



# Building Permit Application

## City of Portland, Oregon - Bureau of Development Services

1900 SW 4th Avenue, Portland, Oregon 97201 • 503-823-7300 • TTY 503-823-6868 • www.portlandoregon.gov/bds

### Type of work

- ☐ New construction ☒ Addition/alteration/replacement  
☐ Demolition ☐ Other:

### Category of construction

- ☒ 1 & 2 family dwelling ☐ Commercial/industrial ☐ Accessory building  
☐ Multifamily ☐ Master builder ☐ Other:

### Job site information and location

Job no.: Job address: 6935 SE GLADSTONE ST., UNIT A

City/State/ZIP: PORTLAND, OR 97206

Suite/bldg./apt. no.: Project name:

Cross street/directions to job site: SE GLADSTONE & SE 70TH AVE.

Subdivision: Lot no. Tax map/parcel no.

### Description of work

ADDITIONAL BATHROOM & EGRESS WINDOW  
IN EXISTING BASEMENT

Provide RS Permit no.

### Property owner

### Tenant

Name: KRISTINE NGUYEN E-mail: kristine.nguyen31@yahoo.com

Address: 6935 SE GLADSTONE ST., UNIT A

City/State/ZIP: PORTLAND, OR 97206

Phone: 503-702-9035 FAX:

Owner installation: This installation is being made on property that I own, which is not intended for sale, lease, rent, or exchange.

Owner signature: Kristine Nguyen

Date: 8/7/2019

### Contractor

Business name: E-mail:

Address: OWNER

City/State/ZIP:

Phone: FAX:

CCB lic. no.

Authorized signature:

Print name: Date:

### Applicant

### Contact Person

Business name:

Contact name: KRISTINE NGUYEN

Address: 6935 SE GLADSTONE ST., UNIT A

City/State/ZIP: PORTLAND, OR 97206

Phone: 503-702-9035 FAX:

E-mail: KRISTINE.NGUYEN31@yahoo.com

Authorized signature: Kristine Nguyen

Print name: KRISTINE NGUYEN Date: 8/7/2019

**Disclaimer:** By signing this application, the permit applicant acknowledges and agrees that they have obtained any required permission for the proposed work from the property owner. Refer to the policy of this jurisdiction if it discovers that a dispute regarding the proposed work exists between the applicant and the property owner or any other party with a legal interest in the property.

### Office Use Only

Permit no: 19-216542 RS

Date received: 8-26-19

By: [Signature]

### Required Data: One and Two Family Dwelling

Permit fees\* are based on the value of the work performed. Indicate the value (rounded to the nearest dollar) of all equipment, materials, labor, overhead, and the profit for the work indicated on this application.

|                         |                    |
|-------------------------|--------------------|
| Valuation:              | \$4,500 LAB & MATL |
| Number of bedrooms:     |                    |
| Number of bathrooms:    |                    |
| Total number of floors: |                    |
| New dwelling area:      | square feet        |
| Garage/carport area:    | square feet        |
| Covered porch area:     | square feet        |
| Deck area:              | square feet        |
| Other structure area:   | square feet        |

### Required Data: Commercial Use

Permit fees\* are based on the value of the work performed. Indicate the value (rounded to the nearest dollar) of all equipment, materials, labor, overhead, and the profit for the work indicated on this application.

|                         |             |
|-------------------------|-------------|
| Valuation:              |             |
| Existing building area: | square feet |
| New building area:      | square feet |
| Number of stories:      |             |
| Type of construction:   |             |
| Occupancy groups        |             |
| Existing:               |             |
| New:                    |             |

### Notice

All contractors and subcontractors are required to be licensed with the Oregon Construction Contractors Board under ORS 701 and may be required to be licensed in the jurisdiction in which work is being performed.

**Statement of Fact:** I certify that the facts and information set forth in this application are true and complete to the best of my knowledge. I understand that any falsification, misrepresentation or omission of fact (whether intentional or not) in this application or any other required document, as well as any misleading statement or omission, may be cause for revocation of permit and/or certificate of occupancy, regardless of how or when discovered.

I acknowledge that work related to this Building Permit Application may be subject to regulations governing the handling, removal and/or disposal of asbestos and/or lead-based paint. If the work is subject to regulations governing asbestos and/or lead-based paint, I will comply with all such regulations. K.N. (initials)

### Building Permit Fees\*

#### Please refer to fee schedule

|                           |  |
|---------------------------|--|
| Fees due upon application |  |
| Amount received           |  |
| Date received             |  |

**This permit application expires if a permit is not obtained within 180 days after it has been accepted as complete.**



# ELECTRICAL PERMIT APPLICATION

City of Portland, Oregon - Bureau of Development Services

1900 SW 4th Avenue, Portland, Oregon 97201 • 503-823-7300 • TTY 503-823-6868 • www.portlandoregon.gov/bds

## Type of work

- ☐ New construction ☒ Addition/alteration/replacement  
☐ Demolition ☐ Other:

## Category of construction

- ☒ 1 & 2 family dwelling ☐ Commercial/industrial ☐ Accessory building  
☐ Multifamily ☐ Master builder ☐ Other:

## Job site information and location

Job no.: Job address: 6935 SE GLADSTONE, UNIT A

City/State/ZIP: PORTLAND, OR 97206

Suite/bldg./apt. no.: Project name:

Cross street/directions to job site: SE GLADSTONE & SE 70TH AVE.

Subdivision: Lot no. Tax map/parcel no.

## Description of work (example: 3 circuits for basement receptacles)

FOR BATHROOM: 3 SWITCHES, 1 GFCI OULET, 1 OULET, 2 LIGHT FIXTURES, 1 EXHAUST FAN

Provide RS Permit no.

## ☒ Property owner ☐ Tenant

Name: KRISTINE NGUYEN E-mail: kristine.nguyen31@yahoo.com

Address: 6935 SE GLADSTONE ST.

City/State/ZIP: PORTLAND, OR 97206

Phone: 503-702-9035 FAX:

Owner installation: This installation is being made on property that I own, which is not intended for sale, lease, rent, or exchange.

Owner signature: Kristine Nguyen Date: 8/7/2019

## ☐ Contractor ☐ Subcontractor

Business name: E-mail:

Address:

City/State/ZIP:

Phone: FAX:

Elec. lic. no. CCB lic. no.

Metro or City lic no. Date:

Supervising electrician

Signature, required:

Print name: License no.

Authorized signature:

Print name: Date:

## ☒ Applicant ☐ Contact Person

Business name:

Contact name: KRISTINE NGUYEN

Address: 6935 SE GLADSTONE ST. UNIT A

City/State/ZIP: PORTLAND, OR 97206

Phone: 503-702-9035 FAX:

E-mail: kristine.nguyen31@yahoo.com

This permit application expires if a permit is not obtained within 180 days after it has been accepted as complete.

## Plan Review

### Please check all that apply

- ☐ Fire pump ☐ Building over three stories  
☐ Emergency system ☐ Service or feeder 600 amps or over  
☐ Addition of new motor load of 100 HP or more ☐ Commercial use agricultural buildings  
☐ Patient area health care facility ☐ Installation of 150 KVA or larger separately derived system  
☐ Hazardous locations ☐ 'A', 'E', 'I-2', 'I-3' occupancies  
☐ Recreational vehicle parks ☐ Service or feeder 400 amps or more where the available fault current exceeds 10,000 amps at 150 volts or less to ground, or exceeds 14,000 amps for all other installations  
☐ Marinas and boatyards ☐ Floating buildings  
☐ Six or more residential units  
☐ Supply over 600 volts nominal  
☐ Voluntary plan review

Submit 2 sets of plans with any of the above.

## Fee Schedule

| Description | Qty. | Fee | Total | ** |
|-------------|------|-----|-------|----|
|-------------|------|-----|-------|----|

### Residential single or multifamily dwelling unit.

#### Includes attached garage.

|                                   |  |       |  |   |
|-----------------------------------|--|-------|--|---|
| 1,000 sq. ft. or less             |  | \$279 |  | 4 |
| Each added 500 sq. ft. or portion |  | \$61  |  |   |
| Limited energy, residential       |  | \$61  |  | 2 |
| Limited energy, multi-family      |  | \$61  |  | 2 |

### Services or feeders installation, alteration, and/or relocation

|                            |  |       |  |   |
|----------------------------|--|-------|--|---|
| 200 amps                   |  | \$144 |  | 2 |
| 201 to 400 amps            |  | \$205 |  | 2 |
| * 401 to 600 amps          |  | \$268 |  | 2 |
| * 601 amps to 1,000 amps   |  | \$404 |  | 2 |
| * Over 1,000 amps or volts |  | \$743 |  | 2 |
| Service Reconnect Only     |  | \$130 |  | 1 |

### Temporary services or feeders installation, alteration, and/or relocation

|                      |  |       |  |   |
|----------------------|--|-------|--|---|
| 200 amps or less     |  | \$128 |  | 2 |
| 201 amps to 400 amps |  | \$193 |  | 2 |
| 401 amps to 600 amps |  | \$244 |  | 2 |

### Branch circuits – new, alteration, or extension, per panel

|  |   |       |  |   |
|--|---|-------|--|---|
| A. Fee for branch circuits with service or feeder fee, each branch circuit     |   | \$14  |  | 2 |
| B. Fee for branch circuits without service or feeder fee, first branch circuit |   | \$118 |  | 2 |
| Each additional branch circuit   | 3 | \$14  |  |   |

### Miscellaneous (service or feeder not included)

|  |  |       |  |   |
|--|--|-------|--|---|
| Each manufactured or modular dwelling, service and/or feeder         |  | \$164 |  | 2 |
| Pump or irrigation circle  |  | \$110 |  | 2 |
| Sign or outline lighting   |  | \$110 |  | 2 |
| Signal circuit(s) or limited-energy panel, alteration, or extension. |  | \$110 |  | 2 |

Describe:

|              |       |  |  |
|--------------|-------|--|--|
| Hourly rate: | \$150 |  |  |
|--------------|-------|--|--|

### Each additional inspection over allowable in any of the above

|                   |  |       |  |  |
|-------------------|--|-------|--|--|
| Per inspection    |  | \$110 |  |  |
| Investigation fee |  |       |  |  |
| Other             |  |       |  |  |

### Electrical permit fees\*

|                                     |  |
|-------------------------------------|--|
| Subtotal                            |  |
| Plan review (25% of permit fee)     |  |
| State surcharge (12% of permit fee) |  |
| <b>TOTAL PERMIT FEE</b>             |  |

\* Requires Plan Review

\*\* Number of inspections allowed per permit.



# MECHANICAL PERMIT APPLICATION

City of Portland, Oregon - Bureau of Development Services

1900 SW 4th Avenue, Portland, Oregon 97201 • 503-823-7300 • TTY 503-823-6868 • www.portlandoregon.gov/bds

## Type of work

- ☐ New construction ☐ Addition/alteration/replacement  
☐ Demolition ☐ Other:

## Category of construction

- ☒ 1 & 2 family dwelling ☐ Commercial/industrial ☐ Accessory building  
☐ Multifamily ☐ Master builder ☐ Other:

## Job site information and location

Job no.: Job address: 6935 SE GLADSTONE, UNIT A  
 City/State/ZIP: PORTLAND, OR 97206  
 Suite/bldg./apt. no.: Project name:  
 Cross street/directions to job site: SE GLADSTONE & SE 70th AVE  
 Subdivision: Lot no. Tax map/parcel no.

## Description of work (example: upstairs bath fan/dryer exhaust)

ADDING FAN EXHAUST AND DUCT WORK FROM  
CEILING TO OUTSIDE WALL

Provide RS permit no.

## Property owner

## Tenant

Name: KRISTINE NGUYEN E-mail: kristine.nguyen31@yahoo.com  
 Address: 6935 SE GLADSTONE ST, UNIT A  
 City/State/ZIP: PORTLAND, OR 97206  
 Phone: 503-702-9035 FAX:

**Owner installation:** This installation is being made on property that I own, which is not intended for sale, lease, rent, or exchange.

Owner signature: Kristine Nguyen Date: 8/26/19

## Contractor

## Subcontractor

Business name: E-mail:  
 Address:  
 City/State/ZIP:  
 Phone: FAX:  
 Lic. no. CCB lic. no.

Authorized signature:

Print name: Date:

## Applicant

## Contact Person

Business name:  
 Contact name: KRISTINE NGUYEN  
 Address: 6935 SE GLADSTONE ST, UNIT A  
 City/State/ZIP: PORTLAND, OR 97206  
 Phone: 503-702-9035 FAX:  
 E-mail: kristine.nguyen31@yahoo.com

This permit application expires if a permit is not obtained within 180 days after it has been accepted as complete.

## Commercial Fee Schedule - Use Checklist

Mechanical permit fees\* are based on the value of the work performed. Indicate the value (rounded to the nearest dollar of all mechanical materials, equipment, labor, overhead and profit.

Value: \$

## Residential Equipment / Systems Fees

For special information use checklist

| Description  | Qty. | Fee  | Total |
|--|------|------|-------|
| <b>Heating / cooling</b>   |      |      |       |
| Air conditioner (site plan required)                                     |      | \$27 |       |
| Furnace / burner including duct work / vent / liner                      |      | \$58 |       |
| Heat pump (site plan required)   |      | \$54 |       |
| Air handling unit  |      | \$27 |       |
| Hydronic hot water system  |      | \$34 |       |
| Residential boiler (radiator or hydronic) includes piping                |      | \$34 |       |
| Unit heaters (fuel type, not electric) in-wall, in-duct, suspended, etc. |      | \$27 |       |
| Vent for appliance other than furnace                                    |      | \$23 |       |
| Alteration of existing HVAC system                                       |      | \$34 |       |

## Other fuel appliances

|   |  |      |  |
|---|--|------|--|
| Decorative gas fireplace                    |  | \$27 |  |
| Flue vent for water heater or gas fireplace |  | \$23 |  |
| Wood / pellet stove                         |  | \$60 |  |
| Gas or wood fireplace / insert              |  | \$60 |  |
| Chimney / liner / flue / vent               |  | \$23 |  |
| Other:                                      |  | \$34 |  |

## Environmental exhaust and ventilation

|   |   |      |  |
|---|---|------|--|
| Range hood / other kitchen equipment                                |   | \$15 |  |
| Clothes dryer exhaust   |   | \$15 |  |
| Single-duct exhaust (bathrooms, toilet compartments, utility rooms) | 1 | \$15 |  |
| Exhaust system apart from Heating or AC                             |   | \$23 |  |
| Other:  |   | \$34 |  |

## Gas fuel piping

\$16 for the first four, \$2.84 for each additional. Please indicate number of fuel gas piping outlets below:

|                                |  |  |  |
|--------------------------------|--|--|--|
| Furnace, etc.                  |  |  |  |
| Gas heat pump                  |  |  |  |
| Wall / suspended / unit heater |  |  |  |
| Water heater / boiler          |  |  |  |
| Fireplace                      |  |  |  |
| Range                          |  |  |  |
| Barbecue                       |  |  |  |
| Clothes dryer                  |  |  |  |
| Other:                         |  |  |  |

## Other appliances

|   |  |      |  |
|---|--|------|--|
| Including oil tanks, gas and diesel generators, gas and electric kilns, gas appliances / equipment not included above |  | \$34 |  |
|---|--|------|--|

## Mechanical permit fees

|  |  |
|--|--|
| Subtotal                                   |  |
| Minimum permit fee (\$110)                 |  |
| Commercial plan review (60% of permit fee) |  |
| State surcharge (12% of permit fee)        |  |
| <b>TOTAL PERMIT FEE</b>                    |  |





# PLUMBING PERMIT APPLICATION

City of Portland, Oregon - Bureau of Development Services

1900 SW 4th Avenue, Portland, Oregon 97201 • 503-823-7300 • TTY 503-823-6868 • www.portlandoregon.gov/bds

## Type of work

- ☐ New construction ☒ Addition/alteration/replacement  
☐ Demolition ☐ Other:

## Category of construction

- ☒ 1 & 2 family dwelling ☐ Commercial/industrial ☐ Accessory building  
☐ Multifamily ☐ Master builder ☐ Other:

## Job site information and location

Job no.: Job address: 6935 SE GLADSTONE ST. UNIT A

City/State/ZIP: PORTLAND, OR 97206

Suite/bldg./apt. no.: Project name:

Cross street/directions to job site: SE GLADSTONE & SE 70TH AVE.

Subdivision: Lot no. Tax map/parcel no.

## Description of work (example: 2 fixtures for kitchen remodel)

ADDITIONAL BATHROOM INSTALLATION:  
 STAND SHOWER, TOILET, VANITY CABINET  
 & SINK

Provide RS Permit no.

## Property owner

## Tenant

Name: KRISTINE NGUYEN E-mail: kristine.nguyen31@yahoo.com

Address: 6935 SE GLADSTONE ST. UNIT A

City/State/ZIP: PORTLAND, OR 97206

Phone: 503-702-9035 FAX:

Owner installation: This installation is being made on property that I own, which is not intended for sale, lease, rent, or exchange.

Owner signature: Kristine Nguyen Date: 8/7/2019

## Contractor

## Subcontractor

Business name: E-mail:

Address:

City/State/ZIP:

Phone: FAX:

Lic. no. CCB lic. no.

Authorized signature: \_\_\_\_\_

Print name: Date:

## Applicant

## Contact Person

Business name:

Contact name: KRISTINE NGUYEN

Address: 6935 SE GLADSTONE ST. UNIT A

City/State/ZIP: PORTLAND, OR 97206

Phone: 503-702-9035 FAX:

E-mail: kristine.nguyen31@yahoo.com

## Plan Review, please check all that apply

- ☐ Med gas/vacuum system for health care facility ☐ Reclaimed wastewater/harvested rainwater system  
☐ Vacuum drainage waste and vent system ☐ Wastewater pretreatment system  
☐ Fire sprinkler system ☐ Chemical drainage waste and vent system  
☐ Commercial booster pump  
☐ Plumbing related site utilities outside building  
☐ Water service line with inside diameter or nominal pipe size of 2" or more except 2" systems designed/stamped by licensed Oregon engineer  
☐ Voluntary plan review

This permit application expires if a permit is not obtained within 180 days after it has been accepted as complete.

## Fee Schedule

| Description  | Qty. | Fee                                 | Total |
|--|------|-------------------------------------|-------|
| <b>New 1&amp;2 family dwellings</b><br>(includes 100 ft. for each utility connection)  |      |                                     |       |
| SFR (1) bath   |      | \$546                               |       |
| SFR (2) bath   |      | \$819                               |       |
| SFT (3) bath   |      | \$956                               |       |
| Each additional bath/kitchen   |      | \$229                               |       |
| Fire sprinkler ( sq.ft.)   |      | Per fee schedule                    |       |
| <b>Site utilities</b>  |      |                                     |       |
| Catch basin or area drain  |      | \$41                                |       |
| Manufactured home utilities  |      | \$97                                |       |
| The following fees for exterior lines are in addition to unit fixture fees. The prices listed below are for the first 100 feet. Each additional 100 feet or portion thereof is \$92. |      |                                     |       |
| Rain drain ( linear ft.)   |      | \$122                               |       |
| Installing drywell? <input type="checkbox"/> yes <input type="checkbox"/> no   |      | No fee                              |       |
| Sanitary sewer ( linear ft.)   |      | \$122                               |       |
| Storm sewer ( linear ft.)  |      | \$122                               |       |
| Water service ( linear ft.)  |      | \$122                               |       |
| <b>Fixture or item</b>   |      |                                     |       |
| Backflow preventer   |      | \$41                                |       |
| Backwater valve  |      | \$41                                |       |
| Clothes washer   |      | \$41                                |       |
| Dishwasher   |      | \$41                                |       |
| Drinking fountain  |      | \$41                                |       |
| Ejectors/sump  |      | \$41                                |       |
| Fixture cap  |      | \$41                                |       |
| Floor drain/floor sink/primer  |      | \$41                                |       |
| Garbage disposal   |      | \$41                                |       |
| Hose bib   |      | \$41                                |       |
| Ice maker  |      | \$41                                |       |
| Interceptor/grease trap  |      | \$41                                |       |
| <b>Interior mainline piping</b>  |      |                                     |       |
| Water piping - first 100 feet  |      | \$122                               |       |
| Drainage piping - first 100 feet   |      | \$122                               |       |
| Each additional 100 feet or portion of   |      | \$92                                |       |
| <b>Replacing in-building water supply lines</b>  |      |                                     |       |
| Residential - first floor  |      | \$87                                |       |
| each additional floor  |      | \$34                                |       |
| Commercial - first five branches   |      | \$87                                |       |
| each fixture branch over five  |      | \$21                                |       |
| Medical gas (\$ value.)  |      | Per fee schedule                    |       |
| Rainwater harvesting (\$ value)  |      | Per fee schedule                    |       |
| Roof drain (commercial)  |      | \$41                                |       |
| Sewer cap  |      | \$108                               |       |
| Sink/basin/lavatory  |      | \$41                                |       |
| Tub/shower/shower pan  |      | \$41                                |       |
| Urinal   |      | \$41                                |       |
| Water closet   |      | \$41                                |       |
| Water heater/expansion tank  |      | \$41                                |       |
| Other  |      | \$41                                |       |
| <b>Plumbing permit fees</b>  |      |                                     |       |
|  |      | Subtotal                            |       |
|  |      | Minimum permit fee (\$110)          |       |
|  |      | Plan review (25% of permit fee)     |       |
|  |      | State surcharge (12% of permit fee) |       |
|  |      | <b>TOTAL PERMIT FEE</b>             |       |



# Property Owner Statement Regarding Construction Responsibilities

Oregon Law requires residential construction permit applicants who are not licensed with the Construction Contractors Board to sign the following statement before a building permit can be issued. (ORS 701.325 (2))

This statement is required for residential building, electrical, mechanical, and plumbing permits. Licensed architect and engineer applicants, exempt from licensing under ORS 701.010 (7), need not submit this statement. This statement will be filed with the permit.

Please check the appropriate box:

☐

I own, reside in, or will reside in the completed structure and my general contractor is:

\_\_\_\_\_  
Name

\_\_\_\_\_  
CCB#

\_\_\_\_\_  
Expiration Date

☐

I will inform my general contractor that all subcontractors who work on the structure must be licensed with the Construction Contractors Board.

or

☒

I will be performing work on property I own, a residence that I reside in, or a residence that I will reside in. If I hire subcontractors, I will hire only subcontractors licensed with the Construction Contractors Board. If I change my mind and hire a general contractor, I will select a contractor who is licensed with the CCB and will immediately give the name of the contractor to the office issuing this Building Permit.

I have read and understand the Information Notice to Homeowners About Construction Responsibilities, and I hereby certify that the information on this homeowner statement is true and accurate.

KRISTINE NGUYEN

Print Name of Permit Applicant

Kristine Nguyen

Signature of Permit Applicant

8/07/2019

Date

Permit #: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Issued by: \_\_\_\_\_ Date: \_\_\_\_\_





# Information Notice to Owners About Construction Responsibilities

(ORS 701.325 (3))

Homeowners acting as their own general contractors to construct a new home or make a substantial improvement to an existing structure, can prevent many problems by being aware of the following responsibilities:

- Homeowners who use labor provided by workers not licensed by the Construction Contractors Board, may be considered an employer, and the workers who provide the labor may be considered employees. **As an employer, you must comply with the following:**
- **Oregon's Withholding Tax Law:** Employers must withhold income taxes from employee wages at the time employees are paid. You will be liable for the tax payments even if you don't actually withhold the tax from your employees. For more information, call the Department of Revenue at 503-378-4988.
- **Unemployment Insurance Tax:** Employers are required to pay a tax for unemployment insurance purposes on the wages of all employees. For more information, call the Oregon Employment Department at 503-947-1488.
- **Oregon's Business Identification Number (BIN):** is a combined number for both Oregon Withholding and Unemployment Insurance Tax. To file for a BIN, go online to the Oregon Business Registry. For questions, call 503-945-8091.
- **Workers Compensation Insurance:** Employers are subject to the Oregon Workers Compensation Law, and must obtain Workers Compensation Insurance for their employees. If you fail to obtain Workers Compensation Insurance, you could be subject to penalties and be liable for all claim costs if one of your workers is injured on the job. For more information, call the Workers Compensation Division at the Department of Consumer and Business Services at 800-452-0288.
- **Tax Withholding:** Employers must withhold Social Security Tax and Federal Income Tax from employee wages. You may be liable for the tax payment, even if you didn't actually withhold the tax. For a Federal EIN number, go online to [www.irs.gov](http://www.irs.gov).

## Other Responsibilities of Homeowners:

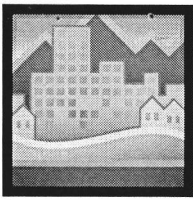
- **Code Compliance:** As the permit holder for a construction project, the homeowner is responsible for notifying building officials at the appropriate times, so that the required inspections can be performed. Homeowners are also responsible for resolving any failure to meet code requirements that may be found through inspections.
- **Property Damage and Liability Insurance:** Homeowners acting as their own contractors should contact their insurance agent to ensure adequate insurance coverage for accidents and omissions, such as falling tools, paint overspray, water damage from pipe punctures, fire, or work that must be redone. Liability Insurance must be sufficient to cover injuries to persons on the job site who are not otherwise covered as employees by Workers Compensation Insurance.
- **Expertise:** Homeowners should make sure they have the skills to act as their own general contractor, and the expertise required to coordinate the work of both rough-in and finish trades.

CONSTRUCTION CONTRACTORS BOARD

PO Box 14140, Salem, OR 97309-5052

Telephone: 503-378-4621 – Fax: 503-373-2007

Website Address: [www.oregon.gov/ccb](http://www.oregon.gov/ccb)



# City of Portland Development Services Center

1900 SW Fourth Avenue, Suite 1500 Portland, OR 97201  
Telephone: (503) 823-7310



## RESIDENTIAL ALTERATIONS GENERAL NOTES AND SUPPLEMENTAL INFORMATION 2017 OREGON RESIDENTIAL SPECIALTY CODE

Date : August 26, 2019

Permit number: 19-216542-000-00-RS

Project Address: 6935 SE GLADSTONE ST

The following "General Notes and Supplemental Information" are now part of your approved plans.

**These standards apply in areas altered or to work performed as part of this permit. These notes do not apply to areas which are not affected by the work being done, except as noted as "In all alterations"**

- It is the responsibility of the builder to comply with these requirements during construction.
- Where there is a conflict between a general note and the plans, the more restrictive shall apply.
- Applicable codes can be viewed online at <http://www.portlandoregon.gov/bds/36808>

### IN ALL ALTERATIONS

**R314 SMOKE ALARMS (In all alterations).** Where alterations, repairs or additions requiring a permit occur, or where one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be equipped with smoke alarms located as required for new dwellings. Smoke alarms shall comply with NFPA 72 and be listed in accordance with UL 217, and be installed as follows:

**Required locations.** Within dwelling units, smoke alarms shall be installed in each sleeping room, outside each separate sleeping area in the immediate vicinity of the bedrooms, and on each additional story of the dwelling, including basements.

**Interconnection.** Where more than one smoke alarm is required to be installed within an individual dwelling unit in accordance with Section R314.3, 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. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.

**Exception:** Interconnection of smoke alarms in existing areas shall not be required where alterations or repairs do not result in removal of interior wall or ceiling finishes exposing the structure.

**Installation near cooking appliances.** Smoke alarms shall not be installed in the following locations unless this would prevent placement of a smoke alarm in a location required by Section R314.3:

- **Ionization smoke alarms** shall not be installed less than 20' horizontally from a permanently installed cooking appliance.
- **Ionization smoke alarms** with an alarm-silencing switch shall not be installed less than 10 feet (3048 mm) horizontally from a permanently installed cooking appliance.
- **Photoelectric smoke alarms** shall not be installed less than 6' horizontally from a permanently installed cooking appliance.

**Combination alarms.** Combination smoke and carbon monoxide alarms shall be permitted to be used in lieu of smoke alarms. Combination smoke alarms shall be listed in accordance with UL 217 and UL 2034.

**Power source.** Smoke 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.

**Exceptions:**

- Smoke alarms shall be permitted to be battery operated where installed in buildings without commercial power.
- Smoke alarms installed in accordance with Section R314.2.2 (alterations, repairs and additions) shall be permitted to be battery powered.

**Fire alarm systems.** Fire alarm systems shall be permitted to be used in lieu of smoke alarms and shall comply with Sections R314.7.1 through R314.7.4.



**CARBON MONOXIDE ALARMS (In all alterations).** Where a new carbon monoxide source is introduced or work requiring a structural permit occurs in existing dwellings, carbon monoxide alarms shall be provided in accordance with Section R315.1. Carbon monoxide alarms shall be listed in accordance with UL 2034, and be installed as follows:

**Required locations.** Within dwelling units, carbon monoxide alarms shall be located in each bedroom or within 15' outside of each bedroom door. Bedrooms on separate floor levels in a structure consisting of two or more stories shall have separate carbon monoxide alarms serving each story. Where a fuel-burning appliance is located within a bedroom or its attached bathroom, a carbon monoxide alarm shall be installed within the bedroom.

**Combination alarms.** Combination carbon monoxide and smoke alarms shall be permitted to be used in lieu of carbon monoxide alarms. Combination carbon monoxide and smoke alarms shall be listed in accordance with UL 2034 and UL 217.

**Power source.** 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.

**Exceptions:**

- Carbon monoxide alarms shall be permitted to be battery operated where installed in buildings without commercial power.
- Carbon monoxide alarms installed in accordance with Section R315.2.2 (existing dwellings) shall be permitted to be battery powered.
- Interconnection and hard-wiring of combination smoke/carbon monoxide alarms in existing areas shall not be required where the alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure.

**Carbon monoxide detection systems.** Carbon monoxide detection systems shall be permitted to be used in lieu of carbon monoxide alarms and shall comply with Sections R315.6.1 through R315.6.4.

---

**IN ALL AREAS AFFECTED BY ALTERATIONS:**

---

**FRAMING**

---

## R302.11

**FIREBLOCKING.** In combustible construction fireblocking shall be provided to cut off all concealed draft openings (both horizontal and vertical) and to form an effective fire barrier between stories, and between a top story and the roof space. Fireblocking shall be provided in wood-framed construction in the following locations:

- Concealed spaces of wall studs and partitions, including furred spaces and parallel rows of studs or staggered studs vertically at the ceiling and floor levels and horizontally at intervals not to exceed 10'.
- All interconnections of vertical and horizontal spaces (soffits, drop ceilings, cove ceilings ...).
- Concealed spaces between stair stringers at the top and bottom of the run.
- Openings around vents, pipes, ducts, cables, and wires at ceiling and floor level with an approved material to resist free passage of flame and products of combustion.

## R302.11.1

**FIREBLOCKING MATERIAL.** Fireblocking shall consist of one of the following (except at openings around vents, pipes, ducts, cables, and wires at ceiling and floor level):

- One layer of 2" nominal lumber
- Two thicknesses of 1" nominal lumber with broken lap joints
- One thickness of 23/32" wood structural panels with joints backed by 23/32" wood structural panels
- One thickness of 3/4" particleboard with joints backed by 3/4" particleboard
- One layer of 1/2" gypsum board
- One layer of 1/4" cement-based millboard
- Batts or blankets of mineral wool or glass fiber or other approved materials installed in such a manner as to be securely retained in place.
- Cellulose insulation installed as tested in accordance with ASTM E119 or UL 263, for the specific application.

## R302.12

**DRAFTSTOPPING.** Draftstopping shall be installed in concealed floor-ceiling construction parallel to the framing members so that the area does not exceed 1,000 square feet

## R317.3

**FASTENERS AND CONNECTORS IN CONTACT WITH TREATED WOOD.** Fasteners and connectors in contact with treated wood shall comply with one of the following:

- **Preservative-treated wood:** Fasteners shall be hot dipped zinc-coated galvanized steel, stainless steel, silicone bronze or copper. Connectors shall be in accordance with the connector's manufacturer's specifications (ASTM A653 type G185 zinc-coated galvanized steel or equivalent shall be used in the absence of manufacturer's specifications (minimum)).

- **Fire-retardant-treated wood used in exterior applications or wet or damp locations:** Fasteners shall be hot dipped zinc-coated galvanized steel, stainless steel, silicone bronze or copper. Fasteners other than nails and timber rivets shall be permitted to be of mechanically deposited zinc-coated steel with coating weights in accordance with ASTM B 695, Class 55 minimum.
- **Fire-retardant-treated wood used in interior applications:** Fasteners shall be in accordance with the manufacturer's recommendations or per ORSC Section R317.3.3 in the absence of manufacturer's specifications.

|  |  |
|--|--|
| <b>R502.8.1</b>  | <b>DRILLING AND NOTCHING OF SAWN LUMBER.</b> Drilling and notching of sawn lumber joists, rafters and beams shall comply with the following requirements; <ul style="list-style-type: none"> <li>• Notches shall not exceed 1/6 of the depth of the member</li> <li>• Notches shall not be longer than 1/3 the depth of the member</li> <li>• Notches shall not be located in the middle 1/3 of the member's span</li> <li>• Notches at ends shall not exceed 1/4 of the member's depth</li> <li>• Tension side of members 4" or greater in nominal thickness shall not be notched except at the ends</li> <li>• Hole diameters shall not exceed 1/3 of the member's depth</li> <li>• Holes shall not be closer than 2" to the top or bottom of the member, or to any other hole or notch</li> </ul> |
| <b>R502.8.2</b>  | <b>DRILLING AND NOTCHING OF ENGINEERED WOOD PRODUCTS.</b> Cuts, notches and holes bored in trusses, structural composite lumber, structural glu-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.   |
| <b>R602.6.1</b>  | <b>DRILLING AND NOTCHING OF TOP PLATES.</b> When the top plate of an exterior wall or interior load-bearing wall requires cutting, drilling or notching by more than 50% of its width, a galvanized metal tie not less than 0.054" thick (16 gauge) and 1-1/2" wide shall be fastened across and to the top plate at each side of the opening with not less than (8) 10d nails having a minimum length of 1-1/2" at each side or equivalent. The metal tie must extend a minimum of 6" past the opening.   |
| <b>R802.10.1</b><br><b>R802.10.3</b><br><b>R802.11</b> | <b>ROOF TRUSSES.</b> Engineered truss design drawings shall be submitted for review and approval prior to installation. Trusses shall be braced to prevent rotation. Tie-downs shall be installed to provide a continuous load path from the truss to the foundation.  |

### **GARAGES**

|                   |  |
|-------------------|--|
| <b>R302.5.1.1</b> | <b>DWELLING / GARAGE OPENING PROTECTION.</b> Openings 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.   |
| <b>R302.5.2</b>   | <b>DUCT PENETRATION.</b> Ducts in the garage and ducts penetrating the walls or ceiling separating the dwelling from the garage shall be constructed of a minimum 26 gauge sheet steel or other approved material and shall have no openings into the garage.  |
| <b>R302.5.3</b>   | <b>OTHER PENETRATIONS.</b> Penetrations through the dwelling / garage fire separation required by Section R302.6, shall be protected by filling openings with an approved material to resist free passage of flame and products of combustion (per R302.11 item 4).  |
| <b>R302.6</b>     | <b>DWELLING / GARAGE FIRE SEPARATION.</b> The garage shall be separated from the dwelling as follows: <ul style="list-style-type: none"> <li>• <b>From the residence and attics:</b> Minimum 1/2" gypsum board or equivalent applied to the garage side.</li> <li>• <b>From all habitable rooms above the garage:</b> Not less than 5/8" type-X gypsum board or equivalent, attached per Table R702.3.5.</li> </ul>  |
| <b>M1307.2</b>    | <b>ANCHORAGE OF APPLIANCES.</b> Water heaters shall be anchored and strapped to resist displacement caused by earthquake motion. Strapping shall be at points within the upper one-third and lower one-third of the appliance's vertical dimensions. At the lower point, the strapping shall maintain a minimum distance of 4" above the controls.   |
| <b>M1307.3</b>    | <b>ELEVATION OF IGNITION SOURCE.</b> Appliances having an ignition source (generate a glow, spark or flame) shall be elevated such that the source of ignition is not less than 18" above the floor in garages.  |
| <b>M1307.3.1</b>  | <b>PROTECTION FROM IMPACT.</b> Appliances shall not be installed in a location subject to vehicle damage except where protected by approved barriers. Code approved barrier examples include: <ul style="list-style-type: none"> <li>• Minimum 2" diameter schedule 40 iron pipe filled with concrete extending 36" minimum above the finished slab and embedded 12" minimum below the finished slab in a minimum 6" diameter concrete filled hole.</li> <li>• Minimum 6" high wheel barrier bolted to the slab per Figure M1307.1</li> <li>• Minimum 2" diameter schedule 40 iron pipe with a steel base plate secured to the slab with anchors defined within Figure M1307.3.1.</li> </ul> |

## DWELLING UNIT

|  |  |
|--|--|
| R303.1<br>M1507.3                                    | <b>HABITABLE ROOM LIGHT AND VENTILATION.</b> All habitable rooms shall have an aggregate glazing area of not less than 8 percent of the floor area of the room with a minimum natural ventilation operable area of 4 percent of the floor area of the room. Code defined exceptions allow provisions via artificial light and mechanical ventilation.  |
| R303.3.1<br>M1507.2<br>M1507.4<br>M1507.5<br>M1506.2 | <b>VENTILATION OF ROOMS WITH BATHING OR SPA FACILITIES.</b> Any room with a bathtub, shower or spa facility shall be provided with mechanical ventilation meeting <u>all</u> of the following criteria: <ul style="list-style-type: none"><li>• Controlled by a de-humidistat, timer or similar means of automatic control; and</li><li>• Minimum 80 cfm intermittent or 20 cfm continuous exhaust rate; and</li><li>• Use of 4" diameter, smooth ducts are limited to 20' in length with 3 elbows maximum; and</li><li>• Exhaust directly to the outdoors (may not terminate in an attic or crawl space).</li></ul>   |
| R303.3.2<br>M1507.2<br>M1507.3<br>M1507.4            | <b>VENTILATION OF ROOMS WITHOUT BATHING OR SPA FACILITIES.</b> Water closet compartments or toilet rooms without bathtub, shower or spa facilities shall be provided with ventilation meeting <u>one</u> of the following: <ul style="list-style-type: none"><li>• Aggregate glazing of not less than 3 square feet, one half of which must be operable; or</li><li>• Mechanical ventilation meeting <u>all</u> of the following:<ul style="list-style-type: none"><li>◦ Minimum 50 cfm exhaust rate</li><li>◦ Exhaust directly to the outdoors (may not terminate in an attic or crawl space).</li></ul></li></ul>  |
| M1503  | <b>VENTILATION OF KITCHEN RANGE HOODS.</b> Domestic kitchen cooking appliances shall be equipped with a ducted range hood or down-draft exhaust system meeting <u>all</u> of the following criteria: <ul style="list-style-type: none"><li>• Minimum 150 cfm intermittent exhaust rate (&gt;400 cfm exhaust rate requires makeup air); and</li><li>• Single-wall ducting with a smooth interior surface; and</li><li>• Air-tight ducting equipped with a backdraft damper; and</li><li>• Exhaust directly to the outdoors (may not terminate in an attic or crawl space).</li></ul>  |
| M1502  | <b>CLOTHES DRYER EXHAUST.</b> Dryer exhaust systems shall be independent of all other systems and shall meet <u>all</u> of the following criteria: <ul style="list-style-type: none"><li>• Convey the moisture to the outdoors</li><li>• Nominal 4" diameter, minimum 0.016" thick ducting, supported and secured at 4' intervals</li><li>• Duct length shall meet <u>one</u> of the following:<ul style="list-style-type: none"><li>◦ Maximum of 35' from dryer to exhaust with fitting reductions per Table M1502.4.5.1; or</li><li>◦ As determined by the dryer manufacturer's installation instructions. The code official shall be provided with a copy of the installation instructions for the make and model of the dryer at the concealment inspection.</li></ul></li><li>• Makeup air shall be provided for exhaust rates greater than 200 cfm. Where a closet is designed for the installation of a clothes dryer, an opening having an area not less than 100 square inches shall be provided in the closet enclosure.</li></ul>   |
| R308.4   | <b>SAFETY GLAZING.</b> Safety glazing shall be provided at hazardous locations such as: <ul style="list-style-type: none"><li>• When the sill is less than 60" above the floor or walking surface and it meets <u>either</u> of the following:<ul style="list-style-type: none"><li>◦ Within 24" of either side of the door in the plane of the door in a closed position; or</li><li>◦ Is on a wall perpendicular to the plane of the door in a closed position and within 24" of the hinge side of an in-swinging door.</li></ul></li><li>• When <u>all</u> of the following conditions are met:<ul style="list-style-type: none"><li>◦ Exposed pane is larger than 9 square feet in area; and</li><li>◦ The bottom edge is less than 18" above the floor; and</li><li>◦ The top edge is more than 36" above the floor; and</li><li>◦ One or more walking surfaces are within 36", measured horizontally and in a straight line, of the glazing.</li></ul></li><li>• Glazing in walls, enclosures or fences containing or facing hot tubs, spas, whirlpools, saunas, steam rooms, bathtubs, showers and indoor or outdoor swimming pools where the bottom exposed edge of the glazing is less than 60" measured vertically above any standing or walking surface and within 60" measured horizontally and in a straight line from the water's edge shall be considered to be a hazardous location. This shall apply to single glazing and each pane in multiple glazing.</li><li>• Glazing where the bottom exposed edge of the glazing is less than 36" above the plane of the adjacent walking surface and less than 36" measured horizontally from the walking surface of stairways, landings between flights of stairs and ramps shall be considered to be a hazardous location.</li><li>• Glazing adjacent to the landing at the bottom of a stairway where the glazing is less than 36" above the landing and within a 60" horizontal arc less than 180 degrees from the bottom tread nosing shall be considered to be a hazardous location unless the glazing is protected by a guard complying with Section R312 and the plane of the glass is more than 18" from the guard.</li></ul> |



|                                       |  |
|---------------------------------------|--|
| R310.1<br>R310.2                      | <p><b>EMERGENCY ESCAPE AND RESCUE OPENINGS.</b> Basements and every sleeping room shall have not less than one operable emergency escape and rescue opening meeting <u>all</u> of the following criteria:</p> <ul style="list-style-type: none"> <li>• Net clear opening of 5.7 square feet (5 square feet for grade floor windows); and</li> <li>• Minimum clear opening height of 24"; and</li> <li>• Minimum clear opening width of 20"; and</li> <li>• Maximum sill height of 44" measured from the finished floor to the bottom of the clear opening.</li> </ul>  |
| R312.2                                | <p><b>WINDOW FALL PROTECTION.</b> In dwelling units, where the top of the sill of an operable window opening is located less than 24" above the finished floor and greater than 72" above the finished grade or other surface below on the exterior of the building, the operable window shall comply with <u>one</u> of the following:</p> <ul style="list-style-type: none"> <li>• Operable windows with openings that will not allow a 4" diameter sphere to pass through the opening where the opening is in its largest opened position.</li> <li>• Operable windows that are provided with window fall prevention devices that comply with ASTM F2090.</li> <li>• Operable windows that are provided with window opening control devices that comply with Section R312.2.2. which requires <u>all</u> of the following: <ul style="list-style-type: none"> <li>○ Window opening control devices shall comply with ASTM F2090; and</li> <li>○ The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the net clear opening area of the window unit to less than the area required by Section R310.2.1.</li> </ul> </li> </ul> |
| R311.3                                | <p><b>FLOOR ELEVATIONS AT EXTERIOR DOORS.</b> There shall be a landing or floor on each side of each exterior door. The width of each landing shall not be less than the door served and a minimum dimension of 36" in the direction of travel. Landings or floors at the required egress door shall not be more than 1-1/2" lower than the top of the threshold, except the exterior landing may be not more than 8" below the top of the threshold where the door does not swing over the landing or floor (except exterior storm or screen doors).</p>  |
| OESC<br>210.12(A) &<br>210.12(B)      | <p><b>ARC-FAULT CIRCUIT INTERRUPTER PROTECTION.</b> Arc-Fault Circuit Interrupter circuits are required for all 120 Volt 15-20 amp circuits supplying outlets or devices in dwelling unit kitchens, family rooms, dining rooms, living rooms, parlors, libraries, sunrooms, recreation rooms, closets, hallways, alcoves, laundry areas, or similar rooms or areas.</p> <p><b>Exceptions:</b></p> <ul style="list-style-type: none"> <li>• GFCI protected receptacles in dining rooms</li> <li>• Optional receptacles on dedicated circuits that supply equipment known to cause unwanted tripping</li> <li>• Branch circuits supplying receptacles or appliances in hallway, kitchens, laundry areas</li> <li>• Branch circuit extensions / modifications</li> <li>• Panel replacements</li> </ul>  |
| P408.5<br>P408.6                      | <p><b>SHOWERS.</b> The clear opening width at shower doors shall be at least 22". Showers shall have a minimum finished interior of 1,024 square inches and shall also be capable of encompassing a 30" diameter circle measured at the top of the threshold maintained to a height of 70" above the drain outlet.</p>   |
| R807.1                                | <p><b>ATTIC ACCESS.</b> Buildings with combustible ceiling or roof construction shall have an attic access opening to attic areas that have a vertical height of 30" or greater over an area of not less than 30 square feet. The vertical height shall be measured from the top of the ceiling framing members to the underside of the roof framing members. The rough-framed opening shall be not less than 22" by 30" and shall be located in a hallway or other readily accessible location. Where located in a wall, the opening shall be not less than 22" by 30". Where the access is located in a ceiling, minimum unobstructed headroom in the attic space shall be 30" at some point above the access measured vertically from the bottom of ceiling framing members. See Section M1305.1.3 for access requirements where mechanical equipment is located in attics.</p>   |
| <b><u>STAIRS &amp; GUARDRAILS</u></b> |  |
| R303.6<br>R303.7<br>N1107.3           | <p><b>STAIRWAY ILLUMINATION.</b> All interior and exterior stairways shall be provided with illumination as follows:</p> <p><b>Interior stairway illumination.</b> Interior stairways shall be provided with an artificial light source to illuminate the landings and treads. The light source shall be capable of illuminating treads and landings to levels of not less than 1 foot-candle as measured at the center of treads and landings. There shall be a wall switch at each floor level to control the light source where the stairway has six or more risers. A switch is not required where remote, central or automatic control of lighting is provided.</p> <p><b>Exterior stairway illumination.</b> Exterior stairways shall be provided with an artificial light source located at the top landing of the stairway. Exterior stairways providing access to a basement from the outdoor grade level shall be provided with an artificial light source located at the bottom landing of the stairway. All exterior lighting fixtures affixed to the exterior of the building shall contain high-efficacy lamps.</p>  |
| R302.7                                | <p><b>UNDER-STAIR PROTECTION.</b> Enclosed accessible space under stairs shall have walls, under-stair surfaces and any soffits protected on the enclosed side with 1/2" gypsum board.</p>   |

|            |   |
|------------|---|
| R311.7     | <b>STAIRWAYS.</b> Stairs must comply with the following dimensions: <ul style="list-style-type: none"> <li>• Minimum 36" clear width at all points above the permitted handrail height</li> <li>• Minimum 6'-8" headroom height measured vertically from the sloped line adjoining the tread nosing</li> <li>• Minimum 4" to maximum 8" riser height with 3/8" maximum variation between the smallest and largest</li> <li>• Minimum 9" tread depth, with 3/8" maximum variation between the smallest and largest</li> </ul>  |
| R311.7.6   | <b>LANDINGS FOR STAIRWAYS.</b> There shall be a floor or landing at the top and bottom of each stairway. The width perpendicular to the direction of travel shall be not less than the width of the flight served. Landings of shapes other than square or rectangular shall be permitted provided that the depth at the walk line and the total area is not less than that of a quarter circle with a radius equal to the required landing width. Where the stairway has a straight run, the depth in the direction of travel shall be not less than 36". <p><b>Exception:</b> A floor or landing is not required at the top of an interior flight of stairs, including stairs in an enclosed garage, provided that a door does not swing over the stairs.</p>   |
| R311.7.8   | <b>HANDRAILS.</b> Stairways with 4 or more risers shall have handrails meeting the following criteria:  |
| R311.7.8.1 | <ul style="list-style-type: none"> <li>• <b>Height</b> of not less than 30" and not more than 38" above the sloped plane adjoining tread nosing</li> </ul>  |
| R311.7.8.2 | <ul style="list-style-type: none"> <li>• <b>Continuity</b> maintained along at least one side of the stairway, shall be returned or shall terminate in newel posts or safety terminals, and if adjacent to a wall shall have not less than a 1-1/2" space between the handrail and the wall</li> </ul>  |
| R311.7.8.3 | <ul style="list-style-type: none"> <li>• <b>Grip-size</b> shall meet <u>one</u> of the following types or provide equivalent graspability: <ul style="list-style-type: none"> <li>○ <u>Type I.</u> Handrails with a circular cross section with an outside diameter not less than 1-1/4" and not greater than 2". If handrail is not circular, it shall have a perimeter dimension of not less than 4" and not greater than 6-1/4" with a maximum cross section of dimension of not more than 2-1/4".</li> <li>○ <u>Type II.</u> Handrails with a perimeter greater than 6-1/4" with minimum 5/16" deep graspable finger recess areas on both sides of the profile. The finger recesses shall start not more than 3/4" below the top of the rail. The width of the handrail above the recess shall be 1-1/4" minimum and not more than 2-3/4".</li> </ul> </li> </ul> |
| R301.5     | <b>GUARDS.</b> Guards shall be located along open-sided walking surfaces, including stairs, ramps and landings, that are located more than 30" measured vertically to the floor or grade below at any point within 36"  |
| R312       | horizontally to the edge of the open side. Insect screening shall not be considered as a guard. Guards shall comply with the following:   |
| R312.1     | <ul style="list-style-type: none"> <li>• <b>Height</b> shall not be less than 36" high measured vertically above the adjacent walking surface or the line connecting the leading edges of the treads.</li> </ul>  |
| R312.2     | <ul style="list-style-type: none"> <li>• <b>Opening limitations</b> along required guards shall prevent passage of a 4" diameter sphere. Along stairs, the triangular opening formed by the riser, tread and bottom of the guard shall prevent passage of a 6" diameter sphere. Guards along the open sides of stairs shall prevent passage of a 5" diameter sphere (applicable above the second riser of the stair).</li> </ul>  |
| R312.3     | <ul style="list-style-type: none"> <li>• <b>Resistance</b> of a 200# concentrated point load applied in any direction at any point along the top shall be provided.</li> </ul>  |

### **ENERGY EFFICIENCY**

|             |  |
|-------------|--|
| N1107.2     | <b>HIGH-EFFICACY LAMPS.</b> All permanently installed lighting fixtures shall contain high-efficiency lamps. Screw-in compact fluorescent and LED lamps comply with this requirement.  |
| N1101.2.1   | <b>ALTERATION AND REPAIR.</b> Alterations and repairs affecting energy conservation measures and / or components of existing conditioned spaces, shall conform to the requirements specified in Chapter 11. <p><b>Exception:</b> The minimum component requirements as specified in Table N1101.2 may be used to the maximum extent practical.</p>   |
| N1101.2.3.1 | <b>CHANGE OF USE.</b> 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. Changes of use that are greater than 30% of the existing building heated floor area or more than 400 square feet in area, whichever is less, shall be required to select one measure from Table N1101.3. <p><b>Definition</b> of "Change of use" for purposes of Section N1101.2.3 is a change of use in an existing residential building and shall include <u>any</u> of the following:</p> <ul style="list-style-type: none"> <li>• Any unconditioned spaces such as an attached garage, basement, porch, or canopy that are to become conditioned spaces;</li> <li>• Any unconditioned, inhabitable space that is to become conditioned space, such as a large attic.</li> </ul> |

**Table  
N1101.2**

**EXISTING BUILDING COMPONENT REQUIREMENTS.** The minimum existing building component requirements listed below may be used to the maximum extent practical:

|   |   |
|---|---|
| Wall insulation: R-15                       | Slab edge perimeter: R-15               |
| Flat ceiling: R-49                          | Windows: U- 0.30                        |
| Vaulted ceiling > 10" nominal rafters: R-25 | Skylights: U-0.60                       |
| Vaulted ceiling > 8" nominal rafters: R-21  | Exterior doors: R-5                     |
| Underfloor > 10" nominal joist depth: R-30  | Exterior doors w/ >2.5sf glazing: R-2.5 |
| Underfloor > 8" nominal joist depth: R-25   | Forced air ducts: R-8                   |

**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 Table N1101.1(1) (*Prescriptive Envelope Requirements*) and one of the following:

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

**Small additions.** Additions that are less than 40% 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) (*Additional Measures*) or comply with Table N1101.3 (*Small Addition Additional Measures*).

**Exception:** Additions that are less than 15% of existing building heated floor area or 200 square feet 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.**

|   |   |
|---|---|
| Above grade walls: R-21 Intermediate (N1104.5.2)    | Heated slab interior: R-10                |
| Below grade walls: R-15 / R-21                      | Windows: U- 0.30                          |
| Flat ceiling: R-49                                  | Skylights: U-0.50                         |
| Vaulted rafter: R-30 (max 50% of heated floor area) | Exterior door, max. 28 sf: U-0.54 or less |
| Vaulted truss: R-30A (max 50% of heated floor area) | Other exterior doors: U-0.20              |
| Under-floor: R-30                                   | Exterior doors w/ >2.5sf glazing: U-0.40  |
| Slab-edge perimeter: R-15                           | Forced air ducts: R-8                     |

**Table  
N1101.1(2)**

**ADDITIONAL MEASURES.** All conditioned spaces within residential buildings shall comply with the one Envelope Enhancement Measure **AND** one Conservation Measure:

**Envelope Enhancement Measure (select one):**

|   |
|---|
| <b>1) High Efficiency Walls</b>   |
| • Exterior walls: U-0.045 / R-21 cavity insulation + R-5 continuous                         |
| <b>2) Upgraded Features</b>   |
| • Exterior walls: U-0.057 / R-23 intermediate <b>OR</b> R-21 advanced, and                  |
| • Framed floors: U-0.026 / R-38, and  |
| • Windows: U-0.28 (average UA)  |
| <b>3) Upgraded Features</b>   |
| • Exterior walls: U-0.055 / R-23 intermediate <b>OR</b> R-21 advanced, and                  |
| • Flat ceiling: U-0.017 / R-60, and   |
| • Framed floors: U-0.026 / R-38   |
| <b>4) Super Insulated Windows and Attic OR Framed Floors</b>                                |
| • Windows: U-0.22 (Triple Pane Lowe-e), and   |
| • Flat ceiling: U-0.017 / R-60, <b>OR</b>   |
| Framed floors: U-0.026 / R-38   |
| <b>5) Air Sealing Home and Ducts</b> ( <i>cannot be combined with Measure B</i> )           |
| • Mandatory air sealing of all wall coverings at top plate and air sealing checklist, and   |
| • Mechanical whole-building ventilation system with rates meeting M1503 or ASHRAE 62.2, and |
| • All ducts and air handlers contained with building envelope, <b>OR</b>                    |
| All ducts sealed with mastic  |
| <b>6) High Efficiency Thermal Envelope UA</b>   |
| • Proposed UA is 8% lower than the code UA  |

**Conservation Measure (select one):**



|  |   |
|--|---|
|  | <b>A) High Efficiency HVAC System</b> <ul style="list-style-type: none"> <li>Gas-fired furnace or boiler AUE 94%, <b>OR</b><br/>Air source heat pump HSPF 9.5 / 15.0 SEER cooling, <b>OR</b><br/>Ground source heat pump COP 3.5 <b>or</b> Energy Star rated</li> </ul> |
|  | <b>B) Ducted HVAC Systems Within Conditioned Space</b> <i>(cannot be combined with Measure 5)</i> <ul style="list-style-type: none"> <li>All ducts and air handlers contained with building envelope</li> </ul>   |
|  | <b>C) Ductless Heat Pump</b> <ul style="list-style-type: none"> <li>Ductless heat pump HSPF 10.0 in primary zone of dwelling</li> </ul>   |
|  | <b>D) High Efficiency Water Heater</b> <ul style="list-style-type: none"> <li>Natural gas / propane water heater with UEF 0.85, <b>OR</b><br/>Electric heat pump water heater Tier 1 Northern Climate Specification Product</li> </ul>                                  |

**Table  
N1101.3**

**SMALL ADDITION ADDITIONAL MEASURES (Select one)**

|          |          |   |
|----------|----------|---|
|          | <b>1</b> | Increase the ceiling insulation of the existing portion of the home as specified in Table N1101.2.  |
|          | <b>2</b> | Replace all existing single-pane wood or aluminum windows to the U-factor as specified in Table N1101.2.  |
|          | <b>3</b> | Insulate the floor system as specified in Table N1101.2 & install 100 percent of permanently installed lighting fixtures as CFL, LED, or linear fluorescent or a min. efficacy of 40 lumens per watt as specified in Section N1107.2. |
|          | <b>4</b> | Test the entire dwelling with a blower door and exhibit no more than 6.0 air changes per hour @ 50 Pascals.   |
|          | <b>5</b> | Seal and performance test the duct system.  |
| <b>X</b> | <b>6</b> | Replace existing 78 percent AFUE or less gas furnace with a 92 percent AFUE or greater system.  |
|          | <b>7</b> | Replace existing electric radiant space heaters with a ductless mini split system with a minimum HSPF of 10.0.  |
|          | <b>8</b> | Replace existing electric forced air furnace with an air source heat pump with a minimum HSPF of 9.5.   |
|          | <b>9</b> | Replace existing water heater with a water heater meeting Conservation Measure D [Table N1101.1(2)].  |