

Step 19. Create an operation and maintenance manual for project.

Why is this important?

You have worked hard to create a well designed development – one that meets user needs, enhances its neighborhood and is built to last. It's very likely that this project will become a long term asset to the community and to everyone who lives there. A manual that describes key components and systems within the building(s) and explains how they should be operated and maintained will help ensure that the project fulfills its promise to its occupants and to its community.

The team that designs and develops the building, especially if the team includes the property manager, is in the best position to describe its efficient operation and maintenance, and to create the manual over the course of the entire development process.

When should this be done?

After construction is complete but before the project is occupied.

Who should do this?

The owner/developer, the design team, the contractor and the property manager.

What should be done?

- Identify key design elements, systems and materials that are critical to long term quality and performance of your project: e.g. exterior wall and roof materials, windows, exterior doors, landscaping, key mechanical equipment.
- Develop or collect any available operation and maintenance information/manuals on each of these components. (Much of this information will already exist and simply needs to be assembled.)
- Ensure that all materials – as-built drawings, final finish schedules and plans, and all warranties, guarantees and certifications – that are contractually owed to you are collected from your design team and your contractor before final payments are made.
- Aggregate this information into a single resource that can be used by residents and management personnel to guide overall O&M activities.
- If possible, create one or more “to do” checklists that synthesize key recommendations in the collected material; i.e. what to do and when.
- Print out the **Operation and Maintenance Manual Checklist Form** and list all the O&M materials and manuals that you have collected. Add the list to the Project Book and include it in the O&M manual.
- If a “to do” list has been developed, add it to the Project Book and the O&M Manual as well.

How will doing this help move my project forward?

- Effective operation and ongoing maintenance are critical to the long term viability of any project.
- By making these activities easier to understand - especially by outlining what to do when - an operations manual can help ensure that your project is efficiently operated and well maintained long into the future.

Sample Operation and Maintenance Manual Checklist

The following checklist was developed by the Local Initiatives Support Corporation as a template for creating an O&M manual for affordable housing projects. Use it as a guide for collecting O&M information and for filling out the Operation and Maintenance Manual Checklist for your own development.

Plumbing and Heating

- Locations of water and gas shut off valves both in the units, for the risers, and for the building.
- Location of gas and water connections from building to main lines (street.)
- Location of all sprinkler heads with shut off information
- System Flushing/draining information
- Standpipe locations
- Riser drawings
- Make, model, type information for all fixtures, including pumps, toilets, water heaters, faucet, shower nozzles
- Warranty information for all fixtures
- Maintenance information for all fixtures
- Chimney/stack cleaning information
- Boiler/furnace cleaning and maintenance schedule
- Boiler/furnace shutoffs
- Thermostat locations

Structure, Roof and Façade

- Color, style, replacement and repair information for façade, roof, windows, gutters, doors
- Instructions for assembly/replacement of window parts
- Preventative maintenance information
- Color chips for façade
- Location of lead bearing walls
- Weatherproofing materials and guidelines

Grounds

- Make, Model, maintenance and repair information for playground equipment
- Landscape map

Electrical

- Location map for all circuits or fuses
- Location of service cables to street
- Location map for all fixtures (light, security), listing bulb requirements
- Warranty, repair and replacement information for all fixtures
- Smoke detector location map, battery information

Locks

- ❑ Key and cylinder codes for all locks
- ❑ Map marking all lock types
- ❑ Map coordinating to key system

Interiors

- ❑ Paint chips with name and brand
- ❑ Wall cleaning information
- ❑ Carpet/floor covering swatches with name and brand
- ❑ Carpet/floor covering cleaning information
- ❑ Make model of all appliances with warranty and repair information