Modify *Section 08 00 00 and 08 00 01* per the following (deletions are shown struck through and additions are double underlined). Remainder of section is unchanged.

08 00 00 DOORS, WINDOWS, GLASS, AND HARDWARE

~~**08 00 01 Owners General Requirements and Design Intent**~~

.01 Owners General Requirements and Design Intent~~General~~:

A. Safety Glazing

1. Comply with all building code requirements.

2. Also see, Section 01 05 05.01 Space Planning, Safety Considerations

B. Visual

1. Refer to Section 01 81 13 Sustainable Design Requirements~~01 83 00 Facility Shell Performance Requirements~~ for daylighting and glare control.

2. Glazing systems shall be selected with spectrally selective coatings to filter damaging UV wavelengths in order to increase the life of interior furnishings.

3. Renovations to historic buildings shall require special window detailing. Professional shall select and specify companies offering high-performance products that can provide the desired appearance, fitting with the period and style of the historic building, while maintaining energy efficiency.

C. Moisture Protection

1. Select glazing and frame thermal performance to avoid condensation problems. Higher performance glazing assemblies are required in higher indoor moisture applications such as indoor pools, food preparation, or certain research facilities.

2. Design shall be integrated with building envelope to include careful construction detailing to maintain the continuity of exterior moisture, air infiltration and interior vapor barriers at the perimeter of doors, windows and glazed wall assemblies.

D. Energy and Thermal Comfort:

1. Refer to Section 01 81 13 Sustainable Design Requirements~~01 83 00 Facility Shell Performance Requirements~~ for integrated design criteria of fenestration assemblies within building envelope to optimize energy and thermal comfort performance.

~~1.~~2. All exterior fenestration shall be specified with thermally broken exterior frames and thermally broken/insulated internal edge spacers between panes.

E. Sound (Acoustics)

1. Select and specify door and window units with adequate Outdoor—Indoor Transmission class rating to maintain indoor noise levels within allowable ranges.

    a. Include careful construction detailing to maintain continuity of sound transmission rating of entire wall/fenestration assembly.

F. Performance Longevity and Sustainability

1. Insulated glass units shall conform to ASTM E-2190 *Standard Specification for Insulating Glass Unit Performance and Evaluation* and be certified and labeled accordingly.

2. Insulated glass units shall be glazed in accordance to Insulating Glass Manufacturers Alliance (IGMA) standards

3. Designer shall select and specify insulated glass units with unit construction details that will ensure (guarantee) the longest service life when comparing major cost competitive manufacturers. This is to minimize life cycle costs and long term landfill waste stream. Insulated glass units are not typically recycled.

4. Performance Criteria: All glazing assemblies shall be certified by the National Fenestration Rating Council (NFRC). **Energy performance values (U-value and SHGF) shall always be specified to be certified for the whole assembly**, not merely the center of glass.

    a. Refer to Glazing section below for futher detail.

    ~~a.~~b. Permanently unconditioned spaces shall not require insulated glass, high performance glazing.

G. Maintainability and Repairability

1. Window units shall allow for easy repair and replacement of flexible seals between glazing units and framing since these seals must be replaced periodically to maintain effectiveness.

END of revision

Update Commentary:

Section was updated primarily for the following reasons:

1) *To add specific requirements for thermally broken frames and edge spacers between panes.*
2) *To add certified performance by NFRC.*