PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Non-fire-rated coiling counter doors and operating hardware.
   B. Fire-rated coiling counter doors and operating hardware.
   C. Electric motor operation; wiring from electric circuit disconnect to operator to control station.

1.02 RELATED REQUIREMENTS
   A. Section 04.20.00 - Unit Masonry: Requirements for masonry at roll-up counter doors.
   B. Section 07.92.00 - Joint Sealants: Sealing joints between frames and adjacent construction.
   C. Section 08.71.00 - Door Hardware: Cylinder cores and keys.
   D. Section 26.05.16 - Conduit: Conduit from electric circuit to operator and from operator to control station.
   E. Section 26.05.34 - Conduit: Conduit from fire alarm system.
   F. Section 26.27.17 - Equipment Wiring: Power to disconnect.
   G. Section 28.31.00 - Fire Detection and Alarm: Fire alarm interconnection.

1.03 REFERENCE STANDARDS
   C. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2015.
   E. NEMA MG 1 - Motors and Generators; National Electrical Manufacturers Association; 2014.

1.04 SUBMITTALS
   A. See Section 01.30.00 - Administrative Requirements, for submittal procedures.
   B. Product Data: Submit manufacturer's standard literature showing materials and details of construction and finish. Include data on electrical operation.
   C. Shop Drawings: Indicate rough and actual opening dimensions, anchorage methods, hardware locations, and installation details.
   D. Manufacturer's Instructions: Indicate installation sequence and installation, adjustment, and alignment procedures.
   E. Operation and Maintenance Data: Indicate modes of operation, lubrication requirements and frequency, and periodic adjustments required.
   F. Project Record Documents: Include as-built electrical diagrams for electrical operation and connection to fire alarm system.

CONSTRUCTION DOCUMENTS PACKAGE
REVISED: 30-DEC-15
1.05 QUALITY ASSURANCE

A. Products Requiring Electrical Connection: Listed and classified by Underwriters Laboratories Inc. as suitable for the purpose specified and indicated.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Coiling Counter Doors:
   1. Overhead Door Corporation; 650 Series.

2.02 COILING COUNTER DOORS

A. Coiling Counter Doors, Non-Fire-Rated: Galvanized steel slat curtain.
   1. Mounting: Interior face mounted.
   3. Slat Profile: Flat.
   5. Color: As selected by Architect from manufacturer's full range.
   6. Guides: Formed track; same material and finish unless otherwise indicated.
   8. Electric operation.

B. Coiling Counter Doors, Fire-Rated: Galvanized steel slat curtain.
   1. Mounting: Between jambs, within prepared opening.
      a. Provide product listed and labeled by UL (BMD) or ITS (DIR) as suitable for the purpose specified and indicated.
   4. Slat Profile: Flat.
   5. Finish: Factory powder coated.
   6. Color: As selected by Architect from manufacturer's full colors.
   7. Guides: Formed track; same material and finish unless otherwise indicated.
   8. Hood Enclosure: Manufacturer's standard; primed steel.
   10. Electric operation.

2.03 MATERIALS

A. Curtain Construction: Interlocking, single thickness slats.
   1. Slat Ends: Alternate slats fitted with end locks to act as wearing surface in guides and to prevent lateral movement.
   2. Curtain Bottom: Fitted with angles to provide reinforcement and positive contact in closed position.
   3. Steel Slats: ASTM A653/A653M galvanized steel sheet, with minimum G90/Z275 coating; minimum thickness 22 gage, 0.03 inch.

B. Guide Construction: Continuous, of profile to retain door in place, with mounting brackets of same metal.
   1. Guides for Galvanized Curtains: ASTM A36/A36M steel angles, size as indicated, hot-dip galvanized per ASTM A123/A123M.

C. Hood Enclosure: Internally reinforced to maintain rigidity and shape.
D. For motor operated units, additional lock or latching mechanisms are not required.
E. Latching Mechanism: Inside mounted, adjustable keeper, spring activated latch bar feature to keep in locked or retracted position.
F. Slide Bolt: Provide on single-jamb side, extending into slot in guides, with padlock on one side.
G. Roller Shaft Counterbalance: Steel pipe and torsion steel spring system, capable of producing torque sufficient to ensure smooth operation of curtain from any position and capable of holding position at mid-travel; with adjustable spring tension; requiring 25 lb nominal force to operate.

2.04 ELECTRIC OPERATION
A. Operator, Controls, Actuators, and Safeties: Listed and classified by ITS (DIR), UL (BMD), UL (EAUED), or testing agency acceptable to authorities having jurisdiction as suitable for the purpose specified and indicated.
   1. Provide interlock switches on motor operated units.
B. Electric Operators:
   1. Mounting: Side mounted.
   3. Motor Rating: As recommended by manufacturer; continuous duty.
   4. Motor Voltage: 24 volt, single phase, 60 Hz.
   5. Opening Speed: 6 inches per second.
C. Control Station: Standard three button (OPEN-STOP-CLOSE) momentary control for each operator.
   1. 24 volt circuit.
   2. Recessed.
D. Safety Edge: Located at bottom of curtain, full width, electro-mechanical sensitized type, wired to stop operator upon striking object, hollow neoprene covered.

PART 3 EXECUTION

3.01 EXAMINATION
A. Verify that opening sizes, tolerances and conditions are acceptable.

3.02 INSTALLATION
A. Install units in accordance with manufacturer's instructions.
B. In addition, install fire-rated doors in accordance with NFPA 80.
C. Use anchorage devices to securely fasten assembly to wall construction and building framing without distortion or stress.
D. Securely and rigidly brace components suspended from structure. Secure guides to structural members only.
E. Fit and align assembly including hardware; level and plumb, to provide smooth operation.
F. Coordinate installation of electrical service with Section 26.27.17.
G. Complete wiring from disconnect to unit components.
H. Complete wiring from fire alarm system.

3.03 TOLERANCES
A. Maintain dimensional tolerances and alignment with adjacent work.
B. Maximum Variation From Plumb: 1/16 inch.
C. Maximum Variation From Level: 1/16 inch.
D. Longitudinal or Diagonal Warp: Plus or minus 1/8 inch per 10 ft straight edge.

3.04 ADJUSTING
   A. Adjust operating assemblies for smooth and noiseless operation.

3.05 CLEANING
   A. Clean installed components.
   B. Remove labels and visible markings.

END OF SECTION