



SECTION 08 33 13

OVERHEAD COILING COUNTER DOORS

Display hidden notes to specifier by using 'Tools'/'Options'/'View'/'Hidden Text'. On newer versions of Microsoft Word click on round Windows logo in top left corner, Click on 'Word Options' button at bottom of drop down menu. Click on 'Display' on left menu bar, and check the box for 'Hidden Text'.

**** NOTE TO SPECIFIER ** Overhead Door Corporation; Overhead coiling counter door products.**

**This section is based on the products of Overhead Door Corporation, which is located at:
2501 S. State Hwy. 121
Suite 200
Lewisville, TX 75067
Toll Free: (800) 275-3290
Phone: (469) 549-7100
Fax: (972) -906-1499
Web Site: www.overheaddoor.com
e-mail: info@overheaddoor.com
[click Here] for additional information.**

Overhead Door Corporation pioneered the upward-acting door industry, inventing the first upward-acting door in 1921 and the first electric door opener in 1926. Today, we continue to be the industry leader through the strength of our product innovation, superior craftsmanship and outstanding customer support, underscoring a legacy of quality, expertise and integrity. That's why design and construction professionals specify Overhead Door Corporation products more often than any other brand.

This specification includes aluminum, steel, stainless steel and wood overhead coiling counter doors.

PART 1 GENERAL

1.1 SECTION INCLUDES

**** NOTE TO SPECIFIER ** Delete items below not required for project.**

- A. Overhead Coiling Counter Doors, manually operated.
- B. Overhead Coiling Counter Doors, power operated.

1.2 RELATED SECTIONS

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

- A. Section 05500 - Metal Fabrications: Support framing and framed opening.
- B. Section 06200 - Finish Carpentry: Wood jamb and head trim.
- C. Section 08333 - Security Grilles.
- D. Section 08710 - Door Hardware: Product Requirements for cylinder core and keys.
- E. Section 09900 - Painting: Field applied finish.
- F. Section 16130 - Raceway and Boxes: Conduit from electric circuit to door operator and from door operator to control station.
- G. Section 16150 - Wiring Connections: Power to disconnect.

1.3 REFERENCES

**** NOTE TO SPECIFIER ** Delete references from the list below that are not actually required by the text of the edited section.**

- A. ASTM A 653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- B. ASTM A 666 - Standard Specification for Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
- C. ASTM A 924 - Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
- D. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
- E. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric).
- F. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).
- G. NEMA ICS 2 - Industrial Control and Systems: Controllers, Contactors, and Overload Relays, Rated Not More Than 2000 Volts AC or 750 Volts DC.
- H. NEMA MG 1 - Motors and Generators.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 1. Preparation instructions and recommendations.
 2. Storage and handling requirements and recommendations.
 3. Details of construction and fabrication.
 4. Installation methods.
- C. Shop Drawings: Include detailed plans, elevations, details of framing members, required clearances, anchors, and accessories. Include relationship with adjacent construction.

**** NOTE TO SPECIFIER ** Delete selection samples if colors have already been selected.**

- D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- E. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) long, representing actual product, color, and patterns.
- F. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in performing Work of this section with a minimum of five years experience in the fabrication and installation of security closures.
- B. Installer Qualifications: Company specializing in performing Work of this section with minimum three years and approved by manufacturer.

**** NOTE TO SPECIFIER ** Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.**

- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Install in areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship and installation is approved by Architect.
 - 3. Refinish mock-up area as required to produce acceptable work.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Protect materials from exposure to moisture. Do not deliver until after wet work is complete and dry.
- C. Store materials in a dry, warm, ventilated weathertight location.

1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.8 COORDINATION

- A. Coordinate Work with other operations and installation of adjacent finish materials to avoid damage to installed materials.

1.9 WARRANTY

**** NOTE TO SPECIFIER ** Include the following warranty paragraph for Series 640, 641, 650, 651 or 652 rolling counter doors. Delete if not applicable.**

- A. Warranty: Manufacturer's limited door warranty for 2 years for all parts and components.

**** NOTE TO SPECIFIER ** Include the following warranty paragraph for specified finish. Delete if not applicable.**

- B. Manufacturer's 2 year limited warranty for PowderGuard Premium Powder Coat Finish.
- C. Manufacturer's 4 year limited warranty for PowderGuard Zinc Powder Coat Finish.
- D. Manufacturer's 5 year limited warranty for PowderGuard Weathered Powder Coat Finish applied to complete door system.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Overhead Door Corporation, 2501 S. State Hwy. 121, Suite 200, Lewisville, TX 75067. ASD. Tel. Toll Free: (800) 275-3290. Phone: (469) 549-7100. Fax: (972) 906-1499. Web Site: www.overheaddoor.com. E-mail: info@overheaddoor.com.

**** NOTE TO SPECIFIER ** Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.**

- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 OVERHEAD COILING STEEL COUNTER DOORS

**** NOTE TO SPECIFIER ** Overhead Door Corporation 650, 651 and 652 Series Overhead Coiling Steel Counter Doors are available up to a standard maximum width of 18 feet 4 inches and a standard maximum height of 8 feet 4 inches. Edit as required to suit project requirements.**

- A. Galvanized Steel Counter Doors: Overhead Door Corporation, 650 Series.
 - 1. Wall Mounting Condition:

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs and delete the one not required.**

- a. Face-of-wall mounting.
- b. Between jambs mounting.
- 2. Curtain: Interlocking slats, Type F-158 fabricated of 22 gauge galvanized steel. Endlocks attached to alternate slats to maintain curtain alignment and prevent lateral slat movement.
- 3. Finish:
 - a. Slats and hood galvanized steel in accordance with ASTM A 653 with rust-inhibitive, roll coating process, including 0.2 mils thick baked-on prime paint, and 0.6 mils thick baked-on polyester (powder coated) top coat.

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs for Polyester top coat or Powder top coat and delete the one not required. Polyester top coat is standard.**

- 1) Polyester Top Coat.
 - (a) Gray polyester.
 - (b) Tan polyester.
- 2) Powder coat: PowderGuard

**** NOTE TO SPECIFIER ** PowderGuard weather resistant polyester powder coat available in 197 colors; custom color match and EZ Clean treatment options available. See Tiger Drylac RAL Colors* Brochure for color selection. PowderGuard Weathered Finish available in 11 color options, see PowderGuard Finish brochure for color selection.**

- (a) PowderGuard Premium: Weather resistant polyester powder coat color as selected by the Architect.
 - (b) PowderGuard Weathered Finish: Industrial textured powder coat provides a thicker, more scratch resistant coat. Applied to entire door system including slats, guides, bottom bar and head plate.
- b. Non-galvanized exposed ferrous surfaces for guides, bottom bar and head plates shall receive one coat of rust-inhibitive primer.
- 4. Bottom Bar:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the one not required.**

- a. Single primed steel angle bottom bar with weatherstrip.
 - b. Steel tubular locking bottom bar with weatherstrip.
- 5. Guides: Extruded aluminum.

**** NOTE TO SPECIFIER ** Select one of the following two finish paragraphs and delete the one not required.**

- a. Finish: PowderGuard Weathered finish with iron/black powder.
 - b. Finish: PowderGuard Zinc Finish for guides, bottom bar and head plate.
- 6. Brackets: Steel plate to support counterbalance, curtain and hood.
 - 7. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel.
 - 8. Hood: Provided with intermediate support brackets as required and fabricated of:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required.**

- a. Galvanized primed steel.
 - b. Aluminum.
 - c. Stainless steel.
- 9. Operation:

**** NOTE TO SPECIFIER ** Select one of the following operation paragraphs and delete the ones not required.**

- a. Manual push up.
- b. Crank operation.
- c. Electric motor.

**** NOTE TO SPECIFIER ** Include the following paragraph if electric motor operation is required and delete if not required.**

- 10. Electric Motor Operation: Provide UL listed electric operator, size as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second.
- a. Sensing Edge Protection:

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs and delete the one not required.**

- 1) N/A.
 - 2) Electric sensing edge.
- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following operation paragraphs and delete the one not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operation with open, close, and stop controls.

- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following location paragraphs and delete the one not required.**

- 4) Controls for interior location.
- 5) Controls for exterior location.
- 6) Controls for both interior and exterior location.

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs and delete the one not required.**

- 7) Controls surface mounted.
- 8) Controls flush mounted.

11. Locking:

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs and delete the one not required.**

- a. Slide bolt locks suitable for use with padlock.
 - b. Two point dead locks with mortise cylinder/s.
12. Vision Lites: Provide with 3 inch by 5/8 inch (76 mm by 16 mm) uniformly spaced openings.
- a. Provide open with no cover.
 - b. Provide with Plexiglas covers over openings.

B. Stainless Steel Counter Doors: Overhead Door Corporation, 651 Series.

1. Wall Mounting Condition:

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs and delete the one not required.**

- a. Face-of-wall mounting.
 - b. Between jambs mounting.
2. Curtain: Interlocking slats, Type F-158 fabricated of 22 gauge stainless steel. Endlocks attached to alternate slats to maintain curtain alignment and prevent lateral slat movement.
3. Finish:
- a. Slats and hood stainless steel with a No. 4 stainless steel finish.
 - b. Non-galvanized exposed ferrous surfaces shall receive one coat of rust-inhibitive primer.
4. Bottom Bar: Single stainless steel angle bottom bar.
5. Guides:

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs and delete the one not required.**

- a. Extruded aluminum shapes.
 - b. Stainless steel shapes.
6. Brackets: Steel plate to support counterbalance, curtain and hood.
7. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel.
8. Hood: Provided with intermediate support brackets as required and fabricated of:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required.**

- a. Aluminum.
 - b. Stainless steel.
 - c. Galvanized primed steel.
9. Operation:

**** NOTE TO SPECIFIER ** Select one of the following operation paragraphs and delete the ones not required.**

- a. Manual push up.
- b. Crank operation.
- c. Electric motor.

**** NOTE TO SPECIFIER ** Include the following paragraph if electric motor operation is required and delete if not required.**

10. Electric Motor Operation: Provide UL listed electric operator, size as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second.

- a. Sensing Edge Protection:

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs and delete the one not required.**

- 1) N/A.
- 2) Electric sensing edge.

- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following operation paragraphs and delete the one not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operation with open, close, and stop controls.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following location paragraphs and delete the one not required.**

- 4) Controls for interior location.
- 5) Controls for exterior location.
- 6) Controls for both interior and exterior location.

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs and delete the one not required.**

- 7) Controls surface mounted.
- 8) Controls flush mounted.

11. Locking:

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs and delete the one not required.**

- a. Slide bolt locks suitable for use with padlock.
- b. Two point dead locks with mortise cylinder/s.

12. Vision Lites: Provide with 3 inch by 5/8 inch (76 mm by 16 mm) uniformly spaced openings.

- a. Provide open with no cover.
- b. Provide with Plexiglas covers over openings.

C. Anodized Aluminum Counter Doors: Overhead Door Corporation 652 Series.

1. Wall Mounting Condition:

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs and delete the one not required.**

- a. Face-of-wall mounting.
- b. Between jambs mounting.

2. Curtain: Interlocking slats, Type F-158 fabricated of anodized aluminum. Endlocks attached to alternate slats to maintain curtain alignment and prevent lateral slat movement.

3. Finish:

**** NOTE TO SPECIFIER ** Select one of the following two finish paragraphs and delete the one not required.**

- a. Anodized Finish:
 - 1) Slats and hood clear anodized aluminum.
 - 2) Slats and hood dark bronze anodized aluminum.
 - 3) Non-galvanized exposed ferrous surfaces shall receive one coat of rust-inhibitive primer.
 - 4) Powder coat: PowderGuard

**** NOTE TO SPECIFIER ** PowderGuard weather resistant polyester powder coat available in 197 colors; custom color match and EZ Clean treatment options available. See Tiger Drylac RAL Colors* Brochure for color selection. PowderGuard Weathered Finish available in 11 color options, see PowderGuard Finish brochure for color selection.**

- (a) PowderGuard Premium: Weather resistant polyester powder coat color as selected by the Architect.
 - (b) PowderGuard Weathered Finish: Industrial textured powder coat provides a thicker, more scratch resistant coat. Applied to entire door system including slats, guides, bottom bar and head plate.
4. Bottom Bar: Extruded aluminum tubular shape with astragal.
 5. Guides: Extruded aluminum.

**** NOTE TO SPECIFIER ** Select one of the following two finish paragraphs and delete the one not required.**

- a. Finish: PowderGuard Weathered finish with iron/black powder.
 - b. Finish: PowderGuard Zinc Finish for guides, bottom bar and head plate.
6. Brackets: Steel plate to support counterbalance, curtain and hood.
 7. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel.
 8. Hood: Provided with intermediate support brackets as required and fabricated of:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required.**

- a. Aluminum.
 - b. Galvanized primed steel.
 - c. Stainless steel.
9. Operation:

**** NOTE TO SPECIFIER ** Select one of the following operation paragraphs and delete the ones not required.**

- a. Manual push up.
- b. Crank operation.
- c. Electric motor.

**** NOTE TO SPECIFIER ** Include the following paragraph if electric motor operation is required and delete if not required.**

10. Electric Motor Operation: Provide UL listed electric operator, size as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second.
- a. Sensing Edge Protection:

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs and delete the one not required.**

- 1) N/A.
 - 2) Electric sensing edge.
- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following operation paragraphs and delete the one not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operation with open, close, and stop controls.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following location paragraphs and delete the one not required.**

- 4) Controls for interior location.
- 5) Controls for exterior location.
- 6) Controls for both interior and exterior location.

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs and delete the one not required.**

- 7) Controls surface mounted.
 - 8) Controls flush mounted.
11. Locking:

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs and delete the one not required.**

- a. Slide bolt locks suitable for use with padlock.
 - b. Two point dead locks with mortise cylinder/s.
12. Vision Lites: Provide with 3 inch by 5/8 inch (76 mm by 16 mm) uniformly spaced openings.
- a. Provide open with no cover.
 - b. Provide with Plexiglas covers over openings.

2.3 OVERHEAD COILING METAL COUNTER DOORS WITH INTEGRAL FRAME

**** NOTE TO SPECIFIER ** Overhead Door Corporation 655 and 657 Series Overhead Coiling Metal Counter Doors with integral frames are available up to a standard maximum width of 9 feet and a standard maximum height of 4 feet. Series 658 is available up to a standard maximum width of 12 feet 4 inches and a standard maximum height of 6 feet. Edit as required to suit project requirements.**

- A. Anodized Aluminum Counter Doors with Integral Frame: Overhead Door Corporation, 655 Series.
1. Curtain: Interlocking roll-formed clear anodized aluminum slats with endlock for curtain alignment. Slats, 0.040 inch (1 mm) thick, and extruded aluminum bottom bar with neoprene astragal.
 2. Integral Frame and Sill: Integral stainless steel frame and sill with a #4 finish. Frame consists of 16 gauge jambs and header, with 14 gauge sill.
 3. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel, supporting the curtain with deflection limited to 0.03 inch (0.8 mm) per foot of span. Counterbalance shall be adjustable by means of an adjusting tension wheel.
 4. Hood: Stainless steel with a #4 finish and provided with intermediate support brackets as required.
 5. Operation:

**** NOTE TO SPECIFIER ** Select one of the following operation paragraphs and delete the one not required.**

- a. Manual push up.
 - b. Crank operation.
6. Locking:
- a. Padlockable slide bolts on coil side.

**** NOTE TO SPECIFIER ** Cylinder lock is optional. Delete if not required.**

- b. Cylinder lock.
7. Wall Mounting Condition:
- a. Between jambs mounting in an existing opening.

- B. Stainless Steel Counter Doors with Integral Frame: Overhead Door Corporation, 657 Series.
1. Curtain: Interlocking roll-formed stainless steel slats with a #4 finish and with endlock for curtain alignment. Slats, 22 gauge stainless steel with stainless steel tubular bottom bar with neoprene astragal.
 2. Integral Frame and Sill: Integral stainless steel frame with a #4 finish and a stainless steel sill. Frame consists of 16 gauge jambs and header, with 14 gauge sill.

3. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel, supporting the curtain with deflection limited to 0.03 inch (0.8 mm) per foot of span. Counterbalance shall be adjustable by means of an adjusting tension wheel.
4. Hood: Stainless steel with a #4 finish and provided with intermediate support brackets as required.
5. Operation:

**** NOTE TO SPECIFIER ** Select one of the following operation paragraphs and delete the one not required.**

- a. Manual push up.
 - b. Crank operation.
6. Locking:
 - a. Padlockable slide bolts on coil side.

**** NOTE TO SPECIFIER ** Cylinder lock is optional. Delete if not required.**

- b. Cylinder lock.
7. Wall Mounting Condition:
 - a. Between jambs mounting installed in an existing opening.

C. Painted Steel Counter Doors with Integral Frame: Overhead Door Corporation, 658 Series.

1. Curtain: Interlocking roll-formed 22 gauge galvanized steel slats with baked-on polyester in gray finish, endlock for curtain alignment and steel double angle bottom bar with neoprene astragal.
2. Integral Frame and Sill: Integral stainless steel frame with a #4 finish and a stainless steel sill. Frame consists of 16 gauge jambs and header, with 14 gauge sill.
3. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel, supporting the curtain with deflection limited to 0.03 inch (0.8 mm) per foot of span. Counterbalance shall be adjustable by means of an adjusting tension wheel.
4. Bottom bar:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the one not required.**

- a. Double angle bottom bar (standard).
- b. Aluminum extruded tubular bottom bar.
5. Hood: Stainless steel with a #4 finish and provided with intermediate support brackets as required.
6. Operation:

**** NOTE TO SPECIFIER ** Select one of the following operation paragraphs and delete the one not required.**

- a. Manual push up.
 - b. Crank operation.
7. Locking:
 - a. Padlockable slide bolts on coil side.

**** NOTE TO SPECIFIER ** Cylinder lock is optional. Delete if not required.**

- b. Cylinder locks available with aluminum extruded tubular bottom bar.
8. Wall Mounting Condition:
 - a. Between jambs mounting installed in an existing opening.

2.4 OVERHEAD COILING WOOD COUNTER DOORS

**** NOTE TO SPECIFIER ** Overhead Door Corporation 665 Series Overhead Coiling Wood Counter Doors are available up to a standard maximum width of 16 feet and a standard maximum height of 11 feet 8 inches. Edit as required to suit project requirements.**

- A. Wood Counter Doors with Integral Frame: Overhead Door Corporation, Series 665.

1. Curtain: Interlocking wood slats, 1-5/8 inch (41 mm) high by 1/2 inch (12.5 mm) thick. Bottom bar shall have flush lift handles.
2. Slat Material and Finish:

**** NOTE TO SPECIFIER ** Select one of the following slat material paragraphs and delete the ones not required.**

- a. Red oak.
- b. Pine.
- c. Birch.
- d. White oak.
- e. Custom _____ wood without finish, to be finished on site by others.
- f. With finish as chosen by the Architect from manufacturer's standard finishes.

3. Guides:

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs and delete the one not required.**

- a. Wood matching slat material.
- b. Aluminum guides.

4. Brackets: Galvanized steel to support counterbalance, curtain and hood.

5. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel, supporting the curtain with deflection limited to 0.03 inch (0.8 mm) per foot of span. Counterbalance shall be adjustable by means of an adjusting tension wheel.

6. Hood: Provide intermediate support brackets as required. Hood fabricated of:

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs and delete the one not required.**

- a. Steel prime painted.
- b. Wood matching slats.

7. Operation:

**** NOTE TO SPECIFIER ** Select one of the following operation paragraphs and delete the ones not required.**

- a. Manual push up.
- b. Crank operation.
- c. Electric motor.

**** NOTE TO SPECIFIER ** Include the following paragraph if electric motor operation is required and delete if not required.**

8. Electric Motor Operation: Provide UL listed electric operator, size as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second.

- a. Sensing Edge Protection:

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs and delete the one not required.**

- 1) N/A.
- 2) Electric sensing edge.

- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following operation paragraphs and delete the one not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operation with open, close, and stop controls.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following location paragraphs and delete the one not required.**

- 4) Controls for interior location.
- 5) Controls for exterior location.
- 6) Controls for both interior and exterior location.

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs and delete the one not required.**

- 7) Controls surface mounted.
- 8) Controls flush mounted.
- 9. Locking:

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs and delete the one not required.**

- a. Thumb turn locks.
- b. Cylinder locks.
- 10. Wall Mounting Condition:

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- a. Between jambs mounting.
- b. Face-of-wall mounting.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify opening sizes, tolerances and conditions are acceptable.
- B. Examine conditions of substrates, supports, and other conditions under which this work is to be performed.
- C. 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.
- B. Use anchorage devices to securely fasten assembly to wall construction and building framing without distortion or stress.
- C. Securely and rigidly brace components suspended from structure. Secure guides to structural members only.
- D. Fit and align assembly including hardware; level and plumb, to provide smooth operation.

**** NOTE TO SPECIFIER ** Select the following paragraph for electric operation of counter doors and delete if not required.**

- E. Coordinate installation of electrical service with Section 16150. Complete wiring from disconnect to unit components.
- F. Coordinate installation of sealants and backing materials at frame perimeter as specified in Section 07900.

G. Install perimeter trim and closures.

3.4 ADJUSTING

A. Test for proper operation and adjust as necessary to provide proper operation without binding or distortion.

B. Adjust hardware and operating assemblies for smooth and noiseless operation.

3.5 CLEANING

A. Clean curtain and components using non-abrasive materials and methods recommended by manufacturer.

B. Remove labels and visible markings.

C. Touch-up, repair or replace damaged products before Substantial Completion.

3.6 PROTECTION

A. Protect installed products until completion of project.

END OF SECTION