

Maintenance Checklist

The following are effective compartmentation maintenance procedures suggested by the Firestop Contractors International Association.

Understand Compartment Locations on Construction Documents

- Fire wall/floor identification
- Fire barrier identification
- Fire and smoke barrier identification
- Smoke barrier identification
- Smoke partition identification

Identify Compartments in Building

- Visit each compartment area
- Identify which walls and floors are fire-resistance rated construction
- Identify fire- and smoke-resistance rated construction
- Identify smoke barriers
- Identify smoke partitions

Identify Compartments and Fire and Smoke Protection Features in Compartmented Construction

- Compartmentation visual inspection**
 - Fire and smoke wall inspection—Holes, gaps, wall-top gaps, joints, missing elements need continuity and repairs
- Firestopping systems visual inspection**
 - Labeling of firestop system
 - Visual inspection—Does assembly match tested and listed system?
 - Destructive testing—Does assembly match tested and listed system?
- Fire and smoke damper visual inspection and operational testing**
 - Labeling of fire/smoke damper system
 - Field construction verification to systems design
 - Operational test to verify damper activation and reset
 - Common deviations to UL 555 and 555-S
- Fire door and hardware visual inspection and operational testing**
 - Labeling on door, frame and hardware
 - Door operational status
 - Door hardware operational status
 - Automatic door-closer interface with fire- and smoke-detection system
 - Obstructions to fire door operation
- Fire glass**
 - Labeling of fire-resistance rated glass
 - Frame requirements

- Visual inspection for holes

Repair of Effective Compartmentation (EC) and EC Fire Protection Features (Wall and Floor)

- Masonry—Refer to International Masonry Institute, National Concrete Masonry Association guidelines for:**
 - Brick
 - Concrete block
 - Both NFPA 5000 and International Building Codes require that holes in fire-resistance rated concrete block and masonry be filled full-thickness with mortar to complete the assembly. This is true in hollow-core block assemblies and solid masonry structures. Firestop systems may be used as an alternative.
- Concrete—Follow American Concrete Institute documents for patching concrete walls and floors**
 - Solid concrete—Reinforcing steel may be required to hold concrete into an opening, allowing structural integrity to be returned to original specifications, if required. In cases where structural protection is not needed, firestop systems may be used to patch holes in fire-resistance rated construction.
 - Hollow-core concrete
 - Both NFPA 5000 and International Building Codes require that holes in fire resistance rated hollow-core concrete be filled full-thickness with mortar to complete the assembly. This is true in hollow-core block assemblies and solid masonry structures. Firestop systems may be used as an alternative.
- Gypsum Board Assemblies**
 - Board—Visual inspection of unpainted board to verify gypsum type is equal to tested system requirements. According to gypsum manufacturers, all 5/8-inch drywall is “Type X,” a component of a fire-resistance rated wall assembly.
 - Framing—Verify that framing meets requirements of the tested and listed system
 - Patching requirements—Verify that patching systems meet tested and listed system requirements
 - Framing required—Patching of drywall systems may require framing to span from vertical to vertical studs to “frame” the area, creating resistance to hose-stream testing
 - Fire-resistance rated patching systems
 - Special clips available from gypsum and firestop manufacturers are used to reinforce the patch and make it an integral part of the wall. These clips, when used as patching forms, withstand hose-stream testing.
- Gypsum Block Assemblies**
 - Patching requirements
 - Gypsum block is similar to concrete block. New block can be used to patch full-sized block holes.

- Drywall attachment to block alternative as recommended by manufacturer of gypsum block
- **Plaster Assemblies**
 - Patching requirements per Plastering Institute and tested system guidelines

The checklist above is from the following copyrighted article in the June 2005 issue of *Insulation Outlook* magazine:

Maintaining Your Firestop Investment

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