SECTION  – transparent plastic glazing

1. General
   1. summary
      1. Furnish transparent plastic glazing materials and accessories to complete the fabrication and installation of:
         1. Polycarbonate glazing.
      2. Related Requirements:
         1. Section 05 70 00 – Decorative Metal.
         2. Section 09 29 00 – Gypsum Board.
   2. administrative requirements
      1. Coordination: Coordinate work of this Section with the installation of frames to ensure a continuous, uninterrupted sequence, and to prevent the undue exposure of unprotected frames to weather, and as follows:
         1. Do not use materials that may permanently mar, discolour, or disfigure the glass.
   3. SUBMITTALS
      1. Provide submittals in accordance with Section 01 33 00 – Submittal Procedures.
      2. Action Submittals: Provide the following submittals before starting any work of this Section:
         1. Product Data: Submit manufacturer's product data for each type of product specified. Data shall indicate compliance with specification and installation recommendations of manufacturer of products being used.
         2. Samples: Submit samples of materials if required by Consultant before commencing work of this section. Samples shall be clearly labeled with manufacturer's name and type.
         3. Shop Drawings: Submit shop drawings, to the Consultant for review prior to fabrication.
         4. Maintenance Data: Upon completion of installation, supply instructions covering re-glazing, adjustments, and other relevant maintenance data.
      3. Project Closeout Submissions:
         1. Operation and Maintenance Data: Submit maintenance brochures on the care and cleaning of plastic glazing materials in accordance with Section 01 33 00 – Submittal Procedures.
   4. QUALITY ASSURANCE
      1. Qualifications: Provide proof of qualifications when requested by Consultant:
         1. Installer: Use installers having experience with projects of similar scope and complexity with plastic glazing installations.
   5. DELIVERY, STORAGE, AND HANDLING
      1. Delivery and Acceptance Requirements: Deliver packaged materials in their original containers with manufacturer's labels and seals intact.
      2. Storage and Handling Requirements: Store vertically, blocked off the floor in a weatherproof enclosure in original containers with manufacturers labels and seals intact until read for installation, and as follows:
         1. Install plastic glazing as soon as possible after delivery to site.
         2. Handle plastic glazing carefully to its place of installation.
         3. Prevent damage to plastic glazing, adjacent materials, and surfaces.
   6. site conditions
      1. Site Measurements: Verify dimensions by site measurements before fabrication; coordinate fabrication schedule with construction progress to avoid delaying the Work.
      2. Established Dimensions: Establish dimensions and proceed with fabricating plastic glazing units without site measurements where site measurements cannot be made without delaying the Work; coordinate construction to ensure that actual site dimensions correspond to established dimensions; allow for trimming and fitting.
2. Products
   1. manufacturers
      1. Acceptable Materials Manufacturers: Subject to compliance with requirements specified in this Section and as established by the Basis of Design Materials, manufacturers offering products that may be incorporated into the Work include but are not limited to, the following:
         1. Lexan
   2. MATERIALS
      1. Transparent Plastic Glazing: 5mm (3/16") thick polycarbonate sheet:
         1. Colour: Clear
         2. Weight: 1.11lb/sq. ft
         3. Light Transmission%: 84.2%
         4. Haze %: 0.6%
         5. Sound Transmission: 31 STC Rating
         6. Shading Coefficient: 0.95
      2. Framing and Channels:
         1. Sheet Steel (Commercial Quality): Conforms to ASTM A653/A653M, stretcher levelled, or temper rolled.
      3. Gaskets:
         1. Neoprene/EPDM thermoplastic rubber type gaskets of sufficient thickness to be compressed 25% when installed, having 2,000 psi tensile strength, with 50 durometer shore A hardness plus/minus 5, maximum 30% resistance to permanent set, resistance to ozone without cracking, minimum elongation at break of 300% and conforming to ASTM C 542.
         2. Colour: "Black."
      4. Spacer Shims:
         1. Neoprene/EPDM rubber type, with 40 to 50 durometer shore A hardness plus/minus 5; resistant to sunlight, weathering, oxidation, and permanent deformation under load and of adequate thickness to provide correct plastic glazing to face clearance at least 3mm (1/8").
      5. Sealant: As recommended by plastic glazing manufacturer to ensure compatibility with plastic glazing.
   3. FABRICATION AND MANUFACTURE
      1. Check dimensions on site before cutting materials.
      2. Cut plastic glazing true to dimensions, square, plumb, and level. Verify all dimensions prior to fabrication.
      3. Distortion, pock marking or defects detrimental to appearance and/or performance, as determined by the Consultant, will be rejected.
3. Execution
   1. examination
      1. Examine areas of work affecting the work of this section. Report in writing all defects, errors, and discrepancies immediately to the Consultant.
      2. Commencement of work implies acceptance of surfaces and conditions.
   2. INSTALLATION
      1. Conform to the recommendation of the plastic glazing manufacturer for installation and cutting instructions.
      2. Set plastic glazing with draw lines horizontal.
      3. Install removable stops. Insert spacer shims between plastic glazing and stops at 610mm (24") O.C. and not less than 6mm (1/4") below "sight lines". Fill remaining voids with sealant to "sight lines" and trim sealant to produce clean, sharp, straight lines without voids or depressions.
      4. Replace loose stops in their original positions, tighten all screws.
      5. Refer to drawings for locations of plastic glazing.
   3. CLEANING
      1. Repair all defects caused by the work of this section. Remove as work progresses, all excess or foreign materials or droppings which would set or become difficult to remove from surfaces at time of final cleaning.
      2. Immediately prior to acceptance of Work of this Section by Consultant, remove temporary protection, clean exposed surfaces of all work of this section. Use proper cleaning materials and methods to prevent damage to surfaces, finishes, sealer, or work of other trades. Make good such damage to Consultant's satisfaction.
      3. Do not use steel wool, wire brushes or steel scrapers on any finished surfaces.
      4. Replace or make good to Consultant's satisfaction, upon completion of work of this section, all defective, scratched, or damaged work, at no extra cost to the Owner.

END OF SECTION