EXARC®

EXARC Skylights, Inc
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FRAMED SKYLIGHTS
EXARC SLOPE GLAZING SYSTEM WITH MULTIWALL RIBBED POLYCARBONATE PANELS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

Section includes: engineering, design, fabrication and installation of Skylights with Multiwall Ribbed Polycarbonate Panel and Metal Framing

1.3 DESCRIPTION

A. Aluminum framed sloped glazing system to cover and/or enclose areas for daylighting with Multiwall Ribbed Polycarbonate Panel.

B. Sloped glazing system to minimize outside air infiltration when enclosing interior spaces and to control and channel any infiltrated moisture in the skylight system to the exterior.

C. Framing system to be designed, engineered, fabricated and installed to sustain loading requirements as specified for the project and/or requirements designated in the International Building Code for the project vicinity.

D. Skylights to attach to and be supported by structure by others. Structure must be capable of sustaining all loads imposed by the skylight at all skylight connections to the supporting structure. Certain skylight framing configurations can be provided as a "non-thrusting" system when required by project design if the supporting structure can only sustain the dead load of the skylight as a unit.

E. Provide integral perimeter closures and flashings to adjacent building. Reglets in masonry and counter flashings with materials specific to other trades not included.

F. Related Section:

1. Structural Steel: Division 5 – Structural Steel
2. Sealants: Division 7
3. Glazing: Division 8 – Glass and Glazing Section

1.4 SUBMITTALS

Shop Drawings – for metal framed skylights

A. Shop Drawings to include:

- drawings and dimensions of construction by others around the perimeter of the skylight opening*
- plans, elevations, section details and attachments to other work
- drainage provisions details, connection details, anchorage, flashing details, glazing and glazing rabbets
- finish requirements for exposed aluminum
- glazing description
- gasket type
- sealant and fasteners

*Note: Fabrication of skylights is contingent on receiving accurate field dimensions of supporting structures and adjacent construction by other trades. If obtaining these field dimensions is not within the scope of work of the skylight manufacture or if project scheduling does not allow for actual field dimensions to be obtained due to completion schedule of work to be measured with respect to skylight production lead times, “build to” dimensions may be provided by others to expedite the skylight production schedule. This is conditional upon the contractor providing and coordinating the required information between the trades involved.

B. Color charts for selection

C. Structural calculations prepared by a professional structural engineer

1.5 QUALITY ASSURANCE

A. Manufacturer of skylight system shall have a minimum of ten years of experience in the fabrication of metal framed skylights.

B. Installer of skylight system shall be the manufacturer with a minimum of ten years of experience in the erection and glazing of metal framed skylights.

1.6 WARRANTY

Written Warranty shall be signed by the manufacturer with the agreement to repair or replace materials that may be defective in appearance or that may jeopardize the performance of the skylight.

Term of Standard Warranty shall be five years from the completion date of the skylight installation.

PART 2 – PRODUCTS

2.1 METAL FRAMED SKYLIGHTS

A. Manufacturer: Exarc Skylights Inc. Slope Glazed System
3793-B North Peachtree Road, Chamblee, Georgia 30341
Phone (800) 247-5934, (770) 451-4352, Fax: (770) 451-49
Email: info@exarcskylights.com

2.2 PRODUCT SUBSTITUTIONS

A. Substitutions: No substitutions permitted

2.3 SLOPE GLAZED SYSTEM

System Design:

Extruded aluminum framing members to have integral gutters and glazing supports with receivers for extruded gasket to support the glazing. Glazing is retained with a mill finish gasketed pressure bar type glazing cap which is attached to the framing with #14 stainless steel sheet metal screws at a minimum of 8” on center. All framing members to include a primary gutter with secondary gutters to control water infiltration and moisture. Framing system to collect and channel any moisture to the exterior at the sill. Integral gutters to be flush with sides of framing members at the interior. Glazing caps to have snap on cover caps to conceal fastener heads at the exterior. All fasteners to be concealed at the exterior of the skylight, except for rivets at flashings and closures. Skylight is to be fabricated to all dimensions and conditions as shown on the approved skylight submittal drawings.

A. Fabrication

1. All fabrication: cutting, drilling, punching, notching, and welding to be completed prior to the finishing process.
All fabrication to occur at Exarc’s manufacturing facility in Chamblee, Georgia.

An in shop mock-up of the skylight and structural support (as large as practical) to be made to verify the fit of all fabricated parts. Some flashings may be sent in stock lengths to accommodate field trimming where required. Metal framed skylights to be shipped “knocked down” and all painted parts wrapped to protect the finish. Each part to be labeled with a code specific to that part to facilitate assembly in the field.

B. Aluminum

1. All framing members to be extruded aluminum 6063-T5. Structural sloped Members to be tubular in profile. Structural engineer to determine from standard depth members which is appropriate for a particular project based on loading requirements. Purlin members to extend through notches in the gasket receivers of rafters to drain into the primary gutter. Fasteners at rafter/purlin connection to be concealed.

2. Closures and flashing to be formed aluminum .063” minimum thickness from 3003 or 5052 sheet. Snap on formed aluminum closures to be .040” thickness.

3. Connection clip angles and channels, structural splice plates, compression rings, any aluminum that is used in a structural application is to be extruded 6061-T6. Structural engineer to determine size, thickness and locations.

C. Gaskets at Glazing and Setting Blocks

1. Glazing Gaskets – Extruded with barb to key into receivers at aluminum members. (+/-) 65 Durometer EPDM Standard. Black in color.

D. Fasteners

1. Provide 300 Series (18-8) stainless steel fasteners at glazing caps and at connections that may be exposed to moisture

2. Provide zinc plated steel fasteners (size, grade, and type as specified by structural engineer) at all structural connections not exposed to moisture

3. All fasteners to be natural finish unless specified otherwise

E. Finish Options

1. Standard finish for exposed surfaces for metal framed skylights to be a standard color “two coat Kynar”, (70% Kynar 500 resin base fluoropolymer finish complying with AAMA 2605)

2. Alternate finish for exposed surfaces for metal framed skylights to be a standard color polyester powder coated finish.
3. Mill finish aluminum

F. Glazing – Multiwall Ribbed Polycarbonate Panel

1. Standard Color Options: Clear translucent, Bronze translucent, White translucent
2. Panel thickness: 16mm (5/8”) or 25mm (1”)

G. Sealants

1. Silicone sealant type to be recommended by skylight manufacturer for use at metal to metal joints in flashings and closures and heads of fasteners at curb frame

2. Polyurethane sealant type to be recommended by skylight manufacturer for use at metal to masonry joints

PART 3 – EXECUTION

3.1 EXAMINATION

Verify that all substrates and conditions (curbs, walls, support structures, construction adjacent to opening for skylight) installed by other trades are as shown on the approved skylight submittal drawing and dimensions are correct.

If construction and dimensions of the above are not as indicated the general contractor will be notified and work will not proceed until the conditions are corrected.

3.2 INSTALLATION

Assemble framing components in place over opening as indicated on the shop drawings and manufacturer’s instructions. Verify that all parts are in proper locations based on part codes as supplied. As assembly proceeds, check framing to assure dimensions are maintained and that framed openings are square and not racked or twisted.

3.3 CLEANING

All components of the skylight system (interior and exterior) are to be cleaned as installation proceeds and after installation are complete. Part labels, stickers, dust,

dirt, hand prints, etc. shall be removed from the skylight. Remove and dispose of all packaging and debris associated with the skylight installation from the roof area around the skylight.

Note: After the skylight has been installed, additional cleaning may be required by the general contractor. This includes protection of the skylight and work from other trades.