

## Product Evaluation

GDR84 | 0422

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

**Evaluation ID:** GDR-84

**Effective Date:** April 1, 2022

**Re-evaluation Date:** April 2026

**Product Name:** Models 2140, 2141, 2150, 2151, 2240, 2241, 2250, 2251, 2550, 2551, 4140, 4141, 4150, 4151, 4240, 4241, 4250, 4251, 5250, 5251, 5950, 5951 Residential Sectional Steel Garage Doors, Impact Resistant

**Manufacturer:** C.H.I. Overhead Doors  
P. O. Box 260  
Arthur, IL 61911  
(800) 677-2650

### General Description:

Models 2140, 2141, 2150, 2151, 2240, 2241, 2250, 2251, 2550, 2551, 4140, 4141, 4150, 4151, 4240, 4241, 4250, 4251, 5250, 5251, 5950, 5951 doors are residential sectional garage doors constructed from galvanized steel with a baked on polyester finish. The 2150, 2151, 2250, 2251, 2550, 2551, 4150, 4151, 4250, 4251, 5250, 5251, 5950, and 5951 model doors are constructed from 25-gauge steel and may be insulated with expanded polystyrene insulation. The 2140, 2141, 2240, 2241, 4240, 4241, 5240, 5241 model doors are constructed from 24-gauge steel and may be insulated with expanded polystyrene insulation. The doors use 3" U-bars for horizontal reinforcement. Drawing number, design pressures, door width, horizontal reinforcement, and glazing options are shown in Table 1.

**Product Identification:** A label will be affixed to the steel sectional overhead door. The label must include the manufacturer's name (CHI Overhead Doors); series/model number of door; the allowable design pressure rating; the design drawing number; and the test standards (ANSI/DASMA 108, ANSI/DASMA 115). The installer will verify that the label is clearly marked indicating which door assembly is being installed, in addition to verifying that the design pressure rating is clearly marked.

**Limitations:**

**Maximum Section Height:** The maximum height of each door section must not exceed 21".

**Maximum Width:** The doors have a maximum width of 20'. Refer to Table 1 and the design drawings for the allowable door width dimensions.

**Maximum Height:** The doors have a maximum height of 20'. Refer to the design drawings for allowable door heights for specific doors.

**Horizontal Reinforcement:** The doors are reinforced with either 17-gauge or 19-gauge 3" steel struts. The quantity, placement, and installation of the struts are shown on the design drawings.

**Stiles:** The required number of stiles is specified on the design drawings.

**Design drawings:** Specified in Table 1.

**Design pressures:** Specified in Table 1.

**Glazing (Optional):** Glass options are specified on the design drawings.

**Impact Protection:** These garage door assemblies have been tested for windborne debris resistance. These garage door assemblies will not need to be protected with an impact protective system when installed in areas where windborne debris protection is required.

**Installation:**

**Design Drawings:** Install the doors as specified on the design drawings and other accompanying installation instructions. The design drawing must be provided with the door. The drawings are dated March 4, 2022. Each page of the design drawings is signed, sealed, and dated March 24, 2022, by John E. Scates, P.E.

**Attachment of Doors to the Building:** Doors are secured to the wall structure as specified in the Jamb Attachment details. The Jamb Attachment details include the following drawings:

BJA-101R8  
BJA-102R7  
BJA-103R8  
BJA-104R8  
BJA-105R7  
BJA-105R5  
BJA-106R5

Each drawing is dated March 26, 2020 and sealed by John E. Scates. Drawing BJA-101R8 is digitally signed and dated January 7, 2021.

**Note:** Keep the manufacturer's installation instructions, the appropriate design drawings, and the jamb attachment drawing available on the job site during installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.

**Table 1**  
**Models 2140, 2141, 2150, 2151, 2240, 2241, 2250, 2251, 2550, 2551, 4140, 4141, 4150,**  
**4151, 4240, 4241, 4250, 4251, 5250, 5950, 5951**

Door Width	Horizontal Reinforcement	Glass Option	Design Pressures (psf)	Drawing Number
6'-0"	19-gauge, 3" U-bars	Yes	+32.0/-36.2	Z6i-09-01509
7'-0"				
8'-0"				
9'-0"				
6'-0"	17-gauge, 3" U-bars	Yes	+49.9 / -56.7	Z10i-10-01509
7'-0"				
8'-0"				
9'-0"				
9'-11"			+47.3 / -54.5	
10'-0"			+46.9 / -54.1	
10'-6"			+44.7 / -51.5	
10'-7"	17-gauge, 3" U-bars	Yes	+22.2 / -24.7	Z4i-16-01509
11'-11"				
13'-11"				
15'-11"				
16'-0"				
10'-7"	17-gauge, 3" U-bars	Yes	+30.6 / -34.1	Z6i-16-01509
11'-11"				
13'-11"				
15'-11"				
16'-0"				
16'-01"	17-gauge, 3" U-bars	Yes	+22.2 / -24.7	Z4i-18-01509
18'-0"				
16'-01"	17-gauge, 3" U-bars	Yes	+30.3 / -33.7	Z6i-18-01509
18'-0"				
10'-07"	17-gauge, 3" U-bars	Yes	+44.0 / -49.0	Z7i-18-01509
11'-11"				
13'-11"				
15'-03"				
15'-11"			+42.3 / -47.1	
16'-0"			+42.1 / -46.9	
18'-0"			+34.5 / -38.4	

**Table 1**  
**Models 2140, 2141, 2150, 2151, 2240, 2241, 2250, 2251, 2550, 2551, 4140, 4141, 4150,**  
**4151, 4240, 4241, 4250, 4251, 5250, 5950, 5951**

<b>Door Width</b>	<b>Horizontal Reinforcement</b>	<b>Glass Option</b>	<b>Design Pressures (psf)</b>	<b>Drawing Number</b>
15'-04"	17-gauge, 3" U-bars	Yes	+44.0 / -49.0	Z8i-18-01509
16'-0"				
16'-08"			+42.7 / -47.6	
17'-0"				
18'-0"				