

TORRANCE STEEL WINDOW CO., INC.

MANUFACTURER OF STEEL WINDOWS AND DOORS

2600 SERIES LIGHT INTERMEDIATE STEEL WINDOWS

Part I- GENERAL

1.01 DESCRIPTION;

- A. Work include: Furnish all labor and materials to complete the fabrication Light Intermediate fixed and casement as shown on the architect's drawings and as specified here in. All works shall include ventilator operating hardware, anchors, mullions, factory applied finish and screens (If required)
- B. Related work specified elsewhere.
 - 1. Glass, glazing and galvanizing materials.
 - 2. Perimeter caulking.
 - 3. Miscellaneous structural items.

1.02 QUALITY ASSURANCE

- A. Manufacturer shall have no less than five years experience in manufacturing of Light Intermediate Fixed Casement Windows.
- B. Installation of windows shall be done by experienced window installers.
- C. Source Quality Control.
 - 1. Air infiltration tests on non-whether stripped steel windows.
 - a. ASTM E283
 - b. Maximum air infiltration 1.0 CFM/FT of crack length, with pressure differential across the window of 1.56 PSF (25mph)
 - 2. No water penetration test.
 - a. STM E331
 - b. No water penetration of 15 minutes when window is subjected to a rate of flow of 5 gal. /hr/sq. ft.
 - 3. Upon request, the window manufacturer shall provide a test report from qualified independent testing laboratory regularly engaged in testing windows.

1.03 SUBMITTALS:

- A. Required test reports.
- B. Shop drawings and manufacturer's literature.



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1. Submit for approval shop drawings showing full size windows and installation details including anchorage and fastening.
2. Dimensions elevations showing opening and windows sizes.
3. The manufacturer shall not commence any work until shop drawings have been approved.
4. Color charts or chips for standard factory finishes.

PART II- PRODUCTS

2.01 MATERIALS:

- A. Light Intermediate Steel Windows shall be manufactured from solid hot rolled steel shapes made from new billet steel with glazing flanges rolled integral at the mill.
1. Steel shapes shall be no less than 1" deep and 1/8" thick.
 2. Combined weight of frame and ventilator sections shall be no less than 2 pounds per lineal foot.
- B. Glazing beads (optional) shall be extruded ally 6063-T5 with a thickness of no less than .040 inches.
- C. Hardware shall be as followed:
1. Casement ventilators sill type operator, cam fasteners or latch.
 2. Project out ventilators. Cam fasteners or spring latch.
 3. Ventilators not within reach from the floor shall have a spring latch engaging a keeper for pole operations. (Specify number of poles required.)
- D. Insect Screens (optional)
1. Frames shall be of formed or extruded aluminum having a thickness of no less than 0.020".
 2. Screens shall be woven to 16" x 19" mesh count. Mesh available in fiber mesh, aluminum, and bronze.
- E. Paint
1. Pretreatment- Zinc, Phosphate.
 2. Primer-manufacturer's standard (optional)



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2.02 FABRICATION:

- A. Fabricate steel window in accordance with approved shop drawings.
- B. Frames and ventilators shall be welded or interlocked rigidly at joints with accurate, close fits. Welded joints shall have exposed and contact surfaces dressed smooth.
- C. Muntins bars, except where interrupted by ventilators, shall be interlocked and continuous from head to sill and discontinuous if they are securely welded at intersection.
- D. Weathering member to be securely attached to adjacent window member, where required.
- E. Glazing
 - 1. All windows shall be designed for outside single glazing.
 - 2. Specify snap on or putty glazing.
- F. Operable hardware.
 - 1. Casement Ventilators
 - a. Hung on close-type or extension-type (for Cleaning) hinges. (Specify type)
 - 2. Projected ventilators- Balanced on 4-Bar hinge assemblies.
- G. Insect screens (optional)
 - 1. Screen frame shall be finished to match the windows.
 - 2. Screens shall be rewirable to allow for mesh replacement.
 - 3. Screen fastening shall permit easy attachment and removal from the interior.
- H. Factory Finishing.
 - 1. After fabrication, windows, mullions, covers and trim shall be zinc phosphate treated in a five stage process, as a preparation for receiving paint.
 - 2. Following pretreatment, one coat of window manufacturer's standard primer shall be applied.
 - 3. Following the prime coat, if specified, all windows shall be given a color coat of the window manufacturer's standard finish paint.
 - 4. Color of finish paint to be selected by the architect.
 - 5. Electro-galvanizing is available, if specified.

Part III-EXECUTION

3.01 INSPECTION:

- A. Window openings shall conform to details, dimensions and tolerances shown on window manufacturer's approved shop drawings.



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- A. Conditions which may adversely affect the window installation must be corrected before installation commences.

3.01 INSTALLATION:

- A. Windows specified under this section shall be installed by experienced personnel.
- B. Install windows in openings in strict accordance with approved shop drawings.
 - 1. Set units plumb, level and true to line, without warp or rack frames.
 - 2. Anchor units securely to surrounding construction with approved shop drawings.
 - 3. Exterior metal to metal joints between the sash, trim and mullions shall be properly sealed watertight with an approved sealant and neatly pointed.
- C. Attached ventilator hardware, as required, and adjust ventilators to operate smoothly free twist and to be weather tight when closed, prior to glazing.
- D. Any abraded surface of the window finish shall be cleaned and touched up with air dry paint, as approved and provided by the window manufacturer, in a color to match factory applied finish.

3.02 PROTECTION AND CLEANING:

- A. The general Contractor shall be responsible for protecting the windows and related materials during storage on the job and during and after installation.
- B. Window installer shall leave the window surfaces clean after installation. The General Contractor shall be responsible for final cleaning.
- C. Any protection necessary due to cleaning of adjacent materials shall be the responsibility of the general Contractor.

