Model GT1500
Aluminum Sliding Service Window System

DIVISION 08 – OPENINGS
SECTION 08 56 59 SERVICE WINDOW UNITS

Note to Specifier: Articles and paragraphs below may be edited or modified to suit specific project requirements. Add section numbers and titles per CSI "MasterFormat" and specifier's standard practice. Contact manufacturer's representative to discuss specification modifications, performance requirements, accessories and/or related equipment that may be applicable to this project.

Part 1-GENERAL

1.01 DESCRIPTION
A. Furnish and install automatic or manual equipment as indicated on GT 1500 Convenience Window drawings and specifications.
B. Related work specified elsewhere.
(See note to Specifier*)
1. Electrical Supply: Section_____

1.02 REFERENCES

A. American National Standards Institute (ANSI) - www.ansi.org

B. Builders' Hardware Manufacturers Association (BHMA) - www.buildershardware.com

C. Underwriters Laboratory, Inc. (UL) - www.ul.com

D. Canadian Standards Association (CSA) - www.csa.ca

1.03 QUALITY ASSURANCE
A. Manufacturer's Qualifications: Manufacturer to have at least (5) five years experience in the fabrication of automatic and manual entrance systems.

B. Installer's Qualifications: Products specified shall be represented by a factory authorized and trained distributor. Distributor shall be AAADM Certified, maintain a parts inventory and have trained service personnel with experience installing and maintaining units indicated for this project.

C. All automatic equipment to comply with UL325 (USA and Canada).

D. Gyro Tech equipment as manufactured by NABCO ENTRANCES, INC. has been specified and shall be quoted as a base bid.

1.04 SUBMITTALS
A. Submit listed submittals in accordance with Conditions of the Contract and Division 1 Specifications Section.

B. Shop Drawings: Submittal drawings, templates and/or diagrams showing layout, anchorage, accessories and glazing details shall be furnished to fabricators and installers of related work for coordination of sliding window system with concrete work, electrical work, and other related work (where required).

C. Closeout documents:
1) A copy of owners manual shall be provided to owner's representative upon completion of installation.
2) Warranties

1.05 WARRANTY
A. Warranted materials shall be free of defects in material and workmanship for a period of one year from date of

substantial completion. During the warranty period the Owner shall request NABCO factory-trained technicians to perform service. Warranty repairs are provided during normal business hours. Owner to receive warranty after completion of installation

Part 2-PRODUCTS

2.01 APPROVED MANUFACTURER

A. Automatic and/or Manual equipment and controls shall be manufactured by:
NABCO ENTRANCES INC.
S82 W18717 Gemini Drive
Muskego, WI 53150
Phone: (877) 622-2694
Fax: (888) 679-3319

NABCO ENTRANCES INC., shall manufacture automatic and/or manual service window(s) of type(s) and size(s) specified on plans and window schedules.

2.02 GT 1500 CONVENIENCE WINDOW

A. Model GT 1500 Convenience Window as indicated on window schedule and details.
1. GT 1500-01L-M (O-X): Manual Single Left Hand Slide, viewed from exterior.
2. GT 1500-01R-M (X-O): Manual Single Right Hand Slide, viewed from exterior.
3. GT 1500-01L-A (O-X): Automatic Single Left Hand Slide, viewed from exterior.
4. GT 1500-01R-A (X-O): Automatic Single Right Hand Slide, viewed from exterior.
5. GT Model 1500-02-M - (O-X-X-O): Manual Bipart Sliding, viewed from exterior.
6. GT Model 1500-02-A - (O-X-X-O): Automatic Bipart Sliding, viewed from exterior.

B. Mode of operation: (Automatic) Units shall include an electro-mechanical 24V DC Brushless operator with a microcomputer control system that shall drive the sliding window(s). The window(s) will be pulled from closed to open and open to close position stopping the window in both directions by electrically reducing the voltage, stalling window against mechanical stop. Opening, closing speeds and hold open time shall be adjustable. A reinforced timing belt shall be used to convert rotating motion from the operator sprocket into horizontal motion of the window.

C. Components:
1. Aluminum window(s), sidelite(s), operator housing and frame.
2. Rollers-support, anti-rise and guide.
3. Window carrier hanger assembly (non breakout)
4. Air infiltration and intrusion protection equipment.
5. (Automatic) Nabco 24V DC Brushless power open/close operator with microcomputer control.
6. (Optional) Access Security Equipment

1a) Horizontal Header shall be 5” x 4-1/2” (127mm x 114mm) extruded aluminum with end caps. Header shall be accessible by hinged cover that locks in the open position for ease of service.
1b) Window panel(s) and sidelite(s) panel shall be factory assembled using 3/8"-16 threaded tie rods spanning full length of top and bottom rails. Snap-in glass stop with integral extruded vinyl standoff to accommodate glass flexing. Narrow stile 2-1/8” (51mm).
1c) Sidelite configuration shall be fixed sidelite.
1d) Vertical jambs on “Manual” units shall be 1-3/4” x 4-1/2” (44mm x 114mm) extruded aluminum tubes. Vertical jambs on “Automatic” units shall be (1) one 2” x 5” (51mm x 127mm) and (1) one 3 1/2” x 5” (89mm x 127mm) extruded aluminum tubes.

2a) The window assembly shall ride on two 1-13/32" (36mm) dia. steel, urethane coated support rollers, incorporating lubricated sealed ball bearings. The window shall be held on the track by means of two equivalent anti-rise rollers. Lateral adjustment of the window assembly shall provide positive sealing at window edges. Window height adjustment - each roller assembly shall have ± 7/16” (11mm) of vertical adjustment
2b) Fixed Sidelite - Each window shall include one bottom mounted fixed guide assembly. Guide not to be subject to corrosion or effects of weather. Material to be Delrin or equivalent.

3a) Convenience window systems shall have window panel(s) attached to a solid aluminum window carrier hanger assembly by means of mechanical fasteners to prevent breakout or forced entry of the sliding panel.
3b) The active window will incorporate a hook bolt lock with multi-ply construction and hacksaw resistant center core for securing the lead stile(s). In the case of a single slide, the window is secured at the jamb. The lock assembly will incorporate a thumb turn on the interior.

4a) Double pile weather-stripping on the lead edge of the sliding window(s) .36" thick (9mm) including the area of the lock.
4b) 9/16" (14mm) wide nylon brush weather-stripping on the vertical stile of both the sliding window panel(s) and sidelite(s) panels
4c) 15/16" (24mm) wide nylon brush weather-stripping mounted on window bottom.

5a) Nabco Power Operator: (Automatic) Completely assembled and sealed unit which shall include gear-driven transmission, and bearings, all located in cast aluminum housing and filled with special lubricant for extreme temperature conditions. Attached to transmission system shall be a 24V DC Brushless motor with sealed ball bearings. 1/10 HP motor shall operate from 115-volt supply and require less than 5 amps at full stall.
5b) Power Operator Control: (Automatic) shall use a closed loop microprocessor control for consistent speed adjustment and feedback control. The microprocessor control shall allow the opening speed, closing speed; back check speed and latch check speed each to be adjusted separately and independently from each other to meet specific site conditions. The control shall reverse direction upon contact with an obstruction in the window path. The sensitivity shall be adjustable. The control shall interact with window switches and/or sensors via digital signals. The windows shall be set to be held closed with the motor. The control system shall also be capable of providing transistor output signals at the window closed or window open positions to facilitate interaction with security and access control systems. It shall be capable of providing information on the number of operations and error codes for maintenance purposes. All adjustments shall be specific and reproducible. Settings with rotary switches are not allowed.

2.03 CONTROL SWITCHES (for automatic units)

A. Power Switches: On/Off power switch to be provided on jamb in plain sight for easy access.
B. Push Button Activation: Standard manual activation switch to be installed on strike jamb on single units and the narrow jamb on biparting units.
C. Sensor Activation: Optional beam or infra-red presence sensors available for window activation.
D. Safety or Threshold protection: Optional beam or infra-red presence sensors available for threshold protection.

2.04 MATERIALS, FINISHES AND FABRICATION

A. All extruded aluminum sections shall be 6063-T5 or equivalent.
B. Finish: Aluminum shall have a standard finish of AA-M12-C22-A31 (204R1, clear) or AA-M12-C22-A44 (dark bronze).
C. Special Anodize: Colors available upon request.
D. Special Paint: Colors available upon request.
E. Special Clad: Stainless or muntz metal (polished or satin finish) available upon request.

PART 3- EXECUTION

3.01 EXAMINATION

Site Survey: Installer shall field verify site conditions to insure that the product can be installed according to the manufacturers instructions. Notify the Contractor in writing of any conditions that are deemed to be unacceptable for proper and timely completion of work. Do not begin installation until negative conditions are corrected in a manner acceptable for the proper installation of the product.

3.02 INSTALLATION

A. GENERAL: GT 1500 Convenience Window shall be installed by factory trained installers in compliance with manufactures recommendations and approved shop drawings. Units will be installed plumb and level, without warping or racking of frames or sash within the manufacturers prescribed tolerances. Provide proper support and anchor in place.
B. DISSIMILAR MATERIALS: Provide separation of aluminum materials and other corrodible surfaces from sources of corrosion or electrolytic action contact points by complying with AAMA 101, Appendix, titled "Dissimilar Materials".
C. WEATHER-TIGHT CONSTRUCTION: Install header, jambs and sill members in a bed of sealant or with joint filler or gaskets, to provide weather tight construction. Coordinate installation with wall flashings and other components of construction.
D. * ELECTRICAL: Installation of electrical wiring to header to be performed by General or Electrical Contractor.

3.03 CLEANING AND PROTECTION

A. After installation, clean framing members as recommended by the manufacturer. Aluminum surfaces in contact with masonry, concrete or steel shall be protected from contact by use of neoprene gaskets, where indicated, or a coat of bituminous paint to prevent galvanic or corrosive action. Advise general contractor to protect unit from damage during subsequent construction activities.

* **COVER NOTE TO SPECIFICATION WRITER**

Indicate under appropriate Section the following work by others:
ELECTRICAL INSTALLER shall furnish and install all conduit and electrical wiring for activating devices and window operators. A minimum of 5 amperes, 115 volts, A/C, 1-phase circuit shall be furnished for each window operator, terminate and connect to operator control panel, in operator housing.
CONTRACTOR shall prepare opening(s) at the location(s) of convenience window installation(s) to accommodate the size(s) as indicated on drawings.

END OF SECTION