

08 01 80 – Maintenance of Glazing (Leaded Glass Window Restoration)

1. General

- A. Early in the design process, with the input of Duke University, determine the extent of leaded glass window restoration required. Whether restoration or repair, it is important that the work be designed and specified to assure that the original window system maintains its historical and physical integrity. Among the options available for consideration (listed in order of impact) are:
 1. Removal and replacement of perimeter sealant.
 2. Replacement of chipped or broken glass.
 3. Field repair of fixed lights and tracery.
 4. Repair, preparation and painting of sash and frames including new leaded lites installed in the existing system.
- B. For replacement of chipped or broken glass, use existing glass from the rear or other less visible location.
- C. For field repair of fixed lights, repair or replace lead came or solder joint and re-cement the lead came/glass on the entire sash.
- D. For repair and painting of operable sashes and frames, require that each leaded glass lite, sash and all hardware be removed, marked and protected for reuse. Mark each sash to identify its original location. Prepare steel sashes to remove paint, rust, oil, etc. Blast surfaces as recommended by painting manufacturer and then use a vinyl wash primer, zinc rich primer, a high build epoxy first coat and a urethane top coat. Steel frames shall be cleaned using power tools and then primed with an acrylic metal primer and painted with acrylic gloss enamel. Fabricate new leaded glass lites using the existing glass including matching the existing lead came profiles. Supplement broken glass with glass borrowed from rear or other less visible locations. If there is insufficient existing glass, require that new glass shall only be used at rear or other less visible locations. Require that waterproofing cement be used at came/glass intersection after completion of sash construction. Also require that solder/lead be patinated to replicate dark color of original sash. All hardware shall be refinished to closely match original finish. If hardware is to be replaced, the new hardware shall be of the same as the original except where original is steel, the new shall be stainless steel. Upon reinstalling sash, secure in closed position (except those designated to be operable) using blackened stainless steel screws.
- E. Require mockups of each type of repair prior for review.

- F. Require that restoration work be done by a specialty subcontractor with an established record of historical window restorations and at least five years of experience.
- G. Require that each window to be restored be photographed from the interior and exterior prior to the start of work.
- H. See Appendix **A088100** for additional information on “Glass Glazing”.