CIRCLE REDMONT®
LIGHT PENETRATING SYSTEMS

SECTION _____

SOLARWHITE™ FACTORY PREFABRICATED HOLLOW GLASS BLOCK AND ALUMINUM GRID PANEL

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

A. Extent of glass block and metal panels is indicated on the drawings

B. Principal Work of this section includes:

1. SolarWhite™ Aluminum Framed Hollow Glass Block Panels.
2. Reinforcements, anchors, fasteners and similar items.
3. Glazing materials and sealant in panels.
4. Flashings

1.2 DESCRIPTION OF PANELS

A. Panels shall be factory fabricated and glazed SolarWhite™ Panels manufactured by Light Penetrating Systems, LLC dba Circle Redmont®, 1213 Medina Rd, Medina OH 44256 (800-358-3888 / 321-259-7374) using standard hermetically sealed, replaceable type hollow glass block units. Factory sandblasting of the tops of the glass blocks is recommended for walking surfaces. Hollow glass block units shall be initially factory installed and insulated in respective cell openings of structural metal grids using manufacturer's standard thermofil. Panels shall be weather sealed on their top surfaces with manufacturer's standard sealant.

1.3 QUALITY ASSURANCE

A. Structural: Design, engineer and fabricate panels to provide a live load capacity of (minimum) sixty (60) pounds per square foot on a 5’-0” span and to the stringent tolerance of (+) (-) .050 required for structural glass performance.

B. Thermal Movement: Design the framing system to provide for expansion and contraction of component materials caused by surface temperature range of -10 degrees F to 120 degrees F, without causing excessive buckling stress on glass blocks, failure of joint seals, undue stress on structural elements, reduction in performance or other adverse effects.

C. Water Penetration: Water penetration is the appearance of or damage from water, other than condensation, on the underside of the panels. The panels shall be totally watertight.

D. Manufacturer of Panels: The manufacturer of the factory prefabricated glass block panels shall be a firm with not less than ten (10) years of successful experience in supplying the same type of panels required for the project and solely employs and is responsible for all the personnel required for all facets of production in manufacturing the units at its production facility.

E. Design Criteria: The drawings and specifications are based on a specific type of panel by a single manufacturer. Equivalent type panels by another manufacturer may be acceptable only if deviations in dimension, profile, appearance and performance history are minor and do not materially detract from the design concept or intended performances, as judged solely by the Architect.

If a substitute is being offered as an “Or Equal” to the specified products, in order to be considered, the Contractor will notify the Architect within five (5) business days of such intent of substitution and upon

notification by the Architect the Contractor will have three business days to provide adequate proof of equivalency, i.e.; documentation that the "Or Equal" meets the minimum characteristics of the ordering description or specification. Submission of proof of equivalency and samples shall be at the bidders' expense and no compensation shall be offered by Architect or Owner.

Failure to provide this documentation which must include Substitute's Manufacturer History, Technical Specifications, Specifications, Brochures, Samples, Catalogues, Etc., will render the substitution non responsive and ineligible for award.

F. Warranty: Submit written warranties signed by the manufacturer, installer and contractor, agreeing to repair or replace defective materials and workmanship during the warranty period. Manufacturer must be able to document its warranty based upon at least fifty (50) projects with at least five (5) years of successful field performance.

Defective materials and workmanship in manufacture include abnormal deterioration, aging or weathering of work, leakage of water (except at perimeter), structural failure, deterioration of finishes in excess of normal weathering and aging.

The manufacturer shall warrant the panels to be free from manufacturing defects in either materials or workmanship for a period of one (1) year from the date of shipment. The manufacturer's warranty does not include glass breakage, damage caused by improper handling or use, improper installation, vandalism, abuse or natural conditions exceeding standard performance requirements.

Where manufacturer is contacted and upon inspection finds that performance failure is due to defective materials of fabrication of the factory prefabricated ***SolarWhite™ Hollow Glass Block & Aluminum Frame Panels***, all materials necessary to repair will be provided by the manufacturer at no extra cost to the customer. Freight and related charges not included.

The manufacturer's liability is limited to materials in the factory prefabricated panels only and manufacturer shall not be liable for handling by contractor and installer, installation procedures, and consequential damages or expenses.

The contractor and installer shall furnish a written warranty covering defects in handling, installation procedures, materials and workmanship and field applied perimeter sealant work for a period of one (1) year from the date of installation. The contractor and installer's liability shall be limited to the prompt repair or replacement of panels, materials and/or perimeter sealant work.

1.4 SUBMITTALS

A. Shop Drawings: Submit shop drawings at large scale clearly showing sections of hollow glass block panels with all connections, joinery techniques, and profiles. Identify all materials including alloys and fasteners. Locate and identify shop and field sealants on drawing and show adjacent structural elements.

PART 2 – PRODUCTS

2.1 MATERIALS/SYSTEMS

A. Panels: Factory prefabricated ***SolarWhite™ Hollow Glass Block & Aluminum Frame Panels*** by Light Penetrating Systems, LLC dba Circle Redmont®, 1213 Medina Rd, Medina OH 44256 (800-358-3888 / 321-259-7374), consisting of sealed glass blocks installed in structural aluminum grids.

2.2 FABRICATION AND WORKMANSHIP

A. Maintain the visual design concept shown, including member sizes, profile and alignment of components. Coordinate work with other trades.

B. Factory assemble each panel in the manufacturing facility employing qualified personnel solely engaged in prefabricated panel production.

C. Fit joints accurately in exposed metal work, secure rigidly.

D. Fabricate and fasten metal work so that the work will not be distorted nor the fasteners over stressed from expansion and contraction.

E. Grind exposed welds and finish to blend with adjacent metal.

PART 3 – EXECUTION

3.1 STORAGE AND HANDLING

A. G.C. shall coordinate and cooperate with Circle Redmont® to insure handling of panels in a manner that will prevent undue stress on component parts, sealants and structural members. Do not rack, torque, or cause load forces in an inappropriate manner. Lift panels from top only unless specifically instructed by manufacturer. Prevent damage to finished surfaces. Do not install components that have been damaged or stained.

B. Store panels in a dry place, off the ground. Bear fully along all supported edges on level and true structural supports.

C. Handle materials to prevent damage to finished surfaces. Do not install components which have been damaged.

D. Upon completion of installation, G.C. shall protect panels from damage caused by ensuing work of other trades.

3.2 PANEL INSALLATION

A. Contractor shall coordinate and set panels into prepared openings and shall bear fully along all supported edges on structural framing supports. Top of panels shall finish flush with adjoining surfaces unless shown otherwise on drawings. Where necessary, build up support ledges and beams as required with materials similar to support framing members, prior to placement of panels. Panels shall be set to proper pitch (minimum ¼” pf) and cross falls to ensure proper drainage of surface water and avoid ponding. Fasten panels as indicated on shop drawings.

B. Allow 1/2" spacing between panels and adjacent surfaces and between adjoining panels to permit installation of closed cell foam backer rods and sealants. All joints that are exposed to the weather and to surface traffic shall be sealed with manufacturer's recommended sealant.

C. Protect installed panels from damage during ensuing construction operations. Prior to date of substantial completion replace any cracked, broken or otherwise damaged glazing units.

3.3 FIELD TESTING

A. After panel installations are completed they shall be field tested for leakage. Test shall be conducted by flooding the surface of panels with a sprinkler hose for a period of 15 minutes while observations are made of the undersides. Correct any deficiencies that are found in a manner to make panels completely watertight. Conduct testing in the presence of the Architect or the Architect's designated representative.

3.4 PAINTING

A. All interior surfaces of the prefabricated metal grid that are exposed to view shall be finished after installation in accordance with the requirements of SPECIAL COATING SECTION. Care shall be taken so that the coating will not extend onto the glazing units. If spray application is used, mask all glazing.

3.5 CLEANING

A. Maintain installed panels, including glazing, in reasonable clean condition during construction operations. Remove any stains or materials that may have an adverse effect on panel materials and finishes. Remove any excess glazing compound and sealants.

B. Immediately prior to date of substantial completion clean glazing units to remove any accumulations of dirt, paint stains, etc. Glazing shall be cleaned on both inside and outside surfaces.

3.6 REPLACEMENT INSTRUCTION

A. G.C. to furnish the Owner with a copy of the panel manufacturer's complete printed instructions for replacement of any damaged glass units.

END OF SECTION