SECTION 11 14 00 – PEDESTRIAN CONTROL EQUIPMENT

1. GENERAL
   * + 1. SUMMARY
          1. Section includes sensor barriers. Provide complete system that has been fabricated and tested for proper operation at the factory.
          2. Related Requirements:

Section 03 3000 "Cast-in-Place Concrete" for blockouts for recesses required for sensor barriers.

Division 26 electrical power section for wiring requirements for sensor barrierss.

Section 28 13 00 "Access Control" for security access system providing control for door access and intrusion detection systems interfacing with sensor barriers controls.

* + - 1. REFERENCE STANDARDS
         1. American Architectural Manufacturers Association (AAMA)

AAMA 611 Voluntary Specification for Anodized Architectural Aluminum

* + - * 1. ASTM International (ASTM)

ASTM A 36 / A36 Standard Specification for Carbon Structural Steel.

ASTM A 240 / A 240M Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications

ASTM A 666 Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar

ASTM B 209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.

ASTM B 221 / ASTM B 221M Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes

* + - * 1. International Code Council (ICC)

ICC A117.1 Accessible and Usable Buildings and Facilities (ANSI)

* + - * 1. National Fire Protection Association (NFPA)

NFPA 70 National Electric Code.

NFPA 101 Life Safety Code.

* + - 1. ADMINISTRATION
         1. Coordination:

Recesses: Coordinate size and location of recesses in floor construction for turnstile components including anchorages for frames and supports.

Anchorages: Furnish setting drawings, templates, and directions for installing anchorages that are to be embedded into flooring.

* + - * 1. Pre-installation Conference: Conduct conference at Project Site with Installation team.
      1. ACTION SUBMITTALS
         1. Product Data: For each type of sensor barriers specified.

Include details, material descriptions, dimensions and profiles, and finishes.

Include rated capacities, operating characteristics, electrical characteristics, and specialties and accessories.

* + - * 1. Shop Drawings: For sensor barrierss.

Include plans, elevations, sections, attachment details, dimensions, required clearances, methods of field assembly, and location and size of each field connection.

Indicate enclosures and components.

Include diagrams for power, signal, and control wiring.

* + - * 1. Samples for Verification: For each exposed component including hardware, for each color and finish selected, as required by architect.
      1. INFORMATIONAL SUBMITTALS
         1. Qualification Data: For qualified installer.
         2. Field quality control reports.
         3. Warranty: Sample of unexecuted manufacturer warranty.
         4. Manufacturers product information and applicable sustainability program credits that are available towards a LEED rated product certification.

Credit MR 4.1 and 4.2: Manufacture’s or fabricator’s certificate indicating percentage of post-consumer recycled content by weight and pre-consumer recycled content by weight for each product specified under this section.

* + - 1. CLOSEOUT SUBMITTALS
         1. Maintenance Data: For sensor barrierss, to include in operation and maintenance manuals.
      2. QUALITY ASSURANCE
         1. Installer Qualifications: Installer with minmum 10 years of experience equipped and trained by manufacturer for installation and maintenance of units required for this Project, and who employs a Certified Inspector.
      3. DELIVERY, STORAGE, AND HANDLING
         1. Package sensor barriers components individually with fasteners and installation templates; label and identify each package with door opening designation corresponding to Door Schedule.
         2. Store components in weather-protected area in manufacturer's unopened packaging until ready for installation.
         3. Protect materials from exposure to weather. Do not deliver until Rough Opening is Complete and Ready for Installation.
      4. WARRANTY
         1. Special Manufacturer's Warranty: Standard form in which manufacturer agrees to repair or replace components of sensor barrierss that demonstrate deterioration or faulty operation due to defects in materials or workmanship under normal use within warranty period specified.

Fabrication Warranty Period: One (1) year from date of Substantial Completion.

1. PRODUCTS
   * + 1. MANUFACTURERS
          1. Basis-of-Design Product: Provide sensor barriers manufactured by, dormakaba, Winston-Salem, NC; (844)-SPEC-NOW (844)773-2669; email: [specnow.us@dormakaba.com](mailto:specnow.us@dormakaba.com) ;website: [www.dormakaba.us](http://www.dormakaba.us)
          2. **[Substitutions: Requests for substitution and product approval in compliance with the specification must be submitted in writing and in accordance with the procedures outlined in Division 1, Section “Substitution Procedures”. Approval of requests is at the discretion of the architect, owner, and their designated consultants.]**
          3. **[Substitutions Not Permitted]**
          4. Source Limitations: Obtain sensor barriers components through one source from a single manufacturer.
       2. SENSOR BARRIERS
          1. Cabinet element: Shall be manufactured from #4 brushed stainless steel.
          2. Door Wing: thickness 10 mm polycarbonate with hand rails.

* + - 1. EQUIPMENT
         1. Drive System: The sensor barrier is equipped with two servo positioning drives (low energy drives) and is electrically controlled in both directions.
         2. Locking Device: The locking device is activated in the closed position and will withstand up to 55 lbs. (120Nm) pushing force.
         3. Power Loss (Fail Safe): In the event of power loss, the sensor barriers open manually for egress.
      2. SECURITY
         1. Actuation: Sensor barriers actuation by external card reader, biometric reader, key pad or remote push button. Actuation devices provided by not limited to dormakaba.
         2. Sensor barrier Control: shall allow one entry per authorization.
      3. OPERATION
         1. The locking and unlocking of the sensor barrier is accomplished by use of low voltage, 24 VDC, system. Activation is by a momentary, isolated normally open dry contact closure.
         2. Electrical controls are available in both entrance and exit directions. All sensor barriers are built to the customer’s specified configuration.
         3. Once a direction of passage is opened, it will remain open until the user proceeds through to the other side of the turnstile. Once the user proceeds through the sensor barrier, the reset system automatically re-locks the sensor barrier and readies it for the next user.
         4. Means Cycle between failure: Passage width: Standard width lane = 8 million cycles, ADA lane = 6 million cycles.
      4. POWER REQUIREMENTS
         1. Electrical Characteristics:

Voltage: 120V/240V AC 50/60 Hz.

Refer to Division 26 electrical sections for wiring connections.

* + - 1. MATERIALS
         1. Materials provided shall meet ASTM standards.
      2. FINISHES

Contact SPEC Now for custom finish options. Choose type of finish and type color and/or metal.

* + - * 1. Comply with NAAMMs “Metal Finishes Manual for Architectural and Metal Products” for recommendations for applying and designating finishes.
        2. Cabinet:

Stainless Steel

**[Stainless Steel #4 brushed]**

Powder Coat finish

**[Powder coat painted to match architects sample.]**

* + - * 1. Top Surface:

Stainless Steel

**[Stainless Steel #4 brushed]**

Powder Coat finish

**[Powder coat painted to match architects sample.]**

Stone finishes: Granite, Quartz, Corian – as selected by Architect

Wood finishes: as selected by Architect

Consult SPEC NOW for Options information

* + - 1. OPTIONS
         1. Remote control panel
         2. Credential Reader – recessed or surface mounted
         3. High polycarbonate security barrier
         4. Red and green signal lights
         5. Multiple lane arrangement
         6. ADA passage width gate
         7. HSB MO1 – sensor barrier for exterior environment

1. EXECUTION
   * + 1. EXAMINATION
          1. Examine sensor barriers to determine if work is within manufacturer's required tolerances and ready to receive work.

Verify recesses and supplemental framing comply with requirements on approved shop drawings.

Verify electrical power and control connections are properly located and of correct characteristics.

* + - * 1. Proceed with installation once conditions affecting installation and performance of interlocking door entrance meet manufacturer's requirements.
      1. INSTALLATION
         1. General: Comply with turnstile manufacturer's written installation instructions and approved shop drawings.
         2. Set units level, plumb, and true to line, with uniform joints. Maintain assembly dimensional tolerances, aligning with adjacent Work.
         3. Install enclosure panels in accordance with manufacturer.
         4. Complete connections to electrical power, lighting, and controls in accordance with requirements of respective Division 26 and Division 28 Sections.
         5. Install panels, with operators and controls. Fit, align, and adjust assembly for smooth operation.
      2. ADJUSTING
         1. Adjust operating components and hardware to produce smooth operation and tight, uniform fit.
         2. Replace damaged components and accessories.
      3. CLEANING
         1. Clean finished surfaces in accordance with manufacturer's written instructions. Do not use cleaning agents or methods not approved by manufacturer.
         2. Clean exposed metal surfaces to factory new appearance.

END OF SECTION