

## SECTION 08620—UNIT SKYLIGHTS

### Glass Thermal Break Curb Mount Fixed (GTCM) & Venting (GTVCM)

#### PART 1: General

##### 1.01 Section Includes:

###### A. Scope:

This section includes everything necessary for and incidental to the execution and completion of the thermal break, curb mount, fixed/venting, insulated glass (optional acrylic and/or polycarbonate double domes) skylight work as shown on the drawings and specified herein.

###### B. Work Included:

Work included, and is limited to, the skylight materials only and includes the following:

1. Insulated glass (optional acrylic and/or polycarbonate double domes) unit skylights complete with dual polyurethane thermally broken curb mount frame for installation on flashed curb by others.

###### C. Related Work:

1. Section \_\_\_\_\_ roofing.
2. Section \_\_\_\_\_ flashing and sheet metal.
3. Section \_\_\_\_\_ final cleaning.

##### 1.02 References:

American Society for Testing and Materials (ASTM)

##### 1.03 Performance Criteria:

###### A. Uniform Load:

Insulated glass unit skylights must meet the requirements of uniform load test ASTM E330 that requires glazing to withstand a positive and negative test pressure of 60PSF.

###### B. Air Infiltration:

Insulated glass unit skylights must meet the requirements of ASTM E283 that allows a maximum air infiltration of 0.06 CFM of the total glazed surface area.

###### C. Water Infiltration:

Insulated glass unit skylights must meet the requirements of ASTM E547/E331 that allows for no water infiltration at a test pressure of 12PSF.

##### 1.04 Submittals:

###### A. Shop Drawings:

Submit \_\_\_\_\_ copies of manufacturers standard approval sheet for architects review and approval.

##### 1.05 Warranty:

Skylight manufacturer shall provide a written warranty against defects in materials and workmanship (including insulated glass) for a period of five (5) years from date of installation.

#### 1.06 Manufacturer:

Thermally broken, curb mount, fixed/venting skylight(s) shall be American Skylites model GTCM/GTVCM as manufactured by American Skylites, Arlington, Texas, (1-800-772-7401) sizes as shown on drawings.

#### 1.07 Alternates:

Alternate manufacturers may not be considered without prior approval. Alternate manufacturers must have a minimum ten (10) years experience in the design and manufacture of skylights, must have similar complexity of projects completed within the past five (5) years and must submit drawings for architects review.

### **Part 2: Products:**

#### 2.01 Materials:

##### A. Curb Mount Frame:

Curb mount frame shall be fabricated from 6063-T5/T6 aluminum extrusion with a minimum thickness of .060. Curb mount frame shall have a polyurethane thermal break to reduce thermal transfer and reduce condensation on the interior of the frame. Curb mount frame shall have an integral condensation gutter. All corners shall be welded using the heliarc process.

##### B. Insulated Glass:

Insulated glass shall be minimum overall thickness of 3/4" (3/16" glass—1/2" air space—3/16" glass). Glazing options (Clear, Low "E", Low "E"/Argon gas, Bronze, Gray, Tempered, Laminated, or custom as selected by architect) shall be secured to frame with a fully welded retainer cap, minimum thickness of .060.

##### C. Venting Operator:

Venting units shall have factory installed, single point gear mechanism (max. 12" opening) with operator handle. (optional telescopic pole)

##### D. Insect Screen:

Venting units shall have aluminum frame screen with (gray or black) fiberglass screen material.

##### E. Aluminum Finish:

All exposed aluminum to be Mill Finish, Bronze, White, Clear Anodized, Bronze Anodized, or Custom Color, as selected by architect.

##### F. Glazing Gaskets and Sealants:

All glazing to be separated from frame by a continuous extruded black Santoprene gasket. All insulated glass shall be factory dual sealed. Venting sash shall close onto continuous santoprene compression gasket.

##### G. Fasteners:

All screws and fasteners used in the factory assembly process shall be Stainless Steel. All fasteners and screws used for securing skylight to structure shall be by others.

#### 2.02 Assembly:

All skylights shall be factory assembled and factory glazed.

### **Part 3 Installation:**

#### 3.01 Site Inspection:

Installer shall notify general contractor/project manager of any structural or dimensional deficiencies immediately. No work shall proceed without the correction of all deficiencies or written authorization is given to proceed.

#### 3.02 Installation:

Skylight shall be installed in strict accordance with manufacturers installation drawings and instructions. Any deviation shall only be through written authorization from the architect. Minimum 3/12 pitch.

##### A. Sealants:

No sealants shall be applied to aluminum if temperature is below 32 degrees F.

#### 3.03 Protection:

Protection of skylights during construction shall be the responsibility of the general contractor/project manager.

#### 3.04 Cleaning:

##### A. General Cleaning:

Installer shall remove all protective coverings from frames and/or insulated glass and shall leave installation free from heavy debris and/or sealant markings.

##### B. Final Cleaning:

Final cleaning in accordance with manufacturers recommendations shall be by the general contractor/project manager.

**End of Section**