



Replacement In Kind: Water and Waste Lines

Water and Waste Lines

The introduction of plumbing into a home was a defining moment in the evolution of the structure and how the occupants interacted with the building. The different plumbing materials and installation techniques have evolved in time to meet new standards in materials and installation.

Guidelines for Replacement In Kind of Water and Waste Systems

- With the exception of basements and occasional visual installations in upper floors much of the plumbing infrastructure, whether domestic water or waste line, is mostly unseen.
- The best option for a historic bathroom is to drain the facility of water and remove from use. This allows the historic piping and fixtures to remain in situ without any danger of leaks.
- Because of the inflexibility of the materials and physical spaces required for installation it is exceedingly difficult to leave upper floor installations in situ when replacements are necessary.
- The most inflexible of all installations is the waste line which requires very specific paths and pitches to ensure proper operation.
- It is acceptable in many situations, and especially non-visible locations, to use approved modern materials to replace the infrastructure.
- Basic Documentation:
 - Photographs of system or fixture from at least three angles.
 - Material used for piping or fixture
 - Dimensions of piping and fixture at different locations
 - Cutsheets or manuals for the model of fixture
 - Pay extra attention to documenting aspects about the piping that does not meet today's code on the assumption that this is part of the development of piping.
 - Annotated plan showing location of piping or fixture.
- If evidence is compelling that piping has been reworked from the original permission may be sought from team leader to forego the historic documentation step noted above (standard project documentation is still required).

Plumbing Fixtures

- Plumbing fixtures in museum spaces are part of the museum collection and should not be replaced without approval from the *Proactive Preservation Interpretation and Planning* (PPIP) committee.
- Potential historic fixtures in non-museum locations should be analyzed for their historic value and replaced in conjunction with a decision by PPIP.
- Service fixtures in modern bathrooms should be replaced with the most efficient style that is most suitable for the space and its needs.