SECTION 08334

OVERHEAD COILING DOORS

This guide specification has been prepared by C.H.I. Overhead Doors to assist design professionals in the preparation of a specification section covering steel overhead coiling doors, available with 18, 20, 22, or 24 gage steel slats, insulated or non-insulated, curved or flat steel slats, and structural steel or formed steel guides. Refer to C.H.I. Overhead Doors literature for specific model numbers and additional information on these products.

This specification may be used as the basis for developing either a project specification or an office master specification. Since it has been prepared according to the principles established in the *Manual of Practice* published by The Construction Specifications Institute (CSI), it may be used in conjunction with most commercially available master specifications systems with minor editing.

Other C.H.I. Overhead Doors products are covered by the following guide specifications, available from C.H.I. Overhead Doors:

Section 08335 - Overhead Coiling Fire Doors.

Section 08336 - Overhead Coiling Shutters.

Section 08337 - Overhead Coiling Fire Shutters.

Section 08361 - Steel Sectional Overhead Doors.

Section 08362 - Aluminum Sectional Overhead Doors.

The following should be noted in using this guide specification:

Notes are included to assist the user in editing the section to suit project requirements. These notes are included as hidden text, and can be revealed or hidden by one of the following methods:

Microsoft Word: From the pull-down menus select TOOLS, then OPTIONS. Under the tab labeled VIEW, select or deselect the HIDDEN TEXT option.

Corel WordPerfect: From the pull-down menus select VIEW, then select or deselect the HIDDEN TEXT option.

Optional text requiring a selection by the user is enclosed within brackets, e.g.: "Section [09000.] [____.]"

Items requiring user input are enclosed within brackets, e.g.: "Section [_____ - _____]."

Optional paragraphs are separated by an "OR" statement, e.g.:

**** OR ****

"Green" requirements are included for projects requiring LEED certification, and are included as green text. For additional information on LEEDS, visit the U.S. Green Building Council website at www.usgbc.org.

This guide specification is available in a variety of electronic formats to suit most popular word processing programs. Please contact C.H.I. Overhead Doors at 800-677-2650 or www.chiohd.com.

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. [Manually] [Electrically] operated steel overhead coiling doors.
   2. Operating hardware, controls, and supports.

Edit the following paragraphs to suit project requirements and to coordinate with other sections in the project manual.

B. Related Sections:
   1. Division 1: Administrative, procedural, and temporary work requirements.
   2. Section [09910 - Paints:] [_____ - _____:] Field painting of doors.

Include the following paragraph for electrically operated doors.

   3. Section [_____] - [_____]: Connection to power supply and control devices.

1.2 REFERENCES

Include only those reference standards that are included within the text of this section. If statements are included in Division 1 addressing the edition dates of standards, delete edition dates from the following statements.

A. ASTM International (ASTM) (www.astm.org) A653/A653M-03 - Standard Specification for Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

1.3 SYSTEM DESCRIPTION

A. Design doors to withstand:

Include the following paragraph for exterior doors.

   1. Positive and negative design wind loads [in accordance with Building Code.] [of [__] PSF.]

In the following paragraph, 20,000 cycles is standard.

   2. Cycle life of [20,000] [50,000] [100,000] [__] cycles.

B. Operation: [Manual push up.] [Chain hoist.] [Electric.]

1.4 SUBMITTALS

A. Submittals for Review:
   1. Shop Drawings: Indicate opening dimensions and required tolerances, jamb connection details, anchorage spacing, hardware locations, installation details, and special conditions.
   2. Product Data: Provide information on components, application, hardware, and accessories.

B. Closeout Submittals:
   1. Operation and Maintenance Data.

Include the following for projects requiring LEED certification. Credits are available for the use of recycled materials, and also for regional materials if the project is located within a 500 mile radius of the C.H.I. fabrication facility.

C. Sustainable Design Submittals:
   1. Recycled products: Indicate percentage of recycled material used in manufacture of products, and percentage classified as post consumer.
   2. Regional products: Indicate location of product manufacturer and distance from manufacturer to project site.

1.5 WARRANTIES

In the following paragraph, Series 6241 doors have a one year warranty; all other doors have a five year warranty.

A. Provide manufacturer's [one] [five] year warranty against defects in materials and workmanship.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

In the following paragraph, insert appropriate door model number based on specific project requirements; refer to C.H.I. Overhead Doors technical literature.

A. Contract Documents are based on Model [____] by C.H.I. Overhead Doors.

Include one of the following two paragraphs as applicable. Coordinate with Division 1 requirements.

B. Substitutions: Under provisions of [Section [____].] [Division 1.]

**** OR ****

C. Substitutions: Not permitted.

2.2 MATERIALS

A. Galvanized Steel Sheet:
1. ASTM A653/A653M, Structural Quality, G90 coating class.

Include the following paragraph for projects requiring LEED certification.

2. Recycled content: Minimum [75] [__] percent, with minimum [40] [__] percent classified as post consumer.

2.3 COMPONENTS

Edit the following paragraph to coordinate with door model listed above.

A. Curtain:
1. Material: Galvanized steel.

In the following paragraph, it is recommend that selection of slat gage be left up to the manufacturer, to suit loading and cycling requirements specified under "System Description" above. If specific gages are desired, include the following. Model 6000 doors area available in 18, 20, or 22 gage; Model 6241 is available only in 24 gage.

2. Gage: [Per design requirements.] [18.] [20.] [22.] [24.]

In the following paragraph, select slat profile. Flat slats may be weatherstripped. Model 6241 is available only with non-insulated flat slats.

3. Profile: [Flat, non-insulated, 2-1/2 inches high x 3/4 inch deep.] [Curved, non-insulated, 2-5/8 inches high x 7/8 inch deep.] [Flat, insulated, 2-1/2 inches high x 13/16 inch deep, with expanded polystyrene insulation and 24 gage steel backer.]
4. End locks: Galvanized malleable iron, attached to every other slat to act as wearing surface and prevent lateral movement.
5. Bottom bar: Two galvanized steel angles bolted back-to-back, with adjustable tubular compression weatherseal.

Include the following paragraph for vision lites, and select desired pattern.

6. Vision lites:
   a. Rectangular, 5 inches wide x 1-1/8 inches high, clear acrylic panels set with silicone sealant and rivets.
   b. Pattern: [Three wide x three high,] [Five wide x five high,] [[__] wide x [__] high,] [centered.] [left side looking out.] [right side looking out.]

Include the following paragraph for ventilated slats, and select desired pattern.

7. Ventilated slats:
   a. Rectangular punched openings in slats on 7 inch centers, 5 inches wide x 1-1/8 inches high.
   b. Pattern: [Three wide x three high,] [Five wide x five high,] [[__] wide x [__] high,] [centered.] [left side looking out.] [right side looking out.]

B. Hood: Minimum 24 gage steel.

C. Guides: [Three minimum 3/16 inch thick steel angles bolted together to form guide channel and mounting surface.] [Rolled steel type shaped to form guide channel and mounting surface.]

In the following paragraph, only flat slats may be weatherstripped.

D. Weatherstripping: Rubber hood baffle [and lintel seal brush], with exterior vinyl guide seal.

E. Head Plate: Rectangular steel plate, with precision sealed ball bearings supporting drive side axle.

F. Barrel Assembly: Steel pipe sized for maximum deflection under loading of 0.03 inch per foot of span, with threaded rings or lugs welded to barrel assembly for curtain attachment.

G. Springs: Curtain weight counterbalanced by oil-tempered, helically wound torsion springs, grease packed and mounted on steel torsion shaft, designed for minimum 20,000 cycles.

In the following paragraph, select type of locking desired. Select interlock switches for electrically operated doors.

H. Locking: [[Interior] [Exterior] mounted plated steel slide bolt locks with padlock provisions.] [Chain keeper with padlock provisions.] [Master keyable cylinder operable from [coil] [fascia] [each] side of bottom bar.] [Interlock switches.]

Include the following paragraph for electrically operated doors.

I. Electric Operator:
   1. Power supply: [115 VAC, single phase.] [220 VAC, [single] [three] phase.] [440-480 VAC, three phase.]
   2. Sufficient power to operate door at average speed of 12 inches per second.
   3. Disconnect for [manual lift up] [chain hoist] operation in case of power failure.

In the following paragraph, select type of control station. Three-position push button is standard.

4. Control station: [24 VDC;] [115 VAC;] [push button] [keyed switch] station marked [OPEN and CLOSE.] [OPEN, CLOSE, and STOP.] [Furnish [four] [__] keys per station.]

Include the following paragraph for doors having exterior-mounted operators.

5. Exterior operator cover: Cover exposed operator parts to provide weather and pest resistance for operator; finish to match hood.

Include the following paragraph for a safety device to prevent damage to doors due to obstructions in door path.

J. Safety Device: [Photoelectric sensor; detect obstruction and reverse door without requiring door to contact obstruction.] [Electric edge, two wire; detect obstruction and reverse door upon contact with electric strips in vinyl housing.] [Air wave edge; detect obstruction and reverse door upon disruption of bottom edge.] [Electric edge, four wire; fail-safe, self monitoring; detect obstruction and reverse door upon contact with electric strips in vinyl housing.]

K. Finish:

1. Curtain: [Epoxy primer and polyester finish coat,] [Powder coat,] [____] color [to be selected from manufacturer's standards].
2. Guides and head plates: [Rust inhibiting primer.] [Powder coat, [____] color [to be selected from manufacturer's standards.]]
3. Hood: [Epoxy primer and polyester finish coat.] [Powder coat, [____] color [to be selected from manufacturer's standards.]]

In the following paragraph, galvanized is standard.

4. Bottom bar: [Galvanized.] [Painted to match guides.] [Powder coat, [____] color [to be selected from manufacturer's standards.]]

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install door assembly in accordance with manufacturer's instructions.

B. Anchor to adjacent construction without distortion or stress.

C. Fit and align door assembly including hardware, level and plumb, to provide smooth operation.

Include the following paragraph for electrically operated doors.

D. Make wiring connections between power supply and operator and between operator and controls.

3.2 ADJUSTING

A. Adjust doors to operate smoothly throughout full operating range.

3.3 DEMONSTRATION

A. Demonstrate proper operation to Owner.

END OF SECTION