

## **Rural Development Program**

### **Design and Construction Process and Requirements**

Following issuance of a Notice to Proceed the Design Process shall generally include two Design submittal packages submitted to and reviewed by a MaineHousing Construction Analyst. The first should be submitted at the 50% design stage, and second will provide the basis for final construction contract pricing.

#### **Submittals shall include or address each of the following:**

- Site location map; suggest a google maps snap shot or tax map.
- Site plan(s), to scale, showing the proposed site improvements, utilities, building(s).
- Plan views, to scale, of foundations, habitable floors, and roof.
- Major building components specifications.
- Larger scale dimensioned floor plans and detailed interior elevations for any proposed accessible units, demonstrating compliance with applicable codes.
- Exterior elevations, to scale, of all building facades with major materials described.
- Systems plans and materials specifications for site and building utilities.
- Construction costs estimates.
- Final construction contract.
- Schedule of values for the work.
- Construction schedule.

#### **The minimum Design and Construction Requirements for all projects shall include each of the following:**

- Electrical raceways/conduits from the electrical panel to terminal units at the parking area for the future installation of Level 2 electric vehicle chargers and have an electrical panel that is adequately sized to provide for the future installation of Level 2 electric vehicle chargers.
- Electrical raceways/conduits from the electrical panel to terminal units at the roof for the future installation of PV solar panels and provide an electrical panel that is adequately sized to provide for the future installation of PV solar panels.
- All new construction projects must utilize all electric equipment and systems such as heat pump(s), resistance heat, variable refrigerant flow, variable frequency drives, or other non-fossil fuel systems for heating, domestic hot water, cooking, and any cooling needs.
- All projects are to adhere to State, Federal and Local codes including:
  - Federal, State, and Local Laws including accessibility requirements
  - Maine Uniform Building and Energy Code (MUBEC) 2015, or the newest MUBEC in effect at the time of permitting as applicable by Project Type; which includes the following:
    - International Building Code (IBC) 2015
    - International Existing Building Code (IEBC) 2015
    - International Residential Code (IRC) 2015
    - ASHRAE 62.1 Ventilation for Acceptable Indoor Air Quality 2013
    - ASHRAE 62.2 Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings 2013
    - ASHRAE 90.1 Energy Standard for Buildings except Low-Rise Residential Buildings

- 2013 ASTM E1465-08 Radon Standard for new residential construction - (Maine Model Standard) 2008
  - Accessibility Requirements in Chapter 11
- NFPA 101 Life Safety Code 2018 State Standard
- NFPA 211 (chimneys, etc.) 2006 State Standard
- NFPA 1 Fire prevention Code 2018 State Standard
- State Plumbing Code. (Based on IAPMO 2015 Uniform Plumbing Code) State Standard
- National Electric Code 2017 State Standard
- ADA Federal Requirement
- ICC/ANSI A-117.1 2009 State and Federal Requirements
- Fair Housing Act (design manual) Federal Standard State Fair Housing, Maine Human Rights Act State Law
- Section 504 (UFAS Standard or ADAAG with Exceptions per HUD deeming notice)
- Title II of the ADA
- Federal Fair Housing
- MHRA Fair Housing Requirements
- Uniform Physical Condition Standards
- All applicable local and state codes, ordinances, and standards as evidenced by inspection reports and/or written approval from local code enforcement officials (this applies to all municipalities within the State of Maine regardless of population)

### **Construction Phase Process**

- Monthly requisitions for on-site stored materials and work in-place at the project; suggested format: AIA G702
- Construction Analyst shall verify the construction status and confirm value
- Construction Analyst to receive, review, and authorize progress payments.
- Track the payments using ReqCheck process.
- Conduct a final inspection.
- All requisitions to include a 5% retainage until the construction is complete
- Construction Analyst is available to provide technical assistance if needed.

### **Project Completion and Close Out**

- Final Certificate/Lien Release for Contractors/Subcontractors/Vendors
- Construction Services Final Completion Checklist to include:
  - Final requisition and close-out of the Construction Contract
  - Certificate of Substantial Completion AIA doc prepared by Architect or Designer
  - Certificate of Occupancy from local Municipality.
  - Sprinkler Test Reports/sign-off by qualified/certified installer.(if applicable)
  - Elevator Certificate of Inspection (if applicable)
  - Consent of Surety to release final payment (if applicable)
  - Lien Releases (MaineHousing's Contractors Final Certificate and Release Form)
  - O&M Manuals (deliver to Owner)
  - Warranty information to Owner (e.g. Roofing, Boilers, Windows, etc.) As-Built Drawings (Contractor to deliver to Owner)
  - As-built Alta Survey w/certification (may be waived if construction did not increase footprint)