

# MA Commercial Plan Review Checklist

## Stretch Code and Municipal Opt-In Specialized Code 2023

### Compliance Paths *(to be completed before building permit is issued)*



#### PROJECT INFORMATION.....

Applicant Name: \_\_\_\_\_ Applicant Phone: \_\_\_\_\_

Project Address: \_\_\_\_\_ Date: \_\_\_\_\_

Permit Number: \_\_\_\_\_

Project type:  New construction  Addition  Alteration  Changes of Occupancy or Use

#### SELECT CODE VERSION.....

Base Code  Stretch Code  Municipal Opt-in Specialized Code

#### SELECT COMPLIANCE PATH (C401.2).....

##### **STRETCH ENERGY CODE PATHS (CMR 225)<sup>1</sup>**

Prescriptive Path

Targeted Performance Path

Relative Performance Path

Passive House Path

HERS Path

##### **MUNICIPAL OPT-IN SPECIALIZED CODE PATHS (CMR 225, APPENDIX CC)**

Zero Energy Path

All-Electric Path

Mixed Fuel Path

#### REQUIREMENTS FOR CHOSEN COMPLIANCE PATH.....

##### **STRETCH ENERGY CODE PATHS**

###### Stretch Code Compliance Path 1: Prescriptive Compliance

Meets C401.3, C402 through C406, and C408

Attach COMcheck Envelope, Lighting, and Mechanical Compliance Certificates; and a Plan Review Inspection Checklist (Code = 2021 IECC)

Section C406 – Must achieve 15 credits in the following categories (# of credits for each category depends on occupancy type):

- C406.2 More Efficient HVAC Performance
- C406.3 Reduced LPD
- C406.4 Enhanced Lighting Controls
- C406.5 On-site Supply of Renewable Energy
- C406.6 DOAS
- C406.7 High Efficiency Service Water Heating
- C406.8 Enhanced Envelope Performance
- C406.9 Reduced Air Infiltration

<sup>1</sup> For more information about which compliance path to follow, please see the accompanying flowchart for 225 CMR 23: Massachusetts Commercial Stretch Energy Code

<input type="checkbox"/>	C406.10 Energy Monitoring System (when not required by C405.12)
<input type="checkbox"/>	C406.11 FDD system (when not required by C403.2.3)
<input type="checkbox"/>	C406.12 Efficient Kitchen Equipment
<input type="checkbox"/>	C406.13 Type IV Heavy Timber Construction

**Stretch Code Compliance Path 2: Targeted Performance (C407.1)**

<input type="checkbox"/>	The building's heating TEDI and cooling TEDI are less than or equal to the values in Table C407.1.1.5	<input type="checkbox"/>	Meets C401.3, C402 through C406, C407.1, C408, and select sections of ANSI/ASHRAE/IESNA 90.1-2019 Appendix G as described in Section C407.1
<input type="checkbox"/>	Attach COMcheck Envelope, Lighting, and Mechanical Compliance Certificates; and a Plan Review Inspection Checklist (Code = 2021 IECC)	<input type="checkbox"/>	Performance Modeling Report with the items described in ANSI/ASHRAE/IESNA 90.1-2019 Appendix G Section G1.3.2 Parts b, g, h, i, j, k, l, n, o, and q, and Section G1.3.3

Section C406 - Must achieve 15 credits in the following categories (# of credits for each category depends on occupancy type):	<input type="checkbox"/>	C406.2 More Efficient HVAC Performance
	<input type="checkbox"/>	C406.3 Reduced LPD
	<input type="checkbox"/>	C406.4 Enhanced Lighting Controls
	<input type="checkbox"/>	C406.5 On-site Supply of Renewable Energy
	<input type="checkbox"/>	C406.6 DOAS
	<input type="checkbox"/>	C406.7 High Efficiency Service Water Heating
	<input type="checkbox"/>	C406.8 Enhanced Envelope Performance
	<input type="checkbox"/>	C406.9 Reduced Air Infiltration
	<input type="checkbox"/>	C406.10 Energy Monitoring System (when not required by C405.12)
	<input type="checkbox"/>	C406.11 FDD system (when not required by C403.2.3)
	<input type="checkbox"/>	C406.12 Efficient Kitchen Equipment
	<input type="checkbox"/>	C406.13 Type IV Heavy Timber Construction

**Stretch Code Compliance Path 3: Relative Performance (C407.2)**

<input type="checkbox"/>	Meets C401.3, C402.1.5, C402.2.8, C402.3, C402.4, C402.5, C402.6, C402.7, C403.5, C403.7, C405, C406, C407.2, C408, and ANSI/ASHRAE/IESNA 90.1-2019 using the Appendix G compliance pathway as modified in Section C407.2	<input type="checkbox"/>	Submit mechanical equipment schedules for all air handling equipment with the total design outdoor airflow for each unit
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An airflow riser diagram with:

- The complete project boundary
- All supply, exhaust, and return air systems serving the space
- A summary of the total outdoor air supplied
- The total gross square footage served by the ventilation system
- The overall flow rate per area in cfm/ft<sup>2</sup>

Is the building a high glazed wall system (where more than 50% of the above grade wall area of the building thermal envelope is glazed)?	
<input type="checkbox"/> If <b>Yes</b> : Requirements found in C402.1.5.2 must be met	<input type="checkbox"/> If <b>No</b> : Requirements found in C402.1.5.1 must be met

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Section C406 – Must achieve 15 credits in the following categories (# of credits for each category depends on occupancy type):

- C406.2 More Efficient HVAC Performance
- C406.3 Reduced LPD
- C406.4 Enhanced Lighting Controls
- C406.5 On-site Supply of Renewable Energy
- C406.6 DOAS
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- C406.8 Enhanced Envelope Performance
- C406.9 Reduced Air Infiltration
- C406.10 Energy Monitoring System (when not required by C405.12)
- C406.11 FDD system (when not required by C403.2.3)
- C406.12 Efficient Kitchen Equipment
- C406.13 Type IV Heavy Timber Construction

#### Stretch Code Compliance Path 4: Passive House Compliance (C407.3)

- Meets C401.3, C402.3, C405, C407.3 and C408

Phius or Passive House Institute (PHI) certification in accordance with C407.3

- A Phius 2021 (or newer) verification report or a PHPP compliance report which demonstrates project compliance with PHIUS 2021 or PHI performance requirements
- A statement from the Certified Passive House Consultant that the Phius 2021 verification report or PHPP results are “based on plans”
- Evidence of project registration from Phius or PHI or a design certification letter from Phius or from a Certified Passive House Certifier

#### Stretch Code Compliance Path 5: HERS Index for Multifamily Buildings (C407.4)

- Meets C401.3, C402.3, C405, C407.4 and C408

HERS Index for Multifamily buildings in accordance with C407.4

- A HERS compliance report with a proposed HERS Index less than or equal to the appropriate value in Table C407.4
- A description of the unit’s energy features
- A statement that the rating index score is “based on plans”
- Additional documentation requirements found in C407.4.2.1

### MUNICIPAL OPT-IN SPECIALIZED CODE COMPLIANCE PATHS

#### For New R-Use Buildings:

Dwelling units over 4,000 ft<sup>2</sup> in mixed fuel buildings

- Meet the requirements of CC101.3(1) and CC103 OR RE Section RC102

Greater than 12,000 ft<sup>2</sup> in conditioned floor area

- Meet the requirements outlined in Table CC101.2

Less than or equal to 12,000 ft<sup>2</sup> in conditioned floor area

- Meet the requirements outlined in the Residential Appendix RC

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### Municipal Opt-In Specialized Code Compliance Path 1: Zero Energy (CC103)

\*Mixed Fuel Buildings using this path shall comply with CC105, in addition to requirements below

- |  |  |
|--|--|
| <input type="checkbox"/> Meets the requirements of C401.2.1 or C401.2.2, as well as the EV ready space requirements found in C405.13 | <input type="checkbox"/> Meets CC103 and demonstrates that they are Zero Energy Buildings in accordance with Equation CC-1 |
|--|--|

### Municipal Opt-In Specialized Code Compliance Path 2: All-Electric (CC104)

- |  |  |
|--|--|
| <input type="checkbox"/> Meets the requirements of C401.2.1 or C401.2.2, as well as the EV ready space requirements found in C405.13 | <input type="checkbox"/> Meets CC104 (same as stretch code requirements) |
|--|--|

### Municipal Opt-In Specialized Code Compliance Path 3: Mixed Fuel (CC105)

\*When not complying with the Zero Energy pathway

- |  |                                      |
|--|--------------------------------------|
| <input type="checkbox"/> Meets the requirements of C401.2.1 or C401.2.2, as well as the EV ready space requirements found in C405.13                                       | <input type="checkbox"/> Meets CC105 |
| <input type="checkbox"/> Meets CC106, which requires wiring for future electrification in water heating, cooking, clothes drying equipment, and other combustion equipment |                                      |

Construction documents showing electric HVAC retrofit design prepared by the HVAC engineer in accordance with CC106.1.6.1, including:

- Future replacement of combustion equipment-based HVAC system with an equivalent all electric system
- Combustion equipment to be replaced
- Future electric equipment
- Supporting electrical, structural, and architectural infrastructure to be installed during building construction
- Space allotments for future equipment

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NOTES.....

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