLET WP. OUTLET EXHAUST FAN FLOURESCENT LIGHT GARAGE DOOR OPENER SCONCE LIGHT SD/CM CM. DETECTOR SMOKE DETECTOR HEAT DETECTOR PORCH LIGHT 220V FOR HEAT PUMP

 $\frac{1}{1/4" = 1'-0"}$ 

**GLAZING SCHEDULE** 

REF. VIEW

FRONT

FRONT

LEFT

REAR

REAR

WIDTH

30"

36"

42"

24"

HEIGHT

72"

72"

72"

24"

48"

QTY TOTAL AREA

30.0 SF

72.0 SF

30.0 SF

7.0 SF

8.0 SF

2

4

1

1

U - FACTOR

0.28

0.28

0.28

0.28

0.28

TYPE

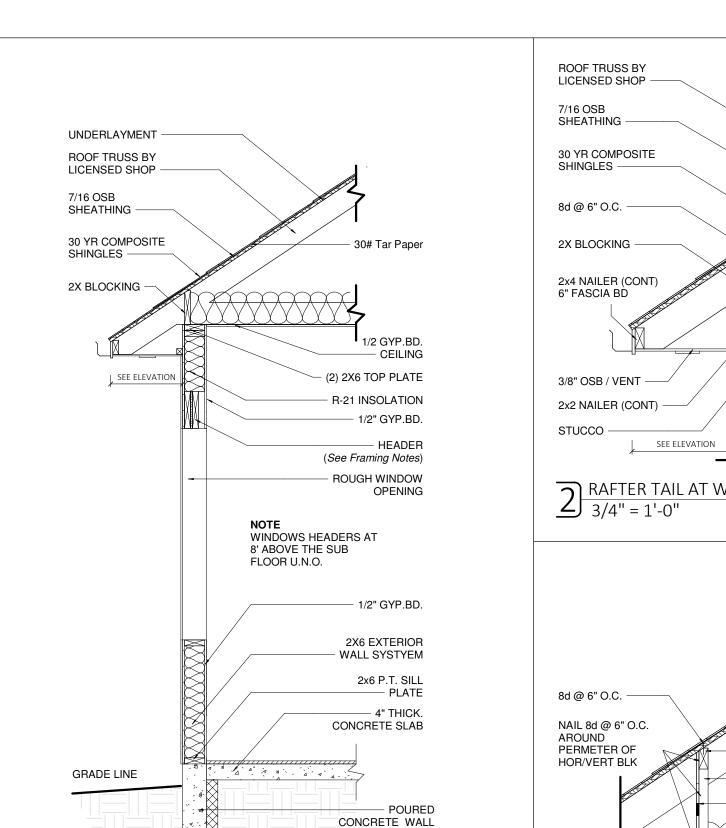
70 Series Single Hung

70 Series Single Hung

70 Series Single Hung

70 Series Single Sliding

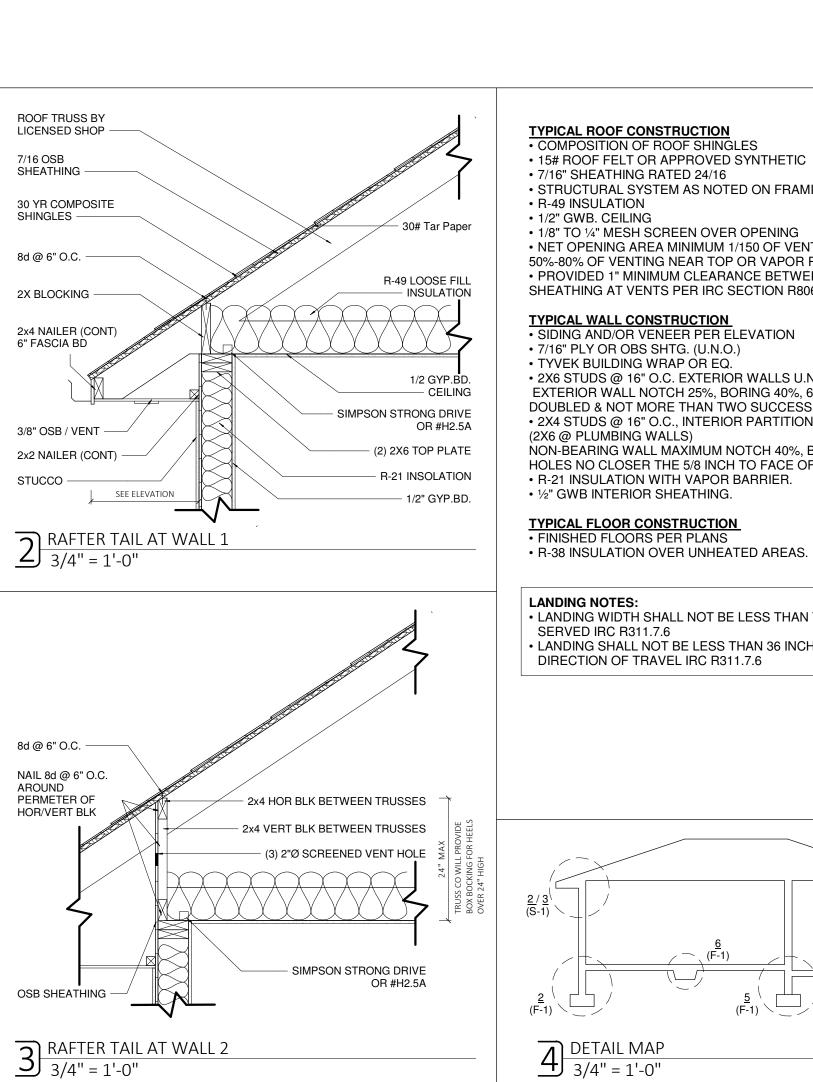
70 Series Single Hung

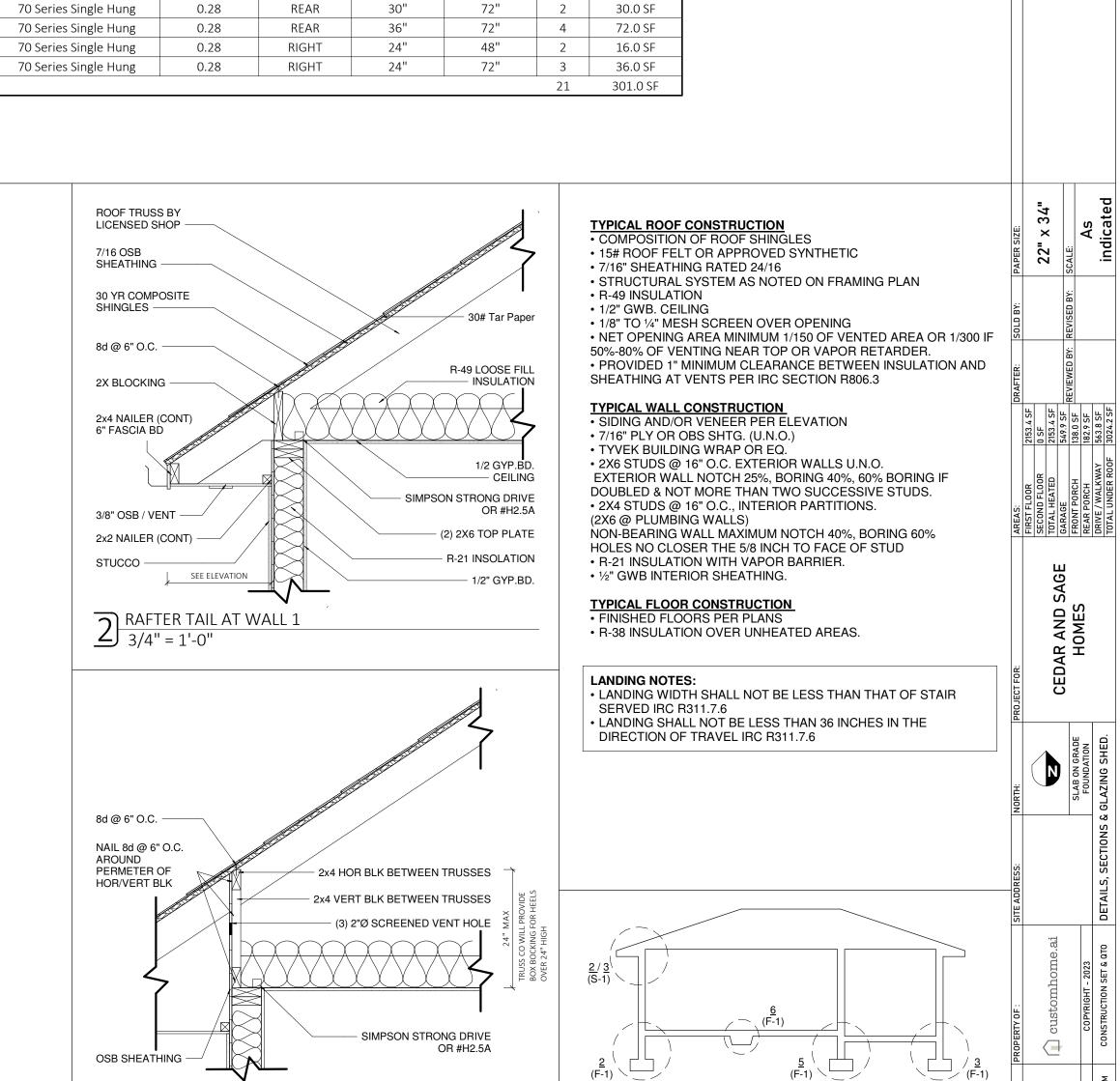


R-10 RIGID INSULATION

 $\frac{1}{1/2"} = 1'-0"$ 

- 12"X6" FOOTING





**⊘** Fed F