



## SECTION \_\_\_\_\_

### **SOLARWHITE™ (SLW) FACTORY PREFABRICATED HOLLOW GLASS BLOCK AND ALUMINUM GRID PANEL**

#### **1.0 GENERAL**

#### **1.1 DESCRIPTION OF WORK**

- A. Extent of glass block panels is indicated on the drawings
- B. Principal Work of this section includes:
  - 1. Aluminum framed 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 SolarWhite™ (SLW) panels as manufactured by Circle Redmont, Inc.®, 2760 Business Center Blvd., Melbourne, Florida 32940 (800-358-3888) using standard hermetically sealed, replaceable type glass block units. Factory sandblasting of the tops of the glass blocks is recommended for walking surfaces. Glass units shall be initially factory installed and insulated in respective cell openings of structural aluminum grids using manufacturer's standard thermofil. Panels are 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.
- 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 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 required in manufacturing the units required.
- 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.

- F. In addition, 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 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 your substitution non responsive and ineligible for award.

G. Warranties:

1. Furnish a written warranty from the manufacturer covering defective materials and workmanship for a period of five years from the date of shipment. The manufacturer must be able to document its warranty based upon at least 50 projects with at least 5 years of successful field performance of the product of the type specified.
2. Contractor shall furnish a concurrent written warranty covering defective materials, workmanship and weather tight performance of the field applied perimeter sealant work.
3. Defective materials and workmanship include abnormal deterioration, aging or weathering of work, leakage of water, structural failure and deterioration of finishes in excess of normal weathering and aging.
4. The warranty does not include damage caused by vandalism or natural conditions exceeding the performance requirements.
5. Warranties shall be limited in the first year to prompt repair or replacement of panels and perimeter sealant work. In subsequent warranty years, materials will be provided only.

## 1.4 SUBMITTALS

- A. Shop Drawings: Submit shop drawings at large scale clearly showing sections of 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.

## 2.0 PRODUCTS

### 2.1 MATERIALS

- A. Panels shall be factory fabricated Circle Redmont ® SolarWhite™ Hollow Glass Block & Aluminum Panels as manufactured by Circle Redmont, Inc. ®, 2760 Business Center Blvd., Melbourne, Florida, 32940 (321-259-7374) (800-358-3888), consisting of sealed glass blocks installed in structural aluminum grids. Panels by other manufacturers will be considered only if the manufacturer and the panels comply fully with this specification and the drawings.
- B. The factory prefabricated panels shall consist of the following:
1. Circle Redmont ® standard traffic bearing glass properly spaced according to Circle Redmont standard dimensions.
  2. Finish of exposed structural metal grid with Circle Redmont ® standard factory applied epoxy prime and 2 part urethane topcoat paint finish.
  3. Exposed top glass joints weather sealed with sealant of a type recommended and warranted by the panel manufacturer.

## **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. Shop assemble each panel.
- 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.

## **3.0 EXECUTION**

### **3.1 INSPECTION**

- A. Contractor shall inspect adjacent construction and make sure that conditions detrimental to the proper or timely installation of this work are corrected before proceeding with installation. Coordinate panel installation with adjacent construction to assure a watertight installation.

### **3.2 STORAGE AND HANDLING**

- A. Handle panels in a manner which 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 manufacture
- B. Store Panels in a dry place, off the ground. Bear fully along all supported edges on level and true structural supports.

### **3.3 INSTALLATION**

- A. General:
  - 1. 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 and crossfalls to ensure proper drainage of surface water and avoid ponding and fastened as indicated on shop drawings.
  - 2. Replace any damaged glass blocks during installation or thereafter before final acceptance.
  - 3. Do not cut, trim, or weld components during erection in any manner which would damage the finish, decrease strength, or result in a visual imperfection or a failure in performance of the work, Return components which required alteration to the shop for refabrication or replacement.
  - 4. Install components level, plumb, true to line and with uniform joints. Attach to structure with non-staining and non-corrosive shims, anchors, fasteners and spacers
  - 5. Circle Redmont® shall provide The Installer all accessories such as fastenings, sealants and concealed anchorage needed for a complete weatherproof installation.
  - 6. Provide adjustment within the work to accommodate job variations.
  - 7. Protect installed panels from damage during ensuing construction operations. Prior to date of substantial completion replace any cracked, broken or otherwise damaged glazing units.

- B. Assembly and anchorage:
  - 1. Anchor components securely by bolting, welding or other permanent mechanical attachment system which will comply with specified requirements and permit movements which are intended or necessary.
  - 2. Provide tape separator between contact surfaces of dissimilar materials where there is a possibility of corrosive or electrolytic action.
- C. Sealants: Seal all joints between panels, and panels and adjacent construction, as needed for a complete weatherproof installation.

### **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 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.

### **3.5 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 glazing units.

### **END OF SECTION**

©2007 Circle Redmont, Inc.®