

Residential Stretch Code Permit Application Checklist: Energy Rating Index Path



This checklist is applicable to residential new construction, changes of occupancy to dwelling units, additions greater than 1,000 ft² or 100% of the existing conditioned floor area (excluding finishing a basement or attic when building footprint remains unchanged), and alterations where the work area exceeds 50% of the area of the dwelling unit and is greater than 1,000 ft² or 100% of the existing conditioned floor area.

PROJECT INFORMATION.....

Applicant Name: _____ Applicant Phone: _____

Project Address: _____ Date: _____

Project type:

- ☐ New construction ☐ Large Addition ☐ Extensive Alteration
☐ Changes of Occupancy or Use ☐ Accessory Dwelling Unit (ADU)

DOCUMENTATION

- ☐ A **Home Energy Rating Certificate - Projected Report - Based on Plans** has been provided.

INFORMATION ON CONSTRUCTION DOCUMENTS (R103.2)

- ☐ A note indicating the energy code compliance path is the Energy Rating Index Path
☐ Insulation materials, depth, and R-values
☐ Fenestration U-factors and solar heat gain coefficients (SHGC)
☐ Mechanical system design criteria (Manual J, Manual D, and Manual S reports)
☐ Mechanical and service water heating systems and equipment types, sizes, and efficiencies
☐ Equipment and system controls
☐ Duct sealing, duct and pipe insulation and location
☐ Air sealing details

SOLAR-READY

- ☐ Solar-Ready Zone per Appendix RB is indicated in construction documents on page # _____, or an exception is selected below with applicable documentation provided.

Exceptions - Check one if applicable:

- ☐ Additions under 1,000 ft²
☐ 1- & 2-family dwellings & townhouses with < 600 ft² of roof area oriented between 110 & 270 of true north
☐ Buildings with a permanently installed onsite renewable energy system
☐ Buildings with a solar-ready zone that is shaded for more than 70 percent of daylight hours annually
☐ Buildings and dwelling units complying with Appendix RC Sections RC102 or RC105

ELECTRIC VEHICLE WIRING

- ☐ For one- and two-family dwellings and townhouses with on-site parking at least one EV Ready Space is shown. For Group R buildings: At least 20% of installed spaces are shown as EV Ready. Exception: onsite parking is not provided, or parking is separated from the dwelling by a public right of way.
☐ Electrical site plan shows wiring from the electrical service to within six feet of each EV Ready Space

CLEAN ENERGY APPLICATION (for determining maximum HERS Index requirement)

Fuel type:

- ☐ Mixed-fuel building (contains combustion equipment or piping for such equipment)
☐ All-electric building (does not contain combustion equipment or piping for such equipment)

Solar electric generation

Do the construction documents include provisions for onsite electricity generation rated at 4 kW or higher?

- ☐ Yes
☐ No

Embodied Carbon

Did the HERS rater submit a complete calculation to summarize estimated embodied carbon emissions from all insulation materials used in the project that shows insulation Global Warming Potential (GWP) intensity (kg CO₂e/ft²) less than 0?

- ☐ Yes - Insulated Embodied Carbon Credit
☐ No

Did the HERS rater submit specific Environmental Product Declarations (EPDs) for concrete used in the unit that shows concrete mix GWP not more than 70% of the 2022 NRMCA NorthEast Benchmark average values shown in Table R406.5.4 for at least 90% of all concrete used for that unit?

- ☐ Yes - Low GWP Concrete Mix Credit
☐ No

ENERGY CODE SUPPORT HOTLINE: 855-757-9717

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Based on the boxes checked above, check the appropriate maximum HERS Index below:

Clean Energy Application	Maximum HERS Index Score			
	New Construction Permits after July 1, 2024	New Construction with R406.5.2 Embodied Carbon Credit	Accessory Dwelling Units	Major Alterations, Additions, or Change of Use
Mixed-Fuel Building	<input type="checkbox"/> 42	<input type="checkbox"/> 45	<input type="checkbox"/> 52	<input type="checkbox"/> 65
Solar Electric Generation	<input type="checkbox"/> 42	<input type="checkbox"/> 45	<input type="checkbox"/> 55	<input type="checkbox"/> 70
All-Electric Building	<input type="checkbox"/> 45	<input type="checkbox"/> 48	<input type="checkbox"/> 55	<input type="checkbox"/> 70
Solar Electric & All-Electric Building	<input type="checkbox"/> 45	<input type="checkbox"/> 48	<input type="checkbox"/> 58	<input type="checkbox"/> 75

MANDATORY REQUIREMENTS

Check with AHJ to determine if the following items will be verified by the code official or by the HERS Rater.

Mandatory Requirements per Table R406.2		
General		
<input type="checkbox"/>	R401.3	Certificate in utility room or approved location to be installed
Building Thermal Envelope		
<input type="checkbox"/>	R402.1.1	Vapor retarders installed per MA Residential Code R702.7
<input type="checkbox"/>	R402.2.3	Eave baffles to be installed in each bay
<input type="checkbox"/>	R402.2.4.1	Access hatches and doors to have retainer for loose-fill insulation
<input type="checkbox"/>	R402.2.10.1	Crawl space wall insulation installation installed per MA Residential Code
<input type="checkbox"/>	R402.4.1.1	Installation – Air barrier and insulation installation details shown on plans
<input type="checkbox"/>	R402.4.1.2	Testing – Blower door test to be performed. Max 5 ACH50.
Mechanical		
<input type="checkbox"/>	R403.1	<input type="checkbox"/> Controls – At least one thermostat per heating and cooling system <input type="checkbox"/> Programmable thermostat is specified <input type="checkbox"/> Heat pump supplementary heat does not operate when not needed
<input type="checkbox"/>	R403.3	Ducts (except R403.3.2, R403.3.3, and R403.3.6) <input type="checkbox"/> Ducts outside conditioned space \geq R-8 (\geq R-6 if duct is < 3" diameter) <input type="checkbox"/> Ducts to be sealed and airtight air handler is specified <input type="checkbox"/> Duct leakage testing to be conducted <input type="checkbox"/> No building cavities to be used as ducts
<input type="checkbox"/>	R403.4	Mechanical system piping insulation – Piping > 105F or < 55F to be insulated to R-3
<input type="checkbox"/>	R403.5.1	Heated water circulation and temp. maintenance systems have proper controls
<input type="checkbox"/>	R403.5.3	Drain water heat recovery units (only if present)
<input type="checkbox"/>	R403.6.1	Heat or energy recovery ventilation (HRV/ERV) – HRV/ERV is specified
<input type="checkbox"/>	R403.7	Equipment sizing and efficiency rating – Manual J report provided.
<input type="checkbox"/>	R403.8	System serving multiple dwelling units – Comply with C403 and C404 (commercial)
<input type="checkbox"/>	R403.9	Snow and ice melt systems – Controls specified
<input type="checkbox"/>	R403.10	Energy consumption of pools and spas – Heater controls, pool covers
<input type="checkbox"/>	R403.11	Portable spas meet APSP 14
<input type="checkbox"/>	R403.12	Residential pools and permanent residential spas meet APSP 15
Electrical Power and Lighting Systems		
<input type="checkbox"/>	R404.1	Lighting equipment – All permanently installed lighting to be LED (except kitchen appliance lights)
<input type="checkbox"/>	R404.2	Interior lighting controls – Dimmers or occupant sensors specified
<input type="checkbox"/>	R404.4	Wiring for electric vehicle charging spaces

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MUNICIPAL OPT-IN SPECIALIZED CODE COMPLIANCE PATHS

For New R-Use Buildings:

Greater than 12,000 ft² in conditioned floor area

- ☐ Meet the requirements outlined in Section R405 Passive House Building Certification Option, and any of the pathways in Section RC101.1

Less than or equal to 12,000 ft² in conditioned floor area

- ☐ Meet the requirements outlined in the Residential Appendix RC

The new dwelling unit is greater than 4,000 ft² of conditioned floor area

- ☐ The Mixed Fuel pathway is not permitted

The new dwelling unit is less than or equal to 4,000 ft² of conditioned floor area

- ☐ Any pathway in RC101.1 is permitted

Municipal Opt-In Specialized Code Compliance Path 1: Zero Energy (RC102)

- ☐ Meets the requirements outlined in the stretch code

- ☐ Meets RC102 and achieves a:

- ☐ HERS 0 **OR**
☐ Phius ZERO

Municipal Opt-In Specialized Code Compliance Path 2: All-Electric (RC103)

- ☐ Meets the requirements outlined in the stretch code

- ☐ Meets RC103 (same as stretch code requirements) and achieves a:

- ☐ HERS 45 or HERS 48 with embodied carbon credit as per R406.5.2 **OR**
☐ Phius CORE or PHI Pre-certification

Municipal Opt-In Specialized Code Compliance Path 3: Mixed Fuel (RC104 and RC105)

- ☐ Meets the requirements outlined in the stretch code

- ☐ Meets RC104 and achieves a:

- ☐ HERS 42 or HERS 45 with embodied carbon credit as per R406.5.2 **OR**
☐ Passive House Pre-certification in accordance with R405

- ☐ Meets RC104.3, which requires electric readiness, meaning wiring for future electrification in space heating, cooking, clothes drying, and water heating equipment

- ☐ Has an on-site renewable energy system of at least 4 kW for one- and two-family dwelling units and townhouses; or 0.75 W/ft² multiplied by the gross conditioned floor area for other Group R occupancies in accordance with RC104.4*

- ☐ Meets RC104.5 Electric Vehicle Readiness (which points to the requirements outlined in R404.4)*

- ☐ Meets RC105 Solar-Roof Zone (which replaces the requirements of Appendix RB because the mixed fuel pathway requires on-site renewable energy generation)*

*These provisions do not apply if using the Passive House pre-certification option in the mixed fuel pathway

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