Part 1 General

1.1 References

.1 American National Standards Institute (ANSI).

.1 ANSI/ASTM E330-02, Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.

.2 American Society for Testing and Materials International, (ASTM).

.1 ASTM C542-94(1999), Specification for Lock-Strip Gaskets.

.2 ASTM D790-02, Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.

.3 ASTM D2240-02b, Test Method for Rubber Property - Durometer Hardness.

.4 ASTM E84-01, Test Method for Surface Burning Characteristics of Building Materials.

.3 Canadian General Standards Board (CGSB).

.1 CAN/CGSB-12.1-M90, Tempered or Laminated Safety Glass.

.2 CAN/CGSB-12.2-M91, Flat, Clear Sheet Glass.

.3 CAN/CGSB-12.3-M91, Flat, Clear Float Glass.

.4 CAN/CGSB-12.4-M91, Heat Absorbing Glass.

.5 CAN/CGSB-12.9-M91, Spandrel Glass.

.6 CAN/CGSB-12.10-M76, Glass, Light and Heat Reflecting.

.4 Canadian Standards Association (CSA International).

.1 CSA A440.2-98, Energy Performance Evaluation of Windows and Sliding Glass Doors.

.2 CSA Certification Program for Windows and Doors 2000.

.5 Environmental Choice Program (ECP).

.1 CCD-045-95, Sealants and Caulking.

.6 Flat Glass Manufacturers Association (FGMA).

.1 FGMA Glazing Manual - 1997.

.7 Laminators Safety Glass Association (LSGA).

.1 LSGA Laminated Glass Design Guide 2000.

1.2 System Description

.1 Performance Requirements:

.1 Provide continuity of building enclosure vapour and air barrier using glass and glazing materials as follow:

.1 Utilize inner light of multiple light sealed units for continuity of air and vapour seal.

.2 Size glass to withstand wind loads, dead loads and positive and negative live loads [acting normal to plane of glass to a design pressure of 1 kPa as measured in accordance with ANSI/ASTM E330.

.3 Limit glass deflection to 1/200 with full recovery of glazing materials.

1.3 Submittals

.1 Samples:

.1 Submit 300 x 300 mm size samples of sealant material.

.2 Manufacturer's Instructions:

.1 Submit manufacturer's installation instructions.

1.4 Quality Assurance

.1 Test Reports: certified test reports showing compliance with specified performance characteristics and physical properties.

.1 Provide shop inspection and testing for glass.

.2 Certificates: product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

.3 Mock-ups:

.1 Construct mock-up to including glass glazing, and perimeter air barrier and vapour retarder seal.

.2 Mock-up will be used:

.1 To judge workmanship, substrate preparation, operation of equipment and material application.

.2 For testing to determine compliance with performance requirements.

.3 Allow 24 hours for inspection of mock-up before proceeding with work.

.4 When accepted, mock-up will demonstrate minimum standard of quality required for this work. Approved mock-up may remain as part of finished work.

.4 Pre-installation Meetings: conduct pre-installation meeting to verify project requirements, manufacturer's installation instructions and manufacturer's warranty requirements.

1.5 Site Conditions

.1 Environmental Requirements:

.1 Install glazing when ambient temperature is 10 degrees C minimum. Maintain ventilated environment for 24 hours after application.

.2 Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.

1.6 Waste Management And Disposal

.1 Divert metal cut-offs from landfill by disposal at nearest metal recycling facility.

.2 Divert uninstalled materials for reuse at nearest used building materials facility or similar type facility.

.3 Divert unused caulking and sealant materials from landfill through disposal at special wastes depot.

.4 Unused or damaged glazing materials are not recyclable and must not be diverted to municipal recycling programs.

.5 Remove from site and dispose of packaging materials at appropriate recycling facilities.

.6 Dispose of packaging material in appropriate on-site bin for recycling in accordance with site waste management program.

Part 2 Products

2.1 MATERIALS: FLAT GLASS

.1 Safety glass 1: to CAN/CGSB-12.1, AFGD Blue Float or equal, 10 mm thick.

.1 Type 2-tempered.

.2 Safety glass 2: to CAN/CGSB-12.1, AFGD Classic Blue Stopsol or equal, 10 mm thick.

.1 Type 1-laminated and Type 2-tempered.

.2 Class B-float.

.3 Category 1.

.3 Spandrel glass: to CAN/CGSB-12.9, colour to be selected from manufacturer's full colour range, 10 mm thick.

.1 Type 1-Tempered.

.2 Class A-Float.

.3 Style 2-Reflective coated.

.4 Form I-Insulating glass unit.

2.2 Accessories

.1 Setting blocks: Neoprene, Shore A durometer hardness to ASTM D2240, minimum 100 mm x width of glazing rabbet space minus 1.5 mm x height to suit glazing method, glass light weight and area.

.2 Spacer shims: Neoprene, Shore A durometer hardness to ASTM D2240, 75 mm long x one half height of glazing stop x thickness to suit application. Self adhesive on one face.

.3 Glazing tape:

.1 Preformed butyl compound, 10-15 Shore A durometer hardness to ASTM D2240; coiled on release paper; width and thickness to suit application; black colour.

.2 Closed cell polyvinyl chloride foam, coiled on release paper over adhesive on two sides, maximum water absorption by volume 2 %, designed for compression of 25 %, to effect an air and vapour seal.

.4 Glazing splines: resilient polyvinyl chloride, extruded shape to suit glazing channel retaining slot, colour to be selected.

.5 Glazing clips: manufacturer's standard type.

.6 Lock-strip gaskets: to ASTM C542.

Part 3 Execution

3.1 Manufacturer's Instructions

.1 Compliance: Comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.

3.2 Examination

.1 Verify that openings for glazing are correctly sized and within tolerance.

.2 Verify that surfaces of glazing channels or recesses are clean, free of obstructions, and ready to receive glazing.

3.3 Preparation

.1 Clean contact surfaces with solvent and wipe dry.

.2 Seal porous glazing channels or recesses with substrate compatible primer or sealer.

.3 Prime surfaces scheduled to receive sealant.

3.4 Installation: Exterior - Dry Method (preformed Glazing)

.1 Perform work in accordance with FGMA Glazing Manual and Laminators Safety Glass Association - Standards Manual for glazing installation methods.

.2 Cut glazing tape spline to length; install on glazing light. Seal corners by butting tape spline and sealing junctions with sealant.

.3 Place setting blocks at 1/4 points, with edge block maximum 150 mm from corners.

.4 Rest glazing on setting blocks and push against fixed stop with sufficient pressure to attain full contact.

.5 Install removable stops without displacing glazing tape spline. Exert pressure for full continuous contact.

.6 Trim protruding tape edge.

3.5 Cleaning

.1 Perform cleaning after installation to remove construction and accumulated environmental dirt.

.2 Remove traces of primer, caulking.

.3 Remove glazing materials from finish surfaces.

.4 Remove labels after work is complete.

.5 Clean glass and mirrors using approved non-abrasive cleaner in accordance with manufacture's instructions.

.6 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

3.6 Protection Of Finished Work

.1 After installation, mark light with an "X" by using removable plastic tape or paste. Do not mark heat absorbing or reflective glass units

END OF SECTION