

COMMERCIAL NEW CONSTRUCTION
Massachusetts Energy Code 9th Edition
Checklist of Required Documentation
 (To be completed by the permit applicant)



Applicant Name _____ Applicant Phone _____

Project Address _____

Type of Construction:

<input type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration	<input type="checkbox"/> Change of Occupancy
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Stretch Code communities only:

- **R-use Buildings.** In all R-use buildings, of four stories or less above grade plane with one or more dwelling units, each dwelling unit shall comply with section N1106 (R406) of 780 CMR 51.00: *Massachusetts Residential Code* (Residential Code). Choose Compliance Path #4 below.
- **Large Area and High Energy Use Buildings.** All buildings over 100,000 ft², and new supermarkets, laboratories and conditioned warehouses over 40,000 ft² must demonstrate energy use per square foot at least 10% below the energy requirements of ASHRAE 90.1-2013 Appendix G. Choose Compliance Path #1 below and select Performance Rating (Appendix G).

Select Compliance Path (C401.2):		
<input type="checkbox"/> #1: ASHRAE Standard 90.1-2013 (select one):		
<input type="checkbox"/> Prescriptive: Provide plans and specifications demonstrating compliance with all measures of Section 5, 6,7,8,9.		
<input type="checkbox"/> Energy Cost Budget (Chapter 11): Provide plans and specifications demonstrating compliance with all mandatory measures of Section 5 and all measures in 6,7,8,9.		
<input type="checkbox"/> Performance Rating (Appendix G): Provide plans and specifications demonstrating compliance with all mandatory requirements. Provide energy model documentation including inputs and outputs of the energy model and a summary report. Energy model must be based on Section 11.		
<input type="checkbox"/> #2: IECC Prescriptive Path: Provide plans and specifications demonstrating compliance with all measures of Sections C402 through C405. COMcheck may be used for tradeoffs.		
<input type="checkbox"/> #3: IECC Performance Path: Provide plans and specifications demonstrating compliance with all measures of Sections C402.5, C403.2, C404, C405.2, C405.3, C405.5, C405.6, and C407. Provide energy model documentation including inputs and outputs of the energy model and a summary report. The building energy cost shall be equal to or less than 85 percent of the standard reference design building.		
<input type="checkbox"/> #4: 780 CMR 51.00: Massachusetts Residential Code (Residential Buildings up to 5 stories only)		
<input type="checkbox"/> RESNET HERS Rating	<input type="checkbox"/> ENERGY STAR Homes	<input type="checkbox"/> Passive House (PHIUS)

Compliance Path # 1: ASHRAE Standard 90.1-2013		
For Prescriptive Path and Chapter 11:		
<input type="checkbox"/> Attach COMcheck Report (Code = ASHRAE 90.1) <input type="checkbox"/> Meet C402.3 Rooftop Solar Readiness* <input type="checkbox"/> Indicate C406 Option(s) Below		
Section 406 (for ASHRAE compliance paths, one option must be C406.3)		
<input type="checkbox"/> Two Options (Mass Save Territory)		<input type="checkbox"/> One Option (non-Mass Save Territory)
<input type="checkbox"/> C406.2 More Efficient HVAC	<input type="checkbox"/> C406.3 Reduced LPD	<input type="checkbox"/> C406.4 Enhanced Lighting Controls
<input type="checkbox"/> C406.5 Renewable Energy	<input type="checkbox"/> C406.6 DOAS	<input type="checkbox"/> C406.7 High Efficiency SHW
For Chapter 11 and Appendix G:		
Compliance report for permitting must include:	1. A statement indicating that the proposed design complies with Chapter 11 or Appendix G	
	2. A site-specific energy analysis report	
	3. The name of the individual performing the analysis and generating the report	
	4. The name and version of the compliance software tool	

Compliance Path #2: IECC Prescriptive		
<input type="checkbox"/> Attach COMcheck Report (Code = 2015 IECC)	<input type="checkbox"/> Meet C402.3 Rooftop Solar Readiness*	<input type="checkbox"/> Indicate C406 Option(s) Below
Section 406		
<input type="checkbox"/> Mass Save Territory (select two options)	<input type="checkbox"/> Non-Mass Save Territory (select one option)	
<input type="checkbox"/> C406.2 More Efficient HVAC	<input type="checkbox"/> C406.3 Reduced LPD	<input type="checkbox"/> C406.4 Enhanced Lighting Controls
<input type="checkbox"/> C406.5 Renewable Energy	<input type="checkbox"/> C406.6 DOAS	<input type="checkbox"/> C406.7 High Efficiency SHW

*See Massachusetts amendments

Compliance Path #3: IECC Performance		
<input type="checkbox"/> Meets C402.4, C403.2, C404, & C405	<input type="checkbox"/> Meet C402.3 Rooftop Solar Readiness*	<input type="checkbox"/> Attach COMcheck Report
For modeling in accordance with C407:		
Annual energy cost of proposed design not greater than 85% of annual energy cost of reference building per software calculations submitted by designer. Compliance report for permitting must include:	1. A statement indicating that the proposed design complies with Section C407	5. An inspection checklist documenting the building component characteristics of the proposed design, the results for both the standard reference design and the proposed design, and the user inputs to the compliance software to generate the results
	2. A site-specific energy analysis report	
	3. The name of the individual performing the analysis and generating the report	
	4. The name and version of the compliance software tool	

Approved Alternative Energy Performance Methods (C407.6.1.1)		
Passive House Institute US (PHIUS)		
Compliance report for permitting shall comply with C407.6.1.2 and include:	1. A statement indicating that the proposed design complies with the Option and has a Specific Space Heat Demand less than or equal to 10 kBtu/ft ² /year	3. An inspection checklist documenting the building component characteristics of the proposed design, and the user inputs to generate the results.
	2. The name of the Certified Passive House Consultant performing the analysis and generating the report	

Compliance Path #4: Massachusetts Residential Code		
<input type="checkbox"/> ≤ 5 Stories or less (≤4 stories or less for stretch)	<input type="checkbox"/> All units are separately rated, separately metered, individually heated and cooled, and have kitchens	
<input type="checkbox"/> Attach Residential Checklist		
Option 1: RESNET		
Compliance report for permitting shall comply with C407.6.1.2-4 and include:	1. A statement indicating that the proposed design complies with the option and has a HERS score of 55 or less	3. An inspection checklist documenting the building component characteristics of the proposed design, and the user inputs to generate the results
	2. The name of the certified HERS Rater performing the analysis and generating the report	
Option 2: Passive House Institute US (PHIUS)		
Compliance report for permitting shall comply with C407.6.1.2 and include:	1. A statement indicating that the proposed design complies with the Option and has a Specific Space Heat Demand less than or equal to 10 kBtu/ft ² /year	3. An inspection checklist documenting the building component characteristics of the proposed design, and the user inputs to generate the results.
	2. The name of the Certified Passive House Consultant performing the analysis and generating the report	
Option 3: ENERGY STAR Homes 3.1		
Compliance report for permitting shall comply with C407.6.1.2 and include:	1. A statement indicating that the proposed design complies with the Option	3. An inspection checklist documenting the building component characteristics of the proposed design, and the user inputs to generate the results.

Required Construction Details

Indicate primary locations within the construction documentation of the following information:

	Drawing Page(s)	Specification(s)
Building thermal envelope		
Cross section showing insulation R-values and materials for each building thermal envelope component		
Cross section showing air barrier/air sealing details		
Fenestration U-factors and solar heat gain coefficients (SHGCs)		
Mechanical systems		
Design criteria		
Equipment types, sizes and efficiencies		
Controls description		
Pipe insulation		
Fan motor horsepower (hp) and controls		
Economizer description		
Duct sealing, insulation and location		
Service water heating systems		
Equipment types, sizes and efficiencies		
Controls description		
Pipe insulation and location		
Lighting		
Lighting fixture schedule with wattage and control narrative		
Location of daylight zones of floor plans		

Commissioning Plan

Preliminary Commissioning Plan from commissioning agent