SECTION 088000 - GLAZING

PART 1 GENERAL
1.01 SECTION INCLUDES:
   A. The work of this section shall include all labor, materials, equipment, accessories and services required and necessary to provide the glass and glazing and related items as indicated or specified.

1.02 SUBMITTALS
   A. Submit Product Data Sheets, shop drawings indicating layout locations, directions for installing anchorage in other materials, and cleaning and maintenance instructions.
   B. Provide letter of certification, or certified test laboratory report that all materials comply with the requirements and is intended for the applications shown.
   C. Submit manufacturer's five-year guarantee on mirrors against silver spoilage.

1.03 QUALITY ASSURANCE
   A. All work under this section shall conform to this specification, Chapter 54 of the UBC, OSHA, and to local code requirements. In case of conflict, the more stringent requirements shall apply.

PART 2 PRODUCTS

2.01 MATERIALS
   A. Glass
      1. Regular Plate Glass - Complying with FS DD-G-451, Type I, Class I. Quality Q-3, plate or float.
      2. Tempered Glass - Fully tempered float and/or plate glass. Permanently etch each light with manufacturer's name and his compliance with ANSI Z-97.1. Interior - Clear unless noted otherwise. Tempered glass shall have no visible tong marks and no apparent visual distortion when installed.
      3. Insulating glass - one inch thick hermetically edge sealed and metal banded insulating glass consisting of two 1/4 inch panes of tempered float glass, with L O F Eclipse Bronze reflective coating on surface #2. Panels shall be factory fabricated and have a ten year guarantee against seal failure.
      4. Obscure glass -
      5. Glass Thickness - Determined by requirements of FS DD-6-451 and/or Chapter 54 of UBC.
   B. Wire Glass - 1/4" thick polished clear wire glass; square pattern Misco as manufactured by Hordis Brothers, Inc. Provide as indicated by contract documents or required by code.
   C. Mirrors shall be 1/4" #1 quality polished plate laminated glass, blue labeled, as per CS-27. Finish shall be silver coating or electrolytic copper plating and the copper protected by a coat of mineral oxide oil base paint. Mirrors shall have metal frames of stainless steel unless noted otherwise.
   D. Interior Glazing Compound - Polymerized butyl rubber and inert. Fillers (pigments), solvent based with minimum 75% solids, nonsag consistency, tack-free time of 24 hours or less, paintable nonstaining.
   E. Setting Blocks - Neoprene, EPDM, or other resilient blocks of 85 shore A durometer hardness, minimum length 4".
   F. Other Accessories - Glazer points, clips, sealants, preformed tape, etc., in accordance with FGMA "Glazing Manual" specifications and manufacturer's recommendations.

PART 3 EXECUTION

3.01 EXAMINATION
Examine the framing or glazing channel surfaces, backing, removable stop design and the conditions under which the glazing is to be performed, and notify the Contractor in writing of any conditions detrimental to the proper and timely completion of the work. Do not proceed with glazing until unsatisfactory conditions have been corrected in an acceptable manner.

3.02 INSTALLATION

A. Glass
   1. Glass installation must withstand normal temperature changes without failure of any kind including loss or breakage of glass.
   2. Protect glass from edge damage at all times during handling, installation and operation of the building. Glass breakage during the guarantee period will be considered a form of faulty material or workmanship (resulting from edge damage) unless known to result from vandalism or other causes not related to materials and workmanship.
   3. Glazing channel dimensions are intended to provide for necessary minimum bite on the glass, minimum edge clearance and adequate sealant thicknesses, with reasonable tolerance. The glazier is responsible for correct glass size for each opening, within the tolerances and necessary dimensions established.
   4. Comply with combined recommendations of Glass Manufacturer and manufacturer of sealants and other materials used in glazing, except where more stringent requirements are shown or specified, and except where manufacturer’s technical representatives direct otherwise.
   5. Clean the glazing, channel or other framing members to receive glass, immediately before glazing. Remove coatings which are not firmly bonded to the substrate.
   6. Do not attempt to cut, seam, nip or abrade glass which is tempered or heat strengthened.
   7. Comply with “Glazing Manual” by Flat Glass Manufacturer’s Association, except as shown and specified otherwise by the manufacturers of the glass and glazing materials.
   8. Inspect each piece of glass immediately before installation, and eliminate any which have observable edge damage or face imperfections.
   9. Install setting blocks of proper size at quarter points of sill rabbet. Set blocks in first course of the heel-head compound, if any.
   10. Provide spacers inside and out, and of proper size and spacing, for all glass sizes larger than 50 united inches. Provide 1/8” minimum bite of spacers on glass, and use thickness equal to sealant width.
   11. Unify appearance of each series of lights by setting each piece to match others as nearly as possible. Inspect each piece and set with pattern, draw and bow oriented in the same direction as other pieces.

B. Mirrors
   Adhesive Installation of Mirrors - Apply one additional coat of moisture-resistant paint, of type recommended by Mirror Manufacturer, to back of mirror, and allow to dry. Apply mirror mastic to cover not more than 25% of back of mirror. Set mirror in support on setting blocks or continuous gasket, and press against substrate to ensure bond of adhesive. Leave open ventilation space, 1/8” or more in thickness between mirror and substrate, over 75% of mirror area (wherever there is not adhesive). Do not seal-off ventilation space at edges of mirror.

3.03 PROTECTION

A. Protect glass from breakage immediately upon installation, by attachment of crossed streamers to framing held away from glass. Do not apply markers of any type to surfaces of glass.

B. Remove and replace glass which is broken, chipped, cracked, abraded or damaged in any other way during the construction period, including natural causes, accidents and vandalism.

END SECTION