

SECTION 11 14 00

MOTORIZED SWING PEDESTRIAN BARRIER

**** NOTE TO SPECIFIER ** Magnetic Automation Corp; vehicle and pedestrian entrance control products. This section is based on the products of Magnetic Automation Corp, which is located at:**

**3160 Murrell Road
Rockledge, FL 32955
Tel: 321-635-8585
Fax: 321-635-9449
Email: info@magnetic-usa.com
Web: www.gatesandbarriers.com**

Magnetic Automation Corp is the leader in high performance automated pedestrian and vehicle control barriers for continuous duty projects around the world. Magnetic is widely recognized for the quality, reliability and durability of its products. Our products can be seen on toll roads, airports, border crossings, military sites, mass transit lines and at other high profile locations. Our commitment to customers and partners is unsurpassed. With a solid financial foundation and a full line of innovative products including barrier gates, parking control systems and pedestrian access barriers, Magnetic is well position for continued success. This section specifies motorized bi-parting wing barriers for pedestrian access control: MPW

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Motorized Swing Barrier for pedestrian access control and accessories.

1.2 RELATED SECTIONS

**** NOTE TO SPECIFIER ** Delete any sections below not relevant to this project; add others as required.**

- A. Section 03 30 00 - Cast-in-Place Concrete: Concrete mounting pads.
- B. Division 16 - Requirements for electrical connections.

1.3 SUBMITTALS

- A. Submit under provisions of Section 01 30 00.
- B. Product Data: Equipment list, system description, electrical wiring diagrams for installation, and manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Shop Drawings: Submit shop drawings showing layout, profiles, and product components, including anchorage, edge conditions, and accessories.
 - 1. Operation, installation, and maintenance manuals including wiring diagrams.
 - 2. Risers, layouts, and special wiring diagrams showing any changes to standard drawings

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging with labels intact until ready for installation.
- B. Schedule delivery of parking control equipment so that spaces are sufficiently complete that operators can be installed upon delivery.

1.5 QUALITY ASSURANCE

- A. Perform installation by factory authorized contractor specifically trained in pedestrian turnstile installations of the type found within this section.
- B. Provide documentation of maintenance and repair service availability for emergency conditions.
- C. Provide quarterly maintenance for one year following Substantial Completion of the Project.

1.6 WARRANTY

- A. Manufacturer's standard warranty for two years or 5 million cycles.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Magnetic Automation Corp, which is located at: 3160 Murrell Road; Rockledge, FL 32955; Tel: 321-635-8585; Fax: 321-635-9449; Email: info@magnetic-usa.com; Web: www.gatesandbarriers.com
- B. Substitutions: Not permitted.

**** NOTE TO SPECIFIER ** Delete if no motorized pedestrian barrier.**

2.2 MOTORIZED SWING BARRIER

**** NOTE TO SPECIFIER ** Delete one of the following two paragraphs to select barrier.**

- A. Magnetic Automation Corp MPW Motorized Swing Barrier: one standard width 21.7" passage lane, high performance MHTM drive system designed for in excess of 30 million maintenance free cycles of operation, 100% duty cycle, 0.5s open/close time, up to 40 persons per minute, multifunction master lane controller and mounting plates for card readers, etc.
- B. Magnetic Automation Corp MPW Motorized Swing Barrier: one wide lane 35" passage lane for handicapped and/or oversized access, high performance MHTM drive system designed for in excess of 30 million maintenance free cycles of operation, 100% duty cycle, 0.5s open/close time, up to 40 persons per minute, multifunction master lane controller and mounting plates for card readers, etc.
- C. Housing Construction:

**** NOTE TO SPECIFIER ** Other materials and/or IP ratings not shown below available upon request.**

- 1. Stainless steel SS304; IP32 protection class; LED gate end displays with Red "X" and Green Arrow; stainless steel face panel for mounting of peripheral components such as card readers, etc

D. Swing Panels:
**** NOTE TO SPECIFIER ** Delete two of the following two paragraphs to select glass panels (others available – please inquire).**

1. Clear glass panels resulting in approximately 48” high physical barriers
2. Clear glass panels resulting in approximately 60” high physical barriers
3. Clear glass panels resulting in approximately 72” high physical barriers

E. Drive Unit:

1. 100% duty cycle high performance MHTM drive system providing bi-directional control of pedestrian passage in excess of 30 million maintenance free cycles of operation or a minimum of 10 years in a pedestrian gate application; integrated resolver for precise positioning feedback; high output torque for fast acceleration and deceleration; shaft rotates freely without power; no gearbox resulting in no backlash or wear and tear; 115VAC 60Hz

F. Controllers:

1. MBC Multifunction Lane Controller; controls gate either by commands through serial communication interface or via digital inputs and outputs; operates in stand alone mode for full control of processing a passage through the gate; opening commands are received from external access control devices such as card readers, etc; CAN Bus or serial interface for networking and firmware downloads; system can be extended via serial communication; 9 digital inputs, 6 relay outputs and 4 MOSFET outputs; LEDs and display for operation and error diagnostics; adjustable operation parameters via dip switches
2. MMC Motor Controller using the latest DSP technology allowing for very accurate control of torque, speed, acceleration and deceleration parameters of the MHTM motor in any position resulting in highly dynamic operation; extremely fast reactions in abnormal situations such as impact detection or forced entry/exit attempts; CAN Bus interface for networking and firmware downloading; 3 phase servo drive power end-stage; closed loop operation for precise positioning; ramping up and ramping down configuration; fully adjustable speed; resolver input for position feedback; LED indicators for operation and error diagnostics

G. Additional Required Features:

1. Bi-directional control – selectable via dip switches
2. Forced entry/exit and impact detection
3. Card readers/keypad mounting plates standard
4. High speed, noise free and maintenance free operation
5. Pulse storage – for multiple card swipes, etc
6. Easy to program controller for common lane configurations
7. Adjustable opening, closing and time out duration
8. Safety and directional control sensor system

**** NOTE TO SPECIFIER ** Delete the following paragraph if no optional equipment, or add as necessary (please inquire if questions).**

H. Optional Equipment:

1. Advanced system for the detection of tailgating down to 1/4"
2. Card access readers, keypads or other peripheral devices

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions including the following:
 - 1. Mount directly to concrete pad, firmly secured, plumb and level.
 - 2. Wire in accordance with National Electric Code.
 - 4. Enclose all splices in easily accessible junction boxes or on terminal boards.
 - 5. Tag and identify all cable runs in all junction boxes.
- B. Test system and adjust to assure components and accessories are properly connected and in working order.

3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

3.5 MAINTENANCE

- A. Maintain at three-month intervals during specified maintenance period, primarily checking spring balanced drive mechanism, possible obstructions preventing smooth panel extension/retraction and general wire connection.

END OF SECTION