

This Operations and Maintenance (O&M) protocol directs BPM personnel on how to proceed when creating minor wall penetrations for the purpose of hanging cabinets, pictures, etc. This procedure is considered a Category II O&M task because it is a planned task to be performed only by BPM engineering personnel and BOE-hired contractors. This activity constitutes the planned minor penetration of walls and other building cavities that should not be accessed by BOE tenant personnel.

Note: *For the purpose of this O&M protocol, a "suspect" location is an area suspected or known to have been historically impacted by flooding/water damage and a record of subsequent investigation and remediation does not exist. BPM E-shop shall be used to detect, test and direct building management staff when mold is suspected/present.*

Category II Minor Wall Penetration (< 0.5 inch diameter)
Project Planning
Step 1. <ul style="list-style-type: none"><li>• A Maintenance Work Order (MWO) shall be submitted by BOE personnel (or BOE contractor/vendor) requiring the hanging of an object on the wall which will require a minor penetration of the wall to install a device (nail, screw, hook, anchor bolt, etc.) for hanging the object.</li><li>• BPM personnel assigned the task of completing the MWO shall review the proposed location for the "wall hanging". If a proposed penetration will impact a core wall, a column enclosure, or an area known to have been historically subjected to flooding (i.e., "suspect" location), BPM personnel may suggest an alternate location to the requestor. Efforts shall be made to bypass any areas of known or suspected mold contamination whenever possible. BPM personnel shall use available as-built assessment report(s) and drawings (along with any subsequent water event information in performing their review.</li><li>• If an alternate "hanging" location is not possible, the DGS industrial hygienist (e.g., E-shop) shall be contacted to identify and evaluate any mold information that may be available for the area that may be impacted by the penetration, and establish any controls needed for performing the work.</li><li>• If the proposed penetration will NOT impact a core wall, a column enclosure, or an area known to have been historically subjected to flooding, BPM personnel may proceed with the installation of the wall hanging device without any additional preparation. In any case, caution should be taken whenever penetrating the wall and work should immediately cease if the presence of mold is identified.</li></ul>

Project Execution
<p>Step 2.</p> <ul style="list-style-type: none"><li>• Any wall penetration of a core wall, a column enclosure, or an area known to have been historically subjected to flooding <u>and</u> NOT known to have been investigated and remediated, as needed; shall be performed after-hours or weekends <u>and</u> in unoccupied and/or an isolated area of the building</li><li>• For minor wall penetrations &lt;0.5 inch diameter <u>and</u> the need to penetrate a "suspect" location/area remains, then plastic sheeting shall be used to catch and collect any dust or debris generated during penetration of the wall; if possible, dust and debris shall be captured and collected as it is being generated; powered-equipment used in penetrating the wall shall be equipped with powered dust collection devices equipped with a HEPA filtration system</li></ul>
<p>Step 3. Penetrating a "Suspect" Wall</p> <ul style="list-style-type: none"><li>• A BPM E-shop industrial hygienist shall be used to define control measures to be used for Major Wall Penetrations (&gt;0.5 inch diameter) of a core wall, a column enclosure, or an area known to have been historically subjected to flooding; the extent of these controls may vary depending on the potential for mold contamination being present. (<i>See O&amp;M Protocol for Major Wall Penetrations</i>)</li><li>• Prior to creating the penetration, the E-shop industrial hygienist will determine if the activity will require construction of a protective containment at the location of the opening and evaluate the extent of any VMG or water-damaged materials.</li><li>• If VMG is present, the protective containment shall be cleaned and then cleared by the E-shop industrial hygienist before returning the space for use by building personnel.</li></ul>
<p>Clearance.</p> <ul style="list-style-type: none"><li>• Work area to be cleared should be dry and visually clear of contamination and debris as determined by the project industrial hygienists.</li><li>• Each area that is cleaned shall require a minimum of 24-hours of air scrubbing.</li><li>• Two (2) outside air samples (one outside the containment, but on the same floor; one at ground level) prior to collection of inside containment samples.</li><li>• The number of inside air samples shall be determined by the size of the containment and at the discretion and consensus of the project industrial hygienists; as few as one (1) and no more than five (5).</li><li>• Two (2) outside air samples after collection of inside samples (one outside the containment, but on the same floor; one at ground level on opposite side of the building where initial outside sample was collected).</li><li>• Criteria for successful air sample clearance:<ul style="list-style-type: none"><li>○ Quantitative spore counts collected inside containment are less than those observed in outside samples.</li></ul></li></ul>

- Similar in rank order and distribution
- Air sample does not contain specific spores of concern that were identified during initial identification of VMG.

Step 5. Project Completion

- Any mold-contaminated areas identified during the wall penetration process shall be documented for future reference by other projects requiring access into the same wall or area.