

TOWN OF TOPSHAM
GENERAL BUILDING
PERMIT APPLICATION

Date: _____

Site Address: _____

Property Owner: _____

Property Owner Mailing Address: _____ Phone Number: _____

Applicant: _____ Phone Number: _____

Applicant Email: _____

Please select the permit category that best describes your project:

- Residential Permit:** Detached One- and Two-family Dwellings and Townhouses and their accessory structures (shed/garage/deck/etc.). Provide all information required by form "**RESIDENTIAL SUBMITTALS**". **Note: See form for Exceptions.** Only submit the pages needed for your project.
- Commercial Permit:** All other projects. Provide all information required by form "**COMMERCIAL SUBMITTALS**". **Note: See form for Exceptions.** Only submit the pages needed for your project.

If an **Exception** applies;

- What is the exception number? 1, 2, 3, 4, 5, 6, 7, 8, 9
- What is the size of the project in square feet? _____
- What are the projects setbacks to property lines? Front _____, Side _____, Rear _____

PROJECT DESCRIPTION

I HERBY CERTIFY THAT THE INFORMATION IN THIS APPLICATION IS COMPLETE AND CORRECT AND I AGREE TO COMPLY WITH ALL TOWN ORDINANCES AND LAWS APPLICABLE TO THIS PROJECT, I AM OR LEGALLY REPRESENT THE OWNER OF THE SUBJECT PROPERTY FOR THE PURPOSE OF OBTAINING THIS PERMIT, I HAVE READ AND UNDERSTAND THE ATTACHED HANDOUT "Building Permit Standard Conditions"

Applicant Signature: _____ **Printed Name:** _____

FOR OFFICE USE ONLY

PERMIT #: BP _____

- VISION

Map: _____ Lot: _____ Lot Area: _____

Fee Calculation: _____ FEE: _____

Zone: _____ Zoning Use: _____

APPROVED / DISAPPROVED; CEO SIGNATURE: _____ DATE: _____

Permit Conditions / Comments:

Building Permit Standard Conditions

The permit to which this is attached is the building permit. Separate permits are required for plumbing, heating and electrical work. Building permits are subject to appeal for a period of 30 days from issuance. A building permit expires if there is no substantial start on the project within a period of 6 months. All work must meet applicable codes and ordinances. We ascertain the code compliance of your project to the best of our ability with the data provided by you, many building code related topics are posted on our web site, [Building Code Information - Topsham, Maine \(topshammaine.com\)](#) Information on the Maine Uniform Building and Energy Code (MUBEC) can be found here [Building Codes | Office of State Fire Marshal \(maine.gov\)](#)

- **Code Purpose:** The purpose of codes is to establish *minimum requirements* to provide a reasonable level of safety, health and general welfare through affordability, structural strength, means of egress, stability, sanitation, light and ventilation, energy conservation and safety to life and property from fire and other hazards and to provide a reasonable level of safety to fire fighters and emergency responders during emergency operations. Workmanship and finishes are not addressed by the building code or the inspector. *Please hire a reputable builder and check references!*

Inspections: We will need to inspect the foundation reinforcing (only if an engineered design): Foundation after drainage and damproofing are installed and before it is backfilled: Framing before insulation or sheetrock: Fire rated construction if applicable; any special inspections noted on the permit: The final building before it is occupied.

- **Note:** The required inspections only permit the inspector to see a fraction of the code requirements. Issuance of a Certificate of Occupancy shall not be construed as an approval of a code violation, the property owner is responsible for code compliance for the life of the building. *Please hire a reputable builder and check references!*

Setbacks: You are responsible for knowing where your applicable property lines are and for meeting the zoning requirements as to setbacks and similar criteria. We will assist you as best as we can in understanding the various criteria, but the burden of compliance is on you. Setbacks are measured from the property line to the nearest point on the structure (this is often not the wall). The edge of the road or sidewalk is usually not the property line, the Town usually owns beyond these features. If you are not sure where your property lines are, we recommend that you have the land surveyed by a licensed surveyor.

Deed and/or Other Restrictions: There may be restrictions in your deed such as easements, covenants, prior approvals, etc. that could affect your project. You are responsible for making sure your project meets any deed restrictions. There can be legal issues with the properties that can affect the feasibility of a project that are not readily apparent. If you have questions about things such as boundary locations, subdivision, merger, etc., we recommend you consult a surveyor or attorney.

Utilities: There may be features that affect your project such as public or private sewer lines, water lines, power lines, phone lines, etc. that can affect the code compliance of your project. The burden of ascertaining the existence of and making us aware of these is yours. Call DIG SAFE at 1-800-DIG-SAFE (1-800-344-7233) prior to excavating, they will assist you in locating buried features on your site and it's the law!

Engineering: If you use trusses, engineered lumber, steel, etc., we will need written certification from a licensed architect or engineer that the product is suitable for the intended use. Many of these products have been pre-engineered and the suppliers of these products can usually supply engineered installation standards upon request.

RESIDENTIAL SUBMITTALS

A permit is required to construct or alter a building which is defined as a "structure having a roof supported by columns or walls for the housing of persons, animals, or personal property". For purposes of this definition, elevated decks also require this permit.

Exceptions: The following do not require this permit, **only submit the *General Building* page:**

1. One-story detached accessory structures such as SHEDS, provided that the floor area does not exceed 200 square feet
2. DECKS not exceeding 200 square feet in area, that are not more than 30 inches above grade at any point, are not attached to a dwelling and do not serve the exit door required by IRC building code Section R311.4
3. Repairs to and maintenance of existing buildings and structures
4. Replacement of non-structural elements
5. Decorative changes
6. Log homes: This includes 100% of a *home* construction, if the building is not a home, this permit is required
7. Manufactured housing as defined in Title 10, chapter 951: Only items subject to Maine Manufactured Housing laws/rules are exempt, other construction does require this permit
8. Post and beam or timber frame (PB/TF) construction: This is limited to all structural aspects of the building including any that support the PB/TF and any that are supported by the PB/TF
9. Warehouses or silos used to store harvested crops: What this means will be assessed on a case-by-case basis

Projects constructed under this permit are regulated by the Maine Uniform Building and Energy Code (MUBEC) CH-5 currently the 2021 International Residential Code (IRC) as amended. The following project types listed in the IRC scope may be constructed under this code:

R101.2 Scope.

The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress and their accessory structures not more than three stories above grade plane in height.

"Exception: The following shall be permitted to be constructed in accordance with this code:

1. Live/Work unit provided the portion used exclusively for nonresidential use shall be limited to less than 10 percent of the area of the dwelling unit.
2. Detached one- and two-family dwellings or townhouses accommodating no more than 3 outsiders in rented rooms provided the rooms do not contain separate cooking facilities.
3. A "Day-Care Home" as defined by "Fire Codes and Standards adopted pursuant to Title 25, M.R.S §§ 2452 and 2465".

Provide the following information as applicable with your application

- If the project is an Alteration or Renovation: Provide the cost of the Building Construction EXCLUDING the value of non-structural repairs/replacements, all decorative changes, all plumbing/electrical/gas/mechanical:**

Cost = \$ _____

- Application for projects generating or increasing wastewater flows must provide a capacity to serve letter or receipt of paid entrance fee issued by the Topsham Sewer District (729-3612) for public sewer connection; **or** a septic design (HHE-200) for an onsite private system.
- For any work within a public way including a driveway or culvert, a permit is required from Public Works: 725-1728. Provide a copy with this application

Plans:

- One set of plans on paper no larger than 11"x17" dimensioned clearly and containing a minimum of all **applicable** information below. Plans may be emailed in pdf. format only, **PICTURES WILL NOT BE ACCEPTED.**

Site plan containing the following:

- North arrow; Distance to buildings measured perpendicular to property lines; Distance between buildings; Location of septic field, tank and well if applicable; Driveway location; Street names; Water courses and water bodies; Area of lot in square feet or acres; Erosion control measures shown.
- AS of MAY 22, 2024:** If your project involves work in the Front Setback area **and** you are located in a MUC, LV, MV, VC zone, footnote #30 of the Table of Dimensional Requirements was added. In order to comply with this requirement, you must **submit a survey** showing the distance from the back of curb or the edge of pavement to the lot line, and if this distance is less than 12 feet, provide a recorded streetscape easement benefiting the Town of Topsham on the private lot to expand the area to at least 12 feet.

Provide: Foundation, Floor, Wall, Roof, Building elevation plans/documents that show or contain the following:

- Overall building dimensions
- Foundation: Indicate Type of Material, Wall/Column Width; Footer Width/Thickness/Depth below grade; Re-bar size/location
- Room use (name)
- Windows and doors including swing direction and size
- Egress from Bedrooms; show location(s)
- Egress from Basement; show location(s)
- Egress from Habitable Attic; show location(s)
- Tempered Glass; show all locations
- Stairs showing the direction of travel, width, headroom, rise and run dimensions, handrail location and height
- Location of plumbing fixtures, appliances and fireplace(s)
- Location/Size/Type of bearing walls and columns
- Size/Span/Direction of floor/wall/ceiling/roof/beams/headers/structural members
- Engineered Structural Products such as LVL's, Trusses, I-Joists etc. Provide manufactures installation and sizing information
- Engineers seal for all structural steel and other applicable engineering
- Indicate interior wall and ceiling finish
- Indicate and detail braced wall lines
- Show each side of the building
- Indicate the exterior wall and roof finish
- Proposed grade at each corner of the building
- Height of the building measured from the grade plane to the average height of the highest roof surface

ENERGY: If the project involves new or expanded heated space, or conversion of unheated space to heated; Complete the "Residential Energy Efficiency Packet".

- Detail or Callout required energy components on the building plan; Plan must match submitted Packet values

RADON: If the project is a New Dwelling that has never been occupied, complete "Residential Radon System"

- Detail or Callout components of Radon system on the building plan

Information regarding the Maine Building and Energy Code can be found here:

[MUBEC Code Launch Documents](#)

[Building Code Information - Topsham, Maine](#)

Residential Energy Efficiency Packet

Complete and Include **only this page** with your building permit application for all options.

The Project shall comply with one of the following, please check one. For each option, attach appropriate site-specific design compliance report showing how the project will meet code:

- Option #1 – R401.2.1 Prescriptive Compliance Option including REScheck total UA alternative:** The Prescriptive Code Compliance Path is the most expensive option to meet the 2021 IECC (highest values and most stringent). Following UA (REScheck) allows trade-offs of the envelope only, this path is a little less costly.
- Option #2 – R401.2.2 Total Building Performance Option:** Following the Performance Code Compliance Path brings in the mechanicals to help trade-off, this path is less costly than option #1.
- Option #3 – R401.2.3 Energy Rating Index Option:** Following the ERI Code Compliance Path brings in all aspects of the build (like a HERS Rating) to allow the most trade-offs and using the homes energy performance to identify compliance which is the least costly compared to options #1 and #2.

Additional requirements for all Options:

- ❖ **R401.2.5 Additional energy efficiency**
- ❖ **R401.3 Certificate**

MUBEC Amendments: State amendments to the 2021 IECC are attached to this packet. Some amendments are to administrative sections, others amend code requirements. Please review and make sure your project is in compliance.

Prior to requesting a final Occupancy Inspection, as applicable to your project:

- If choosing Option #1 Prescriptive or REScheck, certify and submit “Table for Option #1”
- Complete and certify “Residential Mechanical Ventilation Testing”
- Complete and certify “DUCT LEAKAGE TESTING VERIFICATION”
- Complete and certify “BUILDING THERMAL ENVELOPE LEAKAGE TESTING VERIFICATION”

I certify that I have verified insulation materials and R-values; fenestration U-factors and SHGC values; area-weighted average U-factor and SHGC calculations; mechanical system design criteria; mechanical and service water heating system and equipment types, mechanical ventilation, sizes and efficiencies; equipment and system controls; duct sealing, duct and piping insulation and location; air sealing details; and that the project as designed satisfies the minimum requirements for the compliance approach selected above.

Project Address: _____

Agency and Certification Number (if applicable): _____

Signature of Responsible Party: _____

Printed Name and Title of Responsible Party: _____

Table for Option #1: Submit prior to Occupancy Inspection

Complete the following certification and checklist. (Note: If submitting a REScheck, complete the "Inspection Checklist" generated with you report instead of this one)

The "Section" column indicates a section in the 2021 IECC residential section. Chapter 11 of the 2021 IRC may also be used; the section numbers appearing in parenthesis after each section number are the section numbers of the corresponding text in the IECC-R shown of this table.

For each mandatory requirement, the user must check one of the boxes in the "**Complies**" column.

"**Plans Verified Value**" and "**Field Verified Value**" column must be completed for each applicable requirement; some items may not be on plans but every item must be field verified. Multiple trades may be involved in getting this information, the user who certifies this form must coordinate with these trades, only one certified form will be accepted.

Text in the "**Comments/Assumptions**" column may be provided by the user. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

COMPLETE and SIGN:

I certify this completed table is accurate and that the project as constructed satisfies the minimum requirements for the compliance approach selected.

Project Address: _____

Building Permit Number: _____

Agency and Certification Number (if applicable): _____

Signature of Responsible Party: _____

Printed Name and Title of Responsible Party: _____

Section # & Req.ID	Pre-Inspection/Plan Review	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
103.1, 103.2 [PR1] ¹	Construction drawings and documentation demonstrate energy code compliance for the building envelope. Thermal envelope and energy compliance path represented on construction documents.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
103.1, 103.2, 403.8 [PR3] ¹	Construction drawings and documentation demonstrate energy code compliance for lighting and mechanical systems. Systems serving multiple dwelling units must demonstrate compliance with the IECC Commercial Provisions.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
302.1, 403.7 [PR2] ²	Heating and cooling equipment is sized per ACCA Manual S based on loads calculated per ACCA Manual J or other methods approved by the code official.	Heating: Btu/hr ____ Cooling: Btu/hr ____	Heating: Btu/hr ____ Cooling: Btu/hr ____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	






Additional Comments/Assumptions:

Section # & Req.ID	Foundation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.2 [FO4] ¹	Conditioned basement wall insulation R-value. Where interior insulation is used, verification may need to occur during Insulation Inspection. Not required in warm-humid locations in Climate Zone 3.	R- ____ R- ____	R- ____ R- ____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	<i>See the Envelope Assemblies table for values.</i>
303.2 [FO5] ¹	Conditioned basement wall insulation installed per manufacturer's instructions.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
402.2.8 [FO6] ¹	Conditioned basement wall insulated in accordance with Table R402.1.3 with insulation depth the minimum of 10 ft below grade or to the basement floor.	____ ft	____ ft	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	<i>See the Envelope Assemblies table for values.</i>
303.2.1 [FO11] ²	A protective covering is installed to protect exposed exterior insulation and extends a minimum of 6 in. below grade.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
403.9 [FO12] ²	Snow and ice-melting system controls installed to shut off system when pavement temperature > 50F and no precipitation.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	




Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1, 402.3.4 [FR1] ¹	Door U-factor.	U- ____	U- ____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
402.1, 402.3.1, 402.3.3, 402.5 [FR2] ¹	Glazing U-factor (area-weighted average).	U- ____	U- ____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
303.1.3 [FR4] ¹	U-factors of fenestration products are determined in accordance with the NFRC test procedure or taken from the default table.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
402.1, 402.3.3, 402.3.6, 402.5 [FR5] ¹	Skylight U-factor.	U- ____	U- ____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
402.4.1.1 [FR23] ¹	Air barrier and thermal barrier installed per manufacturer's instructions.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
402.4.3 [FR20] ¹	Fenestration that is not site built is listed and labeled as meeting AAMA /WDMA/CSA 101/I.S.2/A440 or has infiltration rates per NFRC 400 that do not exceed code limits.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
402.4.5 [FR16] ²	IC-rated recessed lighting fixtures sealed at housing/interior finish and labeled to indicate ≤2.0 cfm leakage at 75 Pa.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
403.3.1 [FR12] ¹	Supply and return ducts in attics insulated ≥ R-8 where duct is ≥ 3 inches in diameter and ≥ R-6 where < 3 inches.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
403.3.4 [FR13] ¹	Ducts, air handlers and filter boxes are sealed with joints/seams compliant with International Mechanical Code or International Residential Code, as applicable.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
403.3.7 [FR15] ³	Building cavities are not used as ducts or plenums.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	

Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
403.3.2 [FR28] ³ 	Ducts declared to be within the conditioned space are either 1) completely within the continuous air barrier and within the building thermal envelope, 2) buried within ceiling insulation in accordance with Section R403.3.6 and the air handler is located completely within the continuous air barrier and within the building thermal envelope and the duct leakage is ≤ 1.5 cfm / 100 square feet of conditioned floor area served by the duct system, or 3) the ceiling insulation R-value installed against and above the insulated duct \geq to the proposed ceiling insulation R-value, less the R-value of the insulation on the			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
403.4 [FR17] ² 	HVAC piping conveying fluids above 105 °F or chilled fluids below 55 °F are insulated to $\geq R-3$.	R-_____	R-_____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
403.4.1 [FR24] ¹ 	Protection of insulation on HVAC piping.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
402.4.6 [FR29] ³ 	Electrical and communication boxes installed in the thermal boundary of the envelope sealed to limit air leakage between conditioned and unconditioned spaces.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
403.5.2 [FR18] ² 	Hot water pipes are insulated to $\geq R-3$.	R-_____	R-_____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
403.6 [FR19] ²	Automatic or gravity dampers are installed on all outdoor air intakes and exhausts for mechanical ventilation systems.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
403.6.1 [FR30] ²	Ventilation systems in climate zones 7 & 8 shall utilize heat or energy recovery			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	




Additional Comments/Assumptions:

Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.1 [IN13] ² 	All installed insulation is labeled or the installed R-values provided.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
402.1, 402.2.7 [IN1] ¹ 	Floor insulation R-value.	R-_____ <input type="checkbox"/> Wood <input type="checkbox"/> Steel	R-_____ <input type="checkbox"/> Wood <input type="checkbox"/> Steel	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	<i>See the Envelope Assemblies table for values.</i>
402.1, 402.2.5, 402.2.6 [IN3] ¹ 	Wall insulation R-value. If this is a mass wall with at least ½ of the wall insulation on the wall exterior, the exterior insulation requirement applies (FR10).	R-_____ <input type="checkbox"/> Wood <input type="checkbox"/> Mass <input type="checkbox"/> Steel	R-_____ <input type="checkbox"/> Wood <input type="checkbox"/> Mass <input type="checkbox"/> Steel	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	<i>See the Envelope Assemblies table for values.</i>
303.2 [IN4] ¹	Wall insulation is installed per manufacturer's instructions.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	

Additional Comments/Assumptions:

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1, 402.2.1, 402.2.2, 402.2.6 [FI1] ¹	Ceiling insulation R-value.	R-____ <input type="checkbox"/> Wood <input type="checkbox"/> Steel	R-____ <input type="checkbox"/> Wood <input type="checkbox"/> Steel	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
303.1.1.1, 303.2 [FI2] ¹	Ceiling insulation installed per manufacturer's instructions. Blown insulation marked every 300 ft ² .			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
402.2.3 [FI22] ²	Vented attics with air permeable insulation include baffle adjacent to soffit and eave vents that extends over insulation.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
402.2.4 [FI3] ¹	Attic access hatch and door insulation ≥R-value of the adjacent assembly.	R-____	R-____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
402.4.1.3 [FI17] ¹	Blower door test @ 50 Pa. ≤=5.0 ach in Climate Zones 1-2, and ≤=3.0 ach in Climate Zones 3-8.	ACH 50 = ____	ACH 50 = ____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
403.3.5 [FI27] ¹	Ducts are pressure tested in accordance with ANEI/RESNET/ICC 380 or ASTM E1554 to determine air leakage with either: Rough-in test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the system including the manufacturer's air handler enclosure if installed at time of test. Postconstruction test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the entire system including the manufacturer's air handler enclosure.	____ cfm/100 ft ²	____ cfm/100 ft ²	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
403.3.6 [FI4] ¹	Duct tightness test result of ≤=4 cfm/100 ft ² across the system or ≤=3 cfm/100 ft ² without air handler @ 25 Pa. Duct tightness ≤= 8 cfm/100 ft ² for ducts within thermal envelope. For rough-in tests, verification may need to occur during Framing Inspection.	____ cfm/100 ft ²	____ cfm/100 ft ²	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
403.3.4.1 [FI24] ¹	Air handler leakage designated by manufacturer at ≤=2% of design air flow.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
403.1.1 [FI9] ²	Programmable thermostats installed for control of primary heating and cooling systems and initially set by manufacturer to code specifications.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
403.5.1 [FI11] ²	Circulating service hot water systems have automatic or accessible manual controls.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
403.2 [FI26] ²	Hot water boilers supplying heat through one- or two-pipe heating systems have automatic outdoor setback control to lower boiler water temperature based on outdoor temperature, indoor temperature or water temperature sensing.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
403.5.1.1 [FI28] ²	Heated water circulation systems have a circulation pump. The system return pipe is a dedicated return pipe or a cold water supply pipe. Gravity and thermos-syphon circulation systems are not present. Controls for circulating hot water system pumps start the pump with signal for hot water demand within the occupancy. Controls automatically turn off the pump when water is in circulation loop is at set-point temperature and no demand for hot water exists.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
403.5.1.2 [FI29] ²	Electric heat trace systems comply with IEEE 515.1 or UL 515. Controls automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
403.5.3 [FI31] ²	Drain water heat recovery units tested in accordance with CSA B55.1. Potable water-side pressure loss of drain water heat recovery units < 3 psi for individual units connected to one or two showers. Potable water-side pressure loss of drain water heat recovery units < 2 psi for individual units connected to three or more showers.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
403.6.2 [FI25] ²	All mechanical ventilation system fans not part of tested and listed HVAC equipment meet efficacy and air flow limits per Table R403.6.2.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
403.6.3 [FI33] ²	Mechanical ventilation systems tested and verified to meet the minimum flow rates required by Section R403.6.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
403.5.1.1.1 [FI32] ²	Demand recirculation water systems have automatic controls to start pump when hot water is requested.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
404.1 [FI6] ¹	100% of permanent fixtures have high efficacy lamps.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
404.1.2 [FI23] ³	Fuel gas lighting systems have no continuous pilot light.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
404.1.1 [FI35] ³ 	Exterior lighting for multifamily buildings shall comply with Section C405.4.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
404.2 [FI36] ³ 	Permanent interior lighting shall be controlled with either a dimmer, occupancy sensor or other control built into the fixture.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
404.3 [FI37] ³ 	Exterior lighting \geq 30 watts shall have the following controls: manual on/off switch with automatic shut-off, automatic shut-off in daylight hours, and controls that override automatic shutoff that returns to automatic control within 24 hours.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
401.3 [FI7] ²	Compliance certificate posted with building specifications and compliance path and results.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
303.3 [FI18] ³	Manufacturer manuals for mechanical and water heating systems have been provided.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	
408.2.1 [FI38] ³	Enhanced Envelope Performance Option: Proposed building UA = 0.95 UA of 2021 IECC Standard Reference Design.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Applicable	

Additional Comments/Assumptions:

Residential Mechanical Ventilation Testing

Complete prior to Occupancy

Job Address: _____

Date: _____

Building Permit Number: BP _____

I certify the Mechanical Ventilation system installed in this structure was designed and installed in compliance with the 2021 International Energy Efficiency Code (IECC) section R403.6 and specific requirements of the code/standard used for the system design (check applicable code/standard used):

- International Residential Code (IRC) edition 2021 section M1505
- 62.2 edition issued for the year 2019 published by the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Standards (ASHRAE)
- Canadian Standards Association Standard for Residential Mechanical Ventilation Systems, CAN/CSA-F326-M91

I further certify: That I have conducted a ventilation flow rate test and it has passed the requirements of the 2021 IECC section R403.6.3 and that the testing was conducted in accordance with AMSI/RESNET/ICC 380 or other State or Federal recognized testing protocol. I am certified to perform mechanical system design and testing by national or state organizations; I am an independent third – party and do not have any financial interest in the company that constructs the structure.

Certification Number/Agency: _____

Printed Name of Designer / Testing Technician: _____

Signature of Designer / Testing Technician: _____

- Additional documents are attached

Residential Energy Duct Leakage and Building Thermal Envelope Leakage Testing

Complete prior to Occupancy

Job Address: _____

Date: _____

Building Permit Number: BP _____

DUCT LEAKAGE TESTING VERIFICATION

Choose option used for compliance: per 2021 IRC Section N1103.3.5, system tested @ 25 Pascals across, including the manufacturer’s air handler enclosure.

Rough– in test Option (see code for test specifics) Results of test: _____ CFM

Post Construction Option (see code for test specifics): Results of test: _____ CFM

I certify that I have conducted a total duct leakage test and it has passed the requirements of the 2021 International Residential Code. I further certify that the testing was conducted in accordance with AMSI/RESNET/ICC 380 or ASTM E1554. I further certify that I am certified to perform duct testing, leakage test certified by national or state organizations. I certify I am an independent third – party entity, nor am I employed or have any financial interest in the Company that constructs the structure.

Certification Number – Agency: _____

Printed Name of Inspector / Testing Technician: _____

Signature of Inspector / Testing Technician: _____

BUILDING THERMAL ENVELOPE LEAKAGE TESTING VERIFICATION

Compliance requirements: per 2021 IRC Section N1102.4.1.2, building thermal envelope tested @ 50 Pascals in accordance with ASTM E779 or ASTM E1827 to verify an air leakage of not exceeding three air changes per hour.

Building Thermal Envelop Leakage Testing: Results of Test: _____ air changes per hour

I certify that I have conducted an air leakage test and it has passed the requirements of the 2021 International Residential Code and that testing was conducted in accordance with ANSI/RESNET/ICC 380, ASTM E779, or ASTM E1827. I further certify that I am certified to perform air infiltration testing certified by national or state organizations. I certify I am an independent third – party entity, nor am I employed or have any financial interest in the Company that constructs the structure.

Certification Number – Agency: _____

Printed Name of Inspector / Testing Technician: _____

Signature of Inspector / Testing Technician: _____

Residential Radon System
ASTM Standard E1465-08

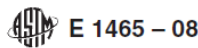
Complete and submit prior to Occupancy inspection

Job Address: _____

Date: _____ Building Permit Number: _____

A Radon Mitigation system designed, installed, and tested in accordance with ASTM E1465-08 Standard Practice for Radon Control Options for the Design and Construction of New Low-Rise Residential Buildings is required in all *new* single-family, two-family, and townhome buildings. Who can design, install, test these systems is regulated by Maine Law under sections 774, 775, and 776 of Title 22, Chapter 165: RADON REGISTRATION ACT. These sections are attached for your use but because they are State Law, the Town cannot assist with questions subject to them, we instead recommend you contact a private attorney.

Prior to the occupancy inspection, please complete and submit the attached certifications for design, installation, and testing.



**TABLE 1 Construction of Radon Systems with Fan-Powered and Passive Pipe Routes
 Summary of Steps Performed Before Occupancy**

Assuming Radon Fan is Installed				
Step No.	Summary Step Description	Reference to Practice	Pipe Route	
			Fan-Powered	Passive
Construction References			6.1 through 6.12	
Before Occupancy Steps:			Is step required or optional?	
Are the following construction steps required or optional before occupancy?				
1	A) Specify Air Handling Equipment Placement	per 6.4.5.4 and 6.7.3	Required	Required
	B) Specify Vent Stack's Pipe Route through House	per 6.5.5	Required	Required
2	Build Foundation	per 6.1, 6.3, and 6.7	Required	Required
3	Install Gas-Permeable Layer	per 6.4.1 through 6.4.4	Required	Required
	Install Soil-Gas Collector(s)			
	Install Connections to Soil-Gas Collector(s)			
4	Install Soil-Gas-Retarder	per 6.2.3	Required	Required
5	Install Concrete Slab or Sealed Membrane Ground Cover, see 6.7.2		Required	Required
	A) Slab-on-Grade with Concrete Floor Slab	per 6.1.1, 6.2, 6.2.1, and 6.4.5	Required	Required
	B) Basement with Concrete Floor Slab	per 6.1.2, 6.2, 6.2.1, and 6.4.5	Required	Required
	C) Crawlspace with Concrete Floor Slab ^A	per 6.1.3, 6.1.3.1, 6.2, 6.2.3, and 6.4.5	Required	Required
	D) Crawlspace with Thin Concrete Floor Slab ^A	per 6.1.3, 6.1.3.2, 6.2, 6.2.3, and 6.4.5	Required	Required
	E) Crawlspace with Sealed Membrane ^A	per 6.1.3, 6.1.3.3, 6.2, 6.2.3, and 6.4.5	Required	Required
	F) Combination Foundations	per 6.1.4	Required	Required
6	Install Radon System Piping through Roof; Install Pipe Insulation and Attach Radon Pipe Labels; Maintain Fire Ratings	per 6.5.1 through 6.5.8 and 6.6	Required	Required
7	Install Electrical Wiring	per 6.8	Required	Required
8	For fan-powered system: Test building with initial test protocol	per 6.10	Required	Required
	For passive system: Test building with post-mitigation protocol			
9	Evaluate radon test results	per 6.11	Required	Required
10	Determine when building is ready for fan installation	per 6.5.9	Required ^B	Required ^B
11	Install fan as required by 6.5.9 and 6.11	per 6.5.10	Required ^B	Required ^B
12	Install Radon System Monitor	per 6.5.11	Required ^B	Required ^B
13	Test building with fan operating with post-mitigation protocol	per 6.10	Required ^B	Required ^B
14	Evaluate radon test results	per 6.11	Required ^B	Required ^B
15	Attach all appropriate labels	per 6.9	Required	Required
16	Assemble and deliver documentation package	per 6.12.4	Required	Required
17	Deliver documented evidence of acceptable radon levels	per 6.12.5	Required	Required
18	Upgrades, Repairs, and Conversions	per 6.11.2 and 6.11.3	—	—

^A At least one of these three sealed ground covers is required in each crawlspace.

^B Not required when test results are acceptable in Step #9.

Certification; Design:

I certify I have designed the radon mitigation system for this building in compliance with ASTM Standard E1465-08 and in compliance with Title 22 Chapter 165.

Printed Name: _____

Signature: _____

Certification Number/Agency (if applicable): _____

- I have attached additional testing documents

Certification, Installation (mitigation):

I certify I have installed the radon mitigation system for this building in compliance with ASTM Standard E1465-08 and in compliance with Title 22 Chapter 165.

Printed Name: _____

Signature: _____

Certification Number/Agency (if applicable): _____

- I have attached additional testing documents

Certification, Testing:

I certify I have tested the radon mitigation system for this building in compliance with ASTM Standard E1465-08 and in compliance with Title 22 Chapter 165. I further certify radon concentration level is within acceptable levels as indicated below:

Passive: Radon concentration has been tested at _____ pCi/L (75 Bq/m³) in occupiable spaces.

Fan-Powered: Radon concentration has been tested at _____ pCi/L (75 Bq/m³) in occupiable spaces.

Printed Name: _____

Signature: _____

Certification Number/Agency (if applicable): _____

- I have attached additional testing documents

Title 22, Chapter 165: RADON REGISTRATION ACT

MRS Title 22 §774. Radon testing; registration required

A person may not perform, evaluate or advertise to perform or evaluate tests for the presence of radon in buildings or on building lots unless registered with the division. This registration requirement includes without limitation a person whose place of business is located in the State, or in another state, who offers radon testing services to residents of the State either directly or through the mail. [PL 1989, c. 657, §1 (NEW).]

SECTION HISTORY

PL 1989, c. 657, §1 (NEW).

MRS Title 22 §775. Radon mitigation; registration required

A person may not offer advice or plans to reduce the level of radon in new or existing structures or contract to modify an existing structure in a manner intended to reduce the level of radon unless registered with the division. [PL 2011, c. 144, §2 (AMD).]

SECTION HISTORY

PL 1989, c. 657, §1 (NEW). PL 2011, c. 144, §2 (AMD).

MRS Title 22 §776. Exemptions

The requirements of sections 774 and 775 do not apply to any of the following: [PL 1989, c. 657, §1 (NEW).]

1. Personal use. A person performing testing or mitigation on a building owned or inhabited by that person but not for sale at the time that person performs testing or mitigation on that building; [PL 2001, c. 574, §9 (AMD).]

2. New construction. A builder utilizing preventive or safeguarding measures in new construction as specified in the Maine Uniform Building and Energy Code, adopted pursuant to Title 10, chapter 1103; [PL 2011, c. 144, §3 (AMD).]

3. Department employees. Employees of the department in the course of their assigned duties; or [PL 1989, c. 657, §1 (NEW).]

4. Authorized personnel. A person performing testing with the written approval of the department. Registration under section 774 or 775 does not constitute written approval for the purposes of this subsection. [PL 1989, c. 657, §1 (NEW).]

SECTION HISTORY

PL 1989, c. 657, §1 (NEW). PL 2001, c. 574, §9 (AMD). PL 2011, c. 144, §3 (AMD).