ARE

Written dimensions on these drawings shall have precedence over so dimensions. Contractor shall assume responsibility for all dimensions conditions on the job. The designer must be notified and consent to a from dimensions set forth herein.	The type of exterior finish, the installation and waterproofing details an the full responsibility of the owner/builder. This Designer highly recon party verify building envelope and inspection of final product. This Deassumes no responsibility for the integrify of the building envelope.	This document is the property of Volare Townhomes, LLC No reuse reproduction is allowed without the written consent from Volare Townlesigner has no right to documents on this page. Designer worked u direction of Volare Townhomes LLC.

1/4"=1'-0"

TABLE NIIØ1.1(2) ADDITIONAL MEASURES envelope enhancement measure (select one) **High efficiency walls & windows:** Exterior walls - U-0.047/R-19+5 (insulation sheathing)/SIPS, and one of the following options: Windows - Max 15 percent of conditioned areat or Windows - U-0.30' High efficiency envelope: Exterior walls - U-0.058/R-21 Intermediate framing, and Vaulted ceilings - U-0.033 / R-30 Δ , and Flat ceilings - U-0.025 / R-49, and Framed floors - U-0.025/R-38, and Windows - U.030 \pm and Doors - All doors U-0.20, or Additional 15 percent of permanently installed lighting fixtures as high-efficacy lamps of Conservation Measure D and E High efficiency ceiling, windows & duct sealing: (Cannot be used with Conservation Measure E) Vaulted ceilings - $U-0.033 / R-30A^{de}$, and Flat ceilings - U-0.025/R-49, and Windows - U-0.30, and performance tested duct systems High efficiency thermal envelope UA: Proposed UA is 15% lower than the Code UA when calculated in Table N1104.1(1) Building tightness testing, ventilation and duct sealing: A mechanical exhaust, supply, or combination system providing whole-building ventilation rates specified in Table NII01.1(3), or ASHRAE 622, and The dwelling shall be tested with a blower door and found to exhibit no more 1. 6.0 air changes per hour', or
2. 5.0 air changes per hour' when used with Conservation Measure E, and
Performance tested duct systems^b Ducted HVAC systems within conditioned space: (Cannot be used with Conservation Measure B or C) All ducts and air handler are contained within building envelope!

	TABLE NIIØ1.1(2) ADDITIONAL MEASURES
	conservation measure (select one)
Д	High efficiency HVAC system: Gas-fired furnace or boiler with minimum AFUE of 90%, or Air-source heat pump with minimum HSPF of 8.5 or Closed-loop ground source heat pump with minimum COP of 3.0
В	High efficiency duct sealing: Certified performance tested duct systems or All ducts and air handler are contained within building envelope
С	Ductless Heat Pump: Replace electric resistance heating in at least the primary zone of dwelling with at least one ductless mini-split heat pump having a minimum HSPF of 8.5. Unit shall not have integrated backup resistance heat, and the unit (or units, if more than one is installed in the dwelling) shall be sized to have capacity to meet the entire dwelling design heat loss rate at outdoor design temperature condition. Conventional electric resistance heating may be provided for any secondary zones in the dwelling. A packaged terminal heat pump (PTHP) with comparable efficiency ratings may be used when no supplemental zonal heaters are installed in the building and integrated backup resistance heat is allowed in a PTHP.
D	High efficiency water heating & lighting: Natural gas/propane, on demand water heating with min EF of 0.80, and A minimum 75 percent of permanently installed lighting fixtures as CFL or linear fluorescent or a min efficacy of 40 lumens per watt as specified in Section NII07.2c
E	Energy management devise & duct sealing: Whole building energy management device that is capable of monitoring or controlling energy consumption, and Performance tested duct systemsb, and A minimum 75 percent of permanently installed lighting fixtures as high-efficacy lamps

Minimum 1 Watt / sq ft. conditioned floor space

provided that work demonstrates conformance to ODOE duct performance standards.

space floor area unless vaulted area has a *U*-factor no greater than U-0.026.

a. Furnaces located within the building envelope shall have sealed combustion air installed.

b. Documentation of Performance Tested Ductwork shall be submitted to the Building Official upon completion of work. This work shall be performed by a contractor that is certified by the Oregon Department of Energy's (ODOE) Residential Energy Tax Credit program and documentation shall be

c. Section N1107.2 requires 50 percent of permanently installed lighting fixtures contain high efficacy lamps. Each of these additional measures adds an additional percent to the Section N1107.2

d. A = advanced frame construction, which shall provide full required ceiling insulation value to the

e. The maximum vaulted ceiling surface area shall not be greater than 50 percent of the total heated

f. Building tightness test shall be conducted with a blower door depressurizing the dwelling 50 Pascal's from ambient conditions. Documentation of blower door test shall be submitted to the Building Official

g. Solar electric system size shall include documentation indicating that Total Solar Resource Fraction

h. Solar water heating panels shall be Solar Rating and Certification Corporation (SRCC) Standard OG-300 certified and labeled, with documentation indicating that Total Solar Resource Fraction is not

i. A total of 5 percent of an HVAC system's ductwork shall be permitted to be located outside of the conditioned space, Ducts located outside the conditioned space shall have insulation installed as

Solar photovoltaic:

Solar water heating:

requirement.

outside of exterior walls.

upon completion of work.

less than 75 percent.

required in this code.

is not less than 75 percent.

G Minimum of 40 ft² of gross collector area For Si: 1 square foot = 0.093 m², 1 watt per square foot = 10.8 W/m².

Combustion air shall be ducted directly from the outdoors.

- TABLE NIIØLI(1) PRESCRIPTIVE ENVELOPE REQUIREMENTS Standard Base Case Building Component Required Equivalent _E Performance U-0.060 R-21 ° Wall insulation-above grade F-0.565 R-15 Wall insulation-below grade • U-*Ø.*Ø31 R-38 Flat ceilings U-*Ø.*Ø42 R-38 ^g Vaulted ceilings g U-0.028 R-3Ø Underfloors F-Ø.52Ø R-15 Slab edge perimeter R-10 Heated slab interior Windows ^J U-Ø.35 U-0.35 Window area limitation n/a n/a skylights U-0.60 U-0.60 U-0.20 U-0.20 Exterior doors ' Exterior doors w/>2.5 ft² glazing" U-0.40 U-0.40 Forced air duct insulation to document equivalent heat loss shall be performed using the procedure and approved U-values contained in Table Wall insulation requirements apply to all exterior wood framed, concrete or masonary walls that are above grade. This includes cripple walls and rim joist areas. R-19 Advanced Frame or 2x4 wall with rigid insulation may be substituted is total The wall component shall be a minimum solid log or timber wall thickness of 3.5 inches (90mm). such wall that extend more than 24 inches above grade.
 - a. As allowed in section NII04.1, thermal performance of a component may be adjusted provided that overall heat loss does not exceed the total resulting from conformance to the required U-value standards. Calculation
 - b. R-values used in this table are nominal, for the insulation only in standard wood framed construction and not for the entire

 - Below-grade wood, concrete or masonary walls include all walls that are below grade and does not include those portions of
 - Insulation levels for ceilings that have limited attic/rafter depth such as dormers, bay windows or similar architectural features totaling not more than 150 square feet (13.9m²) in area may be reduced to not less than R-21. When reduced, the
 - cavity shall be filled (except for required ventilation spaces). The maximum vaulted ceiling surface area shall not be greater than 50 percent of the total heated space floor area unless area has a U-factor no greater than U-0.031. The U-factor of 0.042 is representative of a vaulted scissor truss. A 10-inch
 - deep rafter vaulted ceiling with R-30 insulation is U-0.033 and complies with this requirement, not to exceed 50 percent of the total heated space floor area. A=advanced frame construction, which shall provide full required insulating value to the outside of exterior walls.
 - Heated slab interior applies to concrete slab floors (both on and below grade) that incorporate a radiant heating system
 - · Sliding glass doors shall comply with window performance requirements. Windows exempt from testing in accordance with NF1111.2 item 3 shall comply with window performance regirements if constructed with thermal break aluminum or wood, or vinyl, or fiberglass frames and double-pane glazing with low-emissivity coatings of 0.10 or less. Buildings designed to incorporate passive solar elements may include glazing with U-factor greater than 0.35 by using Table N1104.1(1) to
 - k. Reduced window area may not be used as a trade-off criterion for thermal performance of any component.
 - I. Skylight area installed at 2% or less of total heated space floor area shall be deemed to satisfy this requirement with vinyl, wood, or thermally broken aluminum frames and double-pane glazing with low-emissivity coatings. Skylight U-factor is tested in the 20 degree overhead plane per NFRC standards.
 - m. A maximum of 28 square feet (2.6 m²) of exterior door area per dwelling unit can have a U-factor of 0.54 or less.
 - n. Glazing that is either double pane with low-e coating on one surface, or triple pane shall be deemed to comply with this



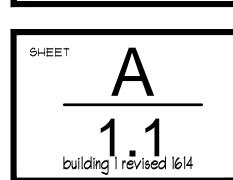
LOT 3

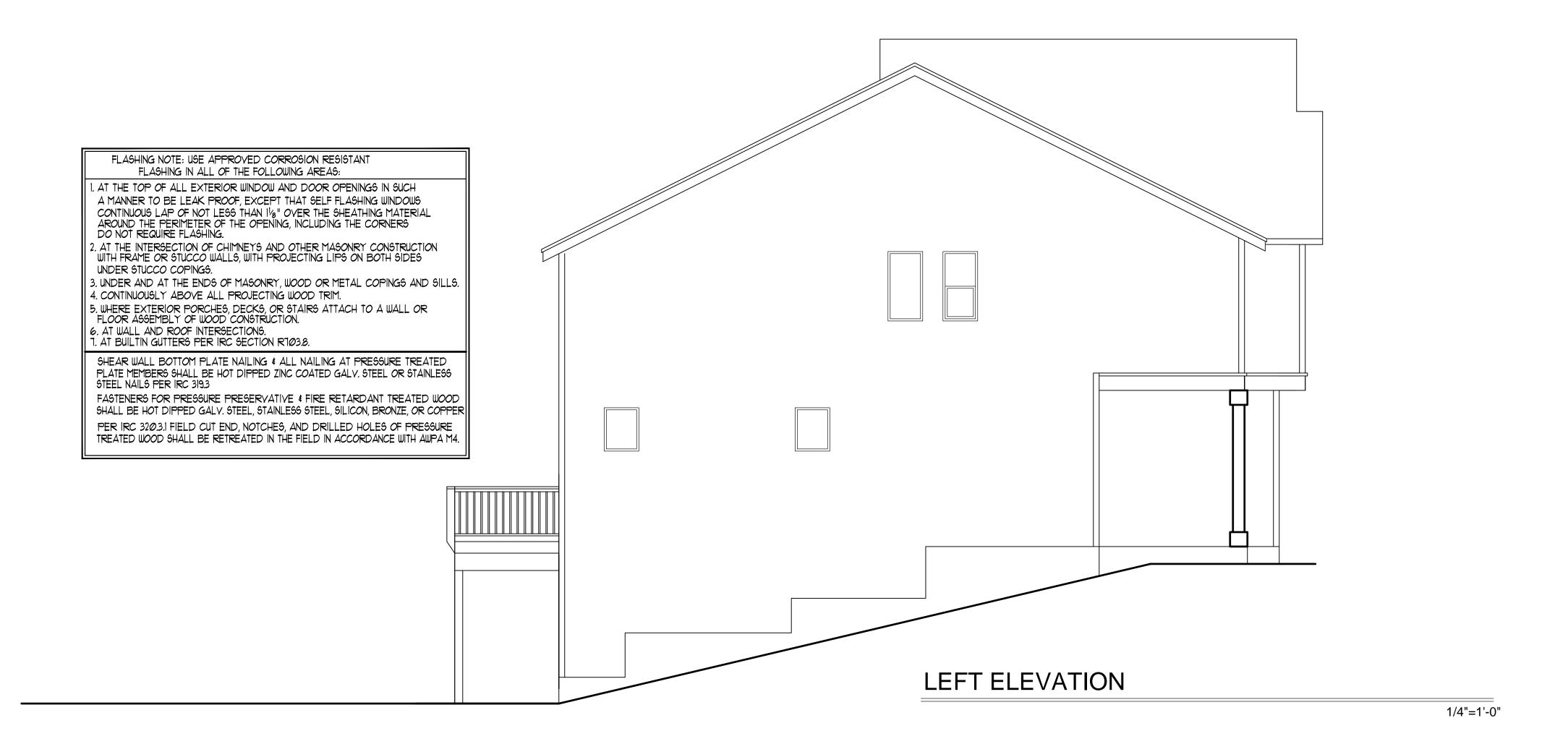
LOT 2

FRONT ELEVATION

LOT 1

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





- ALL WORK SHALL BE DONE IN CONFORMANCE WITH THE LATES EDITION OF LOCAL BUILDING CODE, ONE AND TWO FAMILY DWELLING CODES AND ALL OTHER GOVERNING CODES, LAWS AND REGULATIONS.
- 2. SITE/CONSTRUCTION DOCUMENTS AND CONSTRUCTION PHASE: CONTRACTOR SHALL NOT SCALE THE DRAWINGS, OR DETAILS, CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND CONDITIONS AT THE JOBSITE.

 NOTIFY DESIGN AGENCY IN WRITTING OF ANY SIGNIFICANT DEVIATIONS, ANY CHANGES TO CONSTRUCTION DOCUMENTS OR IF ADDITIONAL DETAILS, SPECIFICATIONS ARE NEEDED FOR PROPER EXECUTION OF THE WORK. ALSO NOTIFY DESIGN AGENCY IN WRITTING IF THERE ARE ANY CORRECTIONS OR CHANGES TO BE MADE TO THE CONSTRUCTION DOCUMENTS REQUIRED BY THE PLANNING/BUILDING DEPARTMENT OFFICALS, PLANS CORRECTION LIST OR COMMENTS (FROM THE PLANNING/BUILDING DEPARTMENT OFFICIALS)

 MUST BE DELIVERED TO THE DESIGN AGENCY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL TRADES, INCLUDING ALL ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL REQUREMENTS.
- 4. MECHANICAL AND ELECTRICAL WORK IS ON A CONTRACTOR DESIGN/BUILD BASIS, COORDINATE ALL ARCHITECTURAL AND STRUCTURAL WORK WITH MECHANICAL AND ELECTRICAL REQUIREMENTS.
- ALL DIMENSIONS ARE TO THE FACE OF FRAMING MEMBERS UNLESS NOTED OTHERWISE. ALL EXTERIOR WALLS TO BE 2x6 STUDS AT 16" O.C., ALL INTERIOR
- WALLS TO BE 2x4 STUDS AT 16" O.C. UNLESS NOTED OTHERWISE. 6. COORDINATE ALL ITEMS NOT SHOWN OR NOTED WITH OWNER AND/OR DESIGNER, INCLUDING BUT NOT LIMITED TO FINISHES, COLORS, CABINETS, HARDWARE, FIXTURES, ETC...
- SEAL OR WEATHER STRIP ALL EXTERIOR OPENINGS AND PENETRATIONS
 IN MANNER TO PREVENT OUTSIDE AIR INFILTRATION AND MOISTURE FROM
 ENTERING STRUCTURAL AND OCCUPIED SPACES, INCLUDING AROUND
 PLUMBING AND ELECTRICAL LINES AND EQUIPMENT PASSING THROUGH WALLS, GUTTERS, DOWNSPOUTS, ETC...
- 8. IT IS THE GENERAL CONTRACTORS RESPONSIBILITY TO FOLLOW AND COORDINATE PER THE MANUFACTURER'S PRINTED INSTRUCTIONS, SPECIFICATIONS AND INSTALLATION DETAILS THE INSTALLATION OF ALL BUILDING PRODUCTS (INTERIOR AND EXTERIOR), FIXTURES, EQUIPMENT, ETC... OR FOLLOW THE INDUSTRY STANDARD DETAILS FOR ALL THE CONDITIONS NOT SHOWN ON THE DRAWINGS FOR PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.

 THE DESIGN AGENCY MUST BE NOTIFIED IN WRITTING TO PROVIDE ADDITIONAL DETAILS, SPECIFICATIONS OR INFORMATION PER REQUEST OF THE GENERAL CONTACTOR OR OWNER FOR PROPER EXECUTION OF THE WORK.

CONSTRUCTION PHASE

THE DESIGNER SHALL NOT HAVE CONTROL OVER OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, SINCE THESE ARE SOLELY THE CONTRACTOR'S RESPONSIBILITY UNDER CONTRACT FOR CONSTRUCTION.

THE DESIGNER SHALL NOT BE RESPONSIBLE FOR CONTRACTOR'S SCHEDULES OR FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.

MATERIAL SPECIFICATION NOTE:

THE DESIGNER DOES NOT RECOMMEND OR SPECIFY USE OF ANY TYPE OF "STUCCO PRODUCTS" OR EXTERIOR INSULATED AND FINISH SYSTEM "E.I.F.S." FOR THE EXTERIOR OF THE HOUSE.

THE DESIGNER WILL NOT BE LIABLE FOR ANY KIND OF DAMAGES TO THE BUILDING (STRUCTURAL OR COSMETIC) IF THE OWNER OR THE CONTRACTOR DECIDE TO USE SUCH PRODUCTS.



Written dimensions on these drawings shall have precedence over scaled dimensions. Contractor shall assume responsibility for all dimensions and conditions on the job. The designer must be notified and consent to any var from dimensions set forth herein.

The type of exterior finish, the installation and waterproofing details are all the full responsibility of the owner/builder. This Designer highly recomment party verify building envelope and inspection of final product. This Designer assumes no responsibility for the integrity of the building envelope.

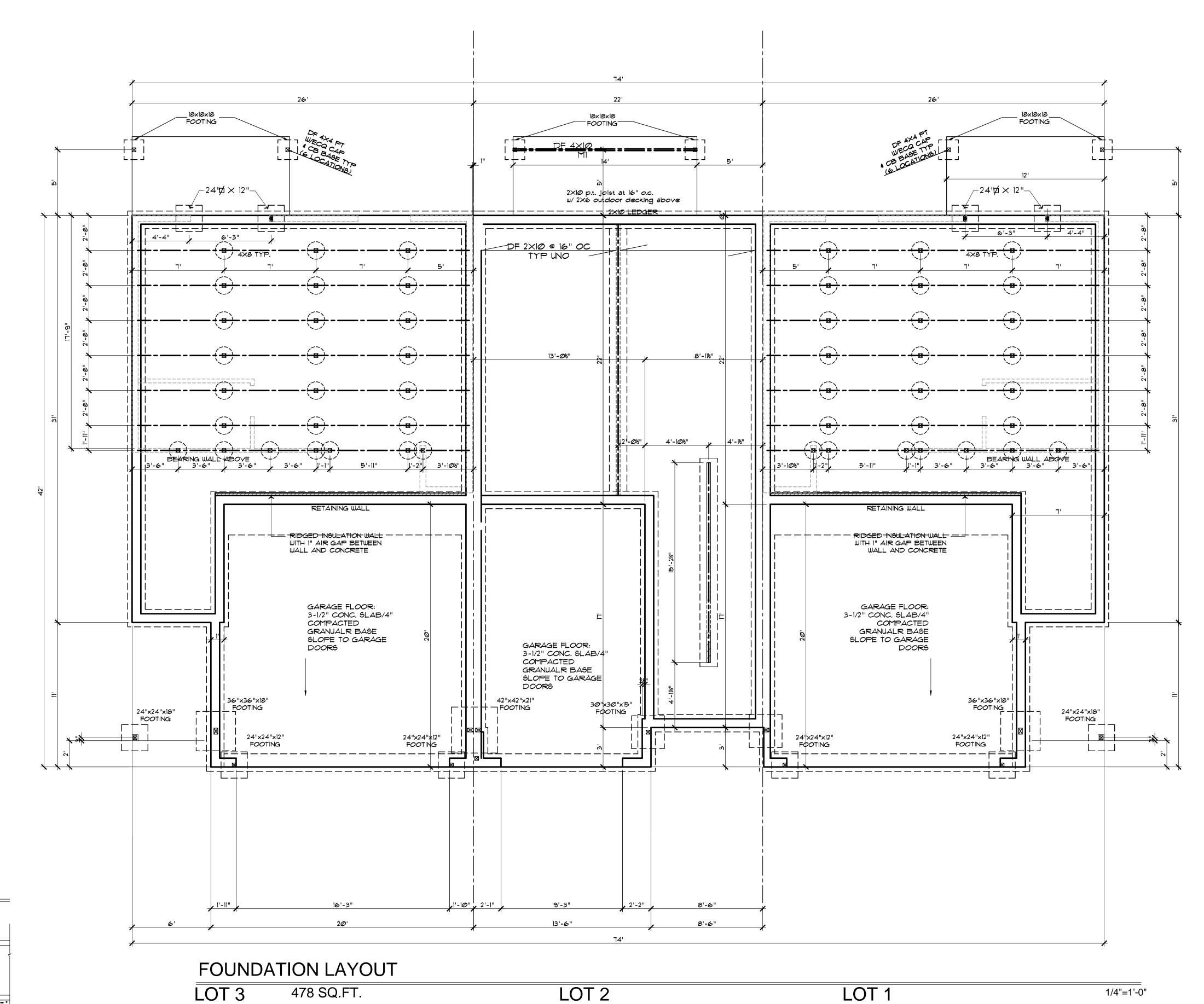
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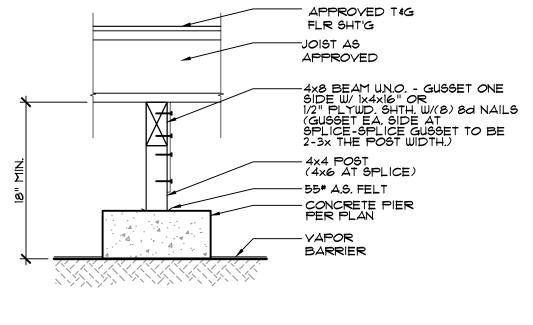
VOLARE TOWNHOMES
OF CAUSEY AVENUE
HAPPY VALLEY, OREGON

OFF CAUSEY AVE

FOUNDATION

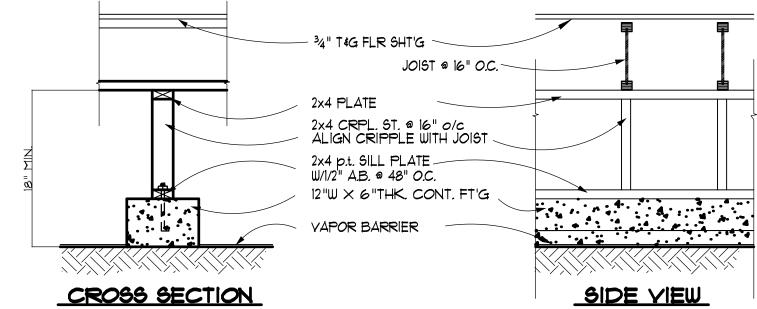
 $\frac{\mathbf{A}}{20}$





B INTERIOR POST & BEAM W/JOISTS

2 3/4" = 1'-0"

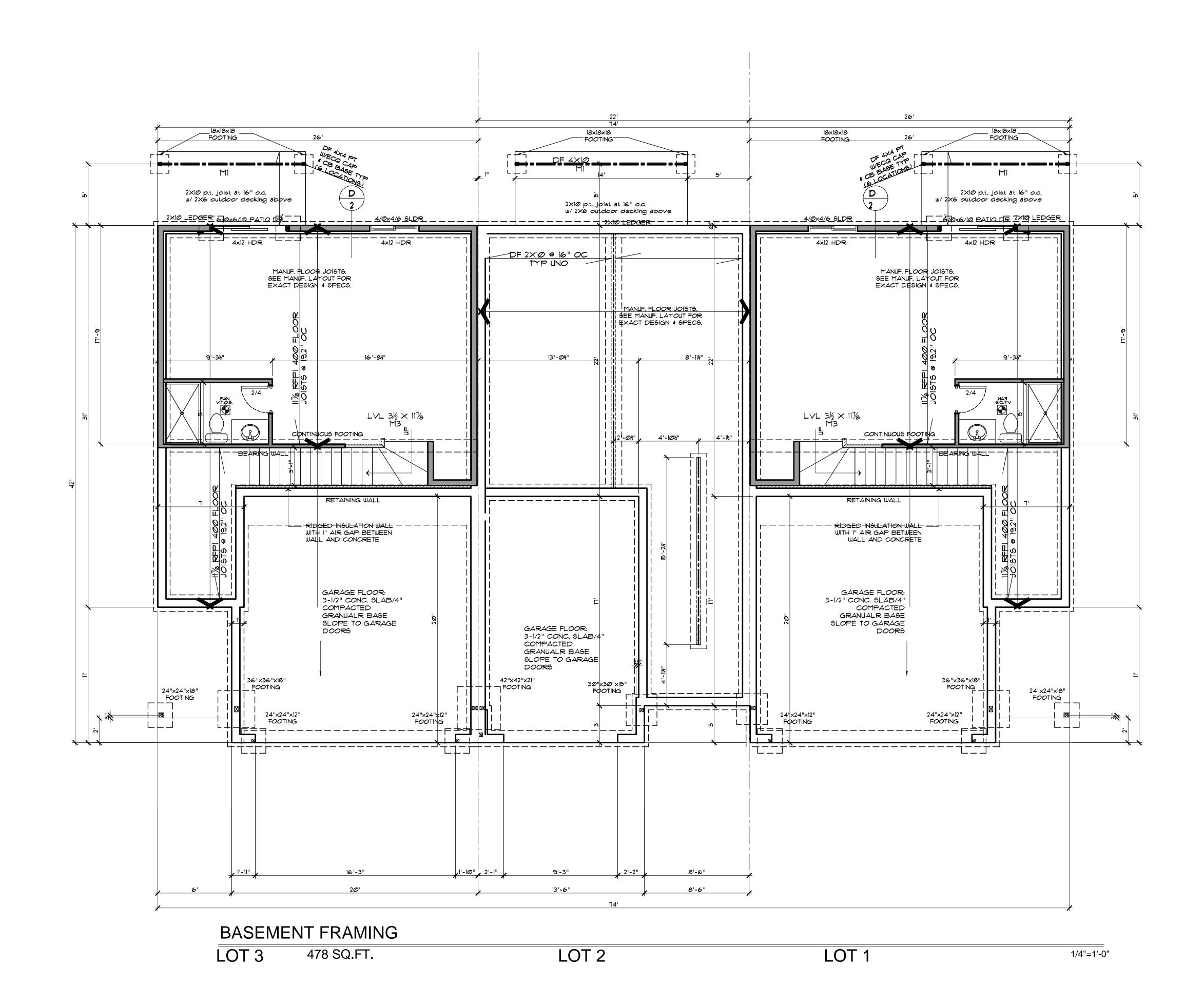


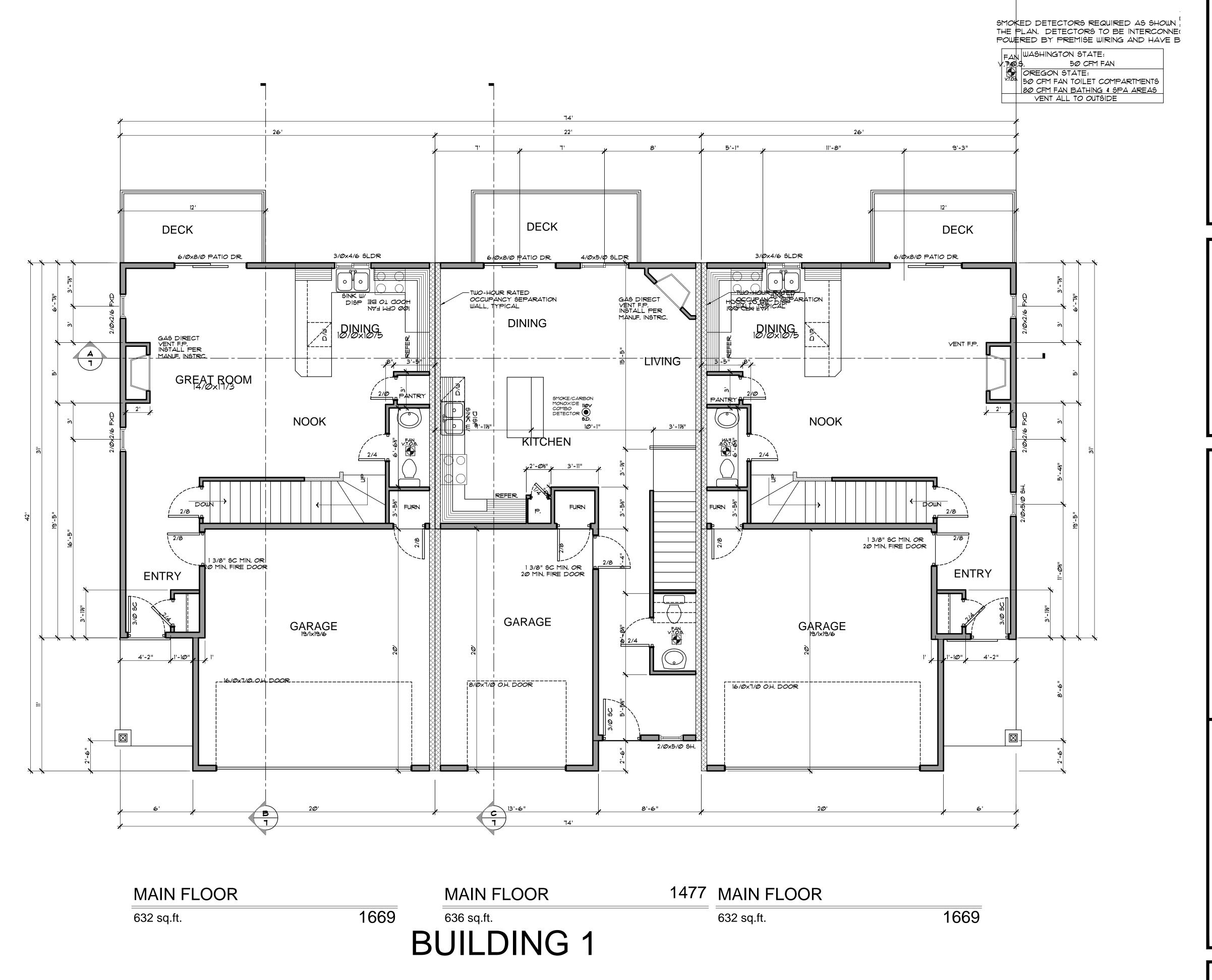
C INTERIOR CONTINUOUS FOOTING
2 3/4" = 1'-0"

SHEET A

21

building I revised 1614





ILLUMINATION NOTES: PER IRC SECTION 3036, R3115.7 ALL INTERIOR AND EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH A MEANS TO ILLUMINATE THE STAIR INCLUDING. LANDINGS & TREADS, INTERIOR STAIRWAYS SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED IN THE IMMEDIATE VICINITY OF THE LANDING OF THE STAIRWAY. EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH A LIGHT SOURCE LOCATED IN THE IMMEDIATE VICINITY OF THE TOP OF THE LANDING OF THE STAIRWAY, LIGHTING CONTROLS SHALL BE ACCESSIBLE AT THE TOP & BOTTOM OF EACH STAIRWAY WITHOUT TRAVERSING ANY STEPS.

4-3/8" SPHERE SHALL ONOT PASS THROUGH

134" MAX RISER HT.

— HANDRAIL TO BE PRESENT ON
ON AT LEAST ONE SIDE OF STAIR
HANDGRIP PORTION OF HANDRAILS
SHALL HAVE CIRCULAR CROSS SECTION
OF 1½" MM. 4 2" MAX. EDGES SHALL HAVE
A MIN. RADIUS OF ½".
ALL REQUIRED GUARDRAILS TO BE 36"
MIN. IN HEIGHT.

-34" PLYWOOD FLR

2x12 STRINGER AT

NOSING MIN. 34"

MAXIMUM I14" REQ'D

ON STAIRS W/ SOLID
RISERS.

2x12 STRINGER AT

√3/4" FLOOR SHT'G

-NOSING MIN. 34"

MAXIMUM 114" REQ'D

ON STAIRS W/ SOLID
RISERS.

2x12 STRINGERS AT 16" o/c >34" PLYWOOD LANDING SHT'G

STAIR AT LANDING CONN.

STAIR AT FLOOR CONNECTIONS

STAIR AT WOOD FLOOR CONN.

SHEATHING

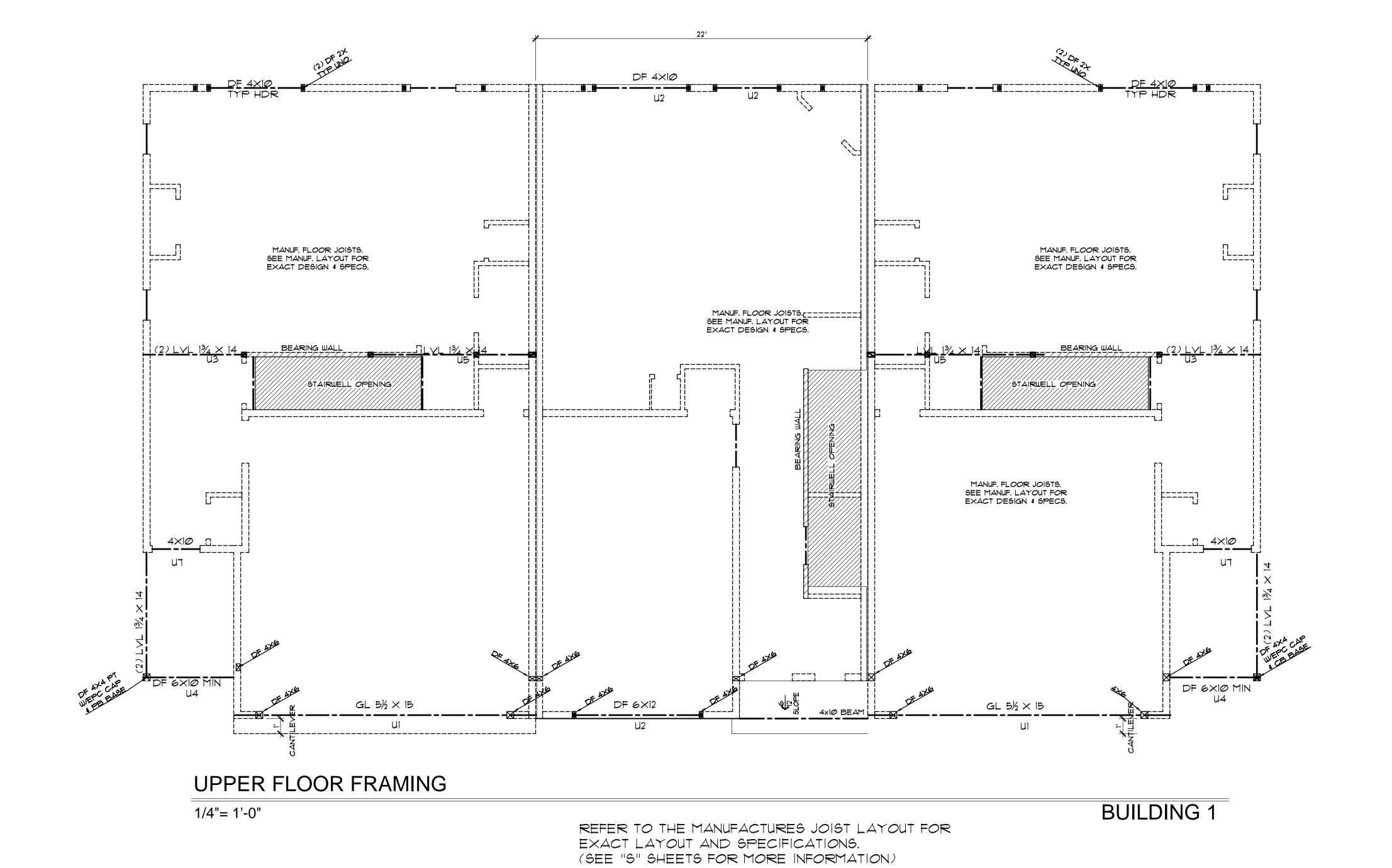
GUARD & STAIR REQUIREMENTS

NOTES: 4 OR MORE RISERS TO

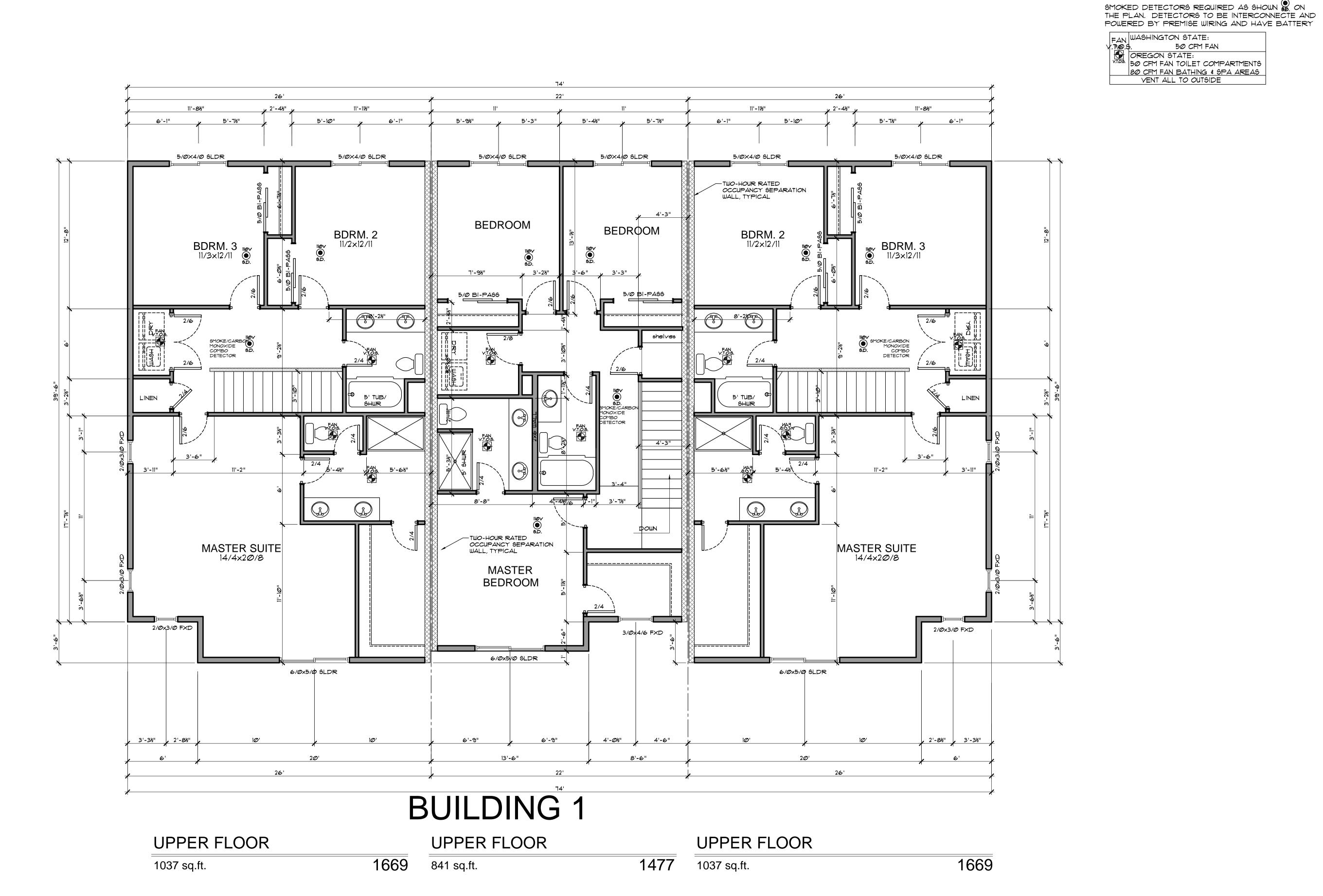
HAVE AT LEAST ONE HANDRAIL
RUNNING CONTINUOUS THROUGH FULL
LENGTH OF STAIR
34" MIN. HT., 38" MAX. HT.

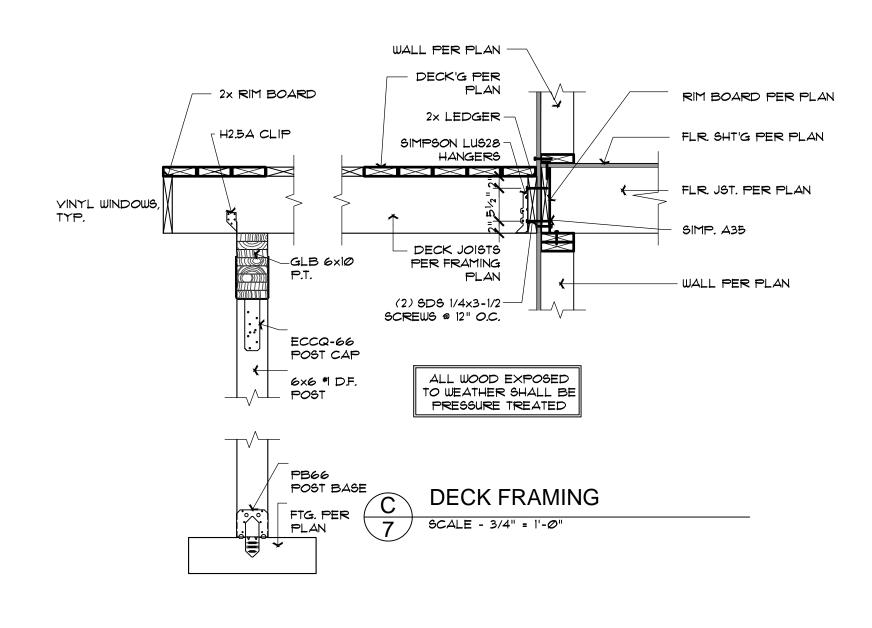
VOLARE TOWNHOMES OFF CAUSEY AVENUE HAPPY VALLEY, OREGON

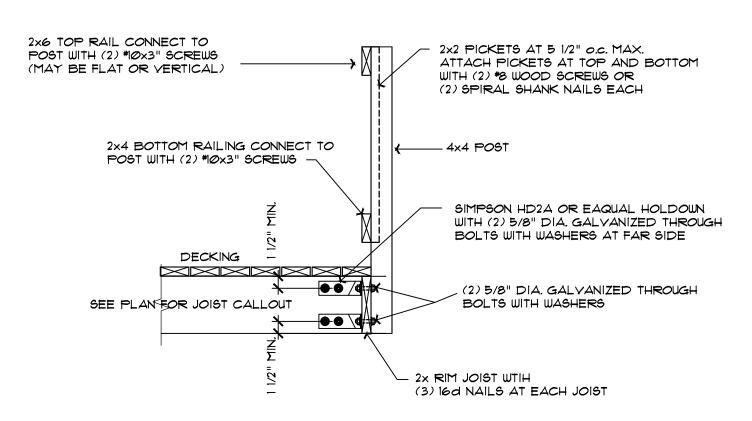
SHEET A O building I revised 1614



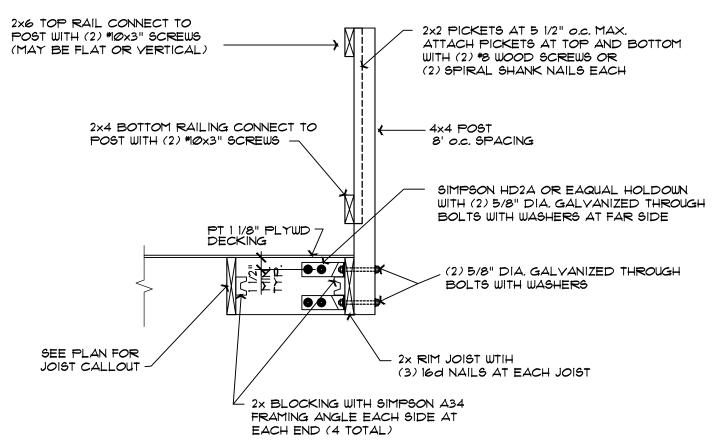
50 CFM FAN



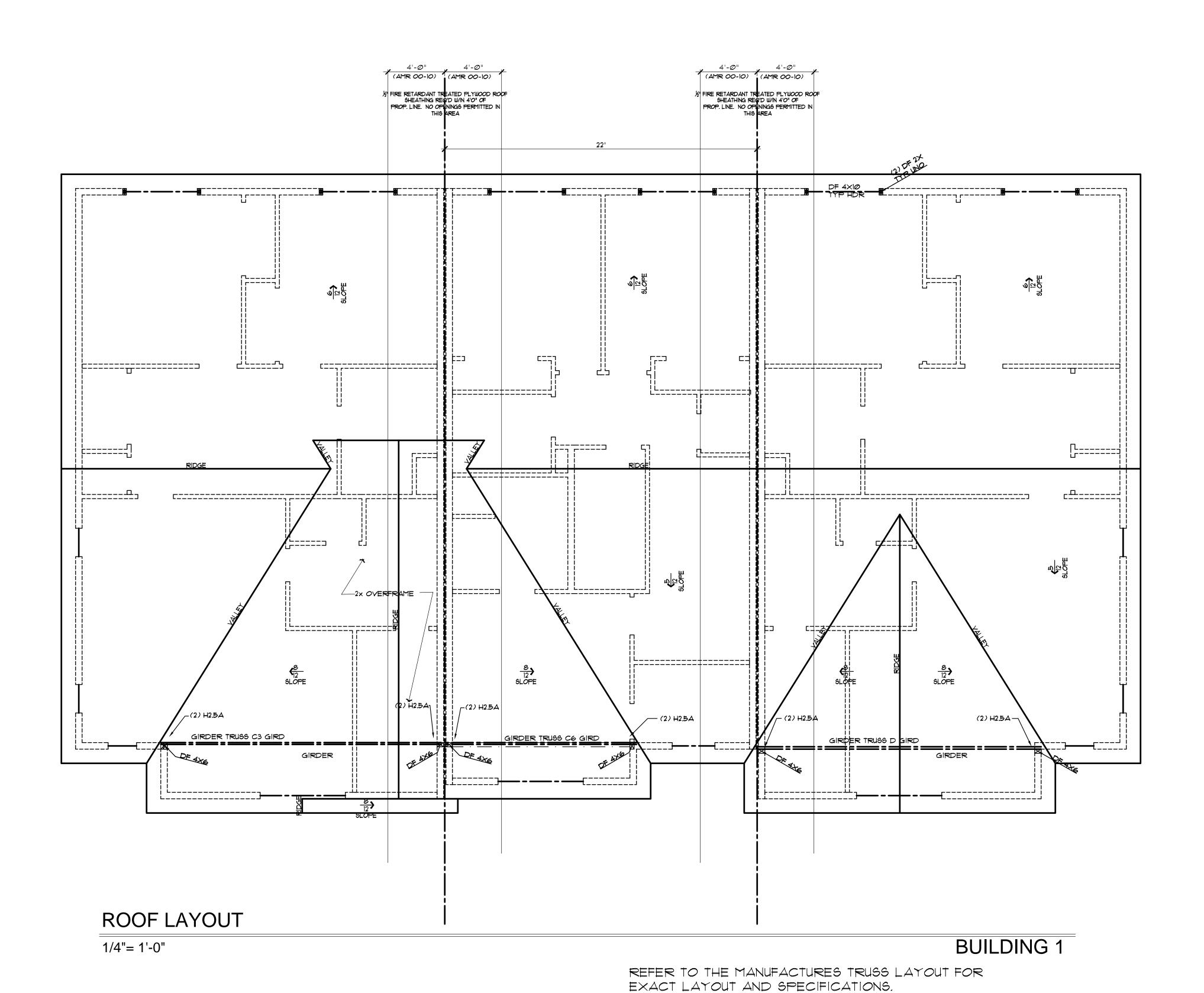


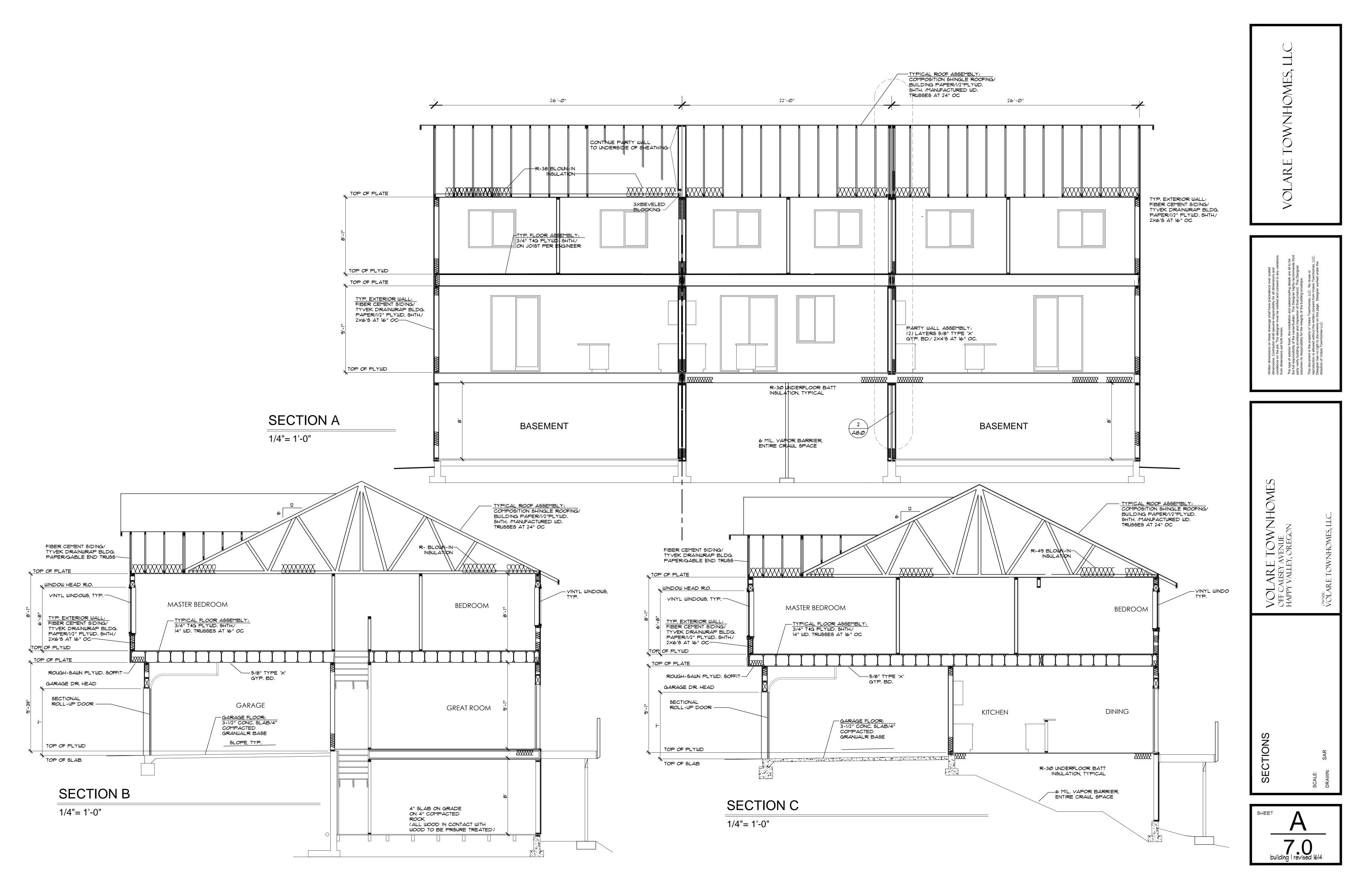


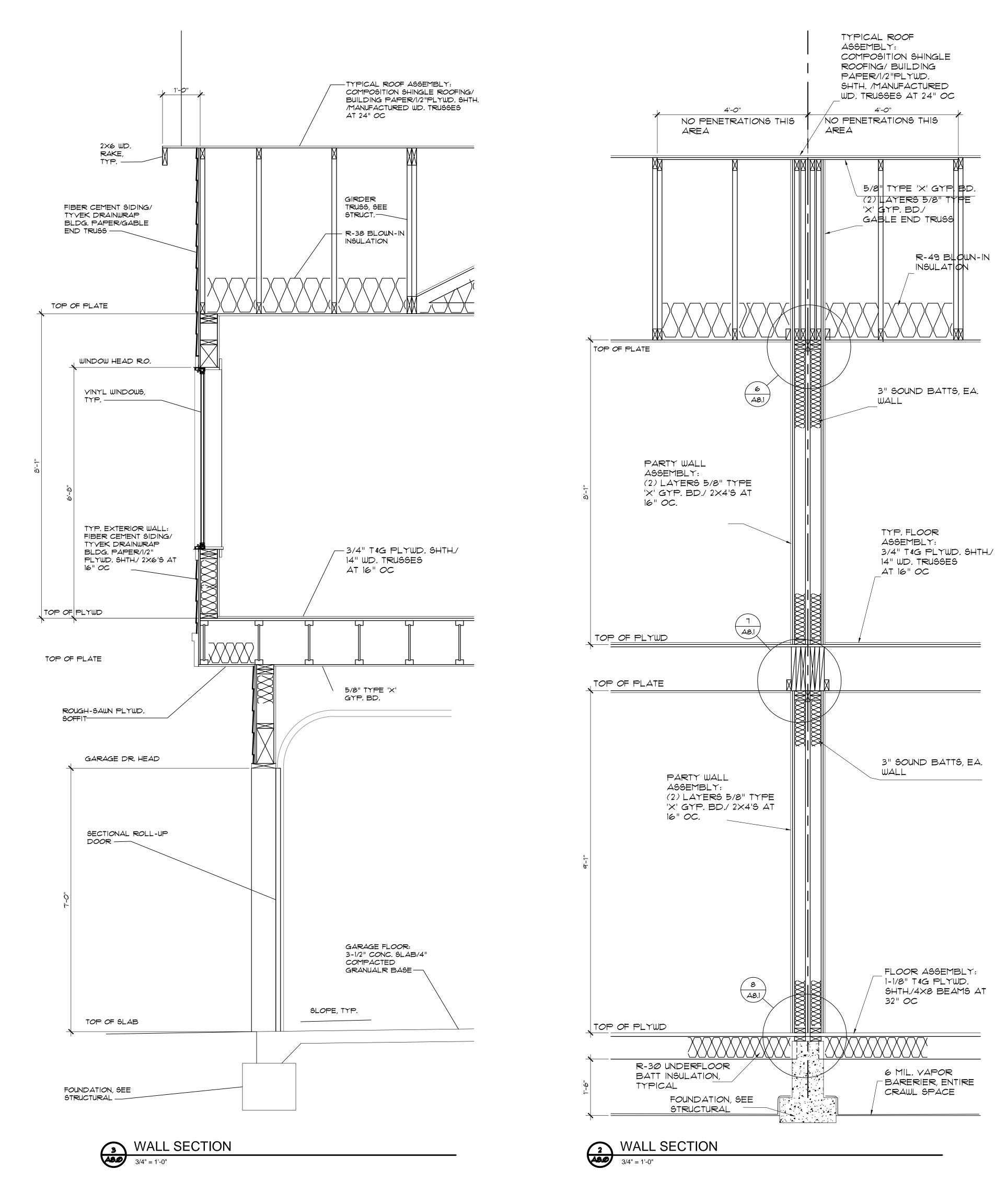


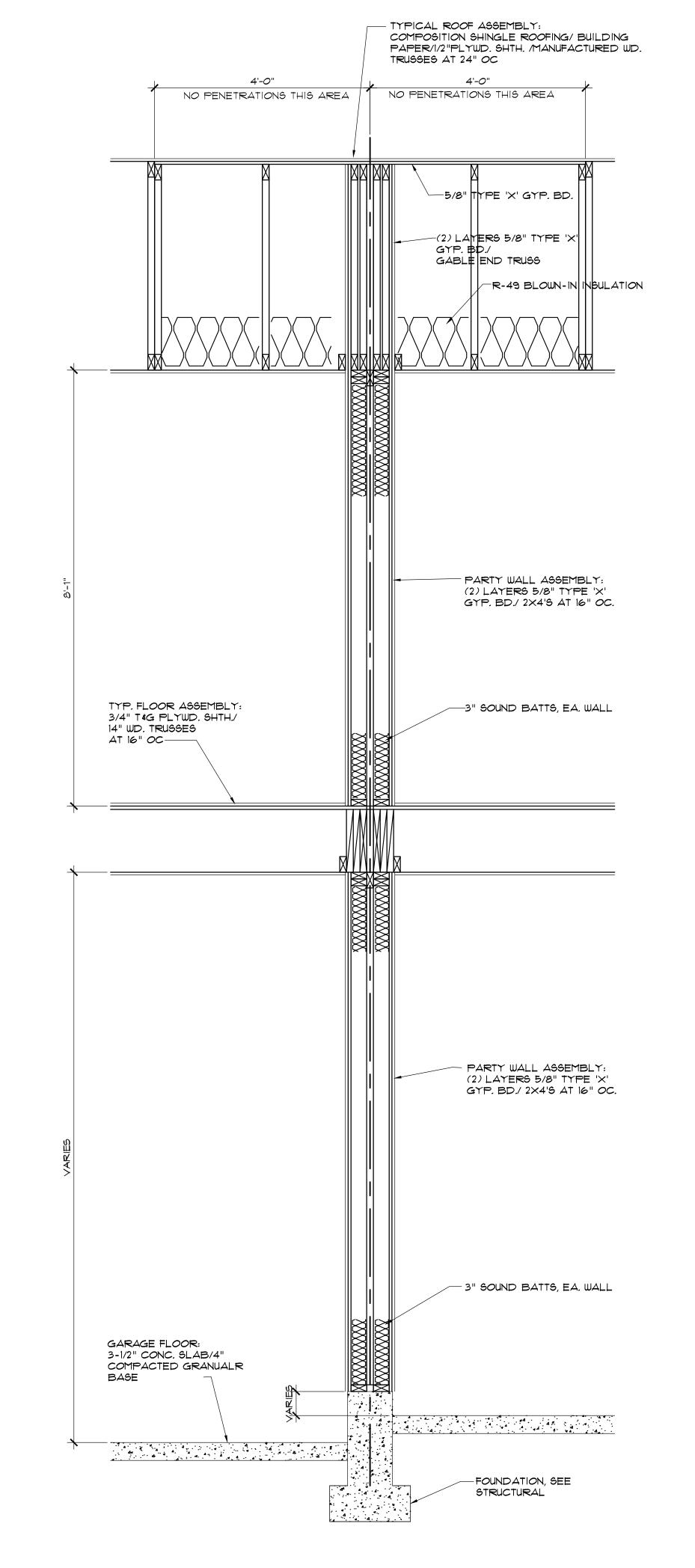












TOWNHOMES,

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WALL SECTION

3/4" = 1'-0"