

EarthCraft Multifamily (ECMF) Certification Process

# **Steps to ECMF Certification**

#### 1. Project Registration

To officially begin an ECMF project, each project must be registered with EarthCraft through our website prior to the Design Review. Fees paid online are dependent on the scope of work (i.e. renovation vs new construction). Please visit the registration page to familiarize yourself with current costs. This fee covers the costs of project/program administration, technical assistance from EarthCraft staff throughout design and construction, one on-site quality assurance visit for each project during construction (this may occur at pre-drywall or final inspection phase), final review of project compliance, and the printing of certificates upon successful completion of the program (upon request from the developer/builder group).

# 2. Project Information Submittal

Each EarthCraft Multifamily project must be inspected by an EarthCraft Technical Advisor (ECTA) throughout the construction project. The Multifamily Developer or Owner must contract with an ECTA. The project information submittal step provides the information necessary for subsequent steps in the process.

#### 3. Preliminary Energy Model(s) or Analysis of Prescriptive Compliance

After receiving a complete Project Information Submittal package from the Multifamily Developer, the ECTA and project team will follow the steps below to show energy compliance with ECMF program standards.

For unit level energy models the ECTA will also serve as the HERS Rater. For whole building simulations the energy modeler must be a qualified professional and may be the ECTA, Southface Institute, a member of the design team, or an outside consultant.

Note: ECMF projects following the Renovation Worksheet must complete and submit existing condition models based on the pre-assessment and improved models based on the renovation construction specifications.

# 4. Prelininary Energy Model(s) Report Submittal(s) or Specifications Reaching Prescriptive Energy Compliance

Upon completion of the preliminary energy modeling, EarthCraft Technical Advisors are required to provide model reports and associated documents to EarthCraft. At this phase, the ECTA should begin to create building and unit type records in salesforce, which will be required to be completed prior to the pre-drywall inspections.

#### 5. EarthCraft Design Review

The EarthCraft Design Review is an opportunity to identify project goals and look carefully at the building and site plans to determine how the EarthCraft program can be best applied to meet the project goals. The EarthCraft worksheet and energy modeling results will be used to guide the discussion. The Multifamily Developer and General Contractor are responsible for following-up on any program compliance issues identified during the Design. An EarthCraft Design Review must be conducted on each multifamily project.

#### 6. EarthCraft Design Review Report Submittal

Upon completion of the Design Review Meeting, the ECTA provides meeting minutes to the Multifamily Developer, General Contractor and EarthCraft. The Multifamily Developer and General Contractor are responsible for following-up on any program compliance issues identified during the Design Review as reported and discussed by the ECTA.

## 7. Kick-Off Meeting

All ECMF projects must have a Kick-Off meeting, led by an ECTA, during the framing stage of the projects construction and prior to the mechanical, electrical and plumbing rough in. During this on-site meeting, EarthCraft requirements and guidelines are reviewed with the general contractor's project manager and site supervisor, and all subcontractors whose work will be impacted by EarthCraft standards. This meeting provides an on-site review of EarthCraft details, techniques, expectations and specification requirements at the commencement of construction. Mock up units are highly recommended to confirm during the kick-off meeting that all program details have been effectively addressed and trades are able to efficiently implement design specifications.

# 8. Kick-Off Meeting Report Submittal

Upon completion of the Kick-Off Meeting, the ECTA provides meeting minutes reporting to the Multifamily Developer, General Contractor and all meeting attendees, and EarthCraft. The Multifamily Developer and General Contractor are responsible for following-up on any program compliance issues identified during the Kick-Off Meeting as reported by the ECTA.

#### 9. Air Sealing Inspections

All ECMF projects must pass an Air Sealing Inspection(s) conducted by an ECTA on each individual unit. The Air Sealing Inspection provides an on-site evaluation of the unit in terms of the ECMF guidelines, including a visual inspection of the air sealing. This inspection occurs before insulation is installed to inspect for required air sealing measures including plumbing and electrical penetrations, window and door rough openings, chases, band area and exterior sheathing penetrations, etc. The Air Sealing Inspection provides opportunities to identify additional construction considerations that may impact the performance of the building. The ECMF Worksheet and Inspection Records provide a full list of the required air sealing items.

# 10. HVAC Initial Diagnostics/Inspection

All ECMF projects must pass a HVAC Initial Diagnostics/Inspection conducted by an ECTA. The HVAC Initial Diagnostics/Inspection provides an on-site evaluation of the unit in terms of the ECMF guidelines, including a visual inspection of duct sealing as well as Duct Blaster diagnostic testing of each unit type in that section of the building. The HVAC Initial Diagnostics/Inspection provides opportunities for identifying additional construction considerations that may impact the performance of the home. When the first floor or section of the first building is roughedin, the project is ready for an ECTA to visit the site, pressure test the duct systems, and inspect for mastic sealing.

#### **11. Insulation Inspections**

All ECMF projects must pass an Insulation Inspection conducted by an ECTA on every individual unit. The Insulation Inspections provide an on-site evaluation of the unit in terms of the ECMF guidelines, including a visual inspection of insulation. The Insulation Inspections provides opportunities to identify additional construction considerations that may impact the performance of the building. After insulation is installed the ECTA will visit the site to grade the installation of the insulation (this may affect the energy model results).

#### 12. Pre-Drywall Inspection Submittal

Upon completion of a building or section of building, the Air Sealing Inspection, HVAC Initial Diagnostics/Inspection, and Insulation Inspection reports will be submitted. ECTAs are required to provide the above described inspection reports to the Developer, General Contractor, and EarthCraft. The Developer and General Contractor are responsible for following-up on any program compliance issues identified by the ECTA.

#### **13. Final Inspections**

All ECMF projects must pass a Final Inspection on each unit conducted by an ECTA. During the Final Inspection, an ECTA confirms all program criteria through visual inspection, documentation review and diagnostic testing of the building. The Multifamily Developer and General Contractor provide project documentation to support the final inspection. When an entire floor or section is ready, an ECTA will visit the site and conduct final testing. The Multifamily Developer and General Contractor are responsible for following-up on any program compliance issues identified during the Final Inspection as reported by the ECTA as the project cannot be certified until all issues are remedied.

# 14. Confirmed Energy Model(s) or Prescriptive Path Compliance

After the final inspection, EarthCraft Technical Advisors develop a confirmed energy model for each project.

#### **15. Final Inspection Report Submittal**

EarthCraft Technical Advisors are required to submit the first final inspection reports EarthCraft for review.

#### 16. Certification Submittal

EarthCraft Technical Advisors are required to submit final project documents to the Multifamily Developer, General Contractor and EarthCraft.

#### 17. Certification

Final certification is approved by the ECTA working with the EarthCraft Program staff. Once approved, it is up to the Multifamily Developer to officially certify the units in the project as meeting ECMF program requirements and guidelines.