

Plan Review Checklist On-Line Submission 1

& 2 Family Residential with

10th edition, Massachusetts State Building Code

Property Address: _____

Review by: _____

Review Date Started: _____ Completed Review Date _____

E-Mail Address _____ Phone Number _____

The following symbols indicate in this plan review items have been satisfied for the purpose of plan review. **X** **✓**

If section states "complete" that indicates that section is satisfied move to next section.

If unchecked that item needs to be addressed.

Permit Application Denied

Approved as submitted

Approved as noted

Resubmit with requested information for approval

Project Information:

- Location and Nature of Proposed Electrical Work
- Utility Authorization #
- Residential Dwelling Units
- Type of Work
- Is this project in conjunction with a building permit
- Estimated Cost of Work
- Occupancy Type
- Work to Start
- Square Footage

Site Information:

- Lot Area
- Frontage
- Zoning Overlay District
- Flood Zone Designations
- Water Supply
- Sewage Disposal system
- Zoning District
- Flood Zone Information
- Construction Type

Construction Details:

- Building Code Edition
- Sprinkler System

Estimated Construction Cost:

- Building
- Electric
- Fire Protection

Insurance:

Type of Insurance Coverage:

Workers' Compensation Affidavit Signature :

Insurance Policy Information:

Affidavit Signature:

License Construction Supervisor:

- Name
- Phone #
- License #
- Mailing Address
- Email
- Expiration Date

Electrician License Information:

- Name
- Phone #
- License #
- Mailing Address
- Email
- Expiration Date

Registered Home Improvement Contractor:

- Contractor's Name
- Registration #
- Mailing Address
- Email
- Business Name
- Registration Expiration Date
- Preferred Telephone #

Part 1 Electric Review Roof Top Solar Panel Review

- Location of electrical service, sub panels, combiner boxes, inverter, AC and DC disconnects conduit junction boxes, and battery banks.
- Electrical Drawing –8 ½” x 11” minimum size drawings
- One or three-line electrical diagram detailing the installation, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and overcurrent devices.
- Specification Sheets for Equipment from Manufacturer
- Documentation of the major system components to be used, including the PV panels, mounting system, and inverter
- Electrical One-Line Diagram Stamped by Electric Engineer
- Attachment and/or Mounting Details
- Solar PV Module Specification Sheet
- Inverter Specification Sheet
- Pole or Ground Mount Inform

Part 2 Building Review Drawings, Plans, & Calculations Roof Top Solar Panel Review

- Structural Review & Letter from Massachusetts Certified Engineer (roof-mounted)
- The letter must contain structural calculations certifying that existing structure can support the proposed solar PV system and is still capable of supporting required snow loads under the current 780 CMR.

Part 3 R324.6.1 One- and Two-Family Dwellings and Townhouses Access Pathways

- IRC 2021 §R324.6** -- Roof Access & Layout: PV layout provides required roof access, pathways, ridge setbacks, smoke ventilation areas, and emergency egress.
- IRC 2021 §R324.6.1** -- Roof Pathways: Min. 2 pathways, 36 in. wide, on separate roof planes, edge to ridge; 1 on street/driveway side; PV roof planes require 36-in. pathway (same or adjacent plane), over structurally supported areas, with minimal obstructions.
- IRC 2021 §R324.6.2** -- Ridge Setbacks: Horizontal ridge setback \geq 18 in. where PV \leq 33% roof area; \geq 36 in. where PV $>$ 33% roof area, both sides of ridge.
- IRC 2021 §R324.6.3** -- Emergency Egress Protection: PV modules not installed below emergency escape & rescue openings; provide 36-in. wide pathway to each opening.

Part 4 – Building Review: Battery Energy Storage Systems (ESS)

Applicable Codes:

- 780 CMR (10th Edition) – IRC 2021 with Massachusetts Amendments
- 527 CMR – Massachusetts Comprehensive Fire Safety Code
- NFPA 855 – Standard for the Installation of Energy Storage Systems
- NFPA 70 – National Electrical Code (NEC)

NOTE:

Energy Storage Systems (ESS) are subject to joint review by the Building Department and the Fire Department. The Massachusetts amendment to IRC Section R328 removes prescriptive location requirements from the Building Code. ESS siting, separation, and hazard mitigation are governed by the Fire Code (527 CMR) and NFPA 855 and shall be reviewed and approved by the Fire Department having jurisdiction.

Section 1 – Building Department Review (780 CMR / IRC as amended)

- 780 CMR (IRC) §R328 (as amended) — Applicability: ESS installations shall comply with the Massachusetts amended provisions of §R328.
- Listing (UL 9540): ESS shall be listed and labeled in accordance with UL 9540.
- Installation Requirements: ESS shall be listed and labeled in accordance with UL 9540.
- Installation Requirements: ESS shall be installed in accordance with:
 - Manufacturer’s installation instructions
 - Applicable provisions of 780 CMR
 - NFPA 70 (NEC)
- Structural Support / Mounting: Wall or supporting structure shall be capable of supporting imposed loads. Installation shall be anchored to structural members (studs, masonry, etc.), not gypsum board alone.
- Building Code Compliance (General)
Installation shall not:
 - Compromise required garage separation (IRC R302)
 - Penetrate fire-resistance assemblies without proper protection
 - Obstruct required means of egress
 - Encroach into required working or service clearances
- Ventilation (Massachusetts Amendment to R328): Where applicable, ESS installations producing flammable gases shall be provided with ventilation in accordance with the Massachusetts amendment.
- Documentation Submit:
 - Manufacturer specifications and installation manual
 - Mounting details
 - Equipment cut sheets

Section 2 – Fire Department Review (527 CMR / NFPA 855)

- Fire Department Approval Required: ESS installations shall be reviewed and approved by the Fire Department having jurisdiction prior to permit issuance.
- Location / Siting (NFPA 855 Chapter 15): ESS location, including permitted areas (garage, exterior, accessory structures, etc.), shall comply with NFPA 855.
- Separation / Spacing: ESS units shall comply with required spacing and separation distances in accordance with NFPA 855.
- Energy Capacity Limits: Individual and aggregate system capacities shall comply with NFPA 855 residential thresholds.
- Fire Detection / Protection: Smoke and/or heat detection shall be provided in accordance with NFPA 855 and 527 CMR.
- Impact Protection: ESS subject to vehicle damage shall be protected in accordance with NFPA 855.
- Ventilation (Fire Code Requirements): Where applicable, ventilation systems shall comply with NFPA 855 requirements.

CHECKLIST FOR APPLICATION CHECKLIST

1. Owner's Authorization Form Completed
2. Signed contract between homeowner and the registered home improvement contractor subject to MGL c 142
3. In lieu of submitting a signed contract as the owner of record, the owner shall submit Signed Affidavit for Home Improvement Contractor Required Contract Terms
4. Electronic Set of plans for the building or structure
5. Worker's Compensation Certificate
6. Insurance Binder from Insurance Company made out to the Town
7. Copy of Construction Supervisor License
8. Copy of Home Improvement Registration (If applicable)
9. Statement for disposal of debris (If applicable)
10. Site Plan prepared by Engineer or Registered Land Surveyor showing location of buildings or structure to lot lines also proposed location of new structures as per 780 CMR 110.10

Right to Appeal

Pursuant to Massachusetts General Laws, Chapter 143, Section 100,

"Whoever is aggrieved by an interpretation, order, requirement, direction or failure to act by any state or local agency or any person or agency charged with the administration or enforcement of the State Building Code may, within forty-five (45) days after the service of notice thereof, appeal from such interpretation, order, requirement, direction or failure to act to the State Building Code Appeals Board."

Appeal forms are available through the Massachusetts Building Code Appeals Board.

Application Expiration Notice (780 CMR R105.5)

Pursuant to 780 CMR §R105.5, if no further action or response is received within 180 days from the date of this notice, this application will be considered abandoned and shall be deemed invalid without further notice from the Building Department. Any subsequent request to proceed will require the submission of a new building permit application in full compliance with the applicable code in effect at that time.

OWNER'S AUTHORIZATION FORM

OFFICE OF THE BUILDING DEPARTMENT

SECTION 1 - SITE INFORMATION

1.1 Property Address:

Zip Code _____

1.2 Assessors Map & Parcel Number:

_____/_____/_____
Map Number Block Number Lot/Parcel Number

SECTION 2 - PROPERTY OWNERSHIP

2.1 Owner of Record:

I _____; as Owner hereby declare that the statements and information on the foregoing Owner's Authorization Form are true and accurate, to the best of my knowledge and belief. Signed under the pains and penalties of perjury.

Print Name

Street #, Street Name, Town /City, State, Zip (full address)

Signature of Owner

Date

2.2 Authorized Agent:

Name: (Print)

Street #, Street Name, Town /City, State, Zip (full address)

Signature:

Telephone:

SECTION 3 - OWNER AUTHORIZATION TO BE COMPLETED WHEN OWNERS AGENT OR CONTRACTOR APPLIES FOR BUILDING PERMIT

Homeowner authorizing an agent to obtain the building permit

I _____; as Owner of the subject property

hereby Authorize _____ to act on my behalf, in all matters relative to work authorized by this building permit application.

Signature of Owner

Date

SECTION 4 - OWNER/AUTHORIZED AGENT DECLARATION

Person obtaining the building permit

I _____; as Owner/Authorized Agent hereby declare that the statements and information on the foregoing Owner's Authorization Form are true and accurate, to the best of my knowledge and belief. Signed under the pains and penalties of perjury.

Print Name

Signature of Owner/Agent

Date