



BUILDING PERMIT APPLICATION

Date:		Project:	
Construction Bid		OR - Estimated Cost of Project	
JOB SITE INFORMATION		OWNER INFORMATION	

St. Address	Name:
City/St/Zip: Seaside OR 97138	Address:
Directions to Job Site:	City/St/Zip:
	Phone: _____ Fax: _____

<input type="checkbox"/> I AM THE PROPERTY OWNER HIRING A CONSTRUCTION CONTRACTOR	LICENSE #:	EXPIRES:
<input type="checkbox"/> I AM LICENSED WITH THE BUILDING CODES DIVISION	LICENSE #:	EXPIRES:
<input type="checkbox"/> I AM REGISTERED WITH THE CONSTRUCTION CONTRACTOR'S BOARD	REGISTRATION#:	EXPIRES:
<input type="checkbox"/> ABOVE CONTRACTOR'S SEASIDE BUSINESS LICENSE	LICENSE #:	EXPIRES:
<input type="checkbox"/> I AM THE PROPERTY OWNER DOING MY OWN WORK		

CONTRACTOR INFORMATION

CONTRACTOR'S NAME:			
STREET ADDRESS:		CITY/STATE/ZIP:	
TELEPHONE:	CELL PHONE:	FAX:	
Applicant's Signature		Date Signed	
Print Name			

SUBMITTED PLANS TO INCLUDE

	YES	NO	N/A	ITEM
1.				Please circle one of the Additional Energy Measures from each category (Envelope Enhancement 1 thru 6 & Conservation A thru G) from the enclosed Table N1101.1(2) for 1 & 2 Family Dwellings.
2.				Please check one of the boxes on the new code requirement for exterior wall envelope and how you will comply with R703.2.
3.				Three complete sets of legible plans drawn to scale, showing conformance to the applicable local and state building codes, lateral design details and connections must be in the plans or on a separate sheet attached to the plans with cross-reference between plan location and details.

SUBMITTED PLANS TO INCLUDE

	YES	NO	N/A	ITEM
4.				Site/Plot plan drawn to scale. The plans must show: Lot and building setback dimensions; property corner elevations (if there is more than 4-ft. elevation differential, the site plan must show contour lines at 2-ft. intervals), location of easements and driveway, footprint of structure (including decks), location of wells/septic systems, utility locations, any known fill sites, landslide hazard areas or wetlands, north point, scale, lot area, impervious area, existing structures on site, and drainage & erosion control measures.
5.				Foundation plan and Cross Section: Show footing and foundation dimensions, anchor bolts, any hold downs and reinforcing steel, connection detail, foundation vent size and location, and soil type.
6.				Floor Plans: Show all dimensions, room identification, door and window sizes and location of smoke detectors, water heater, HVAC equipment, ventilation fans, plumbing fixtures, balconies and decks more than 30-inches or higher above grade, etc.
7.				Elevation Views: Provide elevations for new construction; minimum of two elevations for additions and remodels. Exterior elevations must reflect the actual grade if the change is greater than 4-foot at building envelope. Full size sheet addendums showing foundation elevations with cross-reference, are acceptable
8.				Wall bracing (prescriptive path) and/or lateral analysis plans. Building plans must show construction details and locations of lateral brace panels, for non-prescribing path analysis, provide specifications and calculations to engineering standards.

9.			Floor/roof framing plans are required for all floors/roof assemblies indicating member sizing, spacing and bearing locations, nailing and connection details. Show location of attic ventilation.
10.			Basement and retaining wall cross sections and details showing placement of reinforcing steel, drains and waterproofing shall be provided. Engineered plans are required for retaining walls that support a surcharge or exceed 4-feet in height and basement walls not complying with the prescriptive requirements
11.			Beam calculations. Provide two sets of calculations using current code design values for all beams and multiple joists exceeding prescriptive code requirements, and/or beam/joist carrying a non-uniform load.
12.			Manufactured floor/roof truss design details.
13.			Energy code compliance. Identify the prescriptive path or provide calculations.
14.			Engineer's calculations when required (lateral designs, retaining walls or when determined by the Building Official)
15.			Energy documentation. If the building is over 4,000 s.f. or when required by the Building Official. Reference the applicable plan location.
16.			Zoning and land use approval

COMMERCIAL PLANS MUST ALSO INCLUDE THE FOLLOWING

17.			Architect/Engineer Stamp. Required when structure is over 4,000 s.f. or 20-feet in height, or when required by the Building Official.
18.			Structural Calculations. Required for structures over 4,000 s.f., building not permitted to be prescriptive or when required by the Building Official.
19.			Energy Documentation. To be provided on Comcheck energy forms
21.			Mechanical Plans. Equipment location, size, type and layout, fan capacity/air change in habitable areas and bathrooms.
22.			Accessibility. Indicate compliance measures (parking and throughout structure).

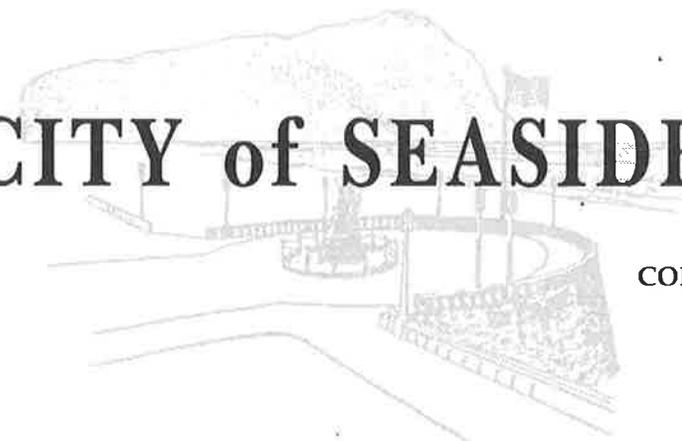
FOR CITY USE ONLY: DO NOT WRITE BELOW THIS LINE

Plan Review#:		Census Class:		Flood Zone:		Occupancy:		
Intake Person:		Bldg. Count:		Req.Elevation		Construction Type:		
Tax Map:		Subdivision:		Housing Count:		Construction Bid:		
Tax Lot:		Lot:		Priv/Comm.Owned(P/C):		Deck & Patio		
Date Submitted:		Block:		Res./Comm (R/C):		Sqft.	Rate	Value
Living Space			Basement Space			Garage/Storage		
Sqft.	Rate	Value	Sqft.	Rate	Value	Sqft.	Rate	Value
	\$110.29						\$42.48	
Building Permit Fee		12% S.C.		Plan Rev.		F.L.S. Rev.		
Planning Fees	General Development			Flood Plain / Erosion Control / Hazard Mitigation Plan				
Amt. Pd.		Rec#		Date:				

ZONING AND LAND USE APPROVALS

REVIEWED BY:		APPROVED		NOT APPROVED		Date:	
ZONING:							
COMMENTS:							

PLEASE SEE THE FOLLOWING PAGES FOR FORMS, DIAGRAMS AND EXAMPLES.



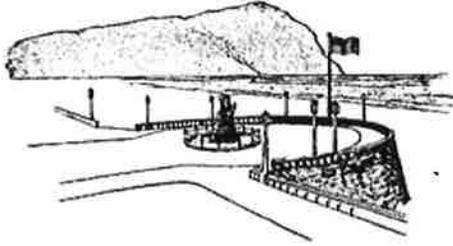
CITY of SEASIDE

OREGON'S
F A M O U S
A L L - Y E A R
R E S O R T

COMMUNITY DEVELOPMENT
LOCATION: 1387 AVE U
MAIL: 989 BROADWAY
SEASIDE, OREGON 97138
(503) 738-7100

	REQUIRED INFORMATION FOR PLAN REVIEW
	SITE PLAN (Show all property lines, structures and distances between)
	FOUNDATION PLAN & CROSS SECTIONS (Including rebar & size)
	WALL BRACING (Fully sheathed, brace panels, or engineered)
	CROSS SECTION (Include insulation values and structural members)
	FLOOR & ROOF FRAMING TYPE (Maybe included in the cross section)
	ADDITIONAL ENERGY METHOD PROPOSED
	FLOOR PLAN (Show all room types, including existing)
	EROSION CONTROL
	GEO TECH REPORT
	ELEVATIONS AT ALL 4 CORNERS

City of Seaside
Building Department



**MOISTURE-SENSITIVE
WOOD FRAMING
MOISTURE CONTENT
Acknowledgement Form**

Permit No. _____

I, _____, am the general contractor or the owner-builder at the following address:

Site Address: _____

City; _____

To conform with the 2014 Oregon Residential Specialty Code (ORSC), Section R318.2, I am notifying the building official that I am aware of the moisture content requirement of ORSC Section R318.2 and have taken steps to meet this code requirement. [Section R318.2 is provided for reference.]

Section R318.2 Moisture content. Prior to issuance of the insulation/vapor barrier approval required by R109.1.5.2 of this code:

(A) All moisture-sensitive wood framing members used in construction shall have a moisture content of not more than 19 percent of the weight of dry wood framing members.

(B) The general contractor or the owner who was issued the structural permit shall notify the building official on a division approved form that the contractor or the owner who was issued the structural permit is aware of and has taken steps to meet the requirement in paragraph (A).

Signed: _____

Date: _____

NEW CODE REQUIREMENT FOR **EXTERIOR WALL ENVELOPE**

To promote building durability, the exterior wall envelope shall be installed in a manner that water that enters the assembly can drain to the exterior. The envelope shall consist of an exterior veneer, a water-resistive barrier (wrb) as required in R703.2, a minimum 1/8" (3mm) space between the wrb and the exterior veneer, and integrated flashings as required in R703.8. The required space shall be formed by the use of any non-corrodible furring strip, drainage mat or drainage board.

The envelope shall provide proper integration of flashings with the water-resistive barrier, the space provided and the exterior veneer. These components, in conjunction, shall provide a mean of draining water that enters the assembly to the exterior.

In lieu of providing the 1/8" space between your exterior veneer and the (wrb), you may use one of the following exceptions.

- 1.) A space is not required where the exterior veneer is installed over a water-resistive barrier complying with section R703.2 which is manufactured in a manner to enhance drainage and meets the 75% drainage efficiency requirement of ASTM E2273 or other recognized national standards.
- 2.) A space is not required where window sills are equipped with pan flashings which drain to the exterior surface of the veneer in a through wall fashion. All pan flashings shall be detailed within the construction documents and shall be of either a self-adhering membrane complying with AAMA 711-07 or of an approved corrosion-resistant material or a combination thereof.
- 3.) A space is not required where the exterior veneer is manufactured in a manner to enhance drainage and meets the 75% drainage efficiency requirement of ASTM E2273 or other recognized national standards and is installed over a water resistive barrier complying with section R703.2.
- 4.) A space is not required where the exterior veneer is matching an existing exterior finish as in additions, alterations or repairs.

If you choose item #2, additional details of the pan flashing must be provided for review.

CHAPTER 11

ENERGY EFFICIENCY

PART I ENERGY CONSERVATION

SECTION N1101 SCOPE

N1101.1 General. The provisions of this chapter regulate the exterior envelope, as well as the design, construction and selection of heating, ventilating and air-conditioning systems, lighting and piping insulation required for the purpose of effective conservation of energy within a building or structure governed by this code.

All conditioned spaces within residential buildings shall comply with Table N1101.1(1) and two additional measure from Table N1101.1(2).

Exceptions:

1. Application to existing buildings shall comply with Section N1101.2.
2. Application to additions shall comply with Section N1101.3.

N1101.2 Application to existing buildings. Alteration and repairs, historic buildings and change of use or occupancy to buildings, structures or portions thereof shall comply with the requirements in Sections N1101.2.1 through N1101.2.3.

N1101.2.1 Alteration and repair. Alterations and repairs affecting energy conservation measures shall conform to the requirements specified in this chapter.

Alterations or repairs which affect components of existing conditioned spaces regulated in this chapter, those components shall comply with this chapter.

Exception: The minimum component requirements as specified in Table N1101.2 may be used to the maximum extent practical.

N1101.2.2 Historic buildings. The building official may modify the specific requirements of this chapter for historic buildings and require in lieu thereof alternative requirements that will result in a reasonable degree of energy efficiency. This modification may be allowed for those buildings specifically designated as historically significant by the state historic preservation office(r) or by official action of a local government.

N1101.2.3 Change of occupancy or use. Definition of "Change of use" for purposes of N1101.2.3 is a change of use in an existing residential building and shall include any of the following: any unconditioned spaces such as an attached garage, basement, porch, or canopy that are to become conditioned spaces; any unconditioned, inhabitable space that is to become conditioned space, such as a large attic.

N1101.2.3.1 Change of use. A building that changes use, without any changes to the components regulated in

this chapter, is required to comply with Table N1101.2 to the greatest extent practical.

N1101.2.3.2 Change of occupancy. Alteration and repair of nonresidential buildings, such as a small church or school, that are changing occupancy to residential shall use Table N1101.2 to the greatest extent practical.

Exception: The minimum component requirements shall be disregarded when thermal performance calculations are completed for change of use to Group R occupancy.

**TABLE N1101.2
EXISTING BUILDING COMPONENT REQUIREMENTS**

BUILDING COMPONENTS	REQUIRED PERFORMANCE	EQUIV. VALUE
Wall insulation	U-0.80	R-15
Flat ceiling	U-0.025	R-49
Vaulted ceiling > 10 inches nominal rafter depth	U-0.040	R-25
Vaulted ceiling > 8 inches nominal rafter depth	U-0.047	R-21
Underfloor > 10 inches nominal joist depth	U-0.028	R-30
Underfloor > 8 inches nominal joist depth	U-0.032	R-25
Slab edge perimeter	F-0.52	R-15
Windows	U-0.35	U-0.35
Skylights	U-0.60	U-0.60
Exterior doors	U-0.20	R-5
Exterior doors w/> 2.5 ft ² glazing	U-0.40	R-2.5
Forced air ducts	n/a	R-8

For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929 m².

N1101.3 Additions. Additions to existing buildings or structures may be made without making the entire building or structure comply if the new additions comply with the requirements of this chapter.

N1101.3.1 Large additions. Additions that are equal to or more than 40 percent of the existing building heated floor area or 600 square feet (55 m²) in area, whichever is less, shall be required to comply with Table N1101.1(2).

N1101.3.2 Small additions. Additions that are less than 40 percent of the existing building heated floor area or less than 600 square feet in area, whichever is less, shall be required to select one measure from Table N1101.1(2) or comply with Table N1101.3.

Exception: Additions that are less than 15 percent of existing building heated floor area or 200 square feet (18.58 m²) in area, whichever is less, shall not be required to comply with Table N1101.1(2) or Table N1101.3.

**TABLE N1101.1(1)
PRESCRIPTIVE ENVELOPE REQUIREMENTS^a**

BUILDING COMPONENT	STANDARD BASE CASE		LOG HOMES ONLY	
	Required Performance	Equiv. Value ^b	Required Performance	Equiv. Value ^b
Wall insulation-above grade	U-0.060	R-21 ^c	Note d	Note d
Wall insulation-below grade ^a	F-0.565	R-15	F-0.565	R-15
Flat ceilings ^f	U-0.031	R-38	U-0.025	R-49
Vaulted ceilings ^g	U-0.042	R-38 ^g	U-0.027	R-38A ^h
Underfloors	U-0.028	R-30	U-0.028	R-30
Slab edge perimeter	F-0.520	R-15	F-0.520	R-15
Heated slab interior ⁱ	n/a	R-10	n/a	R-10
Windows ^j	U-0.35	U-0.35	U-0.35	U-0.35
Window area limitation ^k	n/a	n/a	n/a	n/a
Skylights ^l	U-0.60	U-0.60	U-0.60	U-0.60
Exterior doors ^m	U-0.20	U-0.20	U-0.54	U-0.54
Exterior doors w/ > 2.5 ft ² glazing ⁿ	U-0.40	U-0.40	U-0.40	U-0.40
Forced air duct insulation	n/a	R-8	n/a	R-8

For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929 m², 1 degree = 0.0175 rad.

- a. As allowed in Section N1104.1, 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. Calculations to document equivalent heat loss shall be performed using the procedure and approved *U*-values contained in Table N1104.1(1).
- b. *R*-values used in this table are nominal for the insulation only in standard wood framed construction and not for the entire assembly.
- c. Wall insulation requirements apply to all exterior wood framed, concrete or masonry walls that are above grade. This includes cripple walls and rim joist areas. R-19 Advanced Frame or 2 × 4 wall with rigid insulation may be substituted if total nominal insulation *R*-value is 18.5 or greater.
- d. The wall component shall be a minimum solid log or timber wall thickness of 3.5 inches (90 mm).
- e. Below-grade wood, concrete or masonry walls include all walls that are below grade and do not include those portions of such wall that extend more than 24 inches (609.6 mm) above grade.
- f. 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 (13.9 m²) in area may be reduced to not less than R-21. When reduced, the cavity shall be filled (except for required ventilation spaces).
- g. 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 (254 mm) 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.
- h. A = Advanced frame construction, which shall provide full required insulating value to the outside of exterior walls.
- i. Heated slab interior applies to concrete slab floors (both on and below grade) that incorporate a radiant heating system within the slab. Insulation shall be installed underneath the entire slab.
- j. Sliding glass doors shall comply with window performance requirements. Windows exempt from testing in accordance with Section NF111.2, Item 3 shall comply with window performance requirements 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 a *U*-factor greater than 0.35 by using Table N1104.1(1) to demonstrate equivalence to building envelope requirements.
- k. Reduced window area may not be used as a trade-off criterion for thermal performance of any component.
- l. Skylight area installed at 2 percent 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 (0.35 rad) overhead plane in accordance with 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 U-0.40 requirement.

Please see back of this page for Additional Measures

**You MUST select one Envelope Enhancement Measure,
and one Conservation Measure.**

**TABLE N1101.1(2)
ADDITIONAL MEASURES**

Envelope Enhancement Measure (Select One)	1	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 area; or Windows—U-0.30
	2	High efficiency envelope: Exterior walls—U-0.058/R-21 Intermediate framing, and Vaulted ceilings—U-0.033/R-30A ^{d,e} , and Flat ceilings—U-0.025/R-49, and Framed floors—U-0.025/R-38, and Windows—U-0.30; and Doors—All doors U-0.20, or Additional 15 percent of permanently installed lighting fixtures as high-efficacy lamps or Conservation Measure D and E
	3	High efficiency ceiling, windows & duct sealing: (Cannot be used with Conservation Measure E) Vaulted ceilings—U-0.033/R-30A ^{d,e} , and Flat ceilings—U-0.025/R-49, and Windows—U-0.30, and Performance tested duct systems ^b
	4	High efficiency thermal envelope UA: Proposed UA is 15% lower than the Code UA when calculated in Table N1 104.1(1)
	5	Building tightness testing, ventilation & duct sealing: (Cannot be used with Conservation Measure E) A mechanical exhaust, supply, or combination system providing whole-building ventilation rates specified in Table N1101.1(3), or ASHRAE 62.2, and The dwelling shall be tested with a blower door and found to exhibit no more than: 1. 6.0 air changes per hour ^f , or and 2. 5.0 air changes per hour ^f when used with Conservation Measure E, and 2. Performance tested duct systems ^b
	6	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 ¹
Conservation Measure (Select One)	A	High efficiency HVAC system: Gas-fired furnace or boiler with minimum AFUE of 90% a, or Air-source heat pump with minimum HSPF of 8.5 or Closed-loop ground source heat pump with minimum COP of 3.0
	B	Ducted HVAC systems within conditioned space: All ducts and air handler are contained within building envelope ¹
	C	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 resistant 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, or heat pump water heater with min EF of 1.8 (northern climate) 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 N1107.2 ^e
	E	Energy management device & duct sealing: Whole building energy management device that is capable of monitoring or controlling energy consumption, and Performance tested duct systems ^b , and A minimum 75 percent of permanently installed lighting fixtures as high-efficacy lamps.
	F	Solar photovoltaic: Minimum 1 watt/sq ft conditioned floor space ^g
	G	Solar water heating: Minimum of 40 ft ² of gross collector area ^h

For SI: 1 square foot = 0.093 m², 1 watt per square foot = 10.8 W/m².

- a. Furnaces located within the building envelope shall have sealed combustion air installed. Combustion air shall be ducted directly from the outdoors.
- 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/technician certified by the Oregon Department of Energy's (ODOE) Residential Energy Tax Credit program and Performance Tested Comfort Systems (PTCS) program administered by the Bonneville Power Administration (BPA). Documentation shall be provided that work demonstrates conformance to ODOE PTCS duct performance standards.
- c. Section N1 107.2 requires 50 percent of permanently installed lighting fixtures to contain high efficacy lamps. Each of these additional measures adds an additional percent to the Section N1 107.2 requirement.
- d. A = advanced frame construction, which shall provide full required ceiling insulation value to the outside of exterior walls.
- e. The maximum vaulted ceiling surface area shall not be greater than 50 percent of the total heated space floor area unless vaulted area has a U-factor no greater than U-0.026.
- 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 upon completion of work.
- g. Solar electric system size shall include documentation indicating that Total Solar Resource Fraction is not less than 75 percent.
- 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 less than 75 percent.
- i. A total of 5 percent of an HVAC systems ductwork shall be permitted to be located outside of the conditioned space. Ducts located outside the conditioned space shall have insulation installed as required in this code.

**TABLE 1101.1(3)
VENTILATION AIR REQUIREMENTS, cfm**

FLOOR AREA (ft ²)	BEDROOMS				
	0-1	2-3	4-5	6-7	> 7
< 1500	30	45	60	75	90
1501-3000	45	60	75	90	105
3001-4500	60	75	90	105	120
4501-6000	75	90	105	120	135
6001-7500	90	105	120	135	150
> 7501	105	120	135	160	185

For SI: 1 square foot = 0.0929 m².

**TABLE N1101.3
SMALL ADDITION ADDITIONAL MEASURES (Select one)**

1	Increase the ceiling insulation of the existing portion of the home as specified in Table N1101.2.
2	Replace all existing single-pane wood or aluminum windows to the U-value as specified in Table N1101.2.
3	Insulate the floor system as specified in Table N1101.2 & install 50 percent of permanently installed lighting fixtures as CFL or linear fluorescent or a min. efficacy of 40 lumens per watt as specified in Section N1107.2.
4	Test the entire dwelling with a blower door and exhibit no more than 7.0 air changes per hour @ 50 Pascals.
5	Seal and performance test the duct system.
6	Replace existing 78 percent AFUE or less gas furnace with a 92 percent AFUE or greater system.
7	Replace existing electric radiant space heaters with a ductless mini split system with a minimum HSPF of 8.5.
8	Replace existing electric forced air furnace with an air source heat pump with a minimum HSPF of 8.5.
9	Replace existing water heater for a natural gas/propane water heater with a minimum EF of 0.67.
10	Install a solar water heating system with a minimum of 40 ft ² of gross collector area.

N1101.4 Information on plans and specifications. Plans and specifications shall show in sufficient detail all pertinent data and features of the building and the equipment and systems as herein governed, including, but not limited to: exterior envelope component materials; R-values of insulating materials; HVAC equipment efficiency performance and system controls, lighting and other pertinent data to indicate conformance with the requirements of this chapter.

**SECTION N1102
DEFINITIONS**

AFUE (ANNUAL FUEL UTILIZATION EFFICIENCY) is the energy output divided by the energy input, calculated on an annual basis and including part load and cycling effects. AFUE ratings shall be determined using the U.S. Department of Energy test procedures (10 CFR Part 430) and listings in the Gas Appliance Manufacturers Association (GAMA) Consumer Directory of Certified Furnace and Boiler Efficiency Ratings.

ASHRAE is the American Society of Heating, Refrigerating and Air-conditioning Engineers, Inc.

AUTOMATIC is self-acting, operating by its own mechanism when actuated by some impersonal influence, such as a change in current strength, pressure, temperature or mechanical configuration. (See also "Manual.")

BASEMENT WALL is the opaque portion of walls which encloses a basement and is partially or totally below grade walls.

BELOW GRADE WALLS are the walls or the portion of walls entirely below the finished grade or which extend 2 feet (610 mm) or less above the finish grade.

BTU (British Thermal Unit) is the amount of heat required to raise the temperature of 1 pound (0.454 kg) of water (about 1 pint) from 59°F to 60°F (15°C to 16°C).

BUILDING ENVELOPE is that element of a building which encloses conditioned spaces through which thermal energy may be transmitted to or from the exterior or to or from unconditioned spaces.

C (Thermal Conductance). See "Thermal conductance."

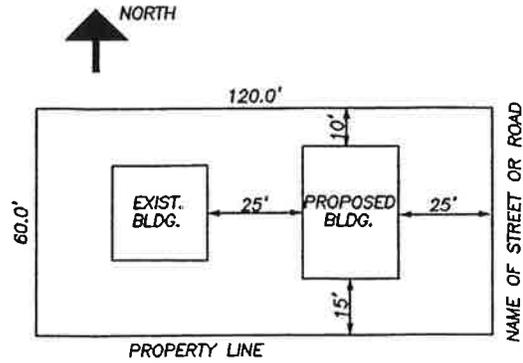
CONDITIONED SPACE is a space within the building, separated from unconditioned space by the exterior envelope which by introduction of conditioned air, by heated and/or cooled surfaces, or by air or heat transfer from directly conditioned spaces is maintained at temperatures of 55°F (13°C) or higher for heating and/or 85°F (29.4°C) or below for cooling. (Enclosed corridors between conditioned spaces shall be considered as conditioned space. Spaces where temperatures fall between this range by virtue of ambient conditions shall not be considered as conditioned space.)

COOLED SPACE is a space within a building provided with a mechanical cooling supply.

ENERGY MANAGEMENT DEVICE is a device which is installed within a dwelling that can provide near real-time data on whole dwelling energy consumption or an integrated control system that is intended to operate energy consuming appliances and/or devices for a dwelling in order to reduce energy consumption. Consumption control systems are also known as Building Automation Control (BAC) or Building Management Control Systems (BMCS).

EXTERIOR DOOR is a permanently installed operable barrier by which an entry is closed and opened. Exterior doors

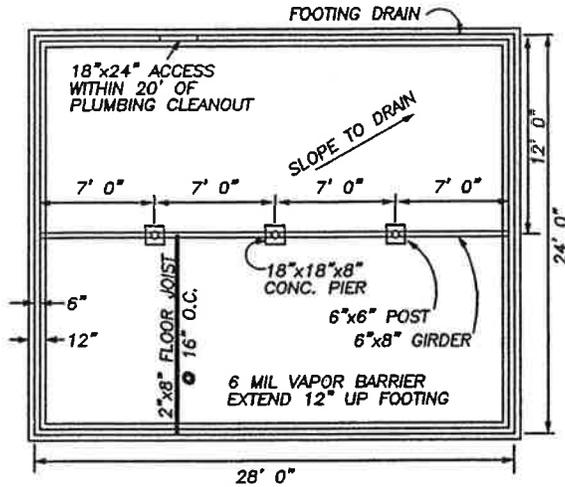
DRAWINGS ARE FOR INFORMATIONAL USE ONLY. ADDITIONAL REQUIREMENTS MAY APPLY. THESE DRAWINGS DO NOT SPECIFY OR VERIFY DIRECT CODE COMPLIANCE.



EXAMPLE PLOT PLAN

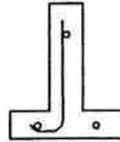
SHOW LOCATION OF PROPOSED BUILDING AND/OR ADDITION IN RELATION TO PROPERTY LINES AND OTHER EXISTING STRUCTURES. SHOW NAMES OF STREETS OR ROADS AND DISTANCES TO RIGHT OF WAY FROM THE PROPOSED STRUCTURE. SHOW APPROXIMATE DIMENSIONS OF PROPERTY LINES. SHOW EXISTING STRUCTURES ON PROPERTY AND INDICATE THEIR USE.

DIMENSIONS SHOWN ARE REFERENCE ONLY, NOT CODE REQUIREMENT.

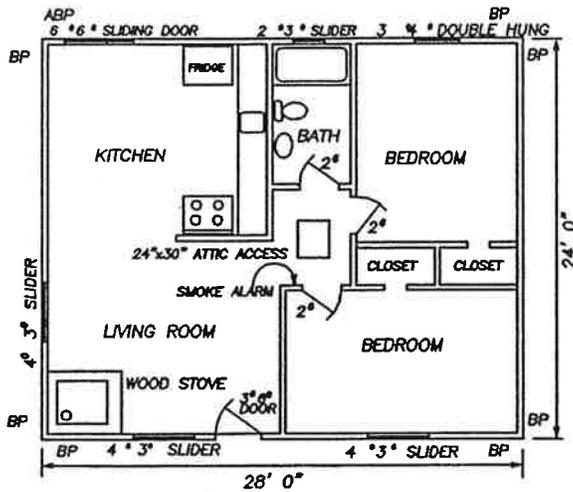


EXAMPLE FOOTING PLAN

SHOW SIZE, SHAPE, AND DIMENSIONS OF FOUNDATION AND /OR BASEMENT WALLS. SHOW SIZE AND LOCATION OF ALL FOOTING OR PIER PADS. SHOW SIZE AND LOCATION OF ALL POSTS, GIRDERS, JOISTS, AND CONNECTORS. SHOW ACCESS LOCATION AND FOOTING DRAIN LOCATION. SHOW ALL VERTICAL AND HORIZONTAL REBAR REINFORCEMENT IN A CROSS SECTION.



SHOW ANY AREAS TO BE FILLED AND INDICATE DEPTH OF FILL.



EXAMPLE FLOOR PLAN

SHOW FLOOR PLAN OF EACH FLOOR OR LEVEL, INCLUDING BASEMENTS AND LOFTS OR MEZZANINES. SHOW USE OF ALL ROOMS OR AREAS AND THE SIZE, LOCATION, AND TYPE OF ALL DOORS, WINDOWS, STAIRS, AND WALL OPENINGS SERVING THE ROOMS OR AREAS. INDICATE LOCATION AND TYPE OF CHIMNEYS, HEATING SYSTEMS, PLUMBING FIXTURES, FIREPLACES, SKYLIGHTS, AND HOUSEHOLD APPLIANCES. INDICATE SIZES OF TOTAL BUILDING AND AREAS OR ROOMS IN BUILDING. SHOW ATTIC ACCESS LOCATION.

BUILDING PLANS MUST SHOW CONSTRUCTION DETAILS AND LOCATIONS OF BRACE PANELS. BRACE PANELS (BP), ALTERNATE BRACE PANELS (ABP), AND PORTAL FRAMES (PF) MUST START WITHIN 8 FEET OF EACH BUILDING CORNER AND AT A MAXIMUM OF 25 FEET O.C. UNLESS ENGINEERING PLANS ARE SUBMITTED FOR NON-PRESCRIPTIVE PATHS.

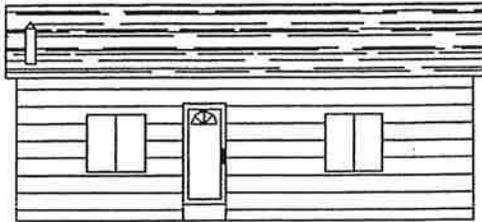
IF THE FULLY SHEATHED WALL METHOD IS BEING PROPOSED TO MEET THE BRACING REQUIREMENT, SHOW SPECIFICATIONS.

FLOOR PLAN

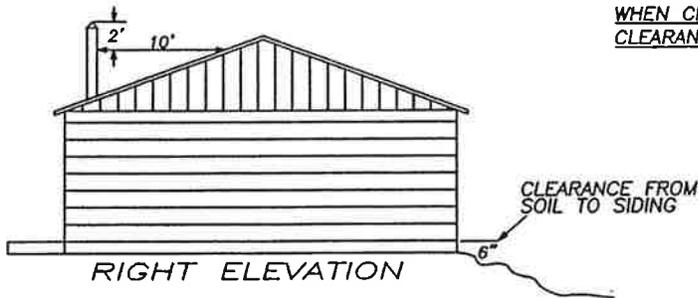
1. PROVIDE THREE SETS OF PLANS FOR STRUCTURAL REVIEW.
2. PLANS AND SPECIFICATIONS MUST BE DRAWN TO SCALE OR PROPERLY DIMENSIONED ON SUBSTANTIAL PAPER AND MUST BE OF SUFFICIENT CLARITY TO INDICATE THE NATURE AND EXTENT OF THE WORK PROPOSED.
3. PLANS MUST BE PICKED UP WITHIN 6 MONTHS OF THE DATE OF PLAN REVIEW OR AN ADDITIONAL PLAN CHECK FEE MAY BE CHARGED.

EXAMPLE ELEVATIONS

SHOW ELEVATION OF TWO VIEWS. SHOW CHIMNEYS, WINDOWS, DOORS, PERTINENT VERTICAL DIMENSIONS, EXPOSED STRUCTURAL BEAMS AND/OR POSTS. INDICATE GRADE OF BUILDING SITE IN IMMEDIATE VICINITY OF BUILDING.

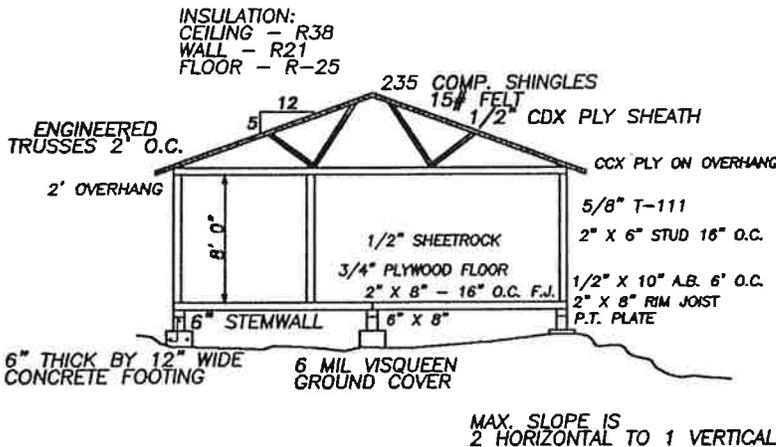


FRONT ELEVATION



RIGHT ELEVATION

WHEN CHIMNEYS OR FIREPLACES ARE INSTALLED, MAINTAIN PROPER CLEARANCES FROM COMBUSTIBLE MATERIAL.



EXAMPLE CROSS SECTION

SHOW SIZE AND SPACING OF ALL FRAMING MEMBERS. INDICATE TYPE AND THICKNESS OF ALL FLOOR, WALL, ROOF COVERINGS AND ROOF SHEATHING. SHOW CEILING HEIGHT, ROOF PITCH, AND INDICATE FINISH MATERIALS TO BE USED. SHOW BEARING PARTITIONS AND FOUNDATION FOOTING AND/OR PIER PADS. INDICATE FINISH GRADE AND CALL OUT AREAS TO BE EXCAVATED. SPECIFY AMOUNT OF REINFORCING STEEL IN FOUNDATIONS OR RETAINING WALLS. INDICATE FINISH GRADE IN RELATION TO ANY RETAINING WALLS. INDICATE EXCAVATION SLOPES AND FILL SLOPES AND SPECIFY HEIGHT OR DEPTH OF EACH.

MAINTAIN PROPER GRADING
WITHIN 10' 0" OF STRUCTURE

1. ANY DIMENSIONS SHOWN ARE FOR REFERENCE ONLY AND PROBABLY DO NOT APPLY TO YOUR BUILDING PLAN OR PLOT PLAN. MEMBER SIZES ARE ONLY SHOWN TO DEMONSTRATE INFORMATION REQUIRED.
2. THE MINIMUM PLANS SHOWN ON THIS SHEET ARE ACCEPTABLE MINIMUM PLANS FOR A RELATIVELY SIMPLE STRUCTURE USING STANDARD CONSTRUCTION METHODS.
3. ANY OTHER TYPE OF CONSTRUCTION INVOLVING MORE COMPLEX CONSTRUCTION METHODS MAY REQUIRE A MORE COMPLETE SET OF PLANS INCLUDING ROOF FRAMING PLANS, FLOOR FRAMING PLANS, BEAM CONNECTION AND/OR POST CONNECTION DETAILS, ETC. UNDERGROUND HOUSES OR HOUSES BUILT IN A HIGH HAZARD FLOOD PLAIN AREA MUST BE STAMPED BY AN OREGON LICENSED ENGINEER.
4. INDICATE ON PLANS ANY DECKS OR PORCHES SERVING THE BUILDING. IF YOUR ONLY CONSTRUCTION IS ADDING A PORCH OR DECK TO AN EXISTING STRUCTURE, A PERMIT IS REQUIRED IF THE DECK OR PORCH IS 30" OR MORE ABOVE THE GROUND. DECKS 30" OR MORE ABOVE THE GROUND MUST BE PROVIDED WITH A 36" MINIMUM HEIGHT GUARDRAIL. INTERMEDIATE RAILINGS TO BE SPACED SUCH THAT NO 4" OBJECT CAN PASS THROUGH.