

Straight Run Ladder
with Fall Protection System

Ladder Assembly with Safety
Cage and Fall Protection System

Ladder Assembly
with Safety Cage

Tower Dryer Ladder Installation

Installation Manual

PNEG-2087

Version 2.0

Date: 09-07-21

IMPORTANT!

Read FPS SERVICE BULLETIN: 004-21-08 inside
The information contained in the service bulletin supersedes
the fall protection information currently in the manual.



PNEG-2087

All information, illustrations, photos, and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.



DATE: 8/23/2021

SUBJECT: Tower Dryers with Ladder Fall protection systems installed Part #'s LDR-5554 & LDR-5555.

Description: Due to recently identified safety concerns updates are required to installed ladder Fall Protection Systems (FPS).

FPS at the eave:

The ladder starter brackets are required to be attached using (3) 3/8" bolts and nuts per bracket. See figure 1C. This is not new information but it is important to note.

At the eave, the fall protection bracket attaches to the ladder rung directly above and the two ladder rungs directly below the ladder starter brackets. Again, this is not new information but it is a review of the proper location for the system. See Figures 1A and 1B. Again figure 1C shows the ladder starter bracket.

The FPS reinforcing bars are to be placed in all 3 ladder rungs where the system attaches. Some FPS brackets prior to 2021 may have been shipped with only 2 reinforcing bars. In this case, it is acceptable to add these to the top (rung directly above the ladder starter brackets) and bottom (2nd ladder rungs below the ladder starter brackets) ladder rungs and leave the middle (ladder rung directly below the ladder starter bracket) ladder rung empty. See Figure 1B for details showing the ladder rung locations.

The rungs labelled 'X' show the location for the reinforcing bars if the system only contains 2.

The last update is to verify the location of the ladder side braces for the left hand and right hand side of the ladder. The braces are to be assembled directly below the bottom ladder rung where the FPS bracket attaches. See Figure 1B for a pictorial view showing the proper mounting location.

For retro fit systems, the FPS is only to be used on tower dryers that make use of the steel roof band. See Figure 1C for pictorial explanation of the steel roof band. Older tower dryers did not use a steel roof band and the FPS cannot be used.

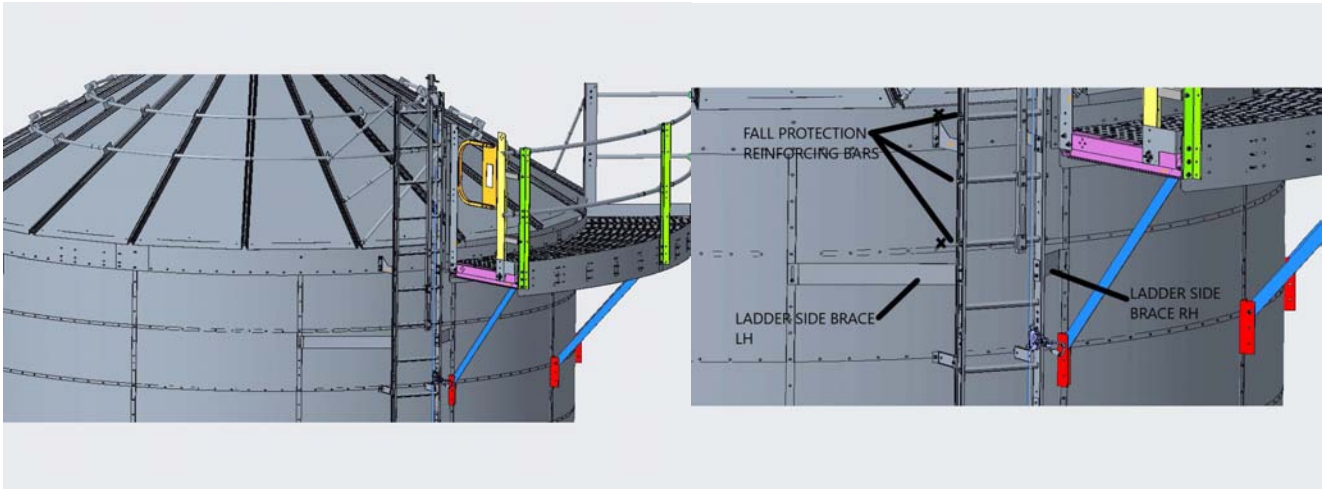


Figure 1A

Figure 1B (FPS component detail)

Installing the Ladder Assembly at Eave

1. Install the ladder starting brackets (15 and 16) to the roof band (G) using 3/8" x 1" flange bolts (2) and 3/8" flange nuts (8).

NOTE:

- a. Make sure to assemble the right ladder starting bracket (16) to the first set of holes on the left where two roof bands (G) overlap.
- b. Make sure to assemble the left ladder starting bracket (15) to the set of holes which are about 17" left of the first set of holes.

Figure 2-4 Installing the ladder starting brackets

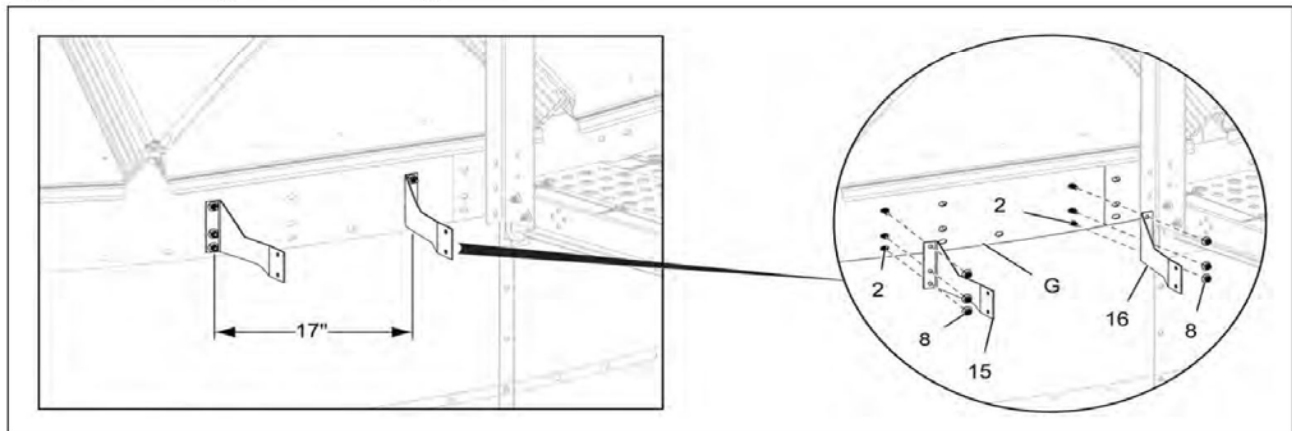


Figure 1C (starter bracket assembly)



FPS not at the eave:

The ladder assembly manual states that the FPS bracket is to be assembled to the top two ladder rungs as shown in Figure 2A. Further testing has shown that the FPS bracket is to always be assembled below a set of ladder standoff brackets as shown in Figures 2B. In these figures the FPS reinforcing bars and bracket are shown attached to ladder rungs below the top set of ladder standoff brackets. If the FPS bracket is assembled above the top most ladder standoff brackets, it must be moved to the ladder rungs below. If that is not possible due to height requirements, contact GSI for further instructions.

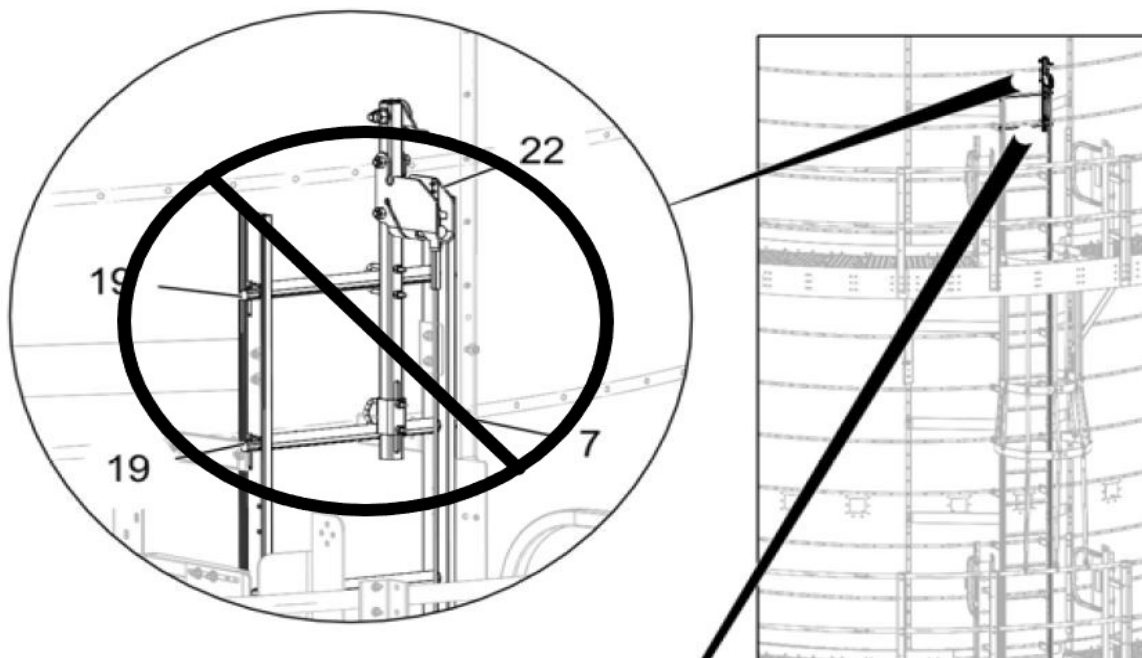


Figure 2A

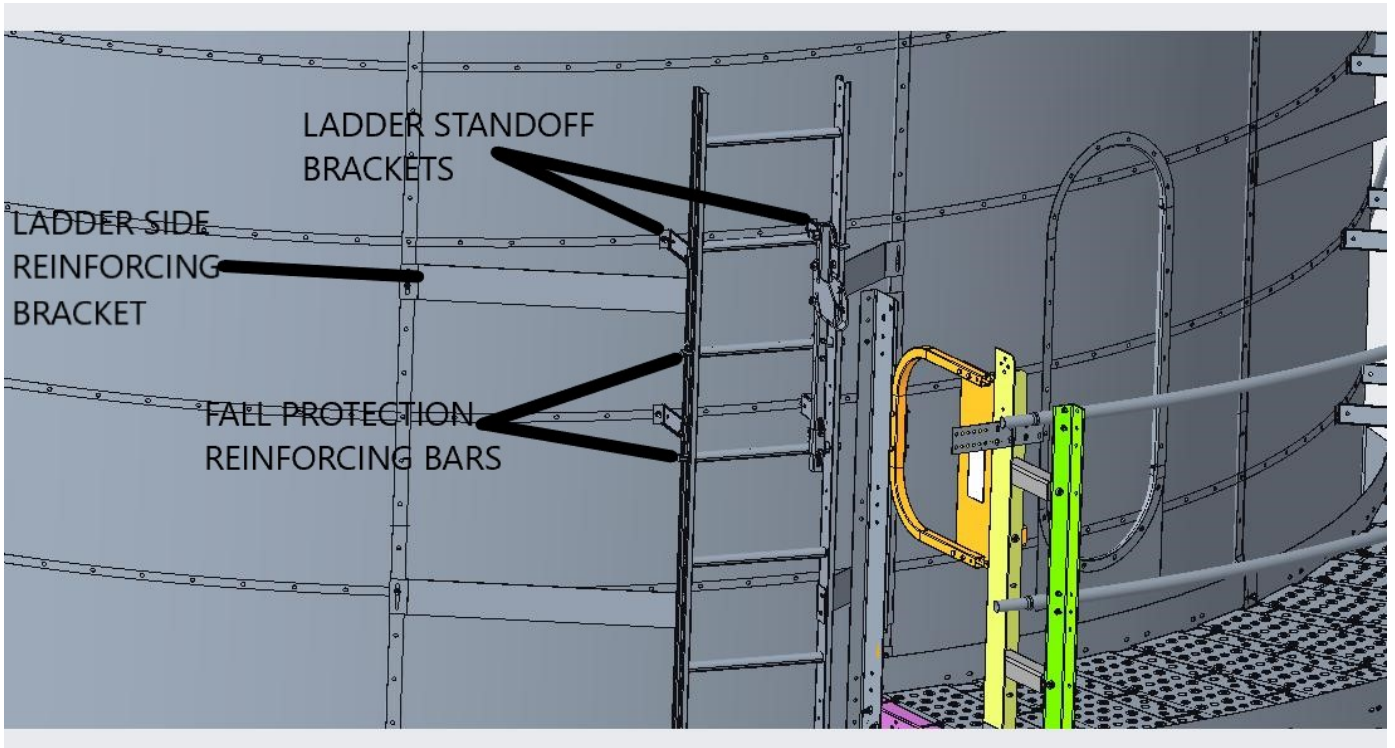


Figure 2B (FPS component detail)

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NOTES

1 Safety Precautions

Topics Covered in this Chapter

- Safety Guidelines
- Cautionary Symbol Definitions
- Safety Cautions
- Safety Decals
- Safety Sign-off Sheet

Safety Guidelines

Safety guidelines are general-to-specific safety rules that must be followed at all times. This manual is written to help you understand safe operating procedures and problems that can be encountered by the operator and other personnel when using this equipment. Read and save these instructions.

As owner or operator, you are responsible for understanding the requirements, hazards, and precautions that exist and to inform others as required. Unqualified persons must stay out of the work area at all times.

Alterations must not be made to the equipment. Alterations can produce dangerous situations resulting in **SERIOUS INJURY** or **DEATH**.

This equipment must be installed in accordance with the current installation codes and applicable regulations, which must be carefully followed in all cases. Authorities having jurisdiction must be consulted before installations are made.

When necessary, you must consider the installation location relative to electrical, fuel and water utilities.








Personnel operating or working around equipment must read this manual. This manual must be delivered with equipment to its owner. Failure to read this manual and its safety instructions is a misuse of the equipment.

ST-0001-4

Cautionary Symbol Definitions

Cautionary symbols appear in this manual and on product decals. The symbols alert the user of potential safety hazards, prohibited activities and mandatory actions. To help you recognize this information, we use the symbols that are defined below.

Table 1-1 Description of the different cautionary symbols








Symbol	Description
	This symbol indicates an imminently hazardous situation which, if not avoided, will result in serious injury or death.
	This symbol indicates a potentially hazardous situation which, if not avoided, can result in serious injury or death.
	This symbol indicates a potentially hazardous situation which, if not avoided, can result in minor or moderate injury.
	This symbol is used to address practices not related to personal injury.
	This symbol indicates a general hazard.
	This symbol indicates a prohibited activity.
	This symbol indicates a mandatory action.

ST-0005-2

Safety Cautions

Use Personal Protective Equipment

- Use appropriate personal protective equipment:

Eye Protection		Respiratory Protection		Foot Protection	
Hearing Protection		Head Protection		Fall Protection	
Hand Protection					

- Wear clothing appropriate to the job.
- Remove all jewelry.
- Tie long hair up and back.

ST-0004-1

Follow Safety Instructions

- Carefully read all safety messages in this manual and safety signs on your machine. Keep signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from the manufacturer.
- Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.
- If you do not understand any part of this manual or need assistance, contact your dealer.



ST-0002-1

Chapter 1: Safety Precautions

Maintain Equipment and Work Area

- Understand service procedures before doing work. Keep area clean and dry.
- Never service equipment while it is operating. Keep hands, feet, and clothing away from moving parts.
- Keep your equipment in proper working condition. Replace worn or broken parts immediately.



ST-0003-1

Sharp Edge Hazard

- This product has sharp edges, which can cause serious injury.
- To avoid injury, handle sharp edges with caution and always use proper protective clothing and equipment.



ST-0036-2

Fall Hazard

- Keep access door closed while on a platform to avoid falls.
- Always use proper personal protective equipment and proper clothing when using equipment. Failure to follow safety precautions can result in severe injury or death.



ST-0042-2

Stay Clear of Hoisted Equipment

- Always use proper lifting or hoisting equipment when assembling or disassembling equipment.
- Do not walk or stand under hoisted equipment.
- Always use sturdy and stable supports when needed for installation. Not following these safety precautions creates the risk of falling equipment, which can crush personnel and cause serious injury or death.



ST-0047-1

Fall Hazard

- Ladders, stairways and platforms are for use by competent and trained personnel only. Do not allow children or other unauthorized persons to have access to the equipment.
- Access to the equipment must be restricted by the use of security fencing and lockable gates.
- Lower sections of ladders must be fitted with a lockable safety gate to prevent unauthorized access.
- Make sure that hot surfaces have had adequate time to cool before working on or in the equipment.
- Lock out and tag out power supplies and fuel supplies to all equipment.
- Do not attach lifting equipment to ladders or platforms.
- Do not go outside of the safety rails provided on elevated platforms.
- Do not work at heights during high winds, rain, snow, or ice storms.



ST-0056-1

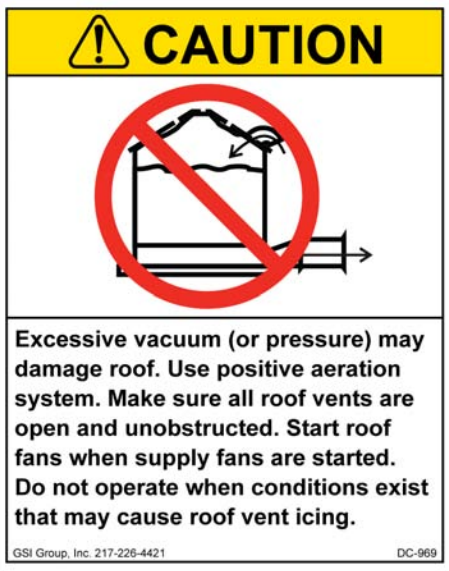
Safety Decals



The safety decals on your equipment are safety indicators which must be carefully read and understood by all personnel involved in the installation, operation, service and maintenance of the equipment.

To replace a damaged or missing decal, contact us to receive a free replacement.

GSI Decals

1004 E. Illinois Street
 Assumption, IL 62510
 Phone: 1-217-226-4421

Location	Decal No.	Decal	Description
Located next to aeration system.	DC-969		Caution Vacuum Pressure

Location	Decal No.	Decal	Description
On bin door covers	DC-GBC-1A		Danger Keep Clear of Augers
On bin door covers	DC-GBC-2A		Warning Unload Instructions

2 General Information

Topics Covered in this Chapter

- Parts List
- Assembling the Ladder Sections
- Assembling the Ladder Stand-off Brackets
- Assembling the Safety Cage Hoop Brackets
- Installing the Ladder Assembly at Eave
- Installing the Ladder Braces
- Installing the End Cap to the Ladder
- Installing the Ladder Assembly at the Base
- Assembling the 24" Safety Cage Section
- Assembling the 36" Safety Cage Section
- Assembling the 48" Safety Cage Section
- Assembling the 24" Bell Safety Cage Section
- Assembling the 48" Bell Safety Cage Section

Parts List

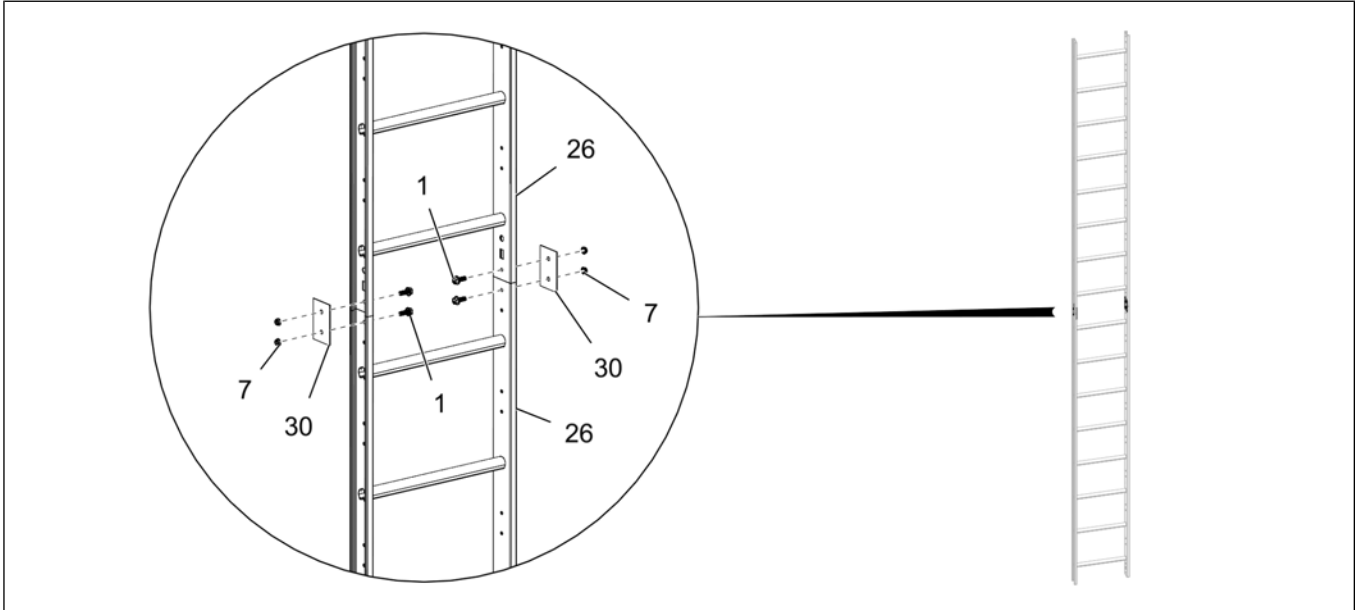
Ref #	Part #	Description	Ref #	Part #	Description
1	S-10260	5/16" x 1" flange bolt with sealing washer	20	LS-6616	Angle end brace
2	S-7485	3/8" x 1" flange bolt	21	LS-7031	Straight end brace
3		1/4" x 1-1/2" bolt	22	GT1-2620	Center brace
4	S-7470	5/16" x 1" flange bolt	23	GT1-2621	Angle end brace
5	S-3550	5/16" x 1" carriage bolt	24	GT1-2622	Straight end brace
6	S-7483	5/16" x 1-1/4" flange bolt with sealing washer	25	LDR-5011	End cap
7	S-10268	5/16" flange nut	26		Ladder section
8	S-968	3/8" flange nut	27	LDR-4198	Ladder stand-off wedge
9		1/4" nut	28	LDR-4314	Ladder stand-off bracket
10		5/16" x 1-1/4" bolt	29	LDR-4199	Safety cage hoop bracket
11		5/16" x 1" bolt	30	LDR-4317	Ladder splice
12		5/16" nut	31	LS-6714	24" safety cage vertical support
13	LDR-4201	Safety cage hoop half	32	LS-7376	36" safety cage vertical support
14	LDR-4202	Safety cage bell hoop half	33	LS-6713	48" safety cage vertical support
15	LDR-4346	Left ladder starting bracket	34	CHT-1594	Support channel
16	LDR-4347	Right ladder starting bracket	35	CHT-1233	Ladder bracket
17	GT1-2096L-18	Left ladder brace bracket	36		3/8" filed drilled hole/weld to column
18	GT1-2096R-18	Right ladder brace bracket	37		Support column
19	LS-6615	Center brace			

Assembling the Ladder Sections

Assemble the ladder sections (26) with two splices (30) using 5/16" x 1" flange bolt (1) and 5/16" flange nut (7).

NOTE: Install bolts (1) with bolt head on the inside of the ladder.

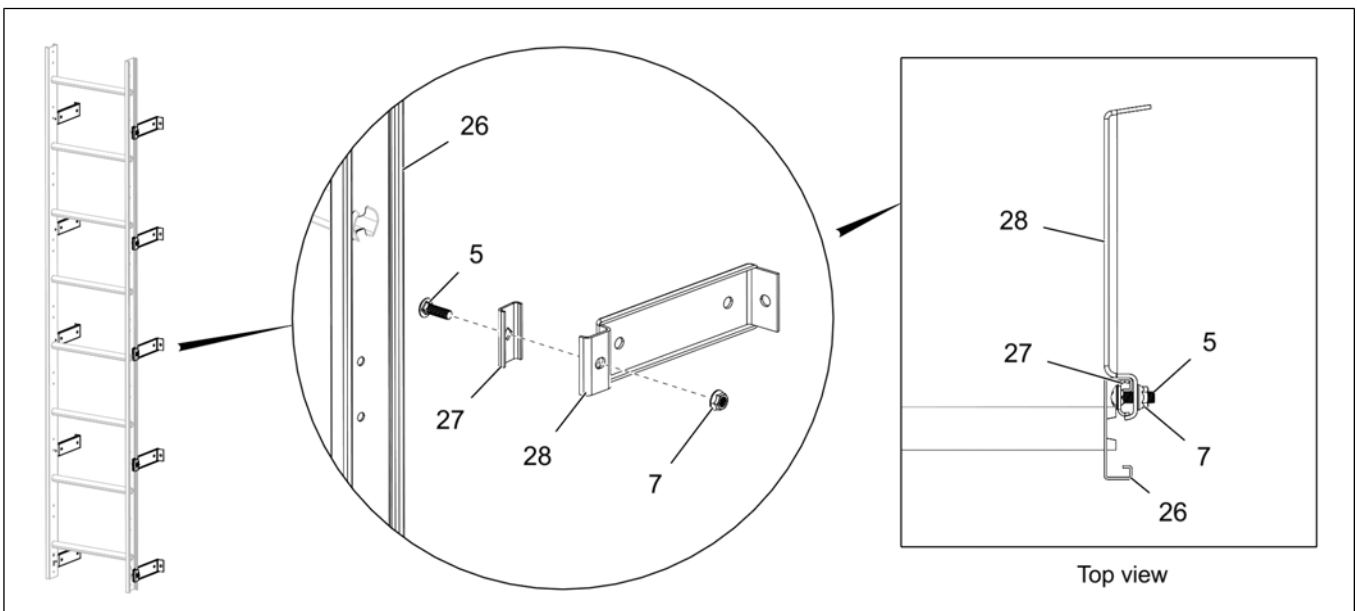
Figure 2-1 Assembling the ladder sections



Assembling the Ladder Stand-off Brackets

Slide the ladder wedge (27) along the ladder rail (26) and install it to the stand-off bracket (28) using 5/16" x 1" carriage bolts (5) and 5/16" flange nuts (7).

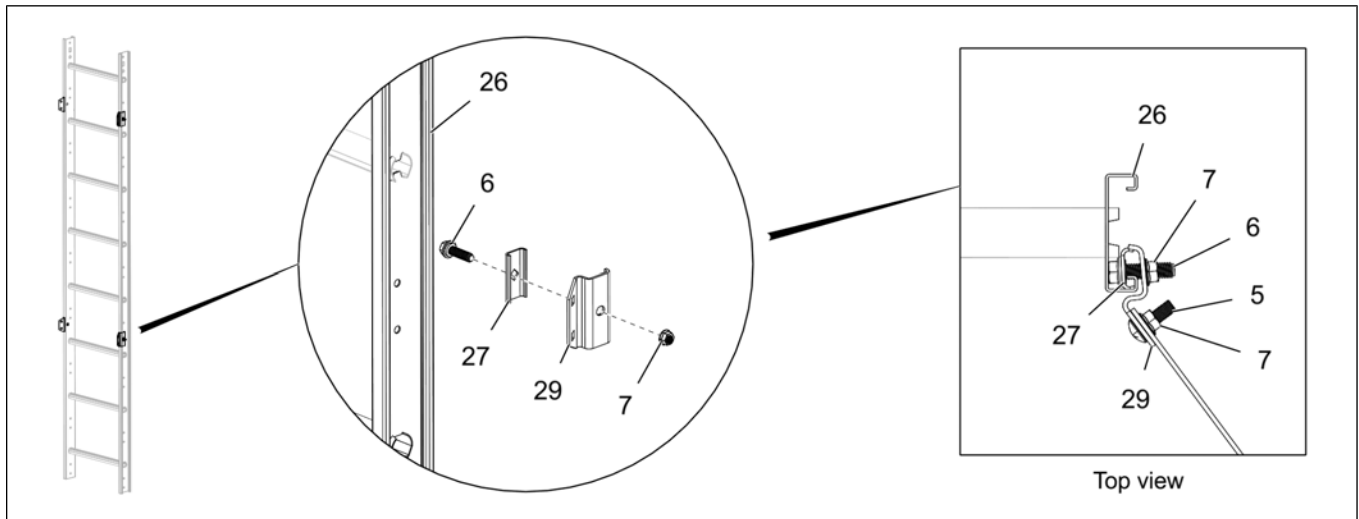
Figure 2-2 Assembling the ladder stand-off brackets



Assembling the Safety Cage Hoop Brackets

Slide the ladder wedge (27) along the ladder rail (26) and install the safety cage hoop bracket (29) to the ladder wedge (27) using 5/16" x 1-1/4" flange bolts (6) and 5/16" flange nuts (7).

Figure 2-3 Assembling the safety cage hoop brackets



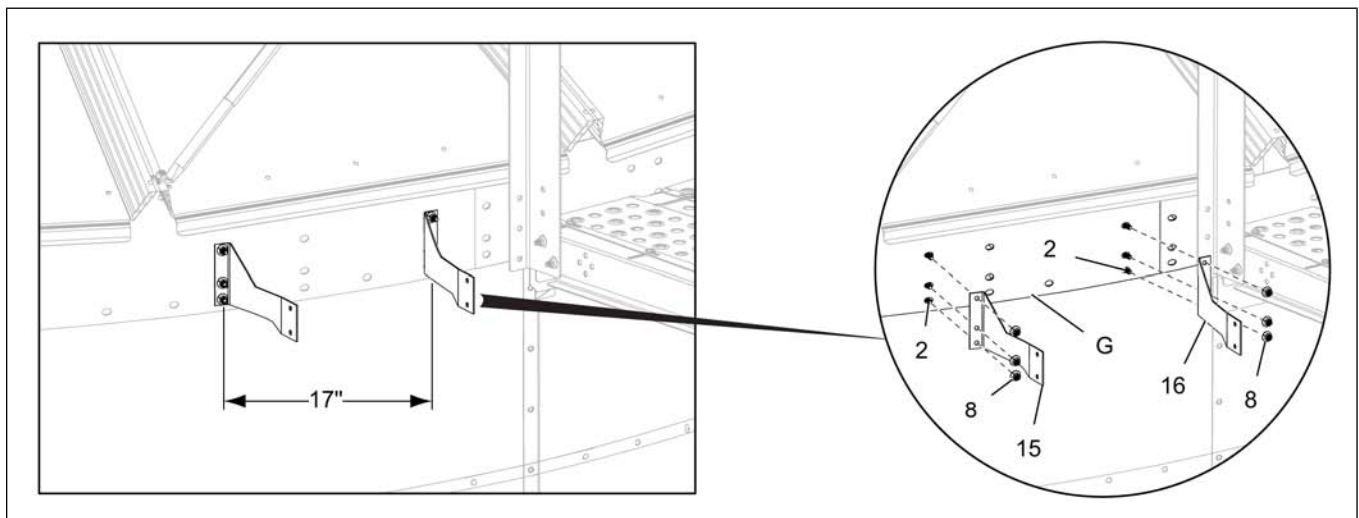
Installing the Ladder Assembly at Eave

1. Install the ladder starting brackets (15 and 16) to the roof band (G) using 3/8" x 1" flange bolts (2) and 3/8" flange nuts (8).

NOTE:

- a. Make sure to assemble the right ladder starting bracket (16) to the first set of holes on the left where two roof bands (G) overlap.
- b. Make sure to assemble the left ladder starting bracket (15) to the set of holes which are about 17" left of the first set of holes.

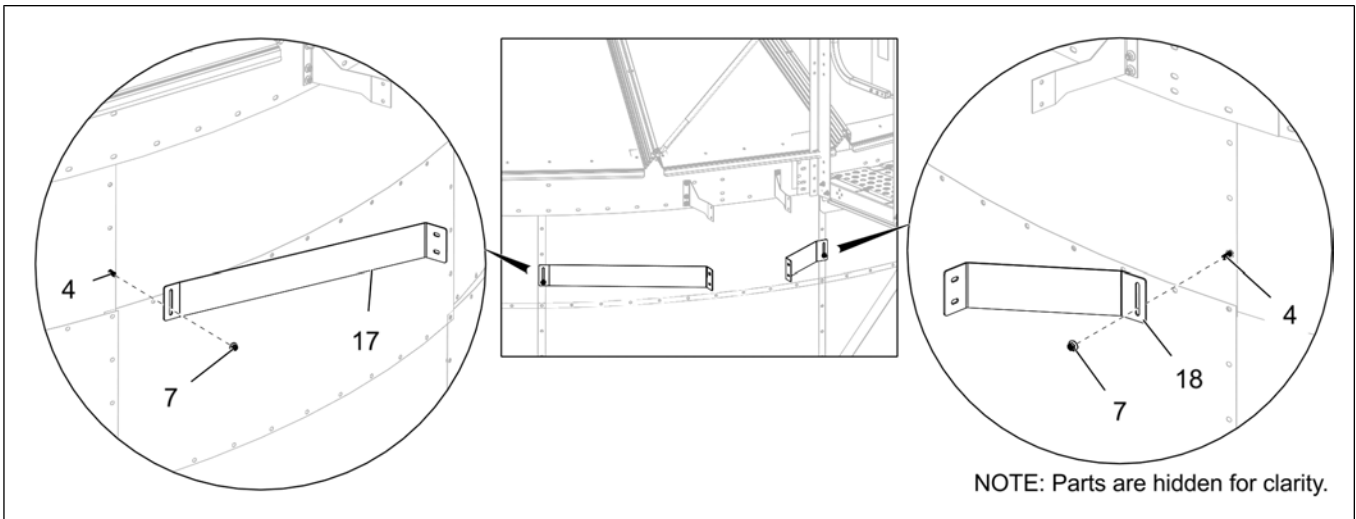
Figure 2-4 Installing the ladder starting brackets



Chapter 2: General Information

2. Install the slotted end of the left ladder brace bracket (17) and right ladder brace bracket (18) to the vertical channels using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (7).

Figure 2-5 Installing the ladder brace brackets

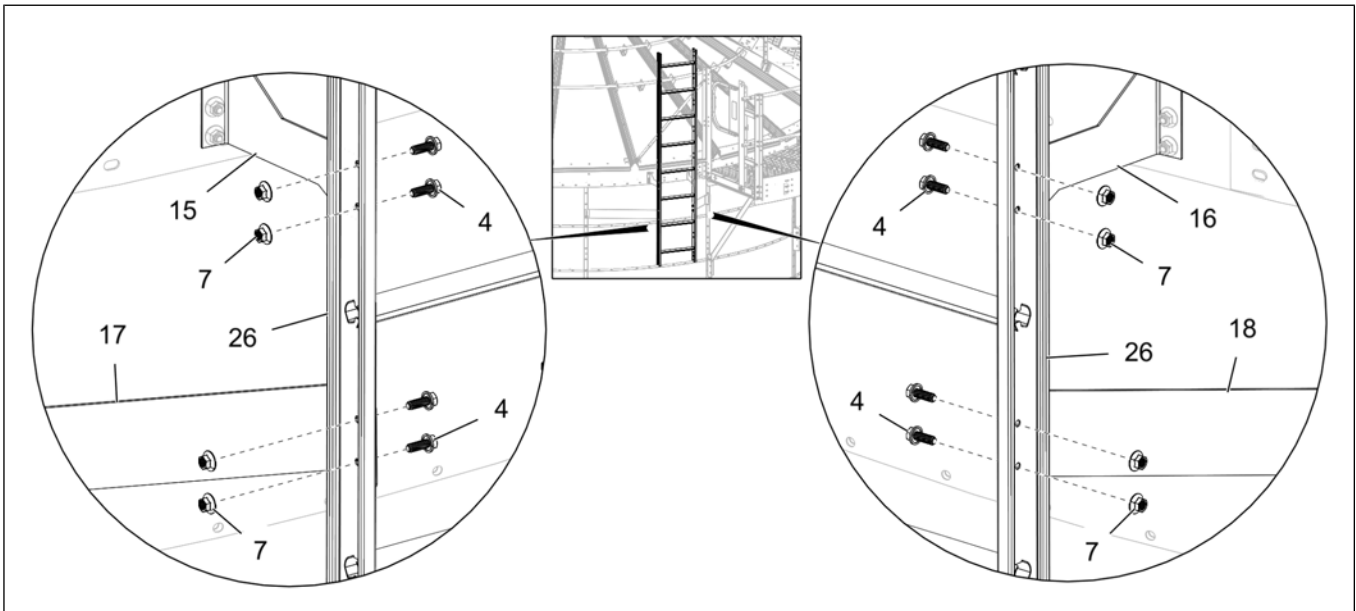


3. Install the ladder section (26) to the ladder starting brackets (15 and 16) and ladder brace brackets (17 and 18) using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (7).

NOTE:

- a. Make sure the ladder (26) will extend up approximately 4' from roof hatch platform floor.
- b. Make sure the ladder rung is aligned with the roof hatch platform floor.

Figure 2-6 Installing the ladder section



4. For the options with fall protection system, you need to install the fall protection bracket to the three rungs below the eave in the ladder assembly.

Installing the Ladder Braces

What You Should Know

The long ladder brace is comprised of one large diameter tube (19) and two smaller diameter tubes (20 and 21). The short ladder brace is comprised of one large diameter tube (22) and two smaller diameter tubes (23 and 24).

1. Install two sets of long ladder braces: Attach one smaller tube (21) to the top of the ladder rail (26) and attach the other smaller tube (20) to the roof panel (H).
2. Install two sets of short ladder braces: Attach one smaller tube (24) to the ladder rail (26) and attach the other smaller tube (23) to the roof panel (H).

NOTE:

- a. Make sure to slide and adjust the smaller tubes (21 and 24) in both the ladder brace so that the bottom flattened end of the smaller tubes (20 and 23) reaches the roof panel (H).
- b. Use 5/16" x 1" flange bolts (1) and 5/16" flange nuts (7) to install the smaller tubes (20 and 23) to the roof panel (H).
- c. Use 5/16" x 1" flange bolts (1) and 5/16" flange nuts (7) to install the smaller tubes (21 and 24) to the ladder extension rail (26).
- d. Make sure to field drill four 5/16" holes per brace through both large and smaller tubes and bolt together using 1/4" x 1-1/2" bolts (3) and 1/4" nuts (9) to prevent the braces from slipping.

Figure 2-7 Installing the ladder braces

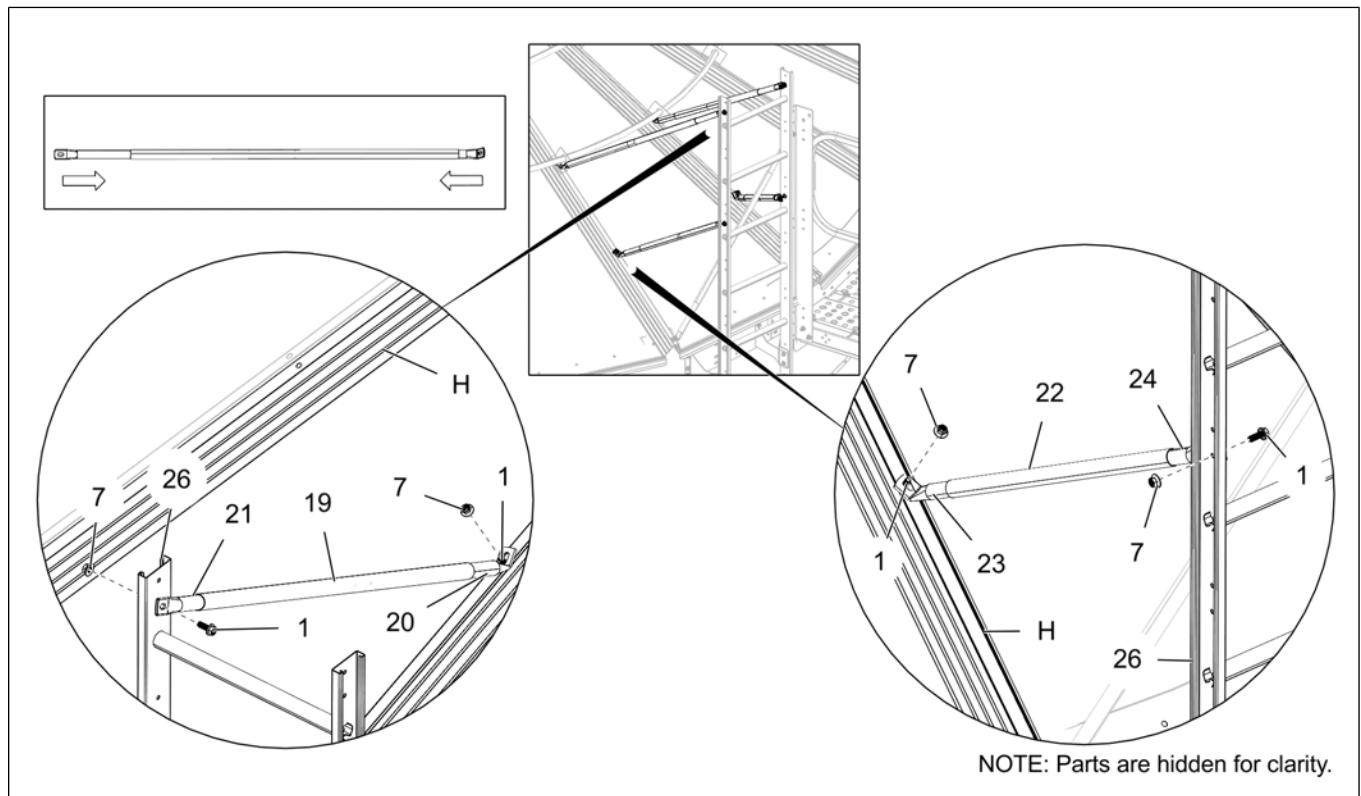
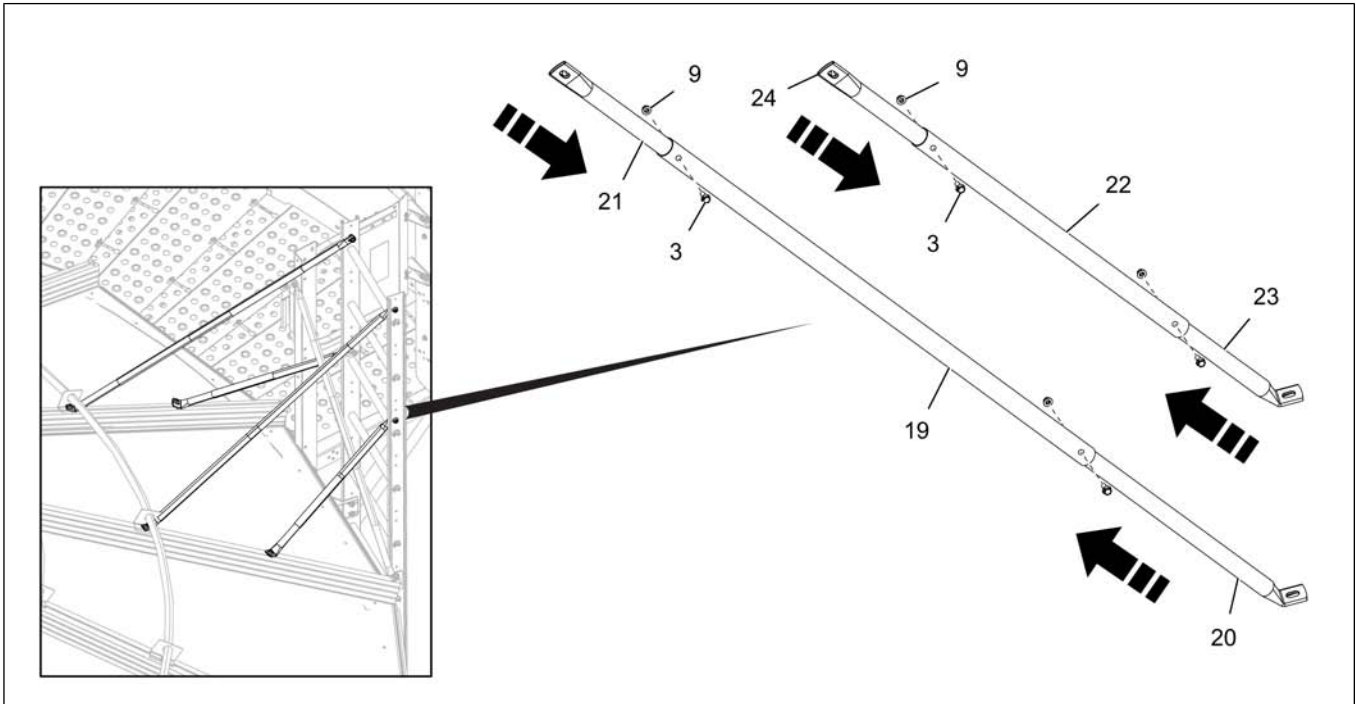


Figure 2-8 Securing the ladder braces

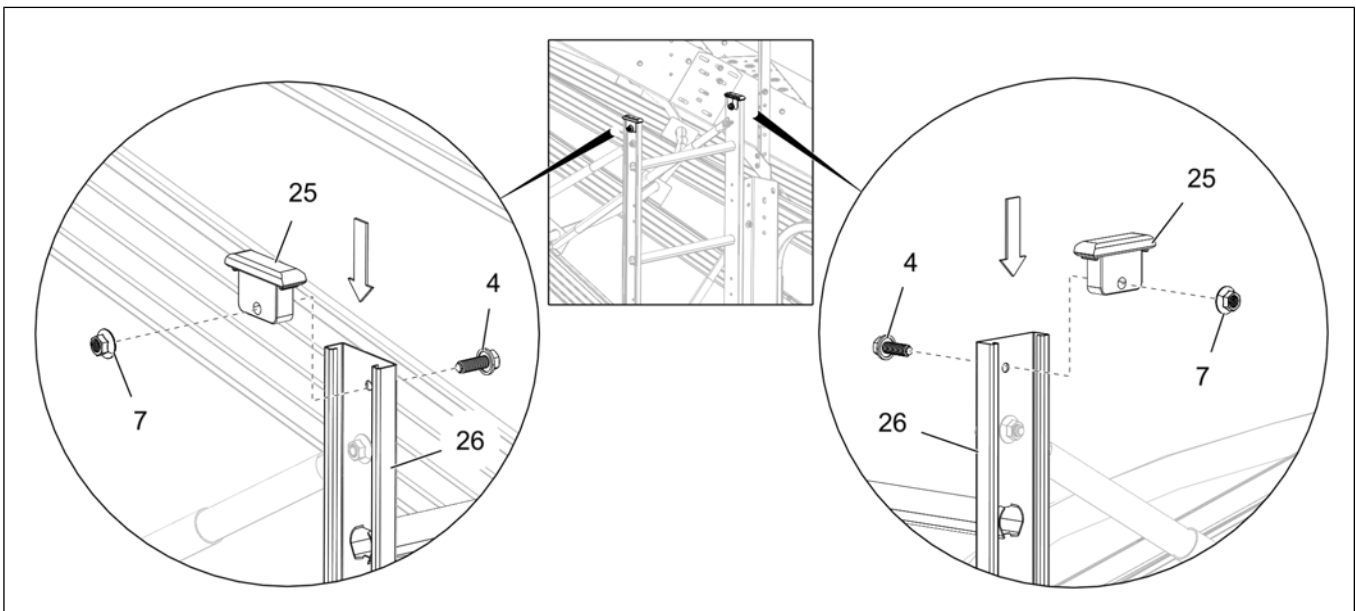


Installing the End Cap to the Ladder

The end cap helps to protect your hands from the sharp edges on the ends of the ladder.

1. Install the end caps (25) to both the left and right side of the ladder (26) by snapping the end caps (25) onto the top of the ladder (26).
2. Secure the end caps (25) in place using 5/16" x 1" flange bolt (4) and 5/16" flange nut (7).

Figure 2-9 Installing the end caps



Installing the Ladder Assembly at the Base

1. Measure 32" from the last stand-off bracket at the base sheet and position the first support channel (34) with the support column (37).

NOTE:

- a. Weld the support channel (34) to the support column (37) or field drill a 3/8" hole (36) in the support column (37) and install the support channel (34) using 5/16" x 1-1/4" bolts (10) and 5/16" nuts (12).
- b. The number of support channels (34) to be installed depends on the diameter of the dryer. Refer to the [Table 2-1, page 19](#).

2. Check for the ladder position and install two ladder brackets (35) to each of the support channel (34) using 5/16" x 1" bolts (11) and 5/16" nuts (12).

Figure 2-10 Installing the ladder support channel and ladder bracket

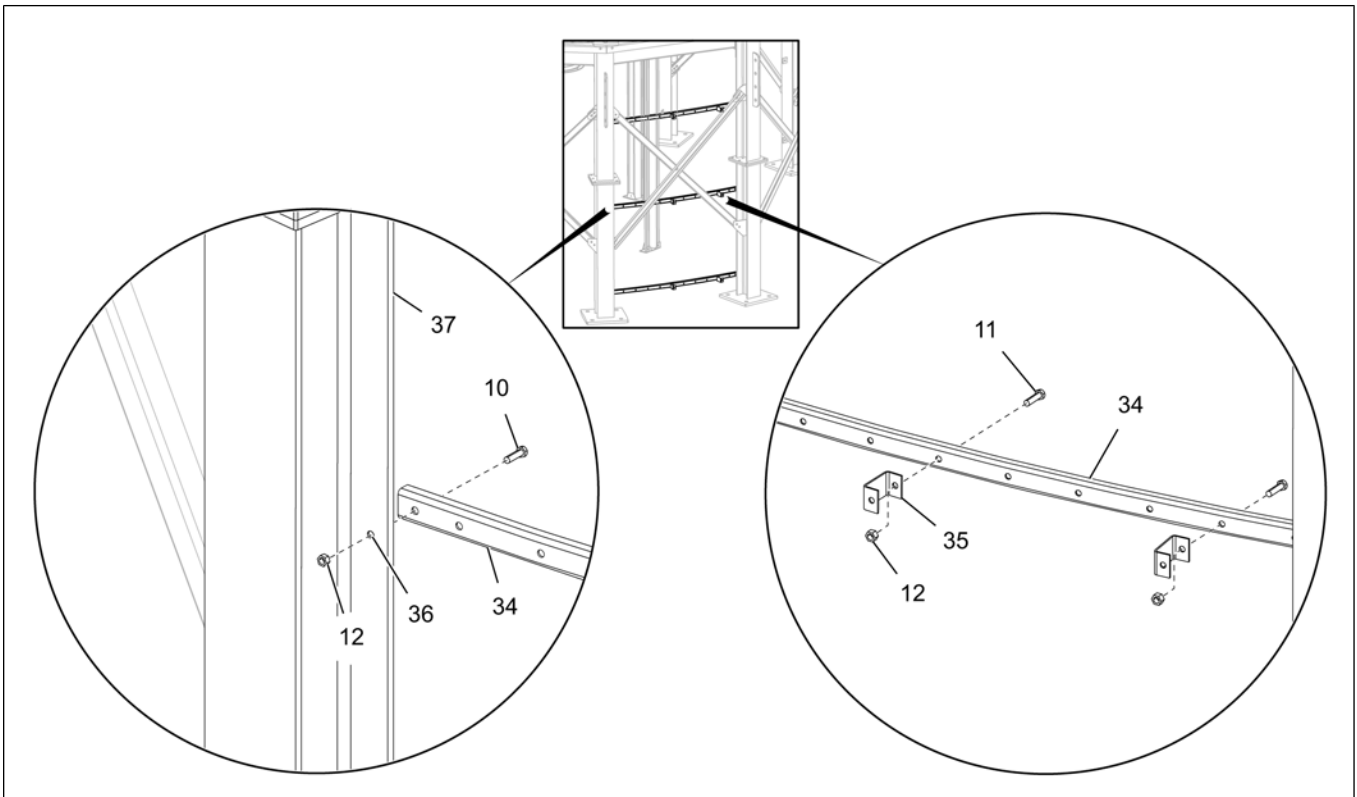


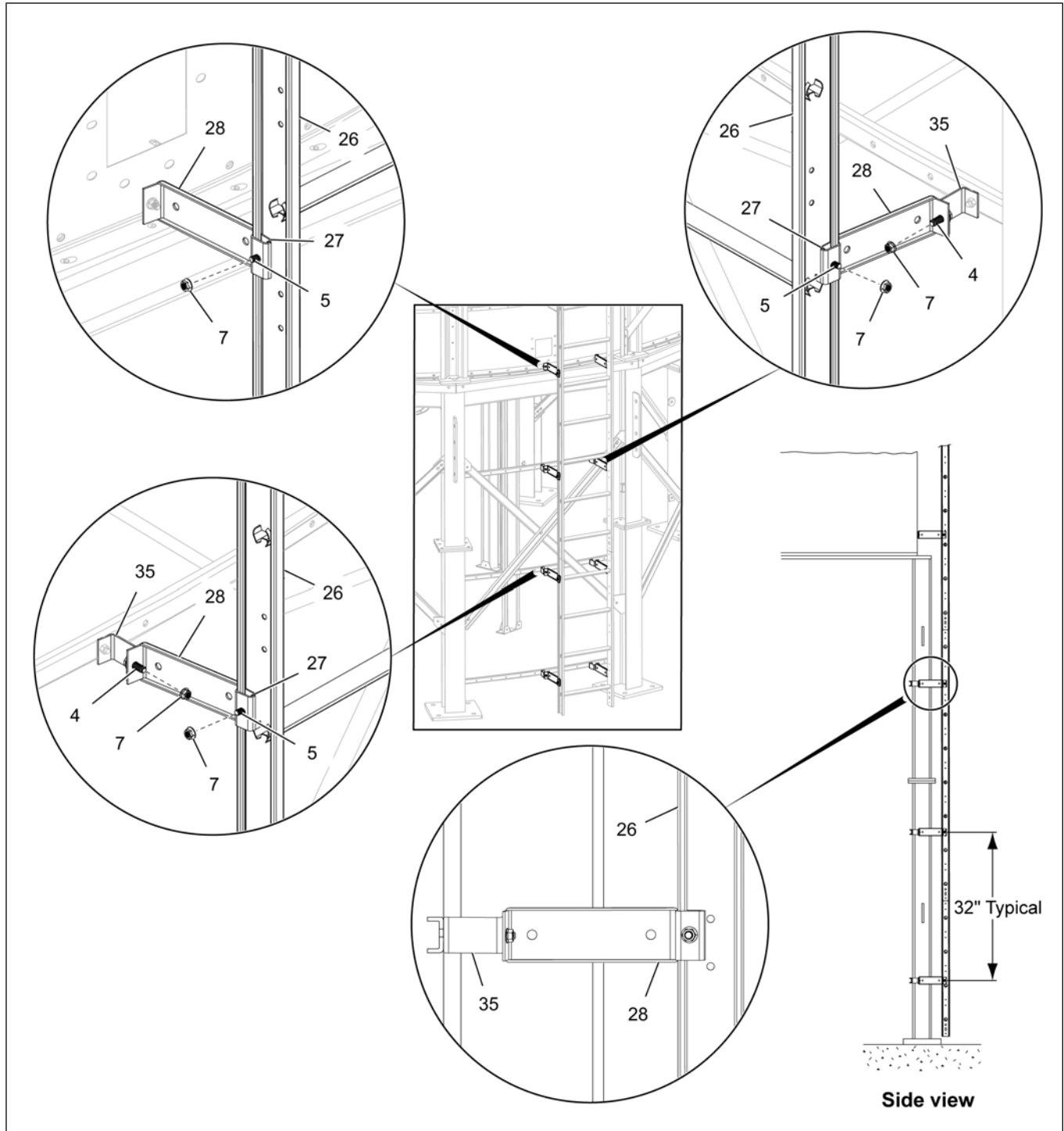
Table 2-1 Support channel and ladder bracket details

Diameter	Number of Support Channels (34)	Number of Ladder Brackets (35)
12'	3	6
18'	4	8
24'	5	10
30'	6	12

Chapter 2: General Information

3. Install the ladder stand-off brackets (28) to each of the ladder brackets (35) using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (7).
4. Slide the ladder wedge (27) along the ladder rail (26) and install it to the stand-off bracket (28) using 5/16" x 1" carriage bolts (5) and 5/16" flange nuts (7).

Figure 2-11 *Installing the ladder stand-off brackets and ladder*



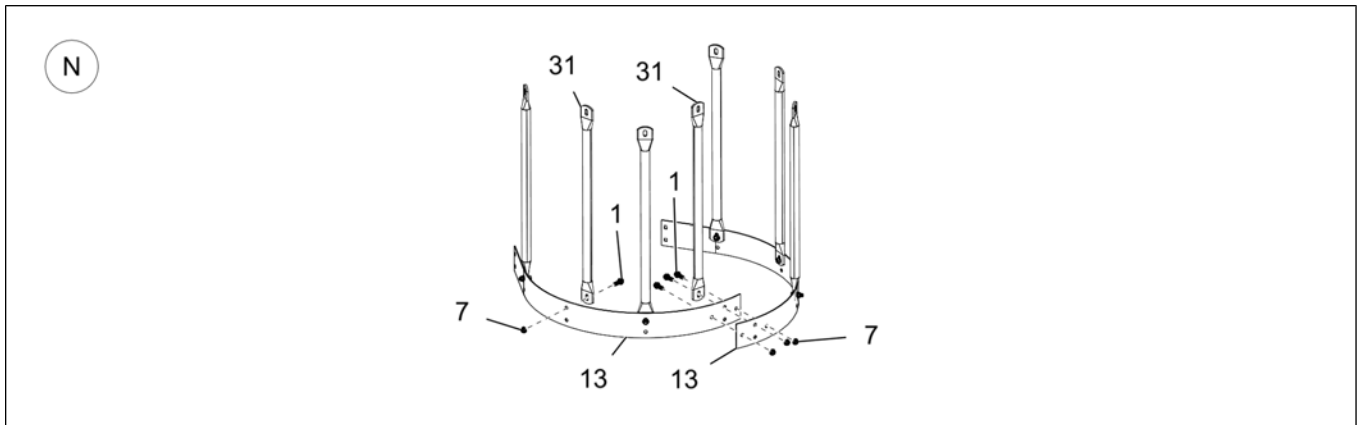
Assembling the 24" Safety Cage Section

1. Assemble the two safety cage hoop halves (13) together using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (7).
2. Attach the seven 24" vertical supports (31) to the top row holes of the hoop halves (13) assembly using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (7).

NOTE:

- a. Install bolts (1) with bolt heads on the inside of the cage. Hand tighten the bolts (1).
- b. The 24" safety cage is used only for ladder assembly with safety cage and fall protection system

Figure 2-12 Assembling the 24" safety cages



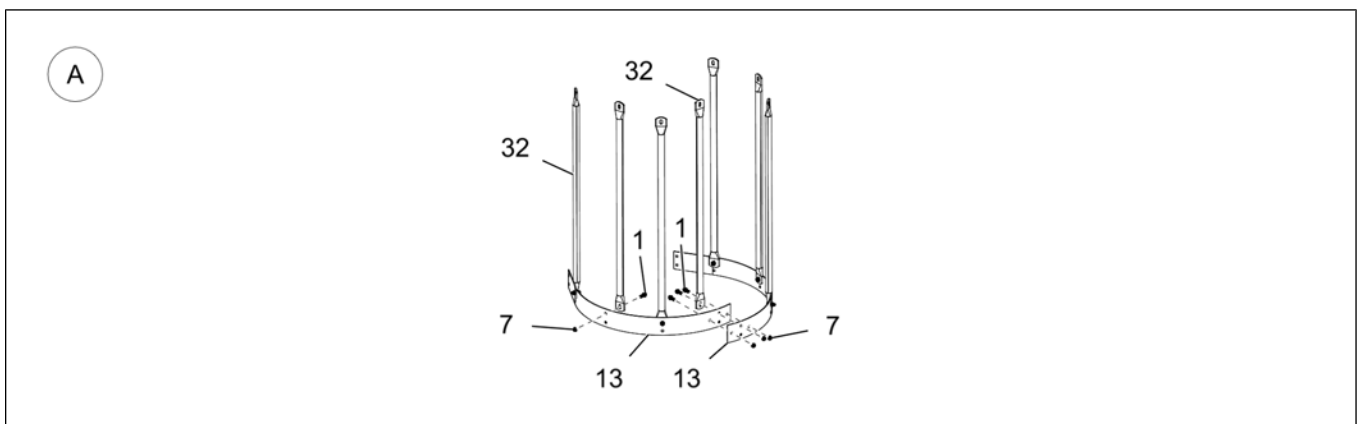
Assembling the 36" Safety Cage Section

1. Assemble the two safety cage hoop halves (13) together using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (7).
2. Attach the seven 36" vertical supports (32) to the top row holes of the hoop halves (13) assembly using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (7).

NOTE:

- a. Install bolts (1) with bolt heads on the inside of the cage. Hand tighten the bolts (1).
- b. The 36" safety cage is used only for ladder assembly with safety cage and fall protection system

Figure 2-13 Assembling the 36" safety cages



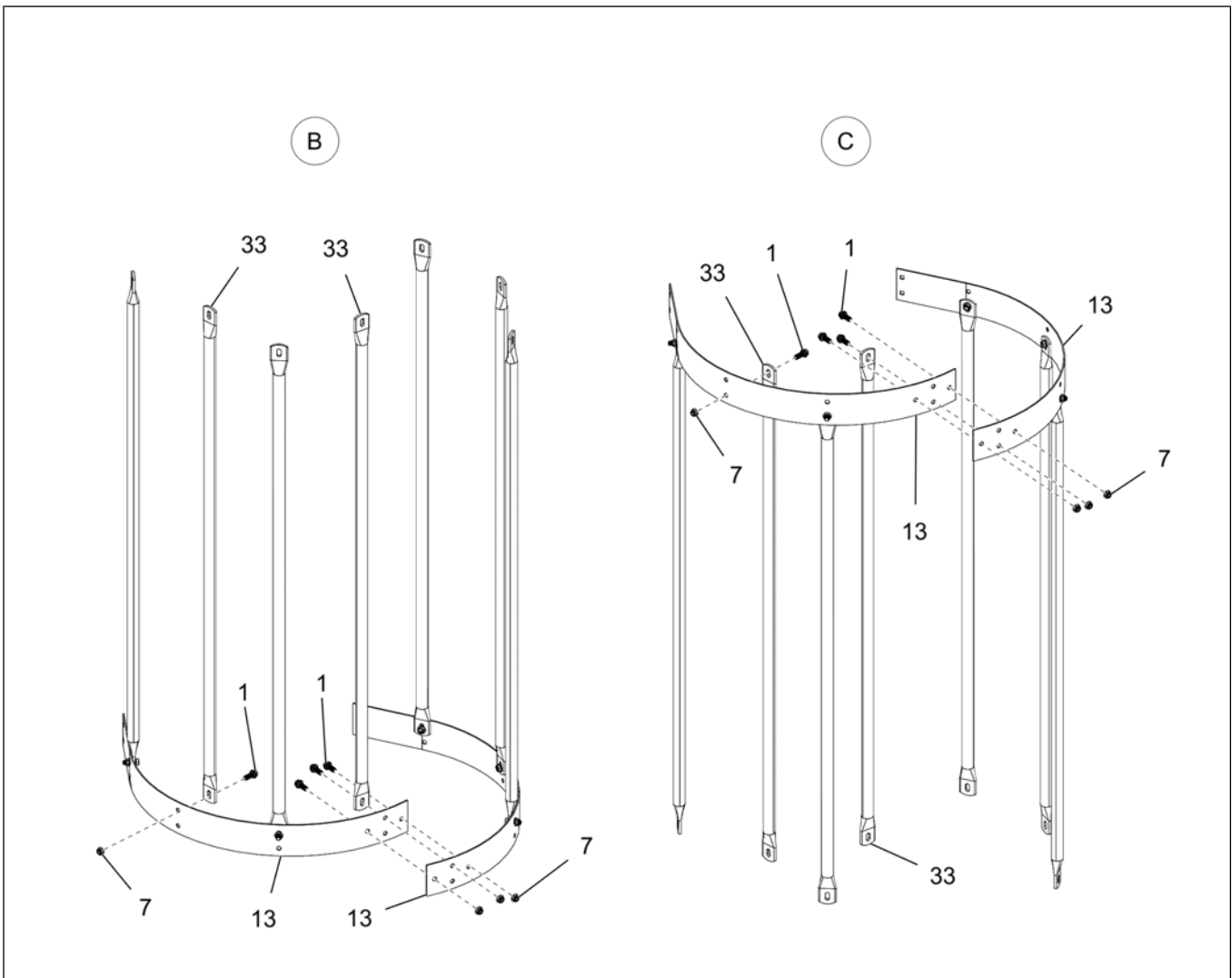
Assembling the 48" Safety Cage Section

1. Assemble the two safety cage hoop halves (13) together using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (7).
2. Attach the seven 48" vertical supports (33) to the top row holes of the hoop halves (13) assembly using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (7).

NOTE:

- a. Install bolts (1) with bolt heads on the inside of the cage. Hand tighten the bolts (1).
- b. At some places, you may need to install the safety cage section inverted as shown in (C).
- c. The 48" safety cages (B and C) are used in both the below mentioned options.
 - i. Ladder assembly with safety cage.
 - ii. Ladder assembly with safety cage and fall protection system.

Figure 2-14 Assembling the 48" safety cages



Assembling the 24" Bell Safety Cage Section

1. Assemble the two safety cage bell hoop halves (14) together using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (7).
2. Attach the seven 24" vertical supports (31) to the top row holes of the bell hoop halves (14) assembly using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (7).

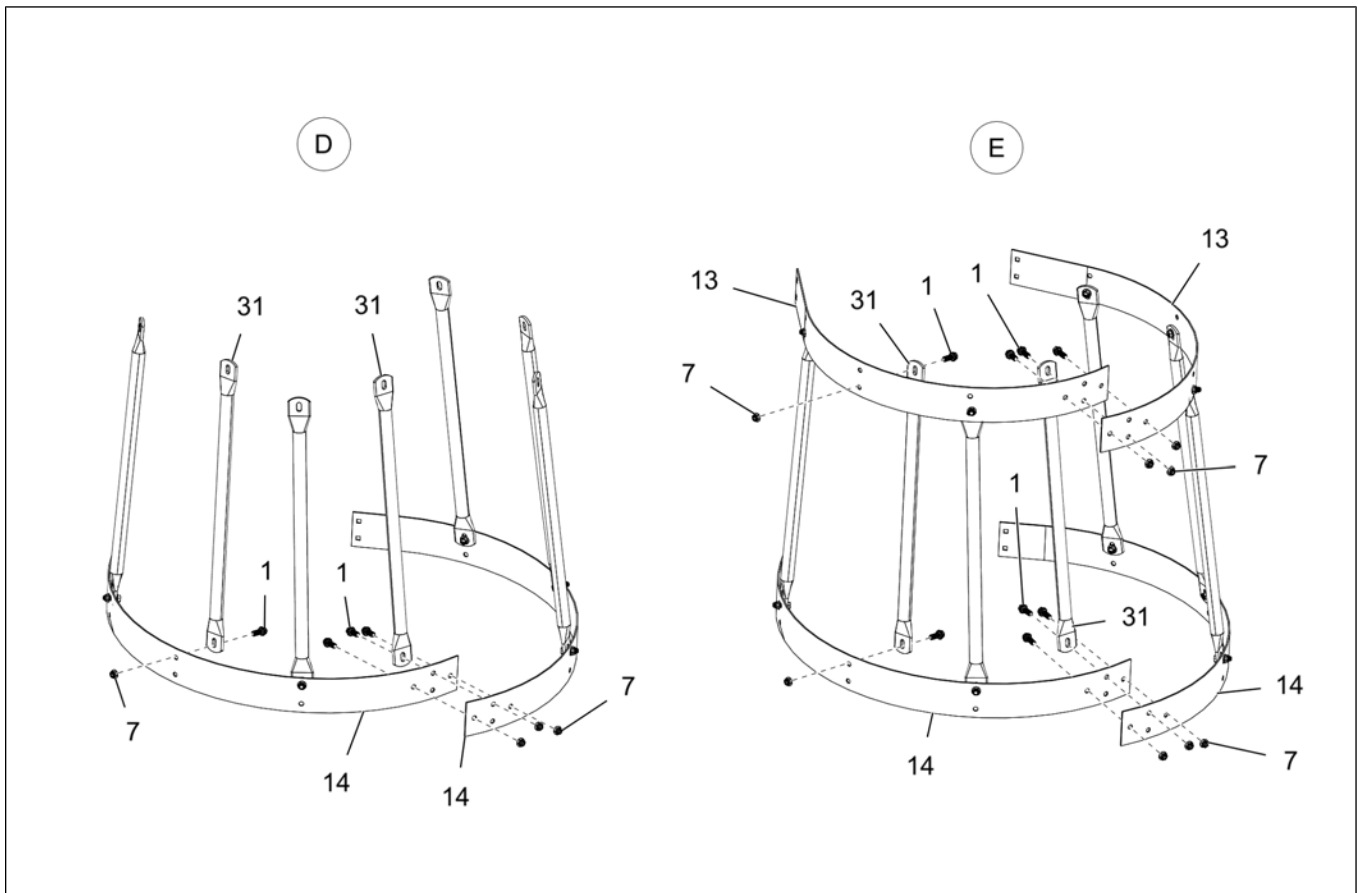
NOTE:

- a. The vertical supports (31) must be bent at the flat area to allow for the angle of the bell section.
 - b. Install bolts (1) with bolt heads on the inside of the cage. Hand tighten the bolts (1).
3. At some cases, you may need to additionally install two safety cage hoop halves (13) to the top of the 24" vertical supports (31) as shown in (E) using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (7).

NOTE: The 24" bell safety cages (D and E) are used in both the below mentioned options.

- a. Ladder assembly with safety cage.
- b. Ladder assembly with safety cage and fall protection system.

Figure 2-15 Assembling the 24" bell safety cages



Assembling the 48" Bell Safety Cage Section

1. Assemble the two safety cage bell hoop halves (14) together using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (7).
2. Attach the seven 48" vertical supports (33) to the top row holes of the bell hoop halves (14) assembly using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (7).

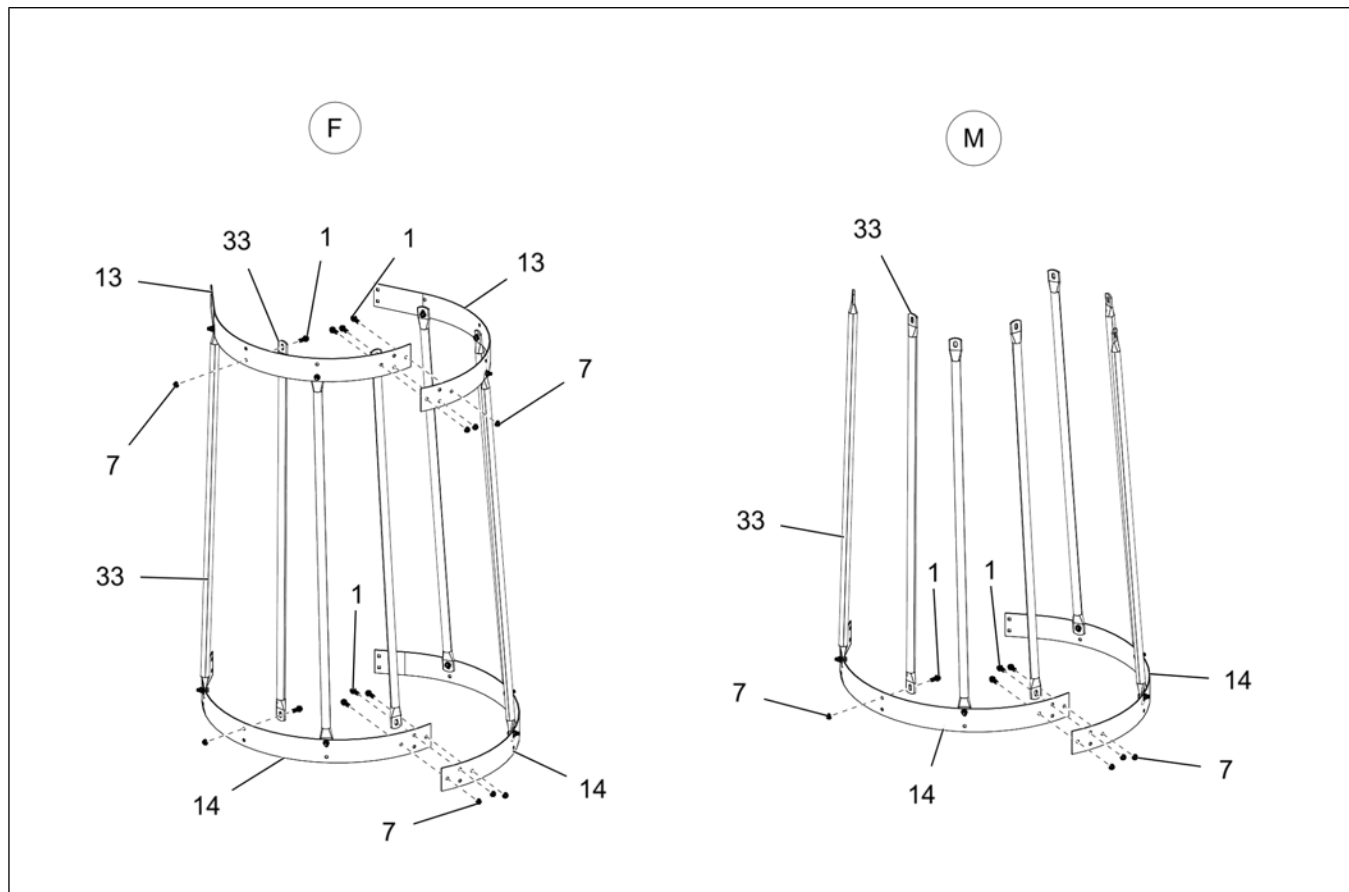
NOTE:

- a. The vertical supports (33) must be bent at the flat area to allow for the angle of the bell section.
 - b. Install bolts (1) with bolt heads on the inside of the cage. Hand tighten the bolts (1).
3. At some cases, you may need to additionally install two safety cage hoop halves (13) to the top of the 48" vertical supports (33) as shown in (F) using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (7).

NOTE:

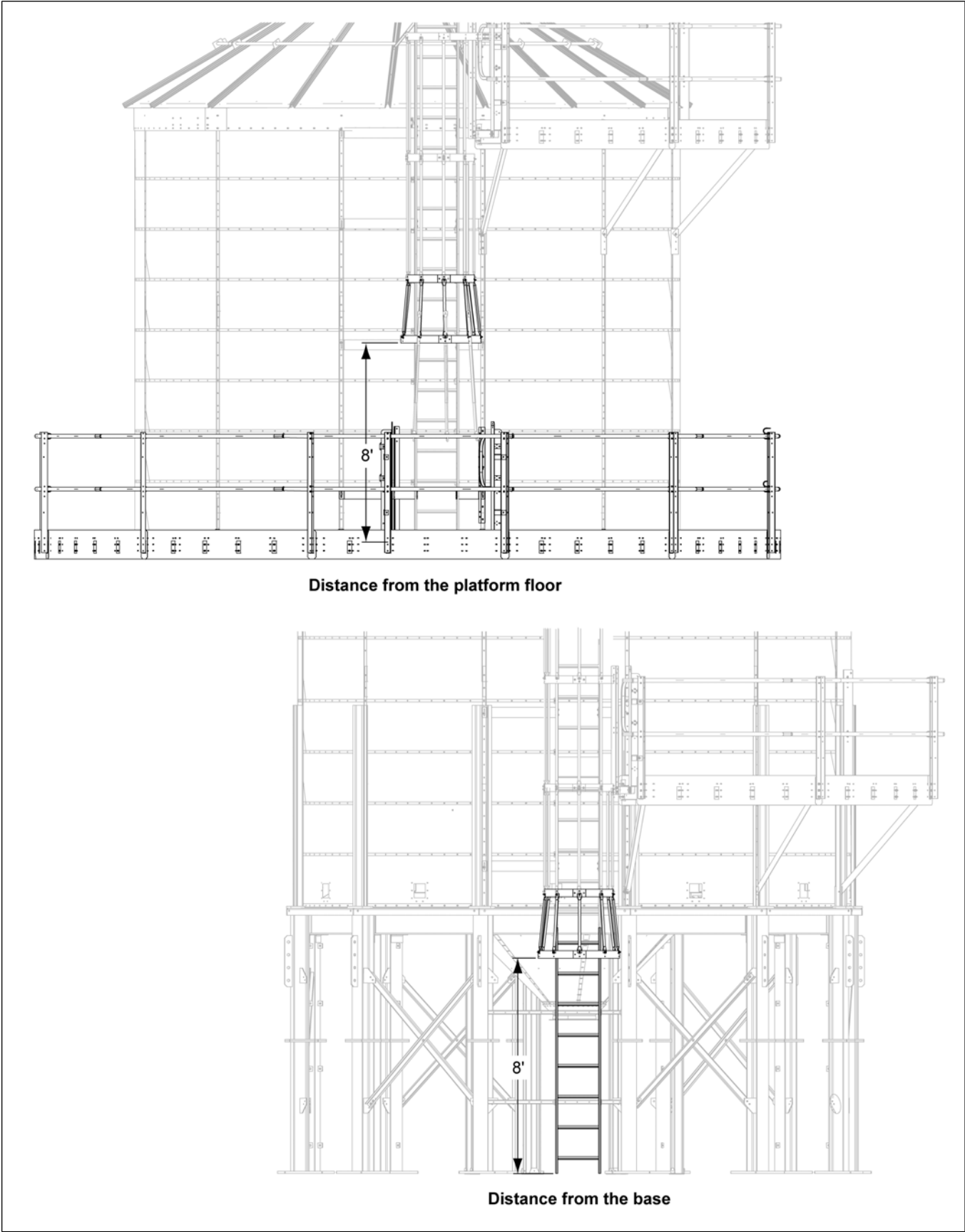
- a. The 48" bell safety cages (F and M) are used in both the below mentioned options.
 - i. Ladder assembly with safety cage.
 - ii. Ladder assembly with safety cage and fall protection system.

Figure 2-16 Assembling the 48" bell safety cages



NOTE: Maintain a minimum distance of 8' between the last safety cage and platform floor or base.

Figure 2-17 Distance of the safety cage from the platform floor or base



NOTES

3 Straight Run Ladder Assembly with Fall Protection System

Topics Covered in this Chapter

- Parts List
- Ladder Assembly Layout with Fall Protection System
- Installing the Ladder Assembly between the Eave Platform and Catwalk
- Installing the Ladder Assembly at the Catwalk
- Installing the Ladder Assembly at the Fan Style Platform
- Installing the Fall Protection System

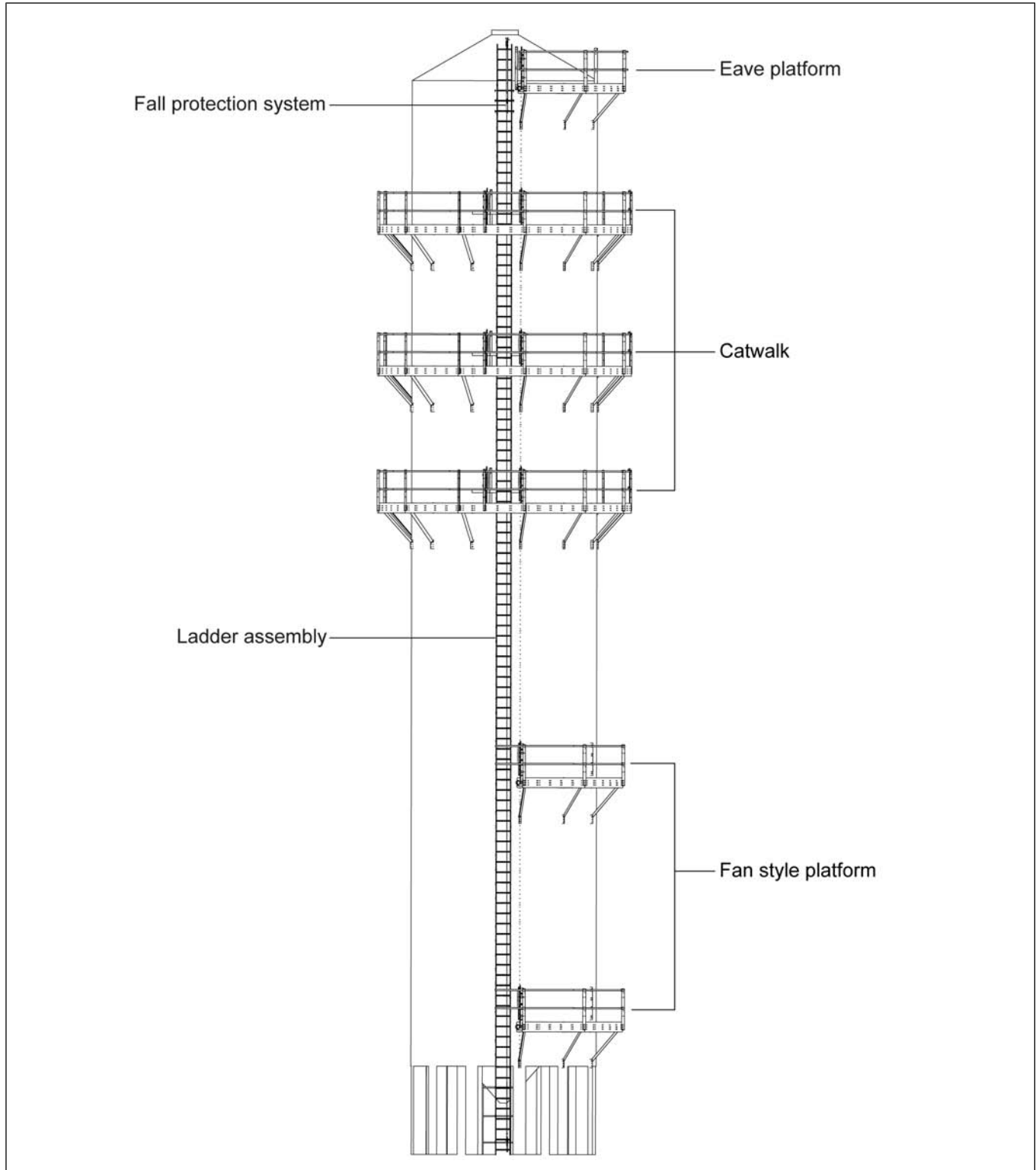
Parts List

Ref #	Part #	Description
1	S-7470	5/16" x 1" flange bolt
2	S-3550	5/16" x 1" carriage bolt
3	S-3611	5/16" flange nut
4	LDR-4314	Ladder stand-off bracket
5		Ladder section
6	GT1-2096L-18	Left ladder brace bracket
7	GT1-2096R-18	Right ladder brace bracket
8	LDR-4198	Ladder stand-off wedge
9		Solid rod inserts
10		Cotter pin
11		Extended bracket package

Ladder Assembly Layout with Fall Protection System

The ladder assembly is straight run from the eave to the bottom (legs of the dryer) with no safety cages. The fall protection system uses a three rung bracket at the eave and a two rung bracket at the bottom with the rope straight run from the eave to the bottom.

Figure 3-1 Ladder assembly layout with fall protection system (Z-4742)



Installing the Ladder Assembly between the Eave Platform and Catwalk

Before You Begin

You need to install the ladder and ladder braces at the eave. To install the ladder at the eave, refer to [Installing the Ladder Assembly at Eave, page 15](#). To install the ladder braces, refer to [Installing the Ladder Braces, page 17](#). To install the end caps, refer to [Installing the End Cap to the Ladder, page 18](#).

1. Install one set of ladder stand-off brackets (4) where perforated sheets overlap using existing vertical seam bolts (I) and nuts (J).

NOTE: As a rule of thumb, make sure to use one set of ladder stand-off brackets (4) on every overlap, unless otherwise shown.

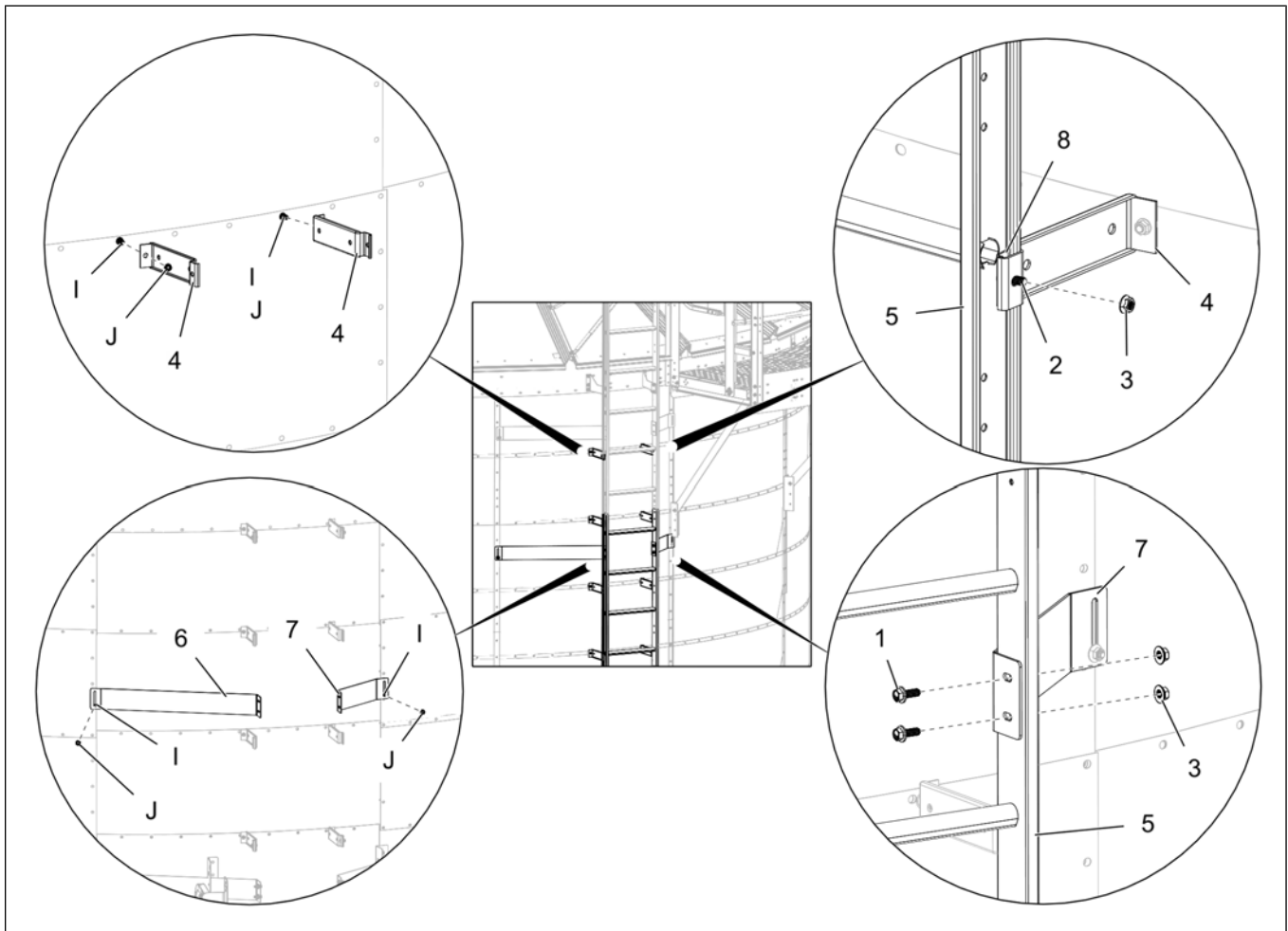
2. Install the ladder brace brackets (6 and 7) to the vertical channels using existing vertical seam bolts (I) and nuts (J).

NOTE: Use one set of ladder brace brackets (6 and 7) per 4' ladder section and two sets per 8' ladder section.

3. Install the ladder section (5) to the ladder brace brackets (6 and 7) using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (3).

4. Slide the ladder wedge (8) along the ladder rail (5) and install it to the stand-off bracket (4) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (3).

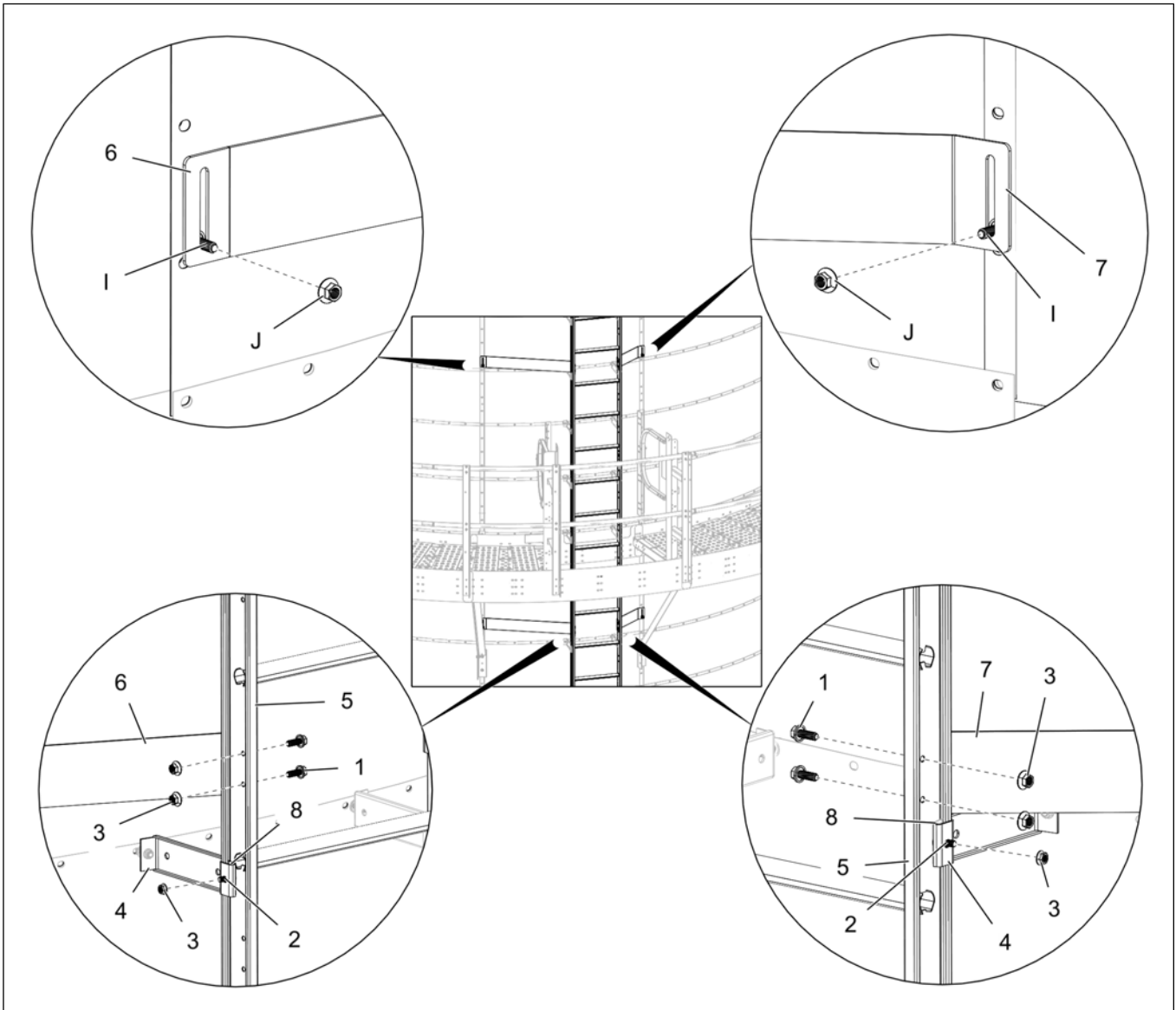
Figure 3-2 Installing the ladder stand-off and ladder brace brackets



Installing the Ladder Assembly at the Catwalk

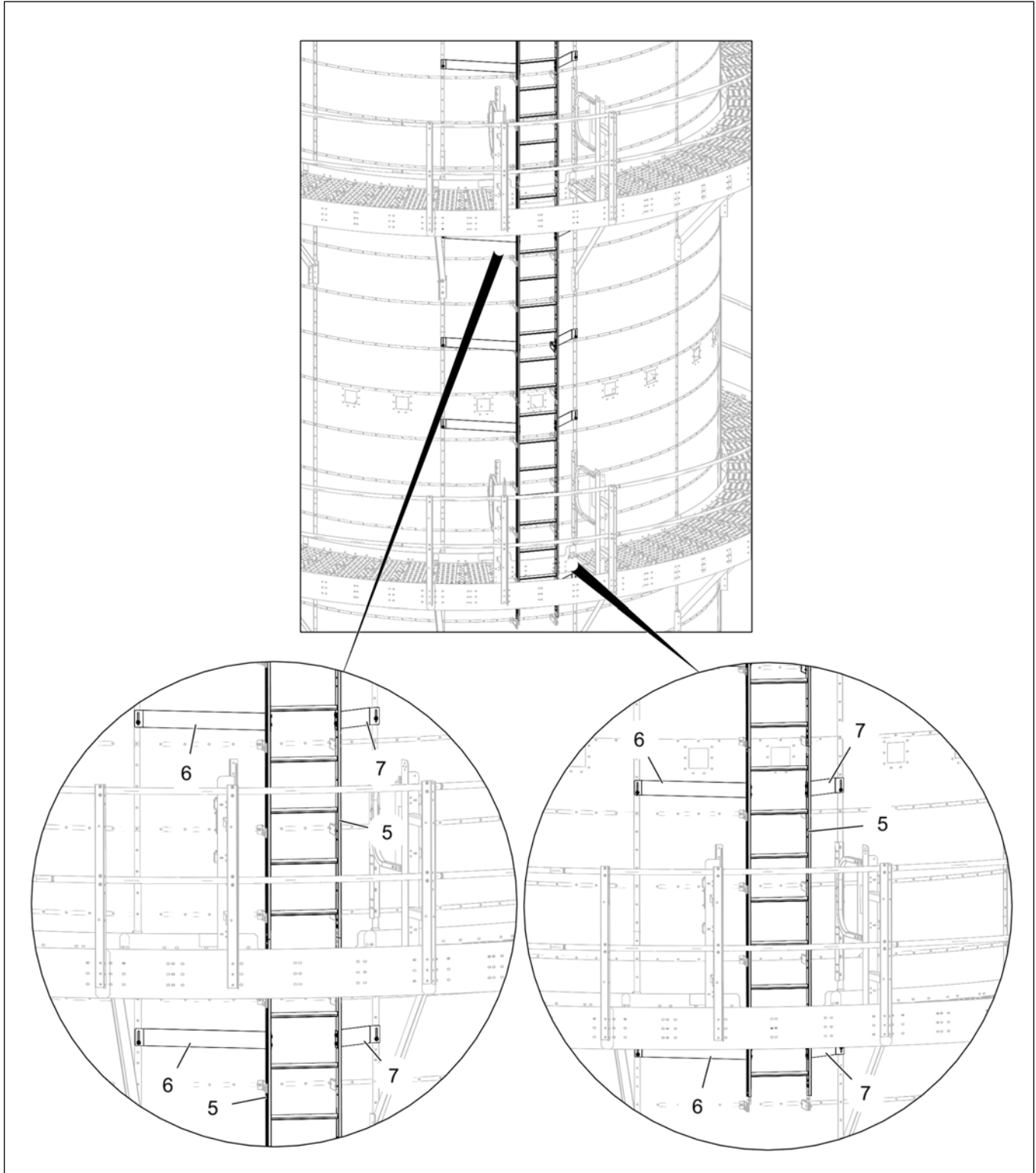
1. Install the slotted end of the left ladder brace bracket (6) and right ladder brace bracket (7) to the vertical channels using existing vertical seam bolts (I) and nuts (J).
2. Install the ladder section (5) to the ladder brace brackets (6 and 7) using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (3).
3. Slide the ladder wedge (8) along the ladder rail (5) and install it to the stand-off bracket (4) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (3).

Figure 3-3 Installing the ladder at the catwalk



- Repeat the above steps to install the ladder sections (5) at the remaining catwalks.

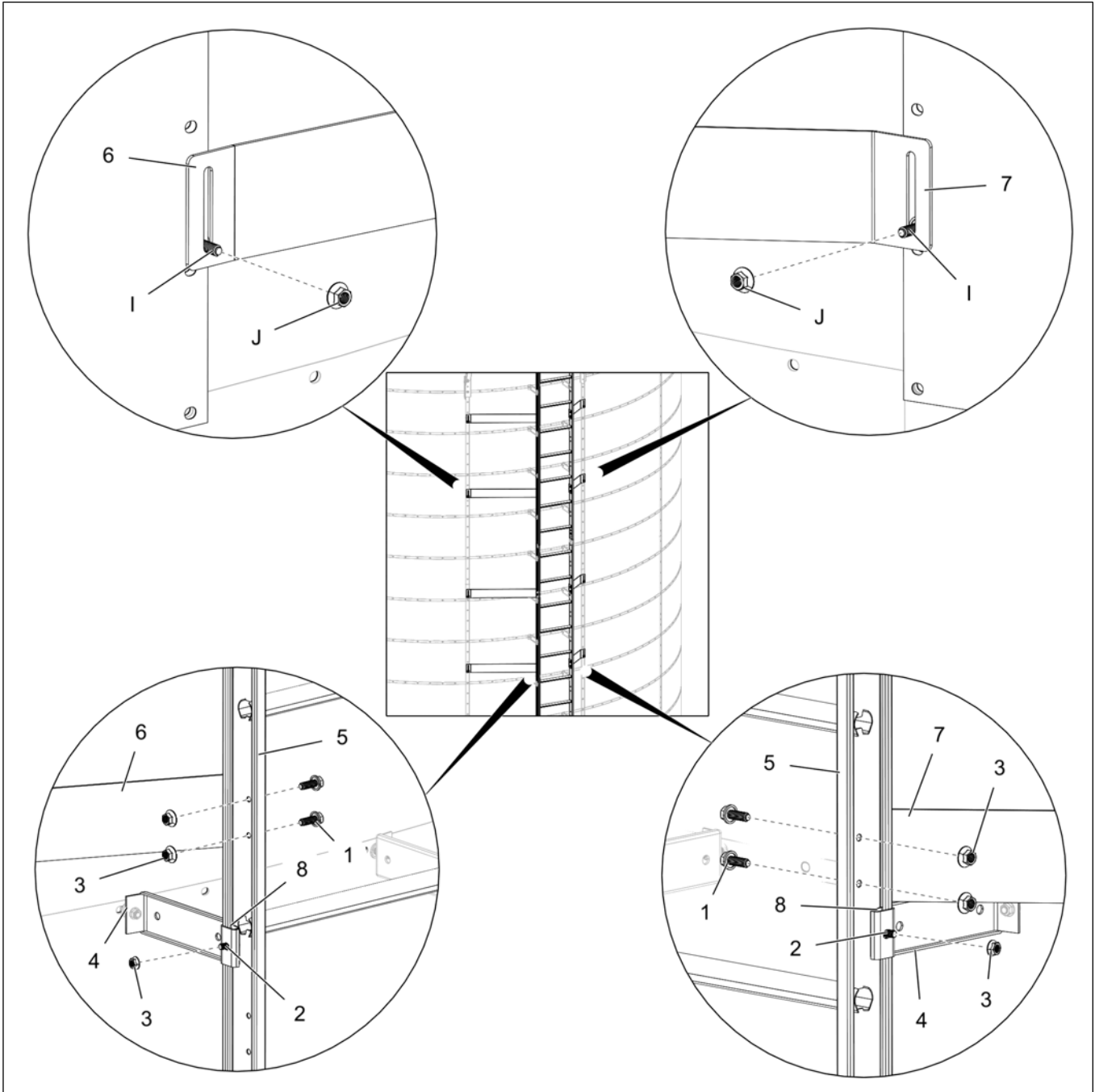
Figure 3-4 Installing the ladder at remaining catwalks



Chapter 3: Straight Run Ladder Assembly with Fall Protection System

5. Continue to install the ladder sections (5) to the ladder stand-off brackets (4) and ladder brace brackets (6 and 7).

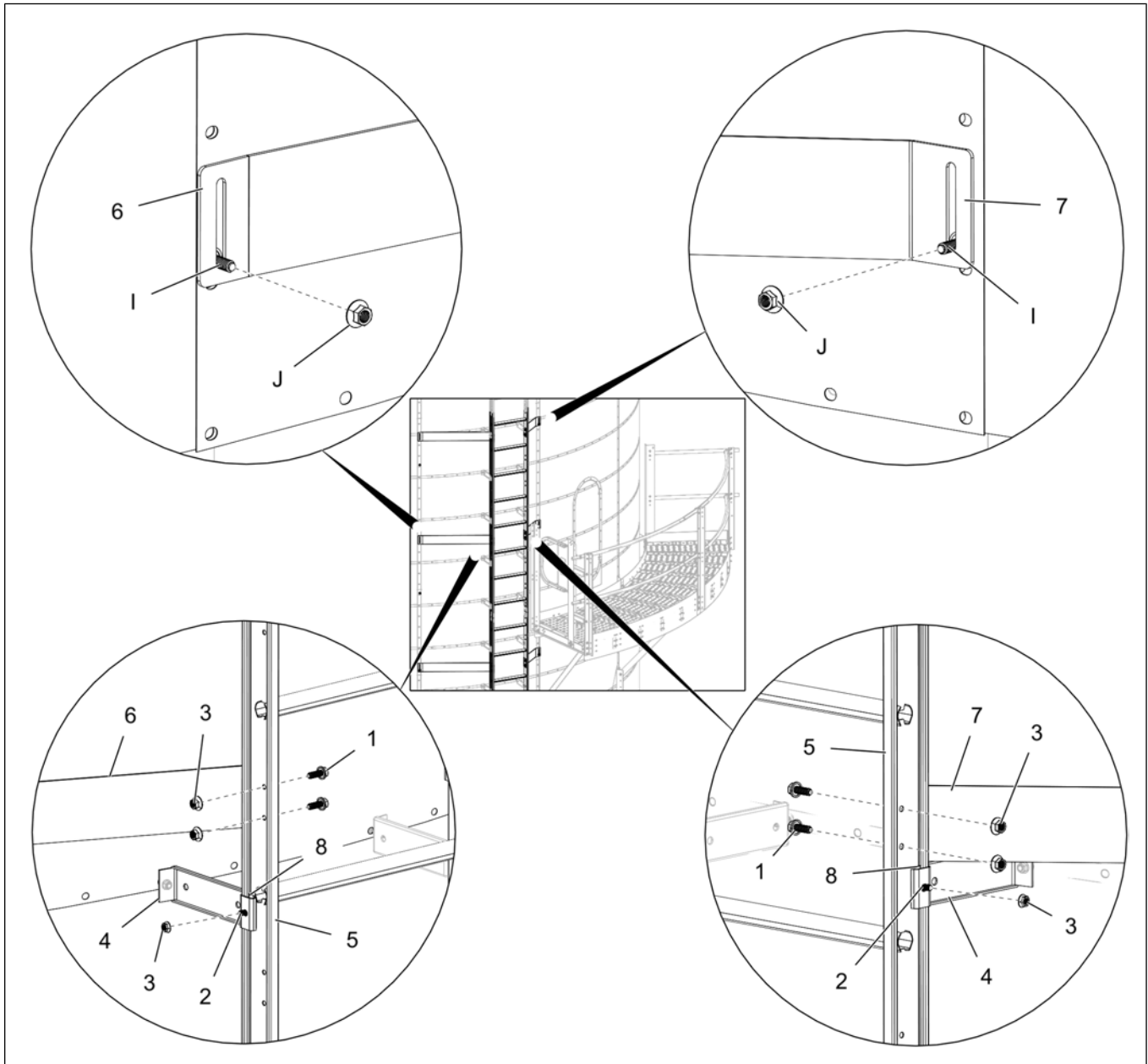
Figure 3-5 Installing the ladder at remaining sections



Installing the Ladder Assembly at the Fan Style Platform

1. Install the slotted end of the left ladder brace bracket (6) and right ladder brace bracket (7) to the vertical channels using existing vertical seam bolts (I) and nuts (J).
2. Install the ladder section (5) to the ladder brace brackets (6 and 7) using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (3).
3. Slide the ladder wedge (8) along the ladder rail (5) and install it to the stand-off bracket (4) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (3).

Figure 3-6 Installing the ladder at the fan style platform



4. Continue to install the ladder sections (7) at the base of the dryer. To install the ladder sections at the base, refer to [Installing the Ladder Assembly at the Base, page 19](#).

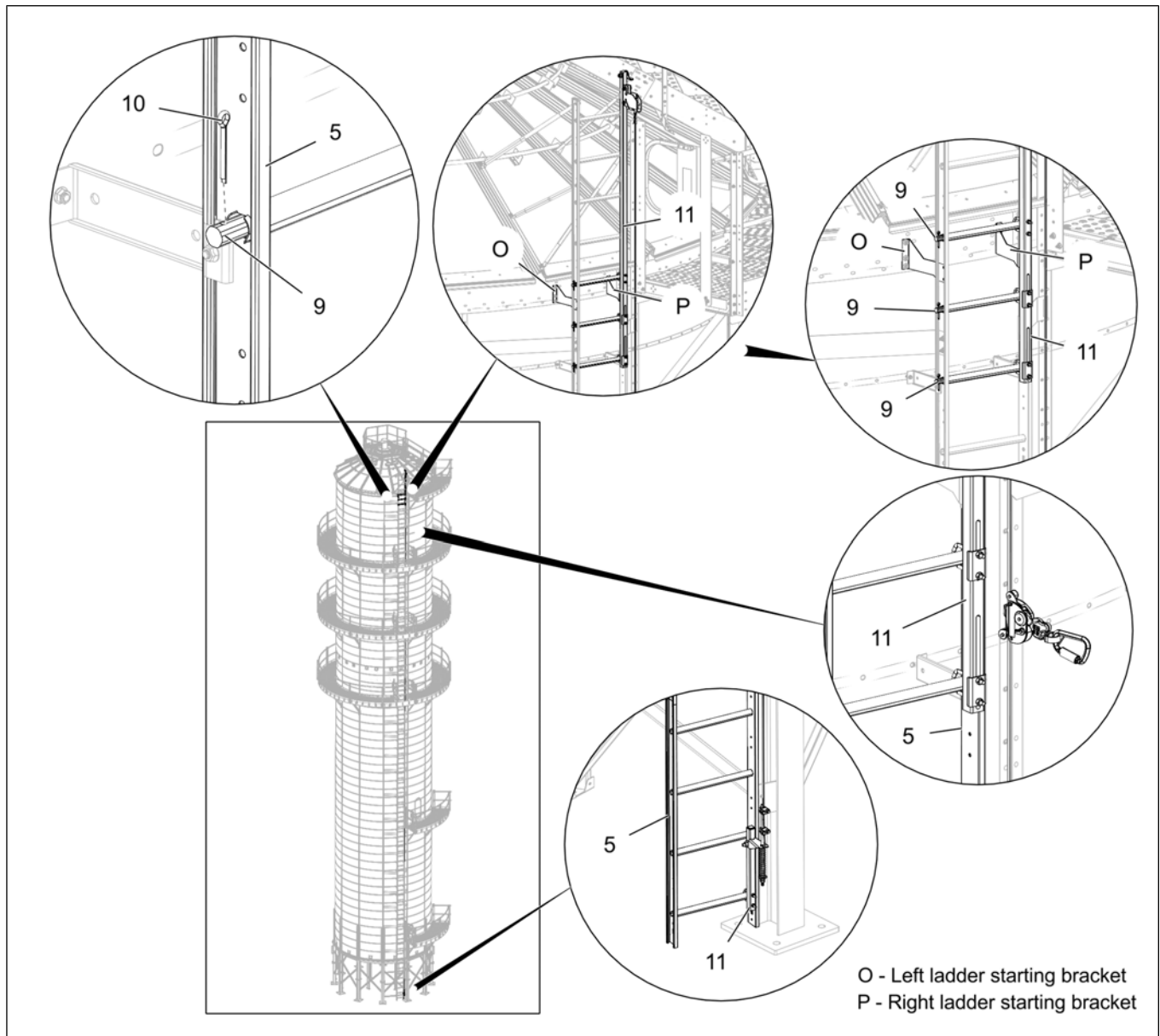
Installing the Fall Protection System

1. Slide the solid rod inserts (9) into the hollow rungs of the ladder (5) where the extended bracket package (11) will be installed.

IMPORTANT: *The solid rods inserts (9) will be installed to the first three rungs counted from eave.*

2. Secure the solid rod inserts (9) from slipping out by installing cotter pins (10) on both the sides.
3. Use the extended bracket package (11) and install the fall protection system to the right side of the ladder (5).

Figure 3-7 Installing the fall protection system



4 Ladder Assembly with Safety Cage and Fall Protection System

Topics Covered in this Chapter

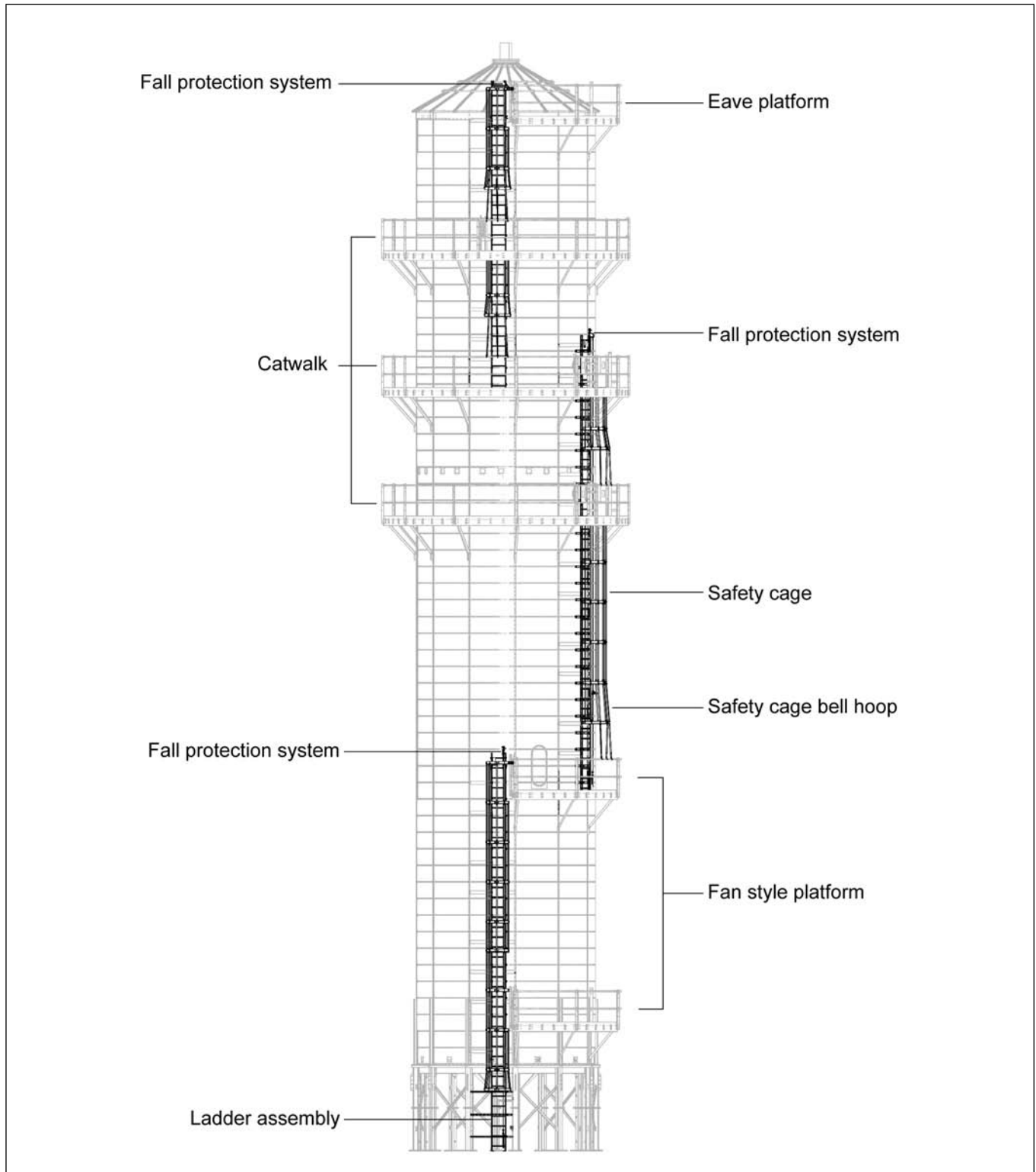
- Parts List
- Ladder Assembly Layout with Safety Cage and Fall Protection System
- Installing the Ladder Assembly between the Eave Platform and Catwalk
- Installing the Safety Cage between the Eave Platform and Catwalk
- Installing the Fall Protection System between the Eave Platform and Catwalk
- Installing the Ladder Assembly between the Catwalk and Fan Style Platform
- Installing the Safety Cage between the Catwalk and Fan Style Platform
- Installing the Fall Protection System between the Catwalk and Fan Style Platform
- Installing the Ladder Assembly between the Fan Style Platforms
- Installing the Safety Cage between the Fan Style Platform and Base
- Installing the Fall Protection System between the Fan Style Platform and Base

Parts List

Ref #	Part #	Description
1	S-7470	5/16" x 1" flange bolt
2	S-3550	5/16" x 1" carriage bolt
3	S-7483	5/16" x 1-1/4" flange bolt with sealing washer
4	S-10260	5/16" x 1" flange bolt with sealing washer
5	S-10268	5/16" flange nut
6	LDR-4314	Ladder stand-off bracket
7		Ladder section
8	GT1-2096L-18	Left ladder brace bracket
9	GT1-2096R-18	Right ladder brace bracket
10	LDR-4198	Ladder stand-off wedge
11	LDR-4199	Safety cage hoop bracket
12	LDR-4201	Safety cage hoop half
13	LS-5284	Safety cage hoop adapter
14	LS-5285	Safety cage hoop adjust plate
15	LS-6713	48" Safety cage vertical support
16	LDR-4087	Large intermediate handrail
17	LDR-4088	Small intermediate handrail
18	GT3-1661	Insulated clamp
19		Solid rod inserts
20		Cotter pin
21		Extended bracket package
22		Standard bracket package

Ladder Assembly Layout with Safety Cage and Fall Protection System

Figure 4-1 Ladder layout with safety cage and fall protection system (Z-4742)



Installing the Ladder Assembly between the Eave Platform and Catwalk

Before You Begin

You need to install the ladder and ladder braces at the eave. To install the ladder at the eave, refer to [Installing the Ladder Assembly at Eave, page 15](#). To install the ladder braces, refer to [Installing the Ladder Braces, page 17](#). To install the end caps, refer to [Installing the End Cap to the Ladder, page 18](#).

1. Install one set of ladder stand-off brackets (6) where perforated sheets overlap using existing vertical seam bolts (I) and nuts (J).

NOTE: As a rule of thumb, make sure to use one set of ladder stand-off brackets (6) on every overlap, unless otherwise shown.

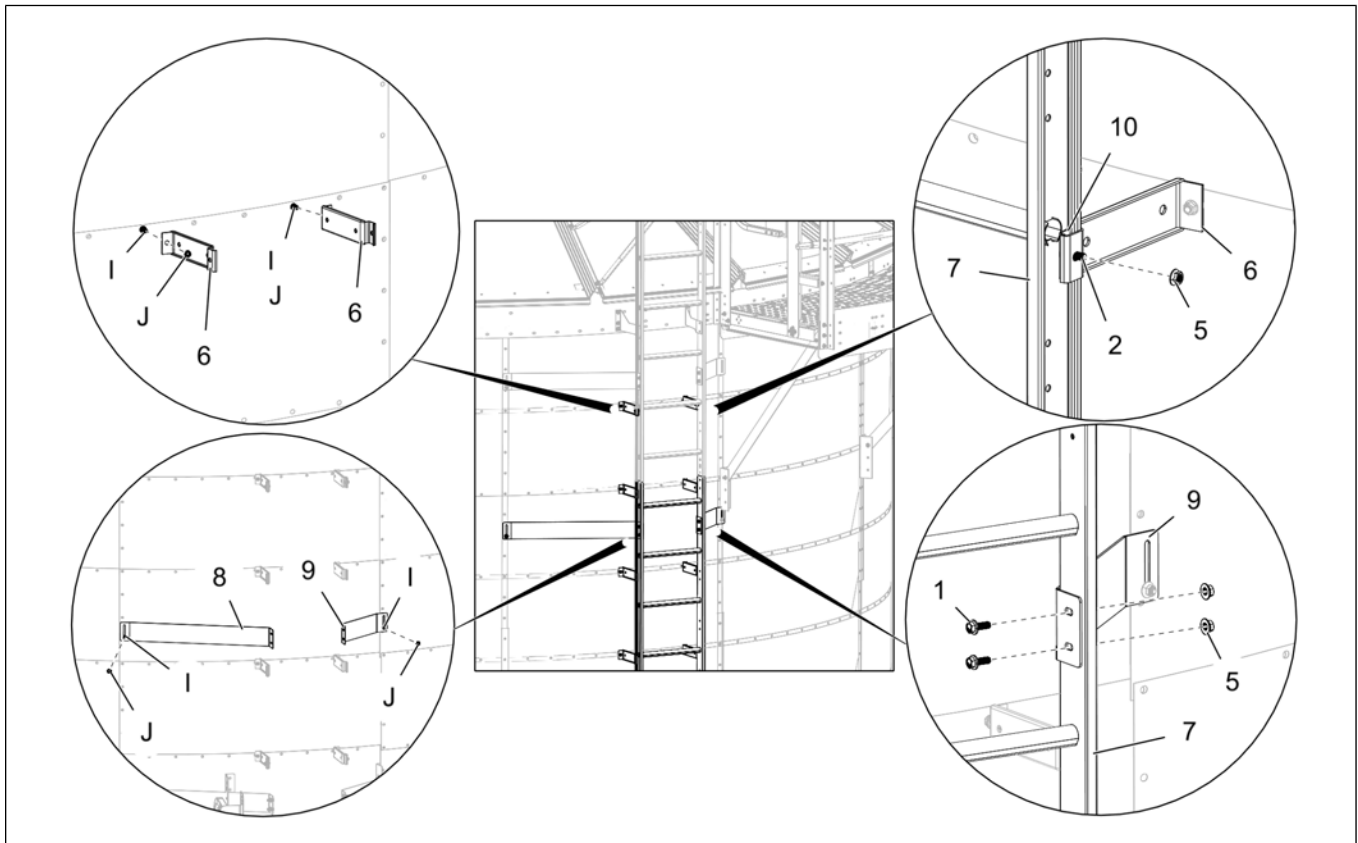
2. Install the ladder brace brackets (8 and 9) to the vertical channels using existing vertical seam bolts (I) and nuts (J).

NOTE: Use one set of ladder brace brackets (8 and 9) per 4' ladder section and two sets per 8' ladder section.

3. Install the ladder section (7) to the ladder brace brackets (8 and 9) using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (5).

4. Slide the ladder wedge (10) along the ladder rail (7) and install it to the stand-off bracket (6) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).

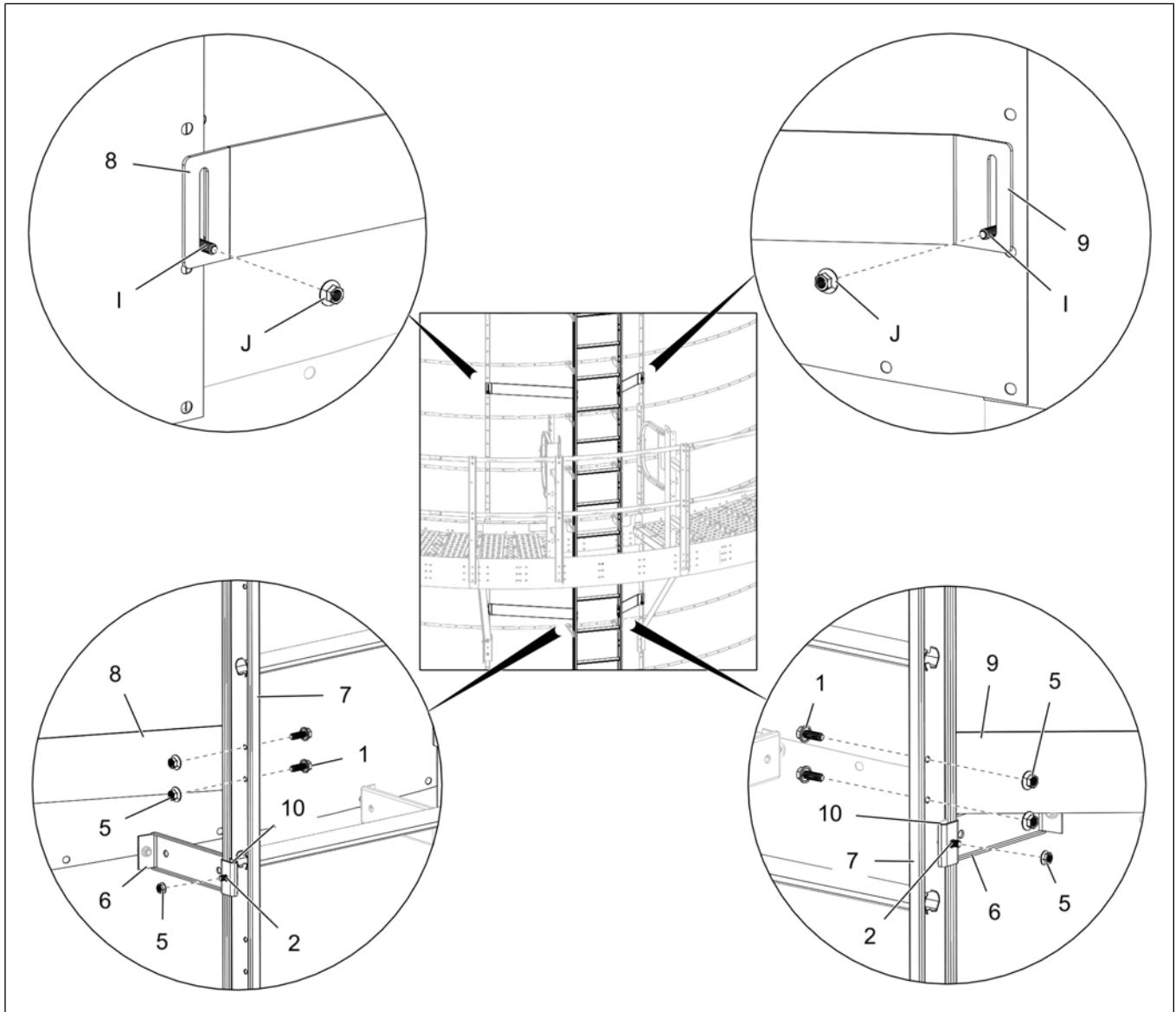
Figure 4-2 Installing the ladder stand-off and ladder brace brackets at eave platform



Chapter 4: Ladder Assembly with Safety Cage and Fall Protection System

5. Install the slotted end of the left ladder brace bracket (8) and right ladder brace bracket (9) to the vertical channels using existing vertical seam bolts (I) and nuts (J).
6. Install the ladder section (7) to the ladder brace brackets (8 and 9) using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (5).
7. Slide the ladder wedge (10) along the ladder rail (7) and install it to the stand-off bracket (6) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).

Figure 4-3 *Installing the ladder at the catwalk*



Installing the Safety Cage between the Eave Platform and Catwalk

Before You Begin

Make sure the ladder assembly is completed and installed to the dryer.

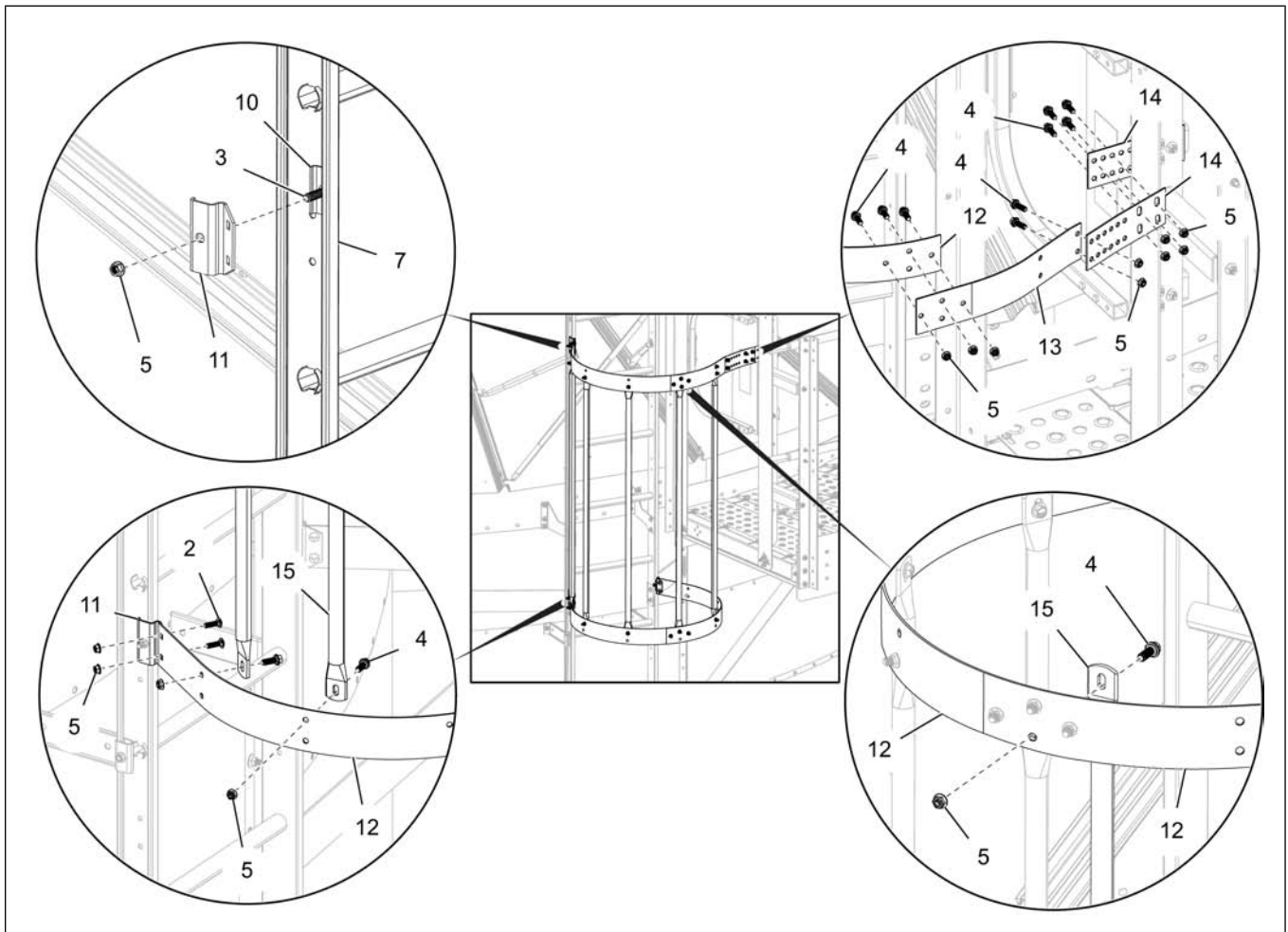
1. Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

NOTE: You need to install one safety cage hoop bracket (11) at the top and two below the platform as shown.

2. Assemble the safety cage hoop adapter (13) with safety cage hoop half (12) and install the hoop half to the safety cage hoop bracket (11) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).
3. Install the safety cage hoop adapter (13) to the platform post with two safety cage hoop adjuster plates (14) using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).
4. Assemble two safety cage hoop halves (12) together and install it to the cage hoop brackets (11) below the platform using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).
5. Install the 48" vertical supports (15) between the safety cage hoop halves (12) using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).

NOTE: Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 4-4 Installing the safety cage at the eave platform



Chapter 4: Ladder Assembly with Safety Cage and Fall Protection System

6. Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

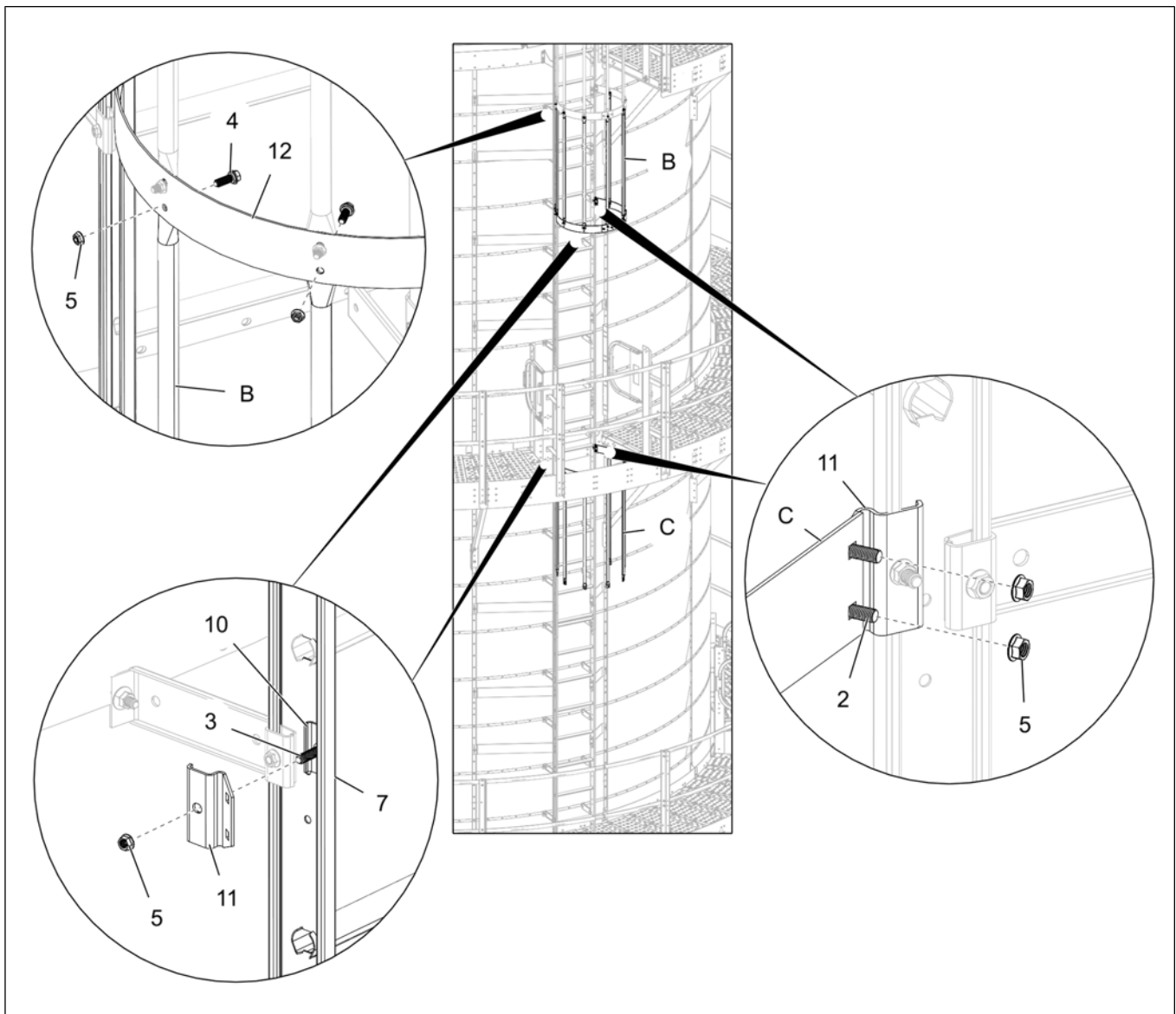
NOTE: You need to install two safety cage hoop brackets (11) for each safety cage hoop assembly at required places.

7. Install the 48" safety cage sections (B and C) to the ladder section (7).

NOTE:

- a. Use 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5) to connect the safety cage hoop halves to the safety cage hoop brackets (11).
- b. Use 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5) to connect the vertical supports to the safety cage hoop halves.
- c. Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 4-5 Installing the safety cage extensions



Chapter 4: Ladder Assembly with Safety Cage and Fall Protection System

8. Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

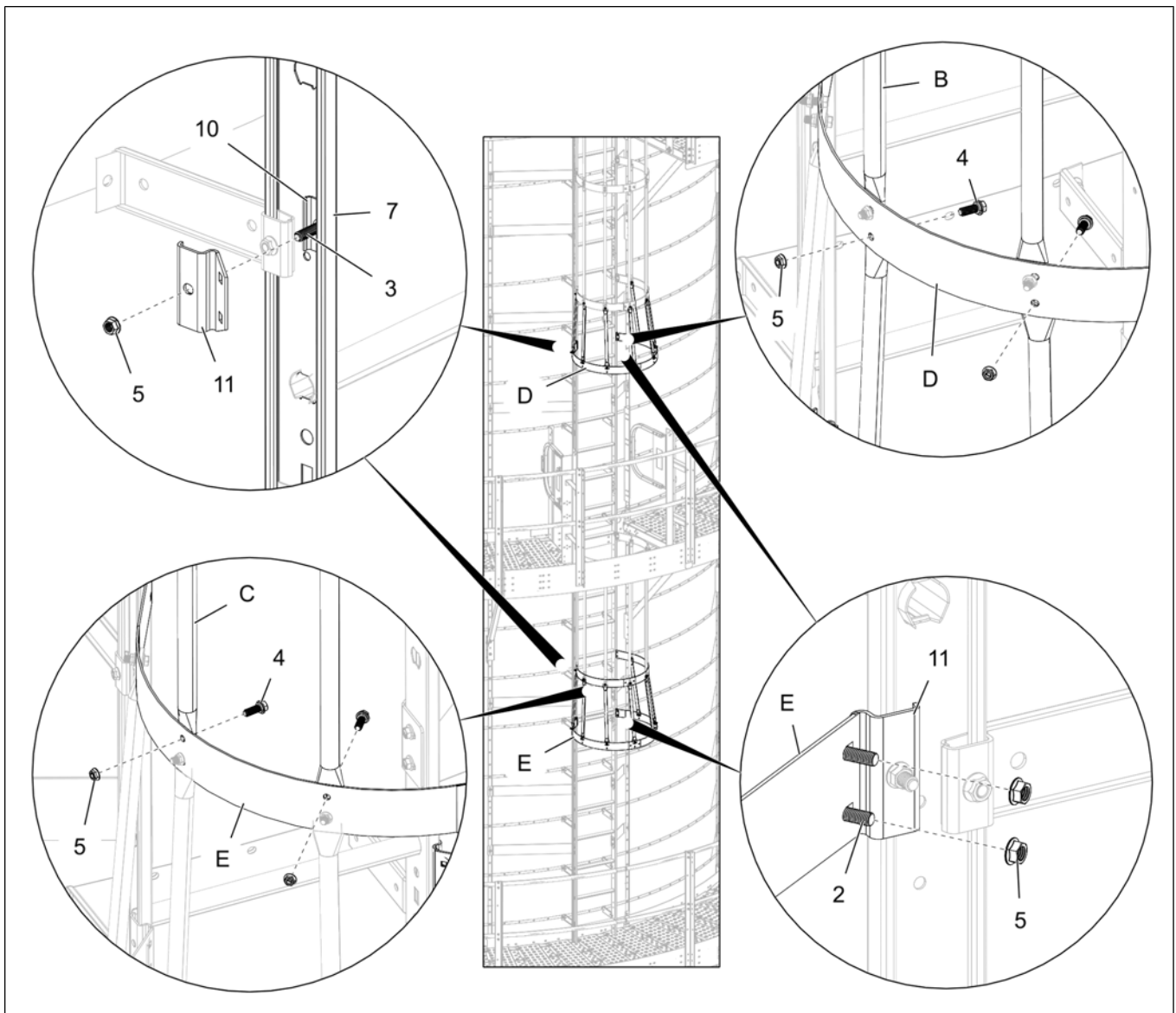
NOTE: You need to install two safety cage hoop brackets (11) for each safety cage bell hoop assembly at required places.

9. Install the 24" safety cage bell sections (D and E) to the ladder section (7).

NOTE:

- Use 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5) to connect the safety cage bell hoop halves to the safety cage hoop brackets (11).
- Use 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5) to connect the vertical supports to the safety cage hoop halves.
- Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 4-6 Installing the safety cage bell hoop sections

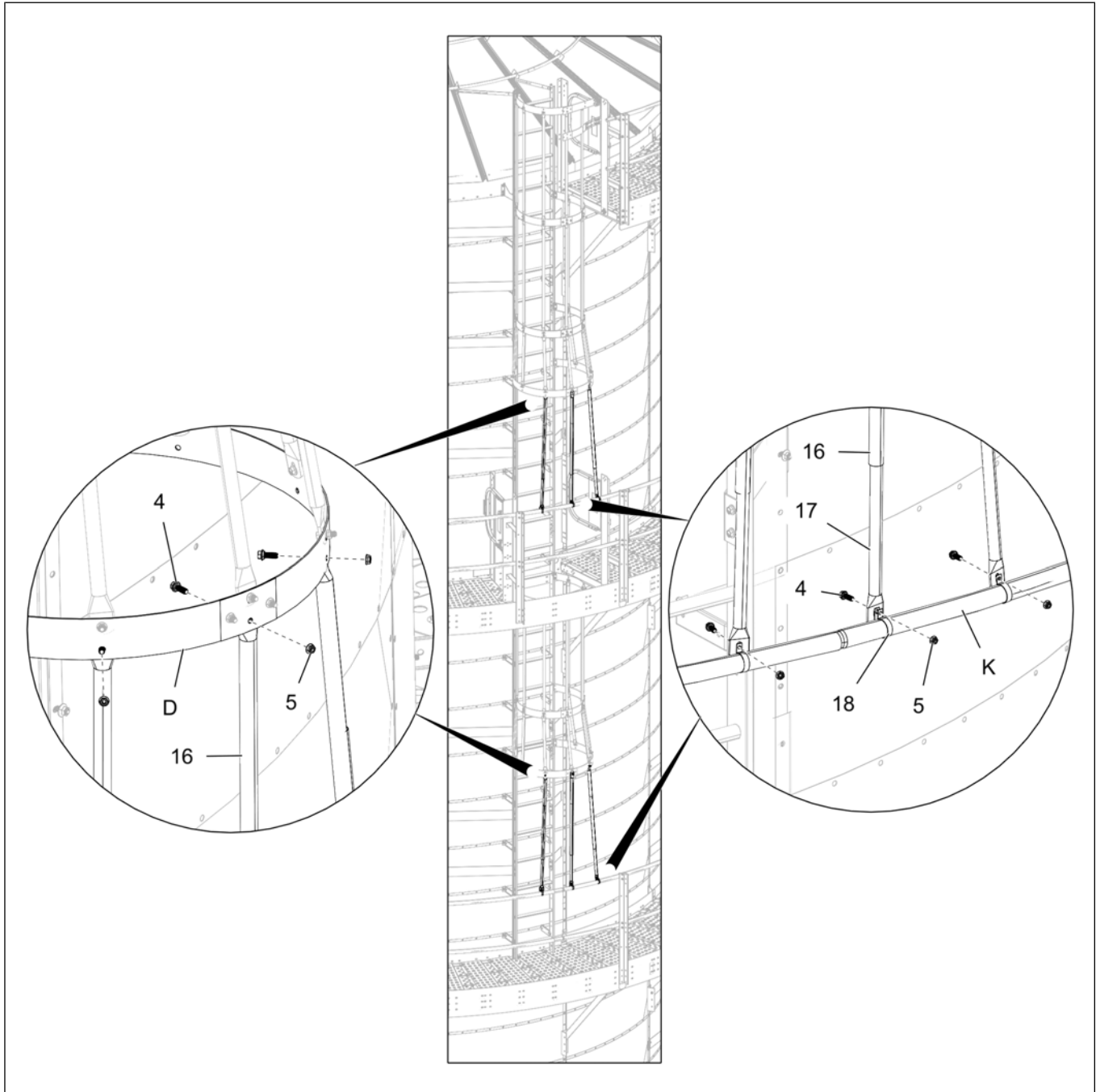


Chapter 4: Ladder Assembly with Safety Cage and Fall Protection System

- Slide the small handrail (17) into the large handrail (16) and adjust the length as required.
- Install the flat ends of the large handrail (16) to the safety cage bell hoop halves and install using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).
- Use a clamp (18) to secure the flat end of the small handrail (17) to the platform handrail (K) using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).

NOTE: Install bolts (4) with bolt heads on the inside of the cage or platform.

Figure 4-7 Installing the intermediate handrails



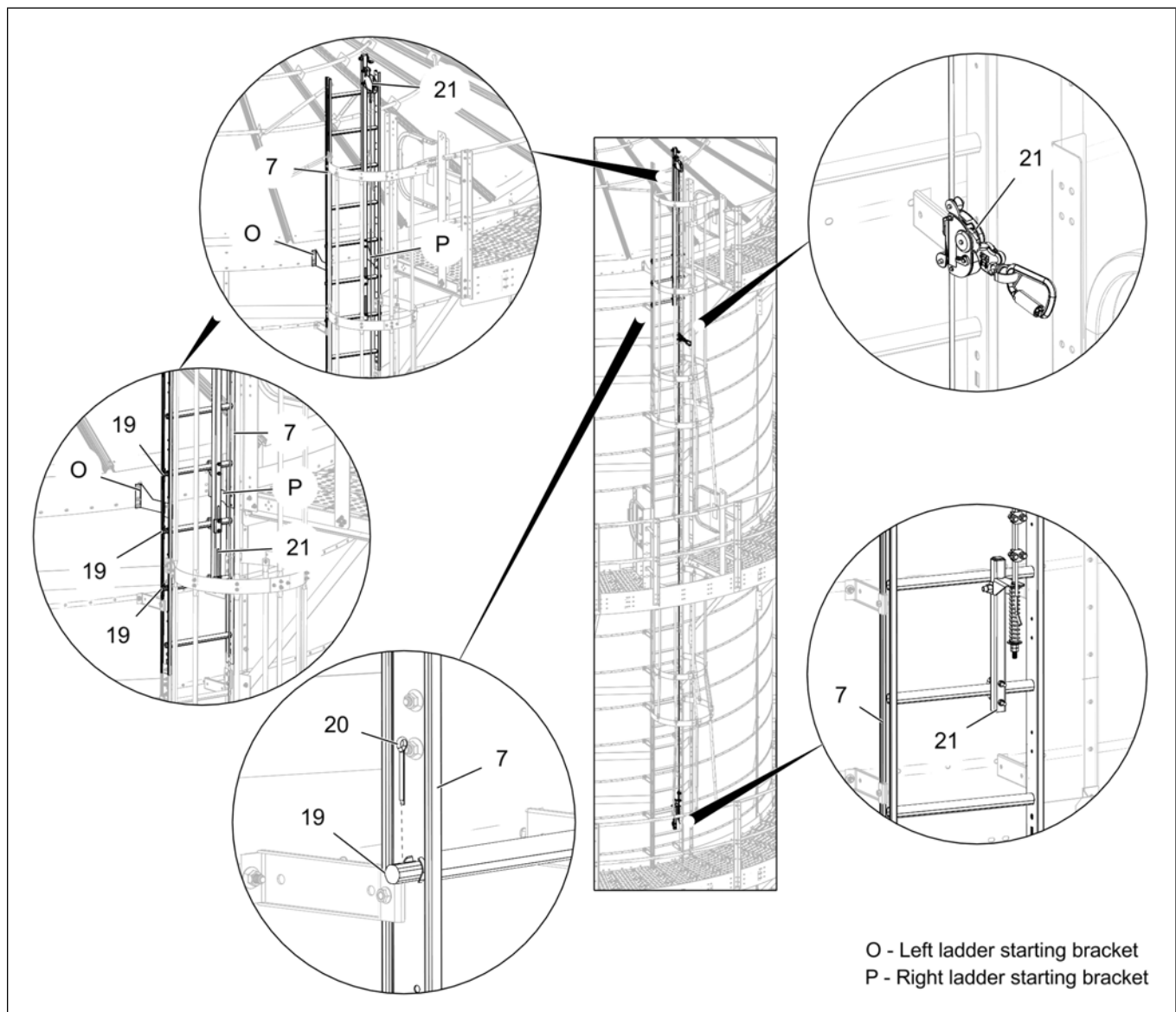
Installing the Fall Protection System between the Eave Platform and Catwalk

1. Slide the solid rod inserts (19) into the hollow rungs of the ladder (7) where the extended bracket package (21) will be installed.

IMPORTANT: *The solid rods inserts (19) will be installed to the first three rungs counted from eave.*

2. Secure the solid rod inserts (19) from slipping out by installing cotter pins (20) on both the sides.
3. Use the extended bracket package (21) and install the fall protection system to the right side of the ladder (7).

Figure 4-8 Installing the fall protection system between eave platform and catwalk



Installing the Ladder Assembly between the Catwalk and Fan Style Platform

1. Install one set of ladder stand-off brackets (6) where perforated sheets overlap using existing vertical seam bolts (I) and nuts (J).

NOTE: As a rule of thumb, make sure to use one set of ladder stand-off brackets (6) on every overlap, unless otherwise shown.

2. Install the ladder brace brackets (8 and 9) to the vertical channels using existing vertical seam bolts (I) and nuts (J).

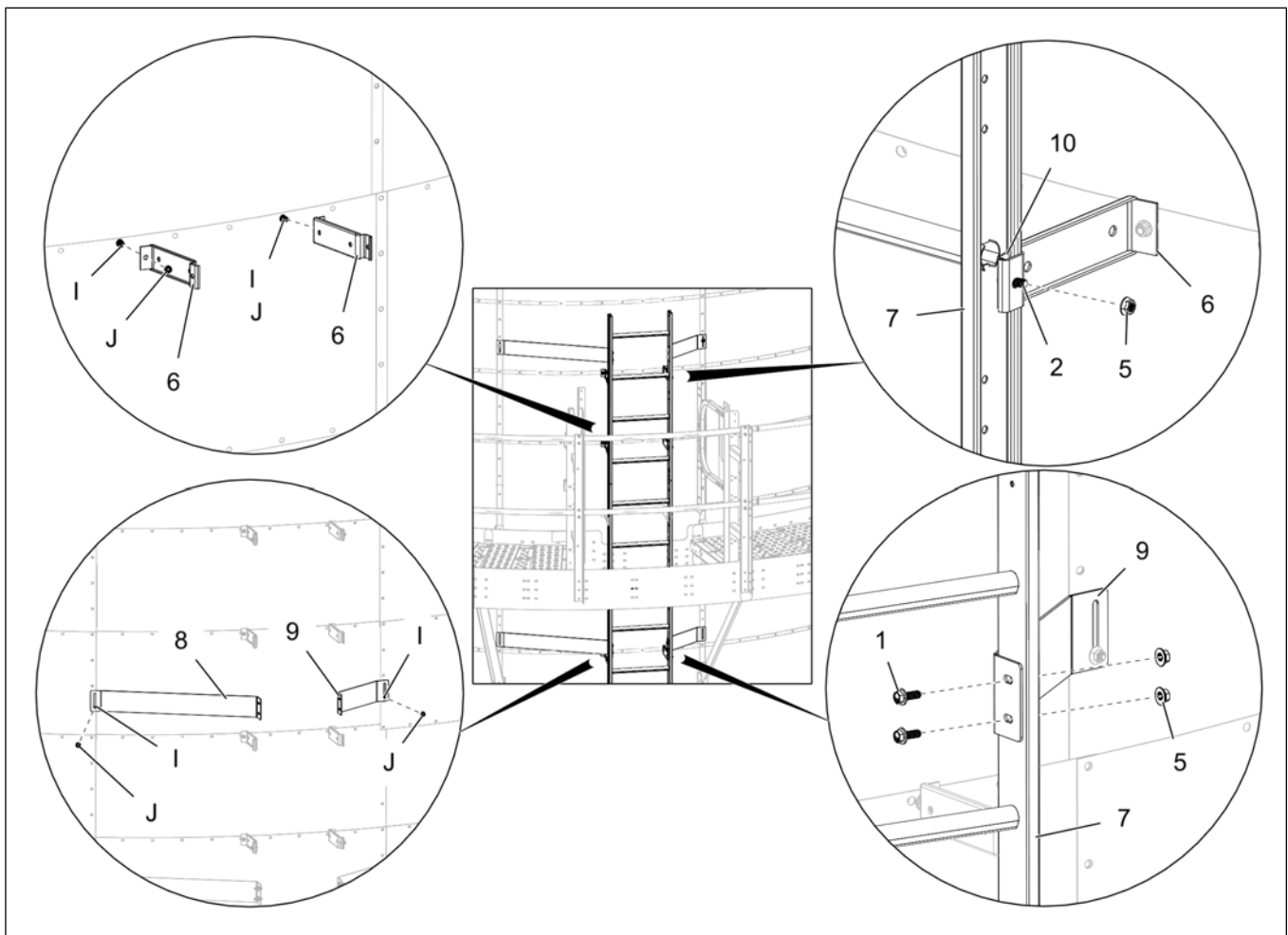
NOTE: Use one set of ladder brace brackets (8 and 9) per 4' ladder section and two sets per 8' ladder section.

3. Install the ladder section (7) to the ladder brace brackets (8 and 9) using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (5).

4. Slide the ladder wedge (10) along the ladder rail (7) and install it to the stand-off bracket (6) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).

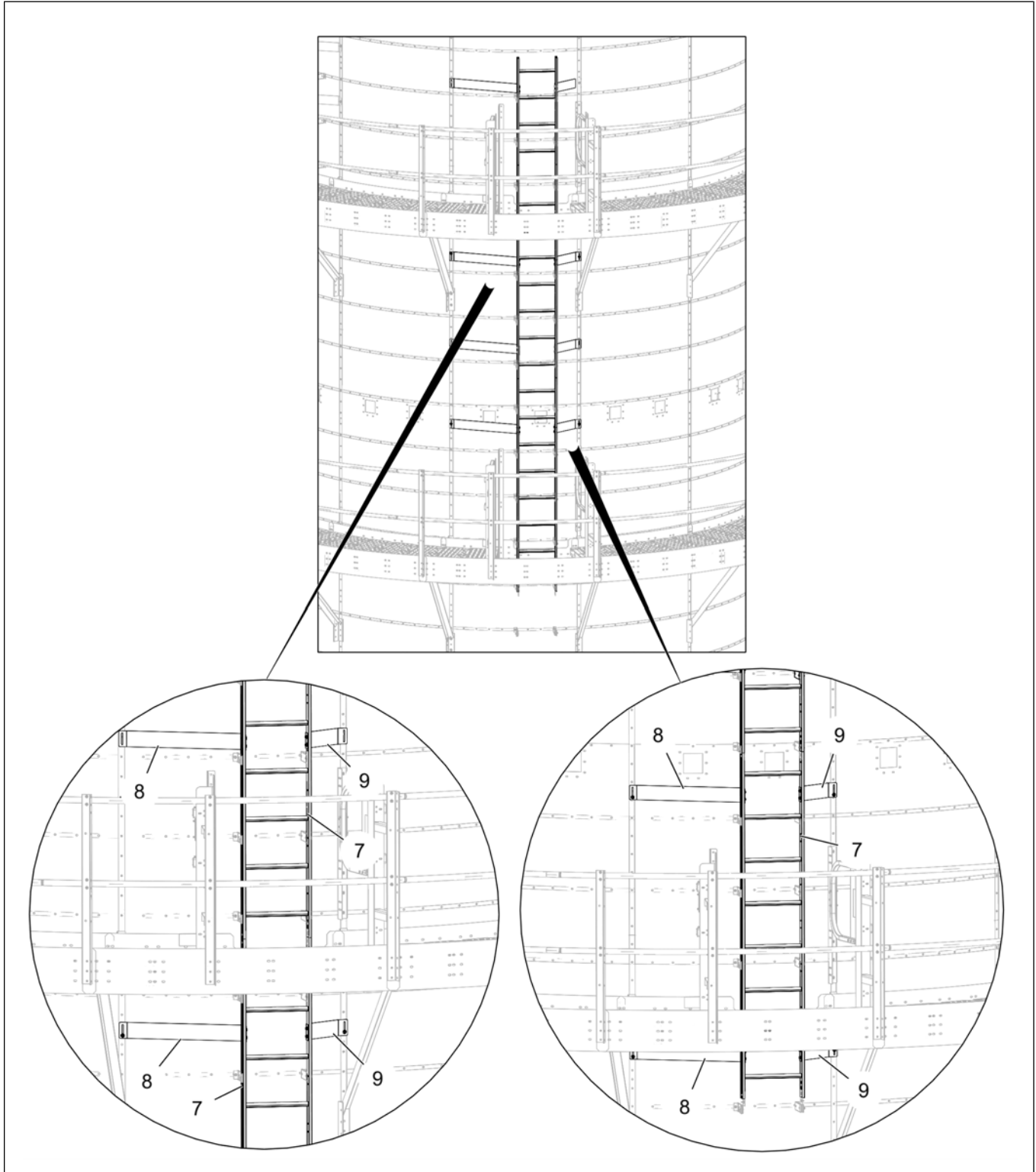
NOTE: The ladder should extend 6' above from the catwalk floor.

Figure 4-9 Installing the ladder stand-off and ladder brace brackets at catwalks



5. Repeat the above steps to install the ladder sections (7) at the remaining catwalks.

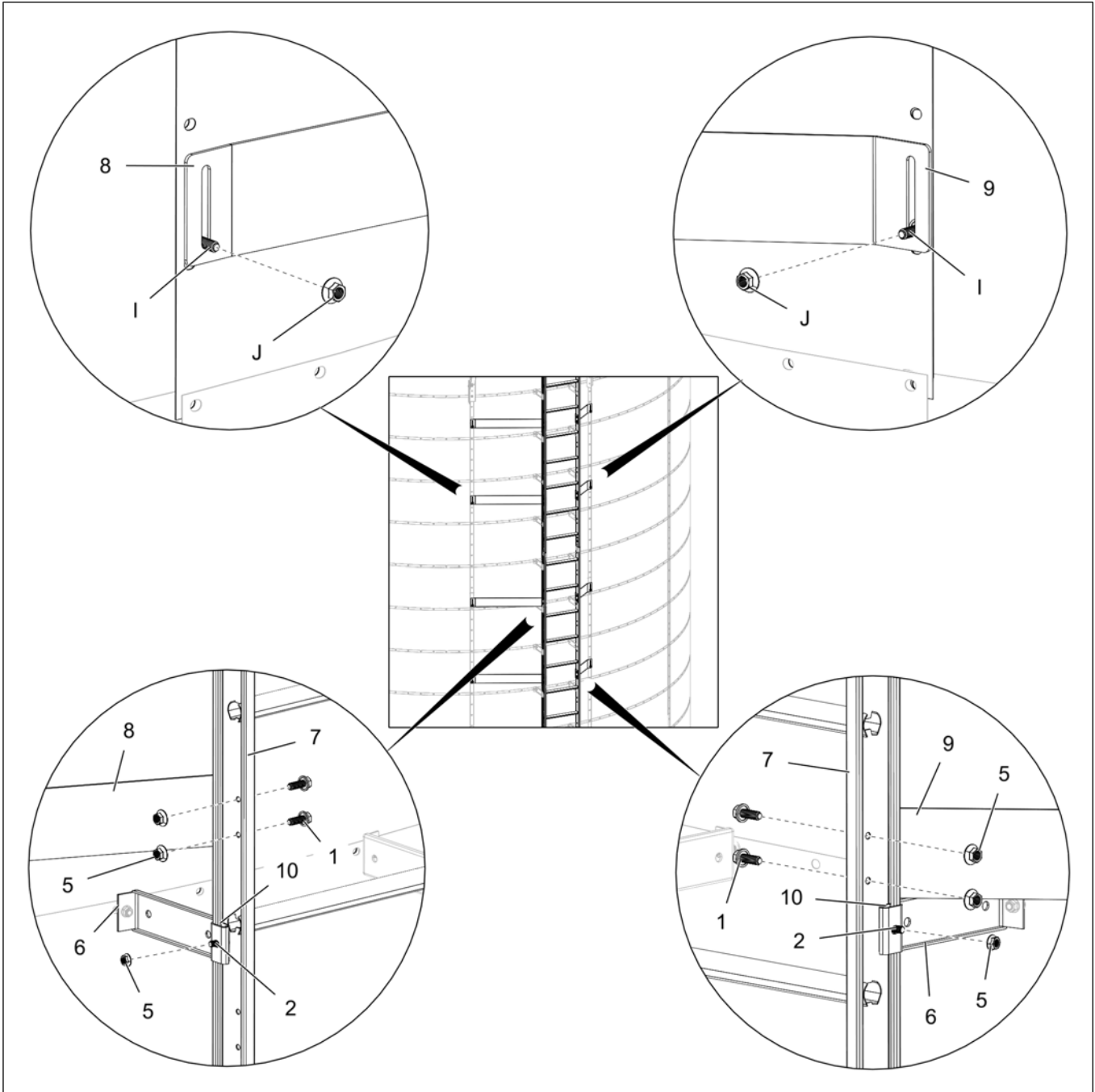
Figure 4-10 Installing the ladder at remaining catwalks



Chapter 4: Ladder Assembly with Safety Cage and Fall Protection System

- Continue to install the ladder sections (7) to the ladder stand-off brackets (6) and ladder brace brackets (8 and 9) till the ladder meets the next platform.

Figure 4-11 *Installing the ladder at remaining sections*



Installing the Safety Cage between the Catwalk and Fan Style Platform

Before You Begin

Make sure the ladder assembly is completed and installed to the dryer.

1. Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

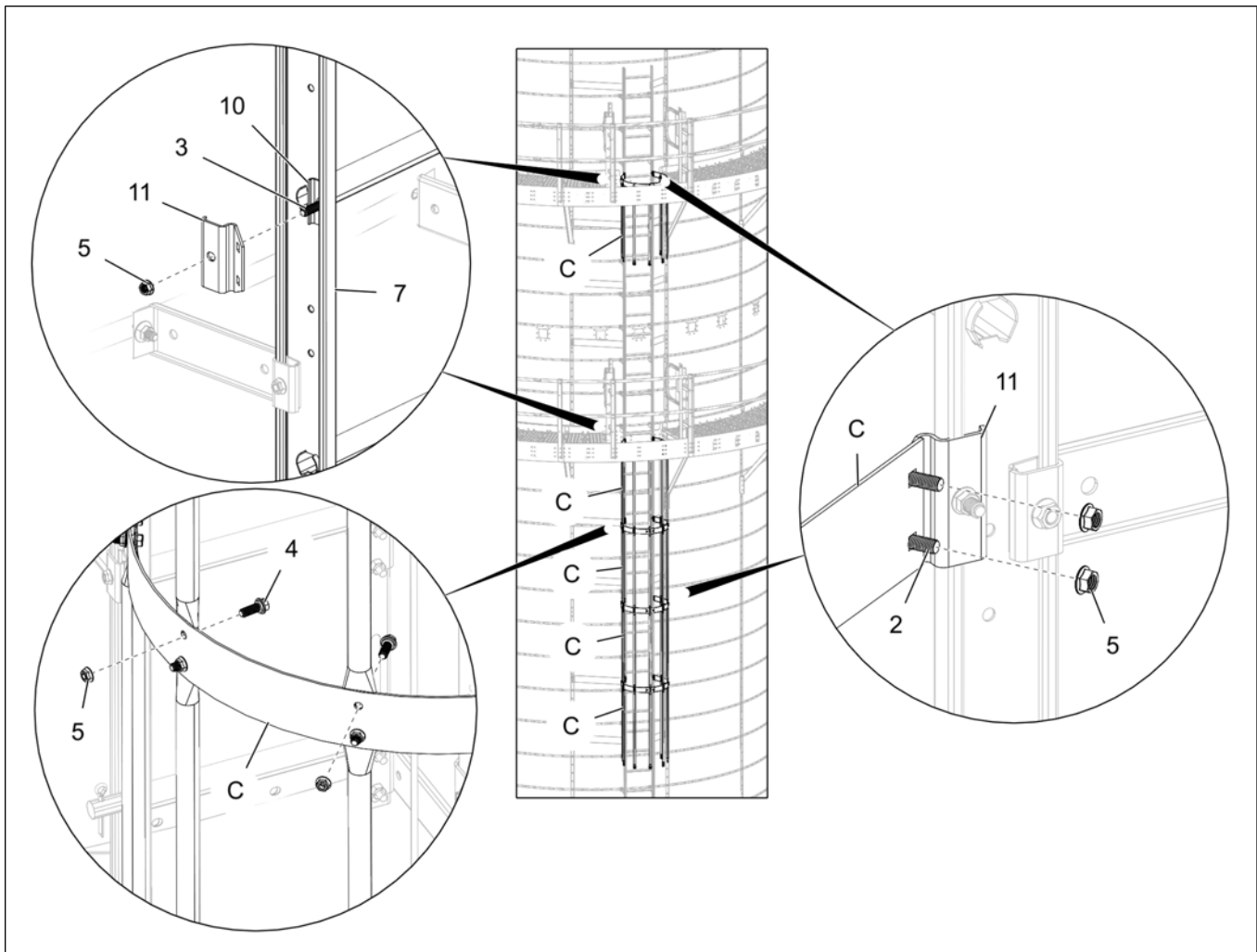
NOTE: You need to install two safety cage hoop brackets (11) for each safety cage hoop assembly at required places.

2. Install the 48" safety cage sections (C) to the ladder section (7).

NOTE:

- a. Use 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5) to connect the safety cage hoop halves to the safety cage hoop brackets (11).
- b. Use 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5) to connect the vertical supports to the safety cage hoop halves.
- c. Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 4-12 Installing the safety cage extensions



Chapter 4: Ladder Assembly with Safety Cage and Fall Protection System

- Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

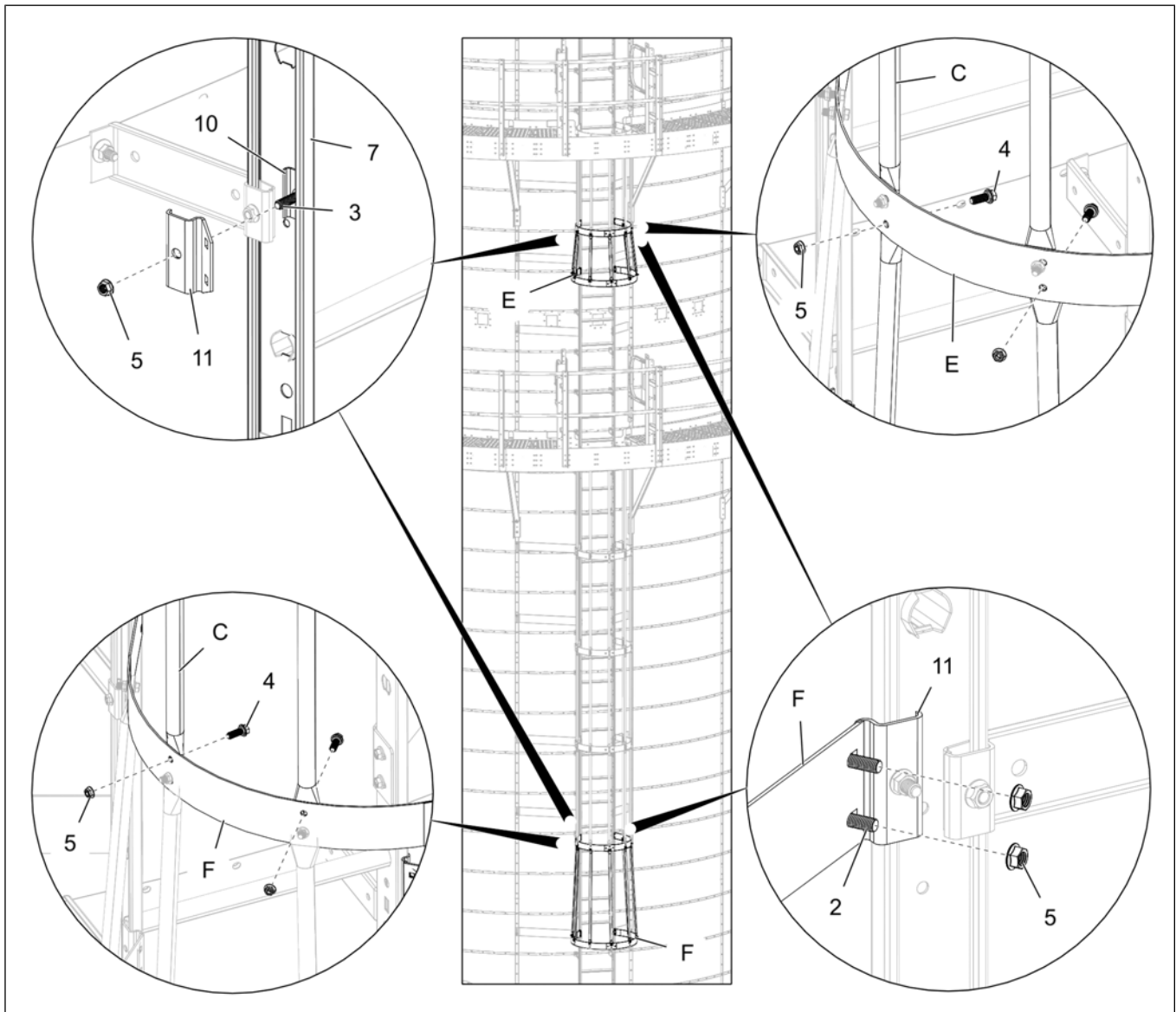
NOTE: You need to install four safety cage hoop brackets (11) for each safety cage bell hoop assembly at required places.

- Install the 24" safety cage bell section (E) and 48" safety cage bell section (F) to the ladder section (7).

NOTE:

- Use 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5) to connect the safety cage bell hoop halves to the safety cage hoop brackets (11).
- Use 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5) to connect the vertical supports to the safety cage hoop halves.
- Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 4-13 Installing the safety cage bell hoop sections

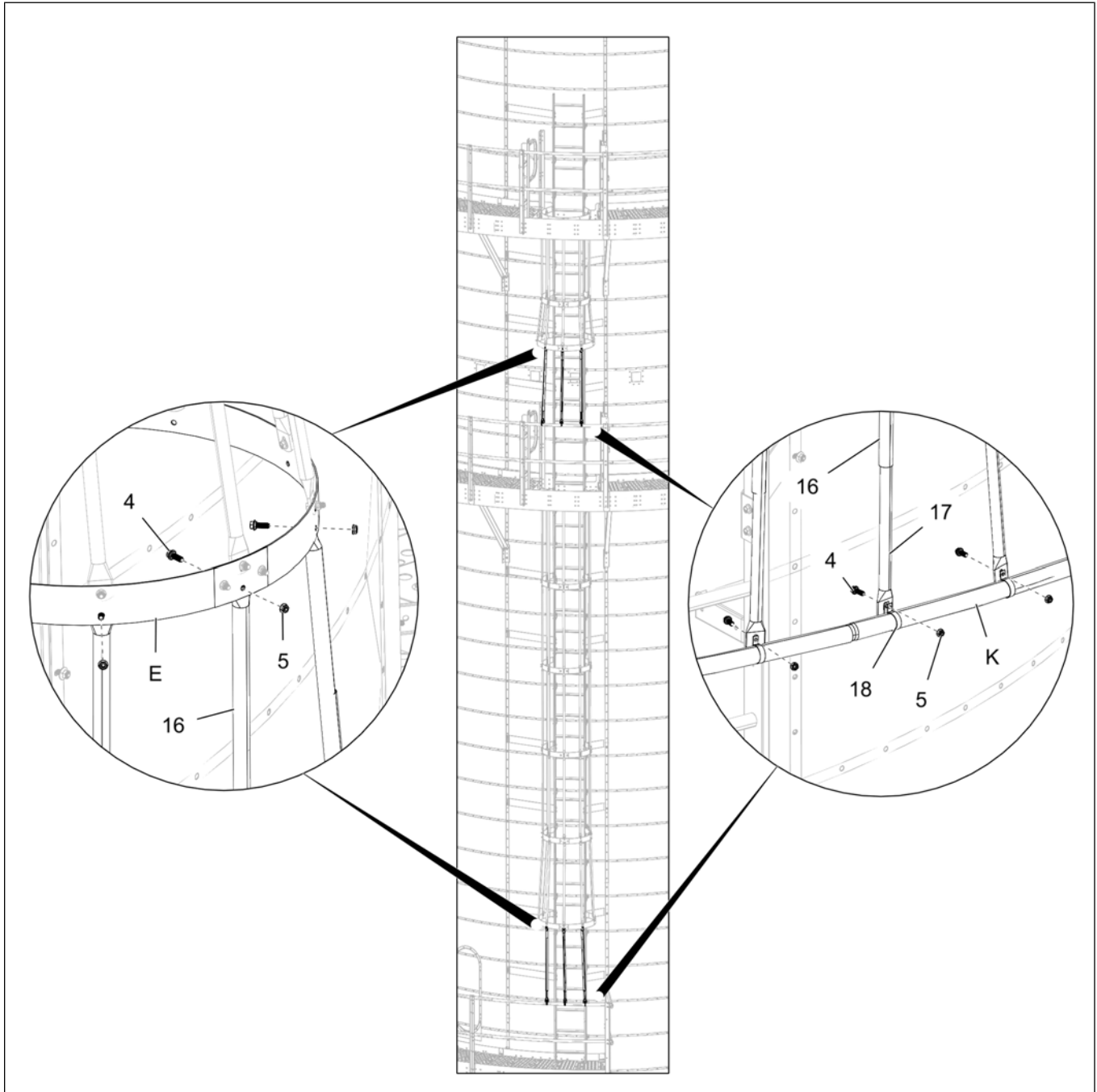


Chapter 4: Ladder Assembly with Safety Cage and Fall Protection System

5. Slide the small handrail (17) into the large handrail (16) and adjust the length as required.
6. Install the flat ends of the large handrail (16) to the safety cage bell hoop halves and install using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).
7. Use a clamp (18) to secure the flat end of the small handrail (17) to the platform handrail (K) using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).

NOTE: Install bolts (4) with bolt heads on the inside of the cage or platform.

Figure 4-14 Installing the intermediate handrail



Installing the Fall Protection System between the Catwalk and Fan Style Platform

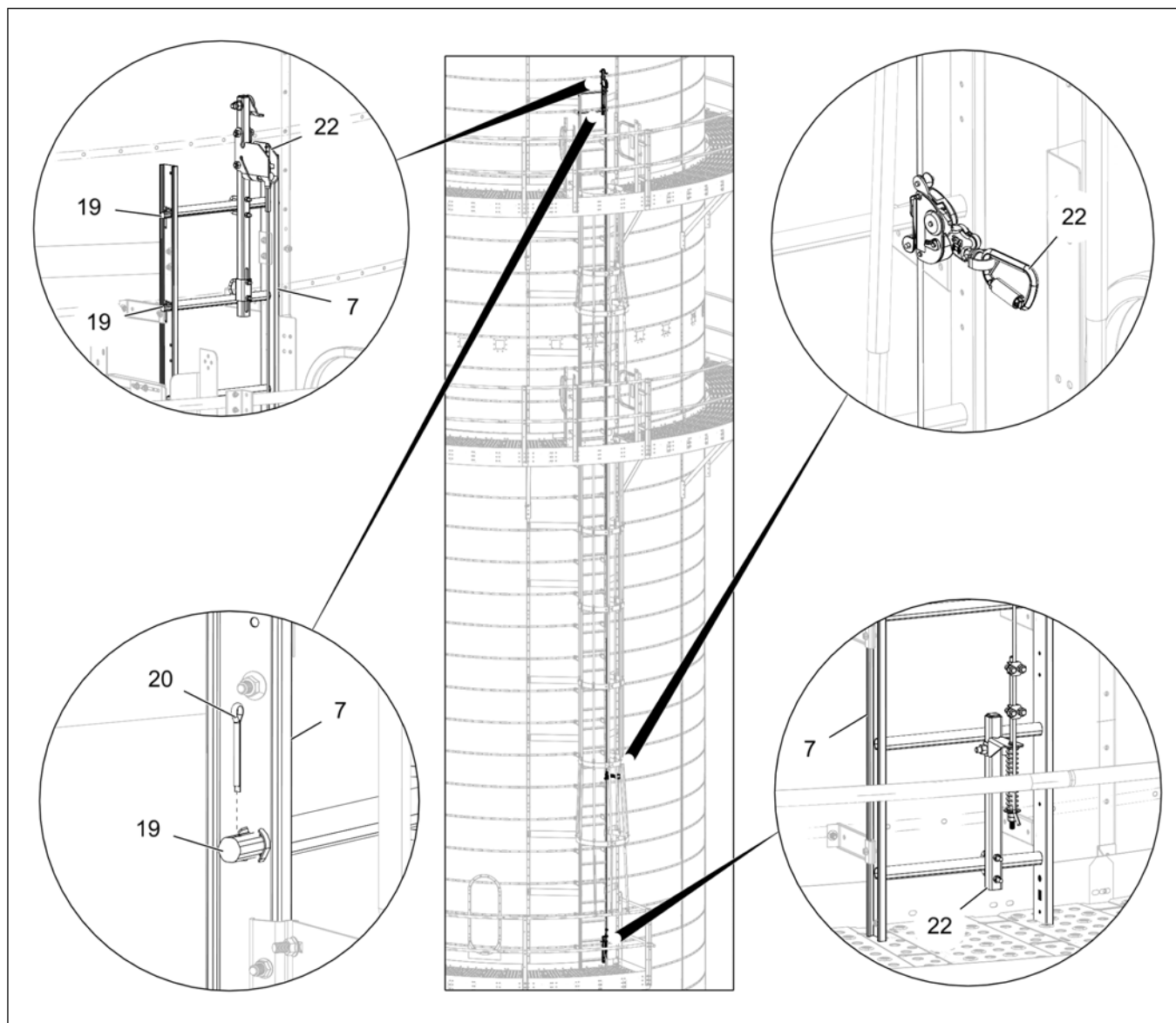
The Fall protection system installation for ladder assembly does not stop only between eave and catwalk platform. For fall protection system installation at eave, see [Installing the Fall Protection System between the Eave Platform and Catwalk, page 43](#).

1. Slide the solid rod inserts (19) into the hollow rungs of the ladder (7) where the standard bracket package (22) will be installed.

IMPORTANT: *The solid rods inserts (19) will be installed to the first two rungs of the ladder assembly.*

2. Secure the solid rod inserts (19) from slipping out by installing cotter pins (20) on both the sides.
3. Use the standard bracket package (22) and install the fall protection system to the right side of the ladder (7).

Figure 4-15 Installing the fall protection system between catwalk and fan style platforms



Installing the Ladder Assembly between the Fan Style Platforms

1. Install one set of ladder stand-off brackets (6) where perforated sheets overlap using existing vertical seam bolts (I) and nuts (J).

NOTE: As a rule of thumb, make sure to use one set of ladder stand-off brackets (6) on every overlap, unless otherwise shown.

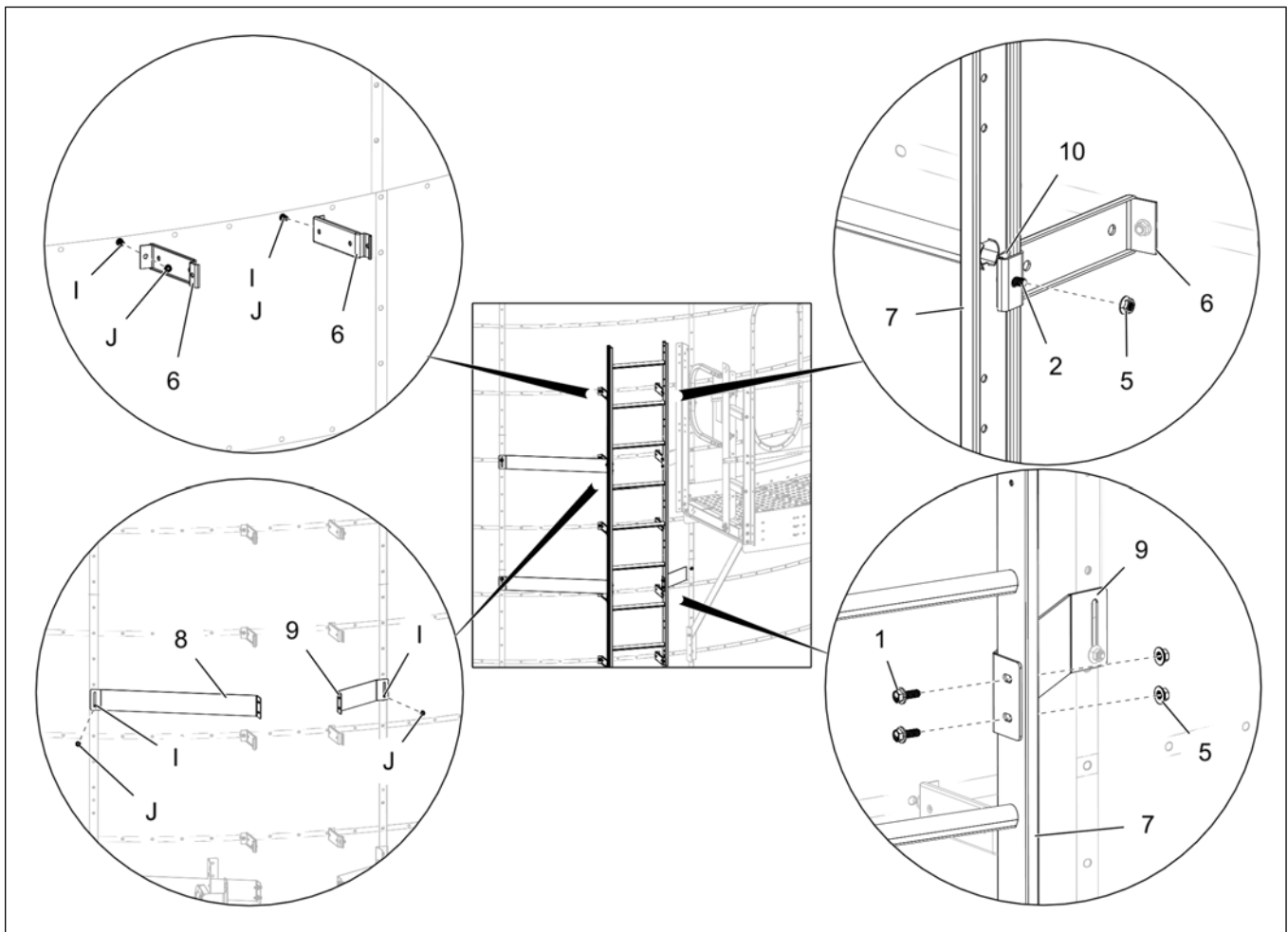
2. Install the ladder brace brackets (8 and 9) to the vertical channels using existing vertical seam bolts (I) and nuts (J).

NOTE: Use one set of ladder brace brackets (8 and 9) per 4' ladder section and two sets per 8' ladder section.

3. Install the ladder section (7) to the ladder brace brackets (8 and 9) using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (5).

4. Slide the ladder wedge (10) along the ladder rail (7) and install it to the stand-off bracket (6) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).

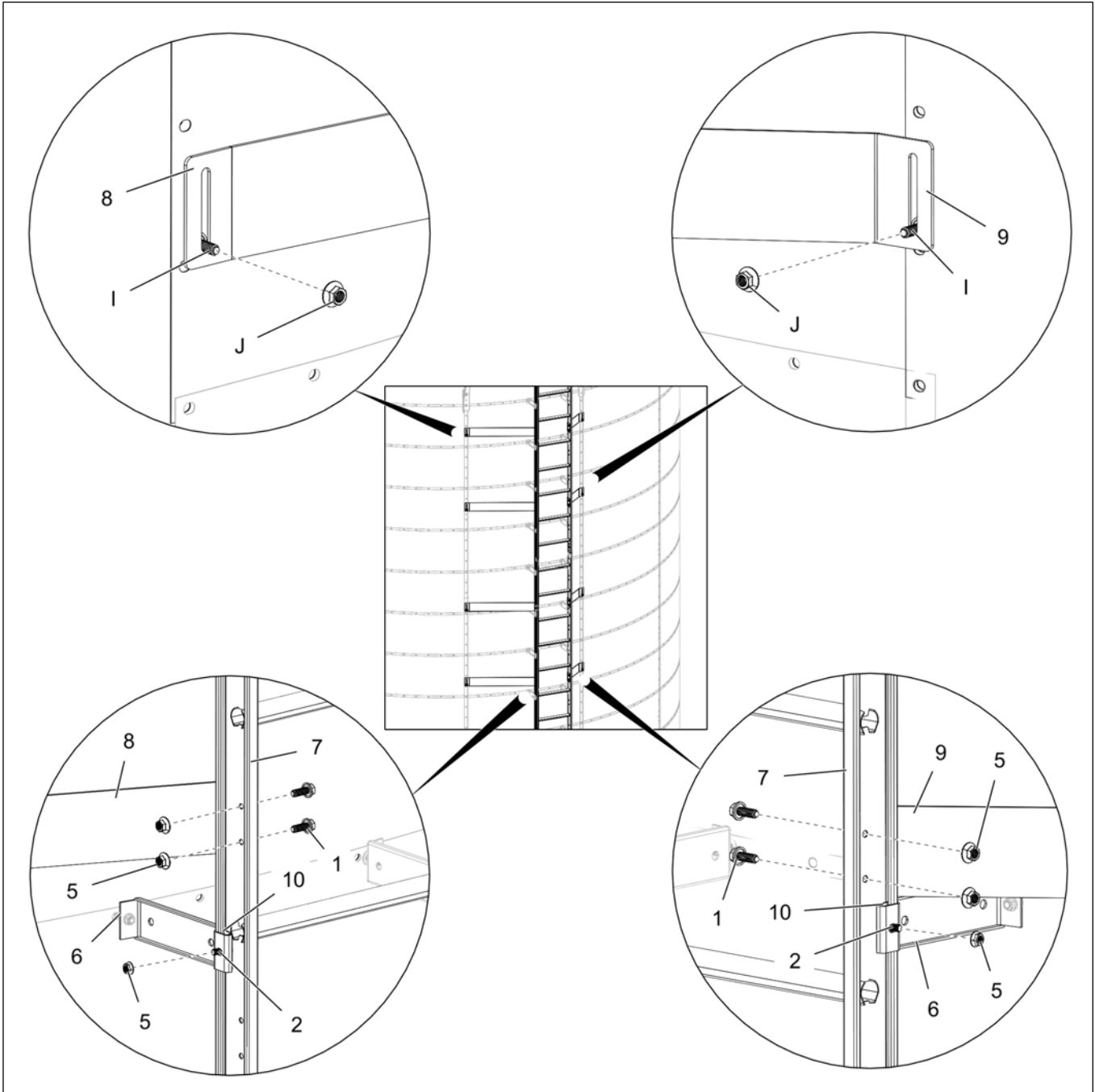
Figure 4-16 Installing the ladder stand-off and ladder brace brackets at the fan style platforms



Chapter 4: Ladder Assembly with Safety Cage and Fall Protection System

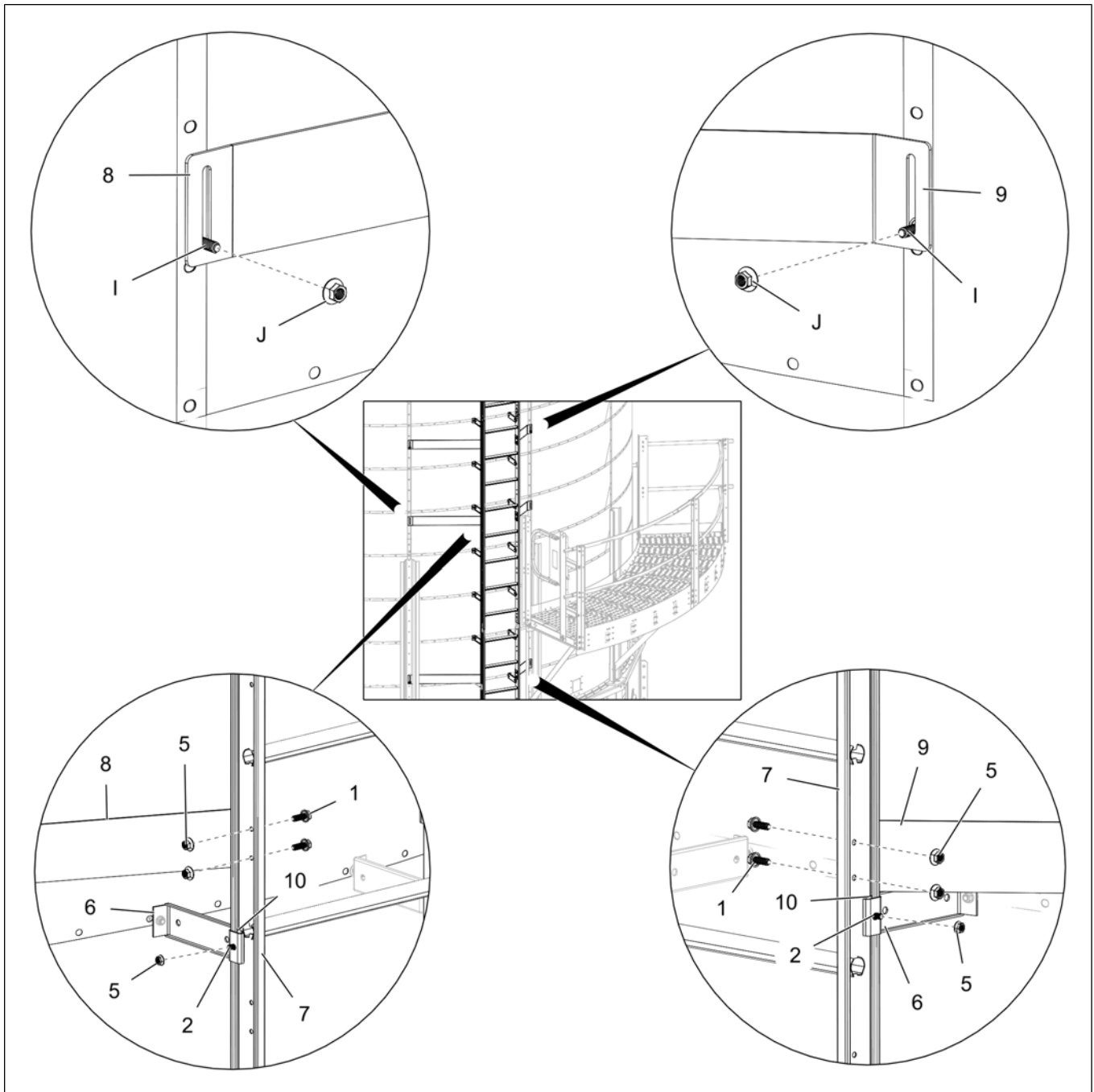
5. Continue to install the ladder sections (7) to the ladder stand-off brackets (6) and ladder brace brackets (8 and 9).

Figure 4-17 *Installing the ladder at remaining sections*



- Repeat the above steps to install the ladder sections (7) at the remaining fan style platforms till the ladder meets the base.

Figure 4-18 *Installing the ladder at remaining fan style platforms*



- Continue to install the ladder sections (7) at the base of the dryer. To install the ladder sections at the base, refer to [Installing the Ladder Assembly at the Base, page 19](#).

Installing the Safety Cage between the Fan Style Platform and Base

Before You Begin

Make sure the ladder assembly is completed and installed to the dryer.

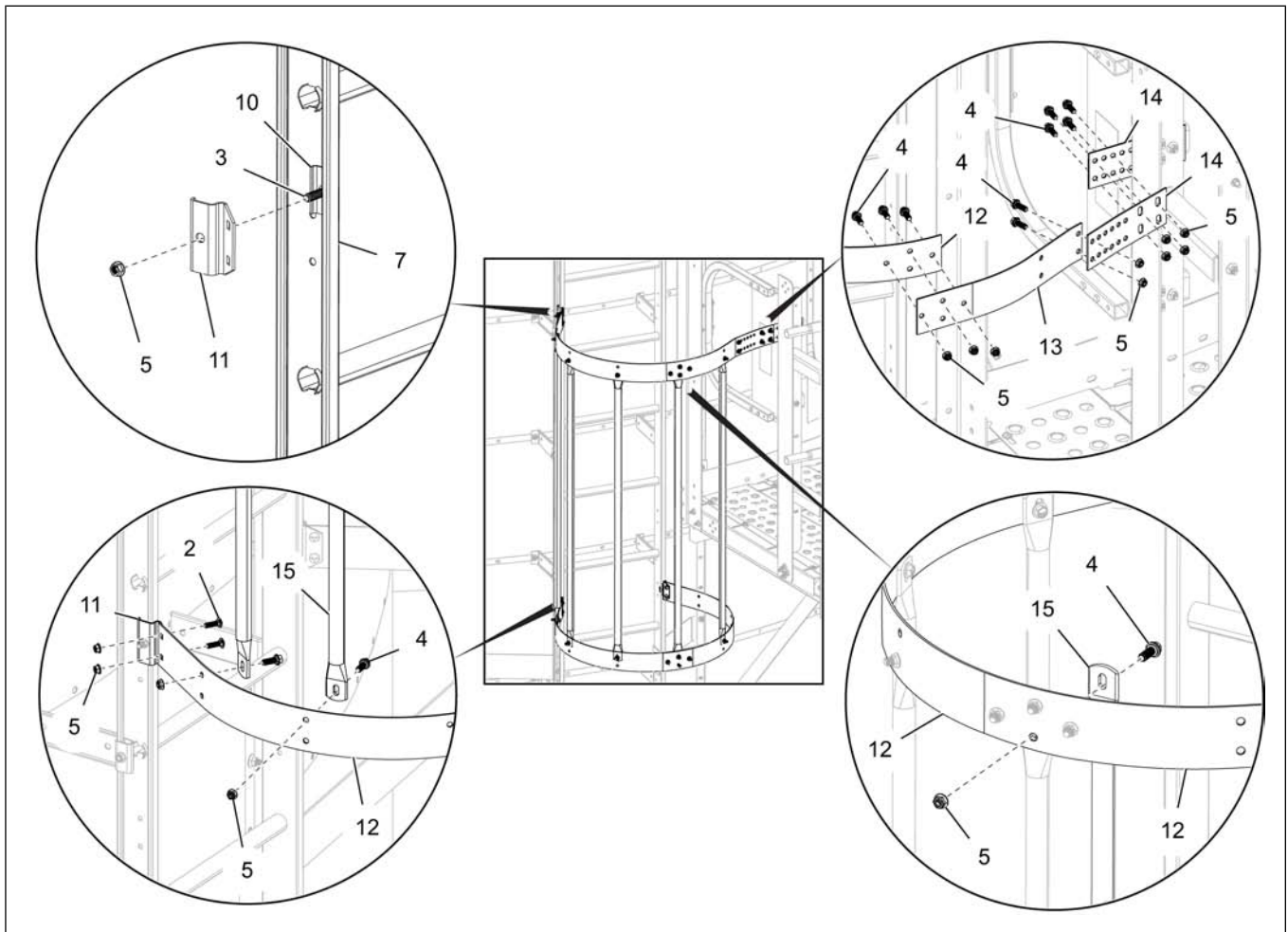
1. Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

NOTE: You need to install one safety cage hoop bracket (11) at the top and two below the platform as shown.

2. Assemble the safety cage hoop adapter (13) with safety cage hoop half (12) and install the hoop half to the safety cage hoop bracket (11) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).
3. Install the safety cage hoop adapter (13) to the platform post with two safety cage hoop adjuster plates (14) using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).
4. Assemble two safety cage hoop halves (12) together and install it to the cage hoop brackets (11) below the platform using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).
5. Install the 48" vertical supports (15) between the safety cage hoop halves (12) using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).

NOTE: Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 4-19 Installing the safety cage at the fan style platform



Chapter 4: Ladder Assembly with Safety Cage and Fall Protection System

6. Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

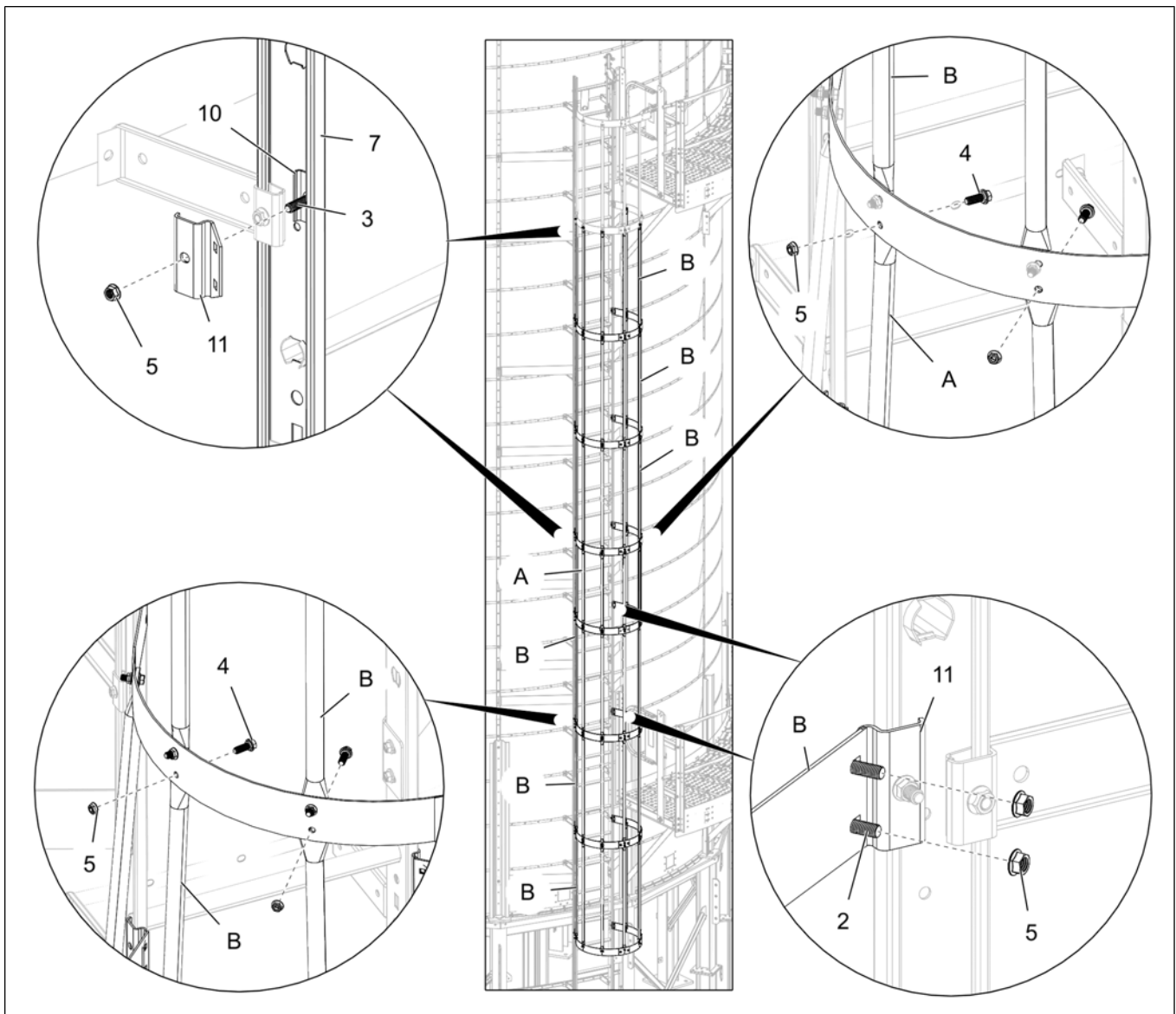
NOTE: You need to install two safety cage hoop brackets (11) for each safety cage hoop assembly at required places.

7. Install the 36" safety cage section (A) and 48" safety cage sections (B) to the ladder section (7).

NOTE:

- Use 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5) to connect the safety cage hoop halves to the safety cage hoop brackets (11).
- Use 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5) to connect the vertical supports to the safety cage hoop halves.
- Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 4-20 Installing the safety cage extensions



Chapter 4: Ladder Assembly with Safety Cage and Fall Protection System

- Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

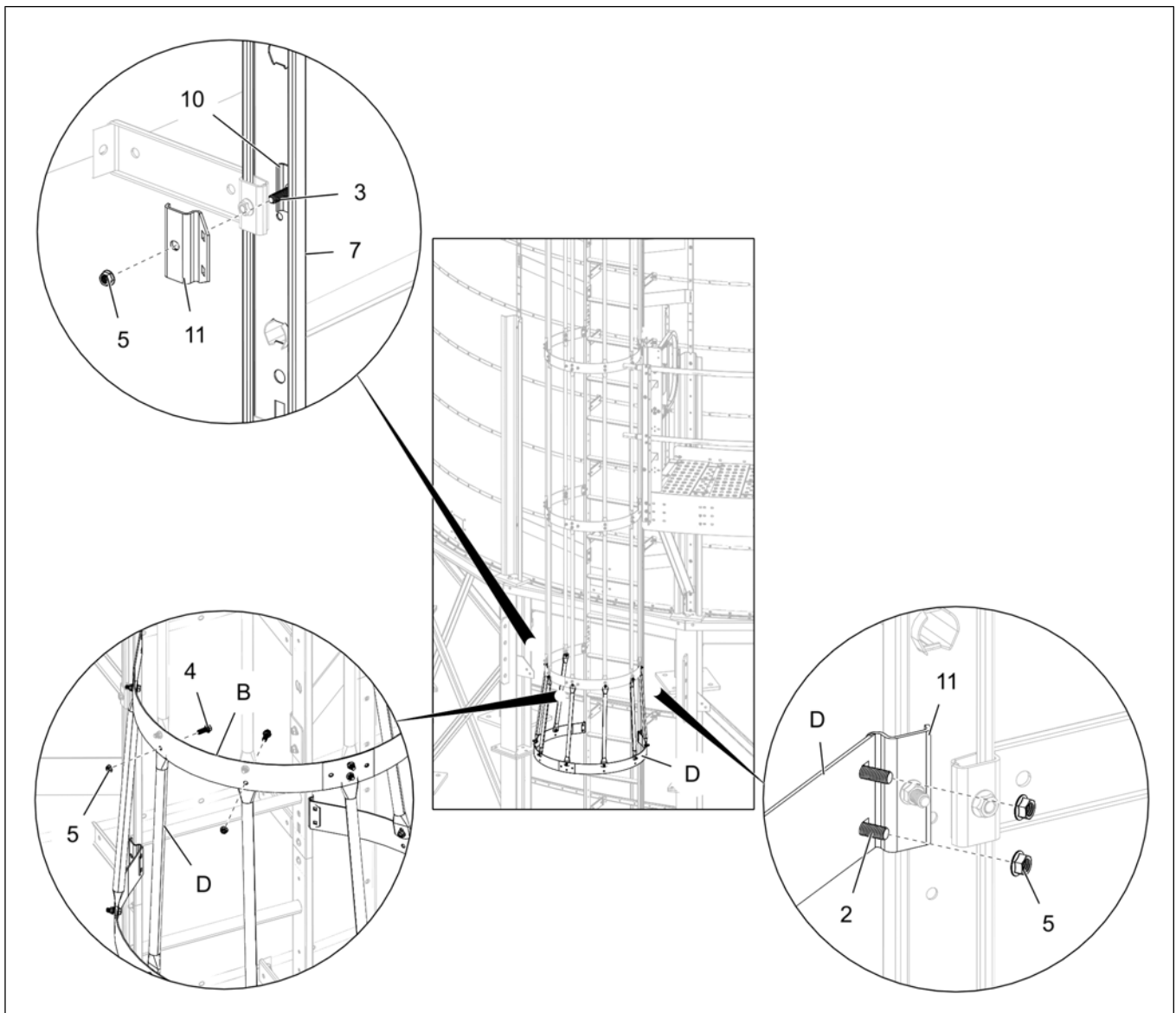
NOTE: You need to install four safety cage hoop brackets (11) for each safety cage bell hoop assembly at required places.

- Install the 24" safety cage bell section (D) to the ladder section (7).

NOTE:

- Use 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5) to connect the safety cage bell hoop halves to the safety cage hoop brackets (11).
- Use 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5) to connect the vertical supports to the safety cage hoop halves.
- Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 4-21 Installing the safety cage bell hoop sections

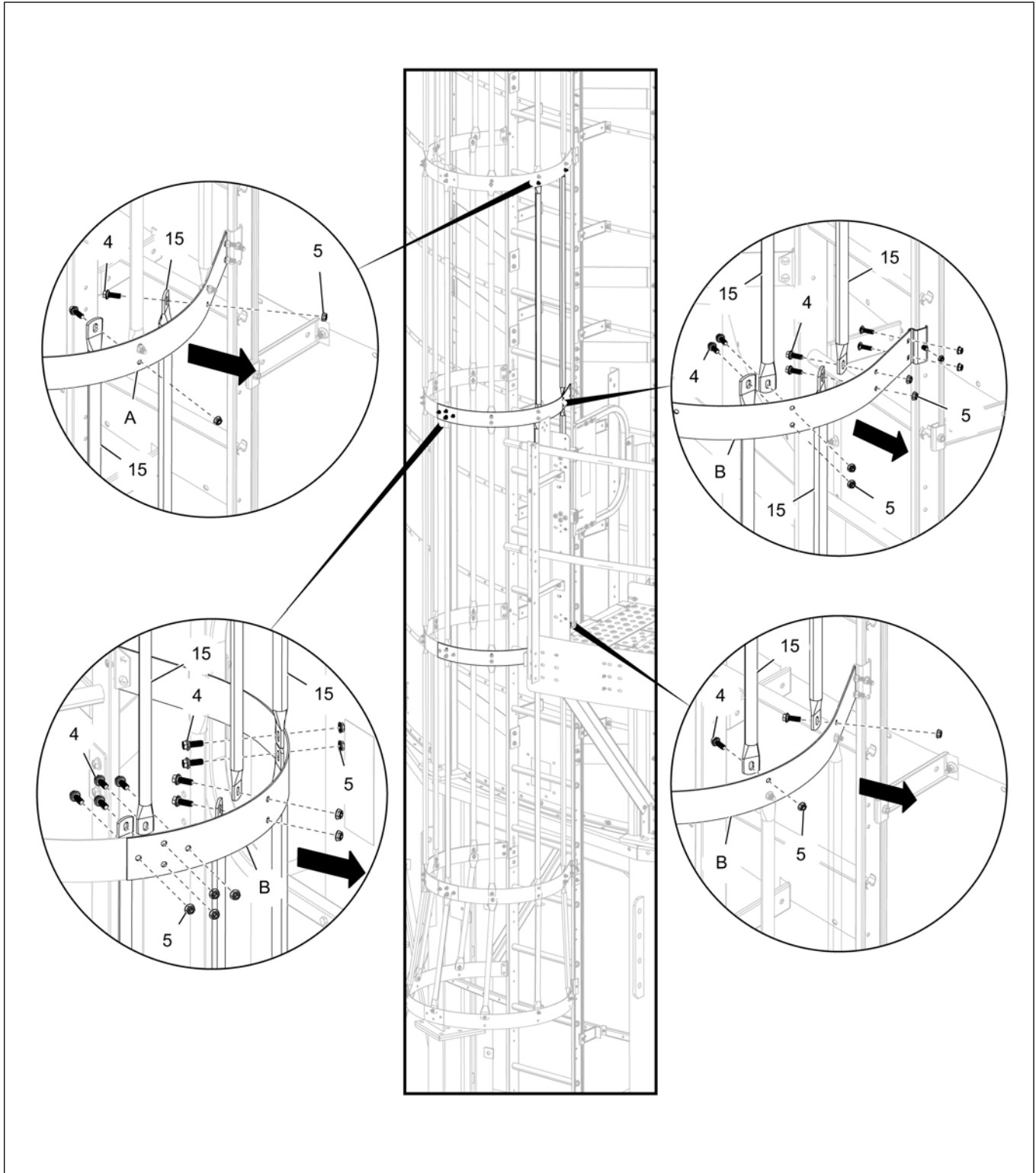


Chapter 4: Ladder Assembly with Safety Cage and Fall Protection System

10. Remove the safety cage hoop half and two vertical supports (15) from the 48" safety cage section (B) installed at the fan style platform.
11. Also, remove the two vertical supports (15) from the 48" safety cage section (B) installed above the fan style platform.

NOTE: Remove the safety cage hoop half and the vertical supports (15) from the platform side of the safety cages (B).

Figure 4-22 Removing the vertical supports and safety cage hoop half for platform access



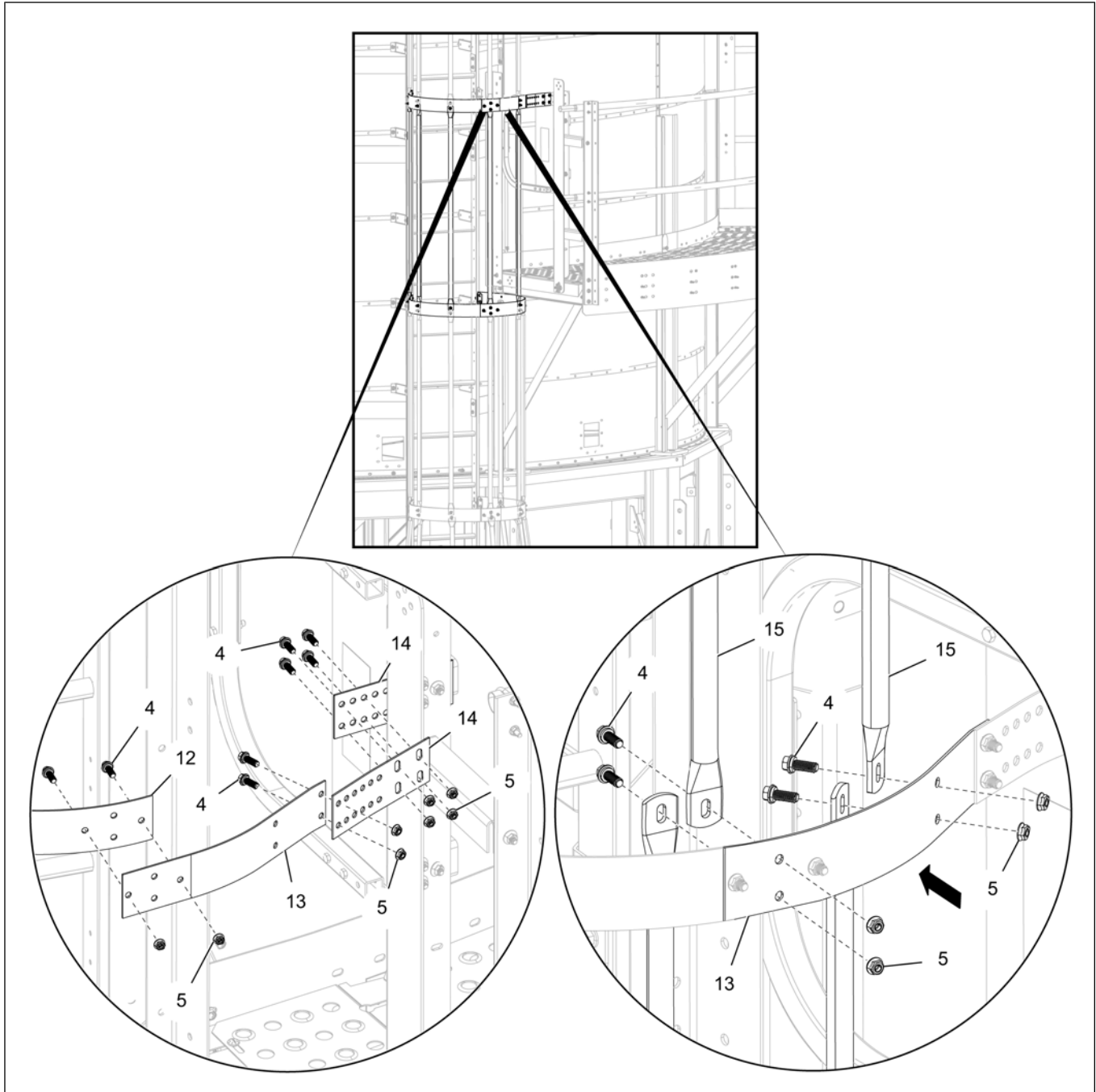
Chapter 4: Ladder Assembly with Safety Cage and Fall Protection System

12. Attach the safety cage hoop adapter (13) to the safety cage hoop half (12) and install the safety cage hoop adapter (13) to the platform post with two safety cage hoop adjuster plates (14) using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).

13. Connect the free ends of the vertical supports (15) from both the safety cages (B) to the safety cage hoop adapter (13) using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).

NOTE: Install bolts (4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 4-23 Installing the safety cage hoop adapter and safety cage hoop adjuster plates



Installing the Fall Protection System between the Fan Style Platform and Base

The Fall protection system installation for ladder assembly does not stop only at eave to catwalk and catwalk to fan style platform.

For fall protection system installation at eave to catwalk, see [Installing the Fall Protection System between the Eave Platform and Catwalk, page 43](#).

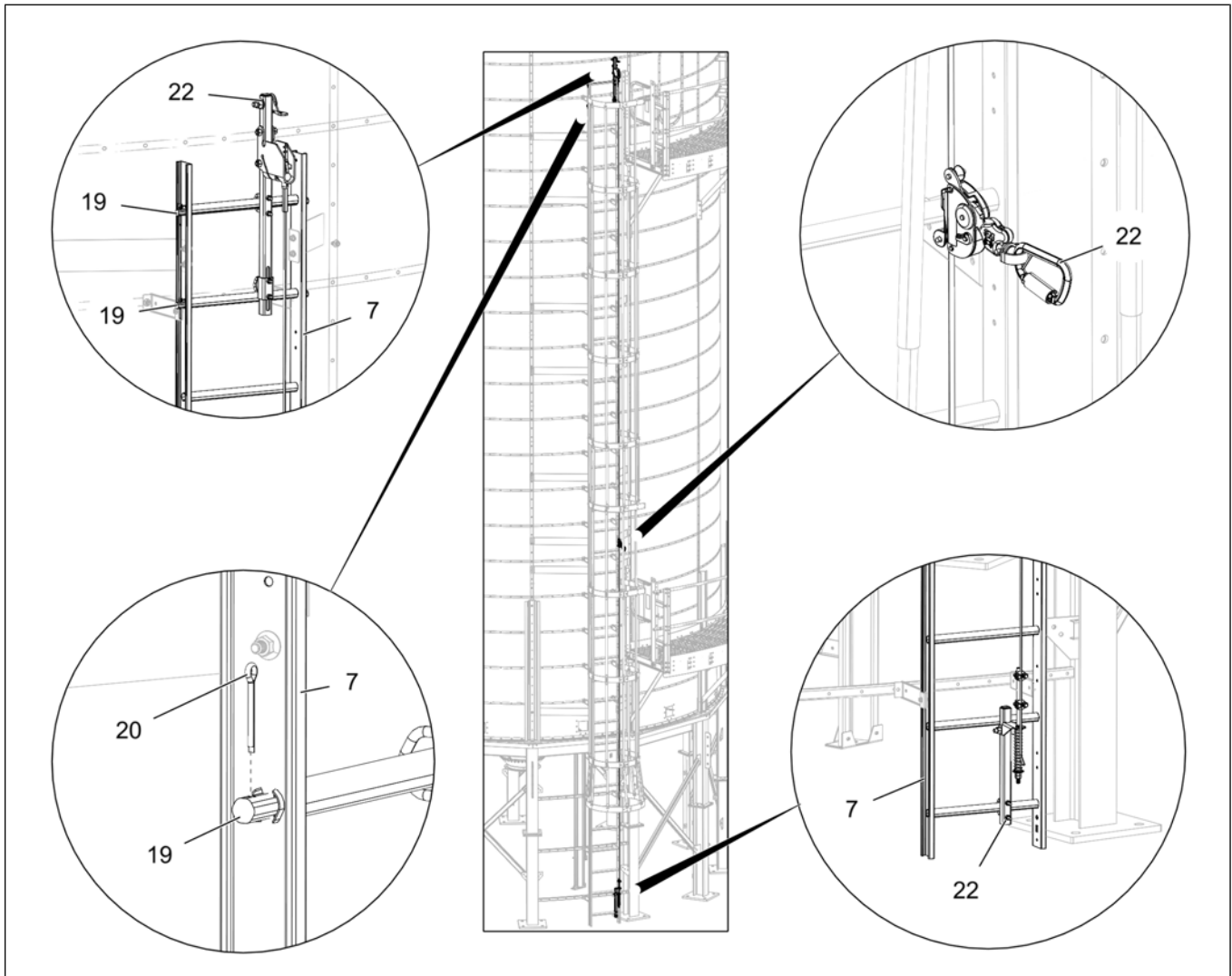
For fall protection system installation at catwalk to fan style platform, see [Installing the Fall Protection System between the Catwalk and Fan Style Platform, page 50](#).

1. Slide the solid rod inserts (19) into the hollow rungs of the ladder (7) where the standard bracket package (22) will be installed.

IMPORTANT: *The solid rods inserts (19) will be installed to the first two rungs of the ladder assembly.*

2. Secure the solid rod inserts (19) from slipping out by installing cotter pins (20) on both the sides.
3. Use the standard bracket package (22) and install the fall protection system to the right side of the ladder (7).

Figure 4-24 Installing the fall protection system between fan style platform and base



NOTES

5 Ladder Assembly with Safety Cage Only

Topics Covered in this Chapter

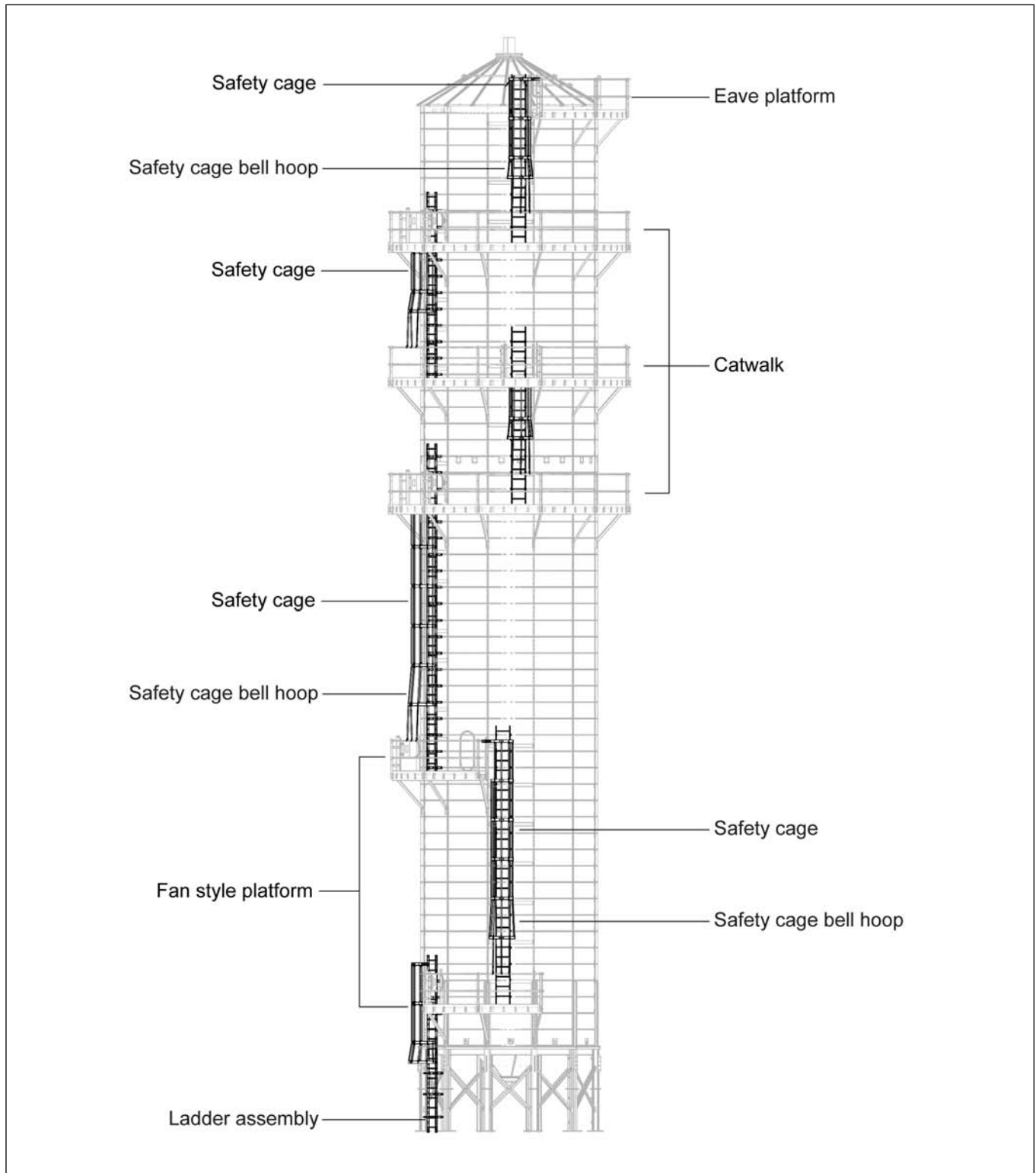
- Parts List
- Ladder Assembly Layout with Safety Cage
- Installing the Ladder Assembly between the Eave Platform and Catwalk
- Installing the Safety Cage between the Eave Platform and Catwalk
- Installing the Ladder Assembly between the Catwalks
- Installing the Safety Cage between the Catwalks
- Installing the Ladder between the Catwalk and Fan Style Platform
- Installing the Safety Cage between the Catwalk and Fan Style Platform
- Installing the Ladder Assembly between the Fan Style Platforms
- Installing the Safety Cage between the Fan Style Platforms
- Installing the Ladder Assembly at the Last Fan Style Platform
- Installing the Safety Cage between the Fan Style Platform and Base

Parts List

Ref #	Part #	Description
1	S-7470	5/16" x 1" flange bolt
2	S-3550	5/16" x 1" carriage bolt
3	S-7483	5/16" x 1-1/4" flange bolt with sealing washer
4	S-10260	5/16" x 1" flange bolt with sealing washer
5	S-10268	5/16" flange nut
6	LDR-4314	Ladder stand-off bracket
7		Ladder section
8	GT1-2096L-18	Left ladder brace bracket
9	GT1-2096R-18	Right ladder brace bracket
10	LDR-4198	Ladder stand-off wedge
11	LDR-4199	Safety cage hoop bracket
12	LDR-4201	Safety cage hoop half
13	LS-5284	Safety cage hoop adapter
14	LS-5285	Safety cage hoop adjust plate
15	LS-6713	48" Safety cage vertical support
16	LDR-4087	Large intermediate handrail
17	LDR-4088	Small intermediate handrail
18	GT3-1661	Insulated clamp

Ladder Assembly Layout with Safety Cage

Figure 5-1 Ladder assembly layout with safety cage (Z-4742)



Installing the Ladder Assembly between the Eave Platform and Catwalk

Before You Begin

You need to install the ladder and ladder braces at the eave. To install the ladder at the eave, refer to [Installing the Ladder Assembly at Eave, page 15](#). To install the ladder braces, refer to [Installing the Ladder Braces, page 17](#). To install the end caps, refer to [Installing the End Cap to the Ladder, page 18](#).

1. Install one set of ladder stand-off brackets (6) where perforated sheets overlap using existing vertical seam bolts (I) and nuts (J).

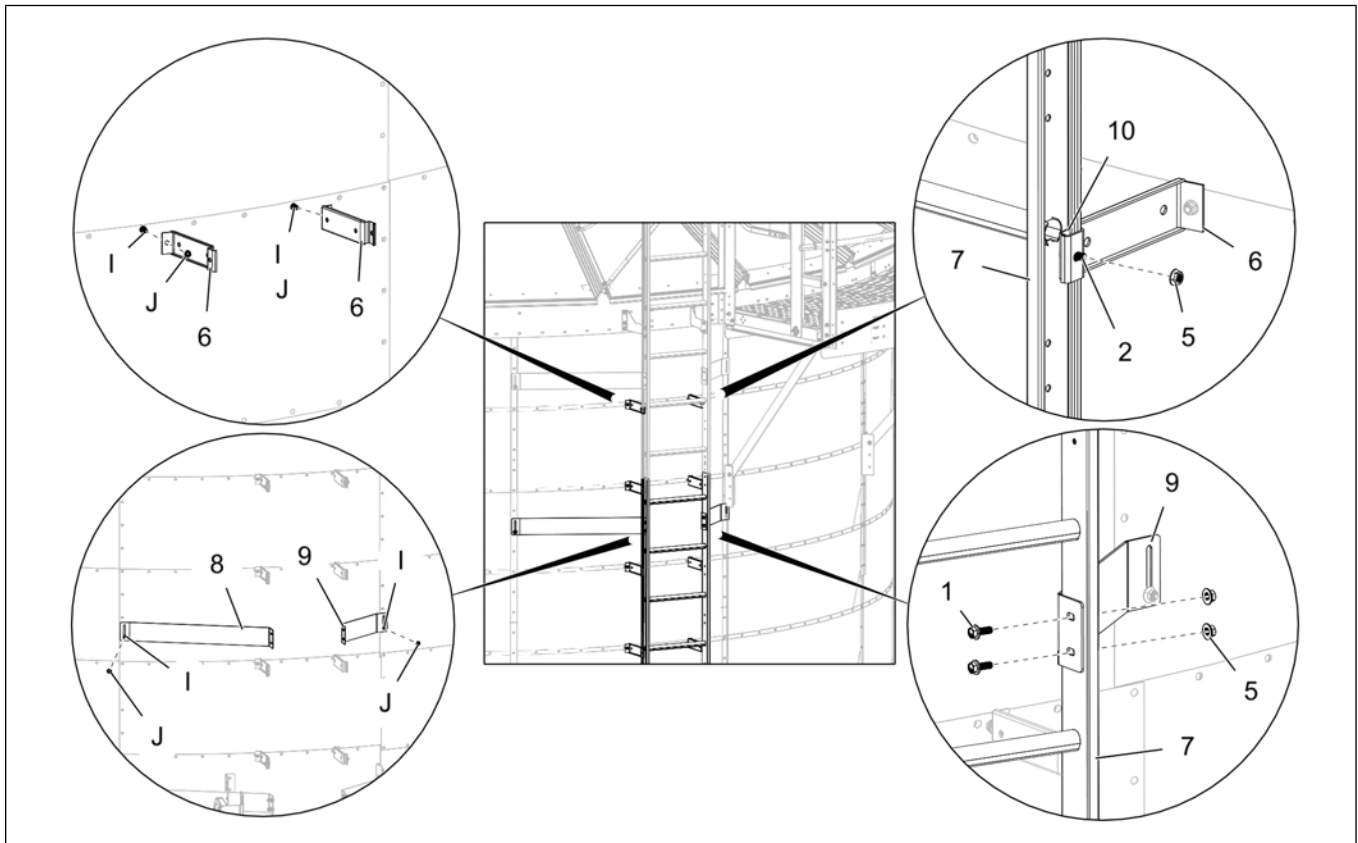
NOTE: As a rule of thumb, make sure to use one set of ladder stand-off brackets (6) on every overlap, unless otherwise shown.

2. Install the ladder brace brackets (8 and 9) to the vertical channels using existing vertical seam bolts (I) and nuts (J).

NOTE: Use one set of ladder brace brackets (8 and 9) per 4' ladder section and two sets per 8' ladder section.

3. Install the ladder section (7) to the ladder brace brackets (8 and 9) using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (5).
4. Slide the ladder wedge (10) along the ladder rail (7) and install it to the stand-off bracket (6) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).

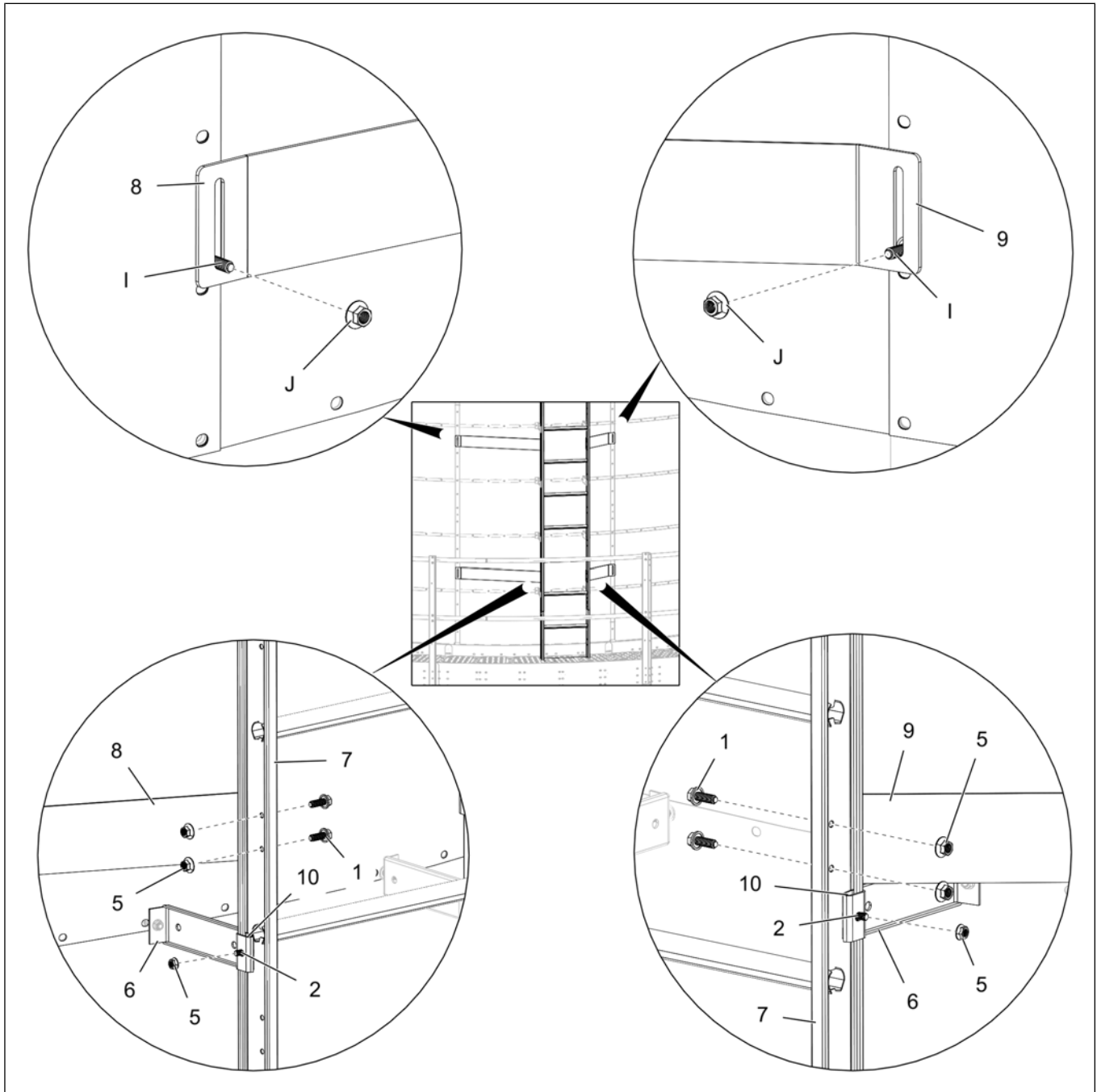
Figure 5-2 Installing the ladder stand-off and ladder brace brackets at eave platform



Chapter 5: Ladder Assembly with Safety Cage Only

5. Install the slotted end of the left ladder brace bracket (8) and right ladder brace bracket (9) to the vertical channels using existing vertical seam bolts (I) and nuts (J).
6. Install the ladder section (7) to the ladder brace brackets (8 and 9) using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (5).
7. Slide the ladder wedge (10) along the ladder rail (7) and install it to the stand-off bracket (6) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).

Figure 5-3 *Installing the ladder above the catwalk*



Installing the Safety Cage between the Eave Platform and Catwalk

Before You Begin

Make sure the ladder assembly is completed and installed to the dryer.

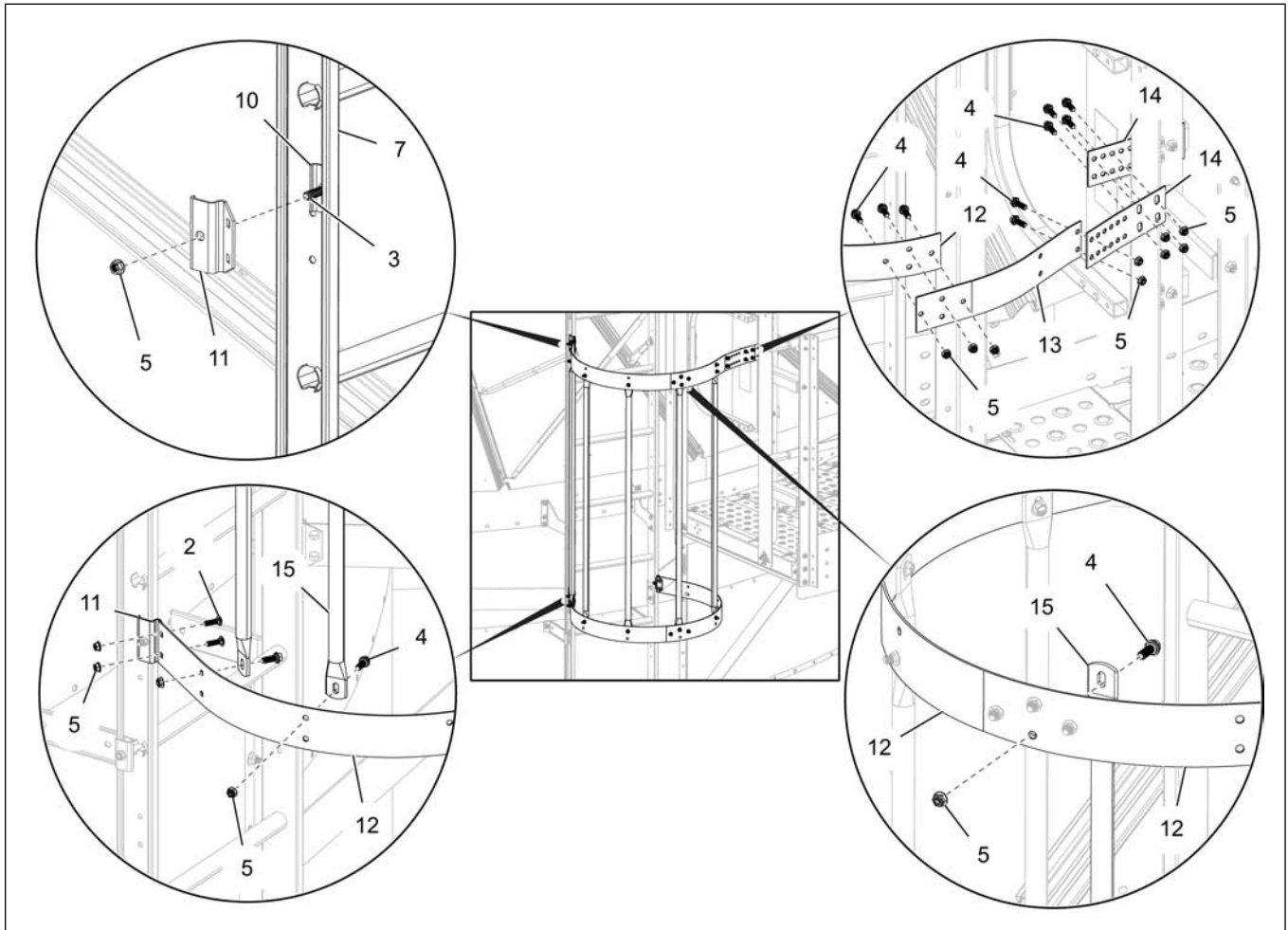
1. Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

NOTE: You need to install one safety cage hoop bracket (11) at the top and two below the platform as shown.

2. Assemble the safety cage hoop adapter (13) with safety cage hoop half (12) and install the hoop half to the safety cage hoop bracket (11) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).
3. Install the safety cage hoop adapter (13) to the platform post with two safety cage hoop adjuster plates (14) using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).
4. Assemble two safety cage hoop halves (12) together and install it to the cage hoop brackets (11) below the platform using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).
5. Install the 48" vertical supports (15) between the safety cage hoop halves (12) using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).

NOTE: Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 5-4 Installing the safety cage at the eave platform



Chapter 5: Ladder Assembly with Safety Cage Only

- Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

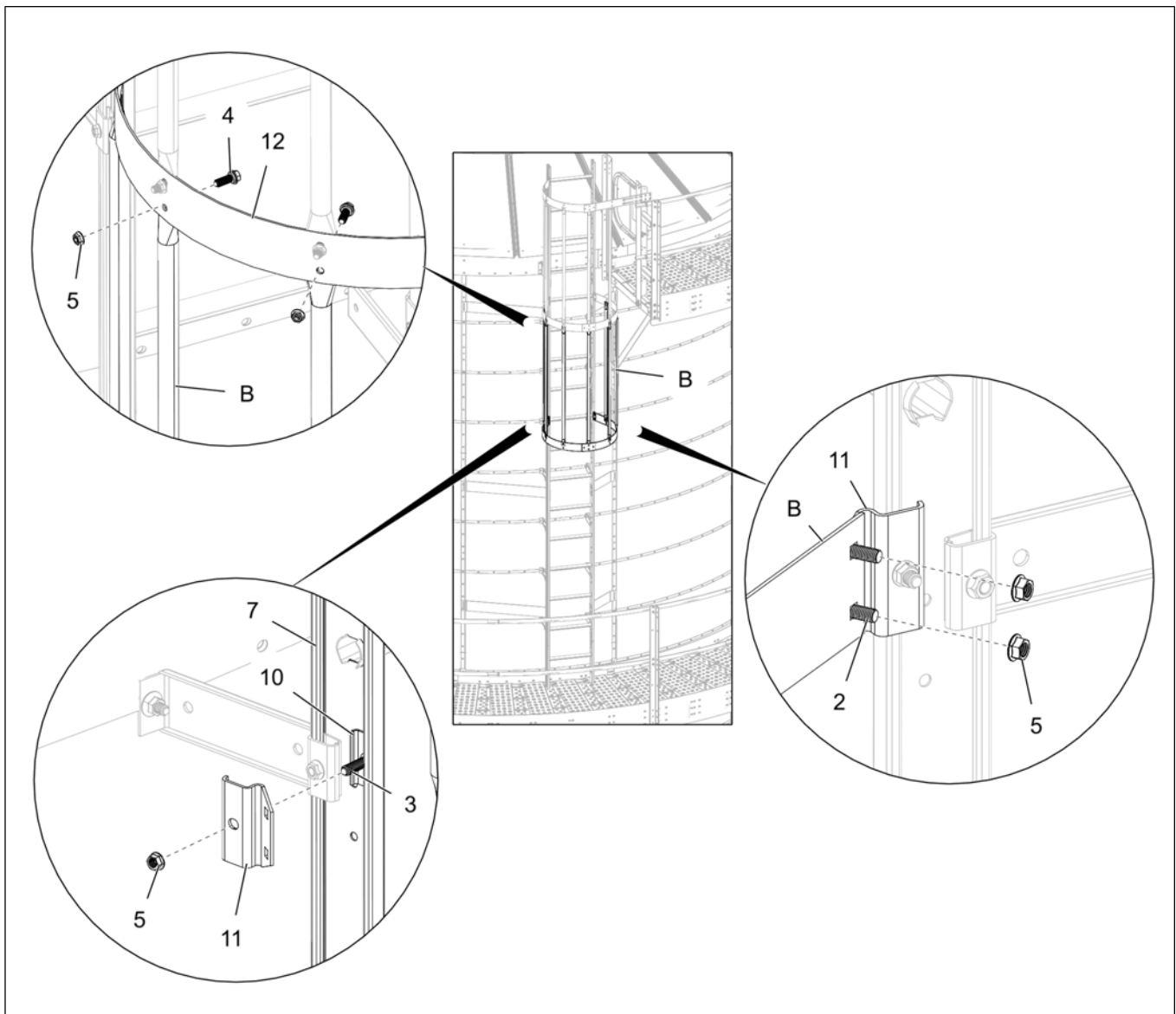
NOTE: You need to install two safety cage hoop brackets (11) for each safety cage hoop assembly at required places.

- Install the 48" safety cage section (B) to the ladder section (7).

NOTE:

- Use 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5) to connect the safety cage hoop halves to the safety cage hoop brackets (11).
- Use 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5) to connect the vertical supports to the safety cage hoop halves.
- Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 5-5 Installing the safety cage extensions



8. Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

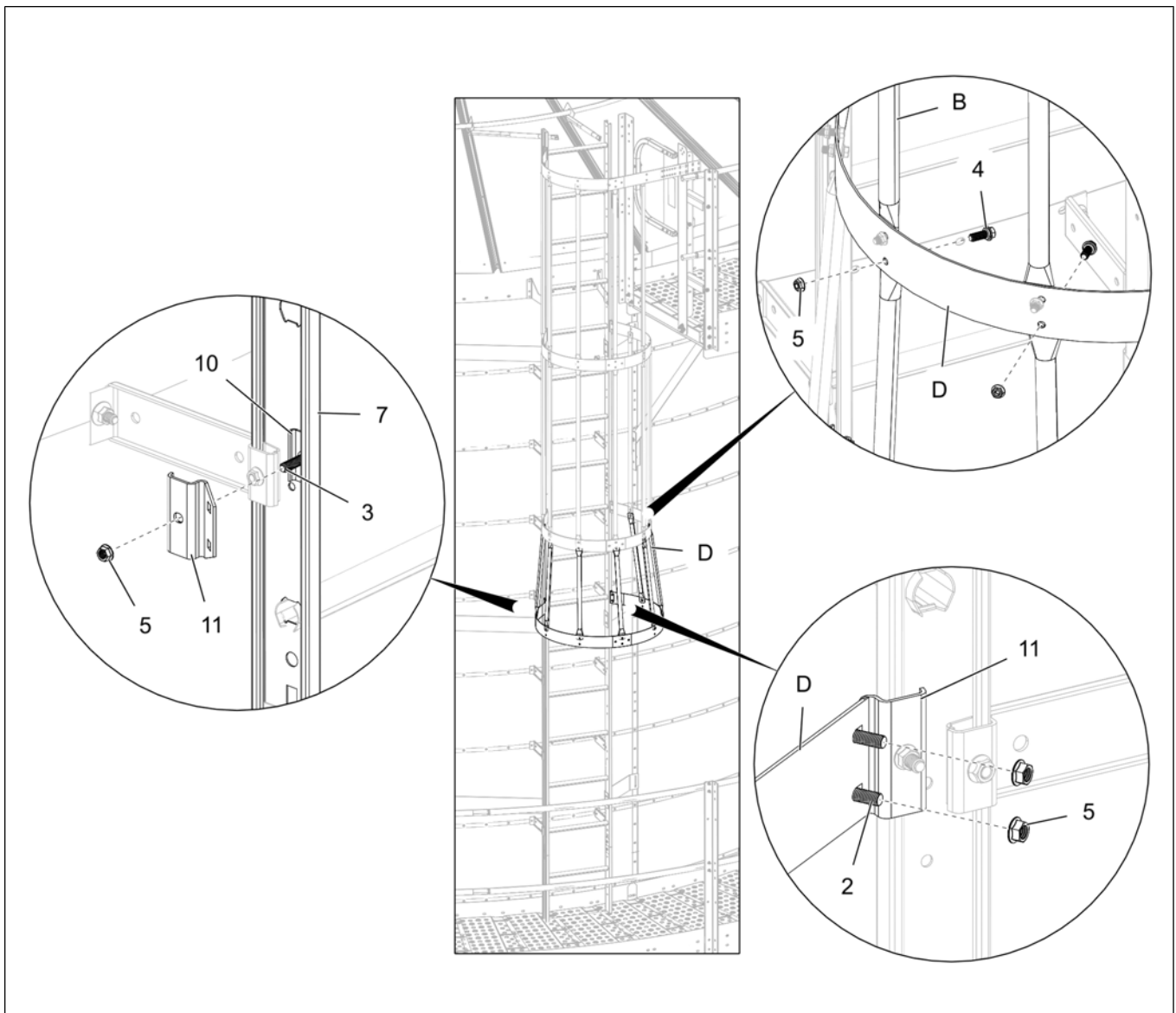
NOTE: You need to install two safety cage hoop brackets (11) for each safety cage bell hoop assembly at required places.

9. Install the 24" safety cage bell section (D) to the ladder section (7).

NOTE:

- Use 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5) to connect the safety cage bell hoop halves to the safety cage hoop brackets (11).
- Use 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5) to connect the vertical supports to the safety cage hoop halves.
- Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 5-6 Installing the safety cage bell hoop sections

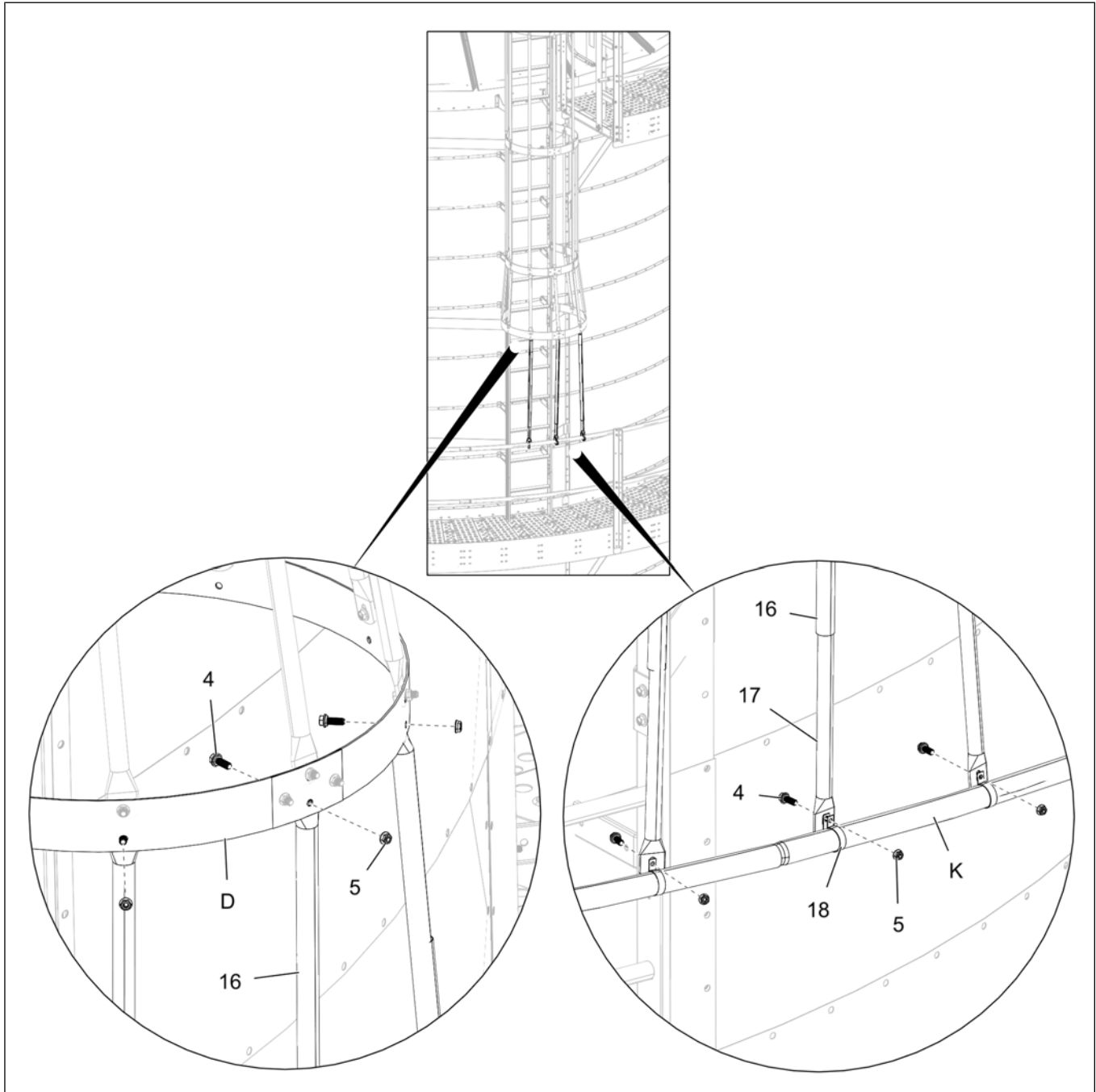


Chapter 5: Ladder Assembly with Safety Cage Only

10. Slide the small handrail (17) into the large handrail (16) and adjust the length as required.
11. Install the flat ends of the large handrail (16) to the safety cage bell hoop halves and install using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).
12. Use a clamp (18) to secure the flat end of the small handrail (17) to the platform handrail (K) using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).

NOTE: Install bolts (4) with bolt heads on the inside of the cage or platform.

Figure 5-7 Installing the intermediate handrails



Installing the Ladder Assembly between the Catwalks

1. Install one set of ladder stand-off brackets (6) where perforated sheets overlap using existing vertical seam bolts (I) and nuts (J).

NOTE: As a rule of thumb, make sure to use one set of ladder stand-off brackets (6) on every overlap, unless otherwise shown.

2. Install the ladder brace brackets (8 and 9) to the vertical channels using existing vertical seam bolts (I) and nuts (J).

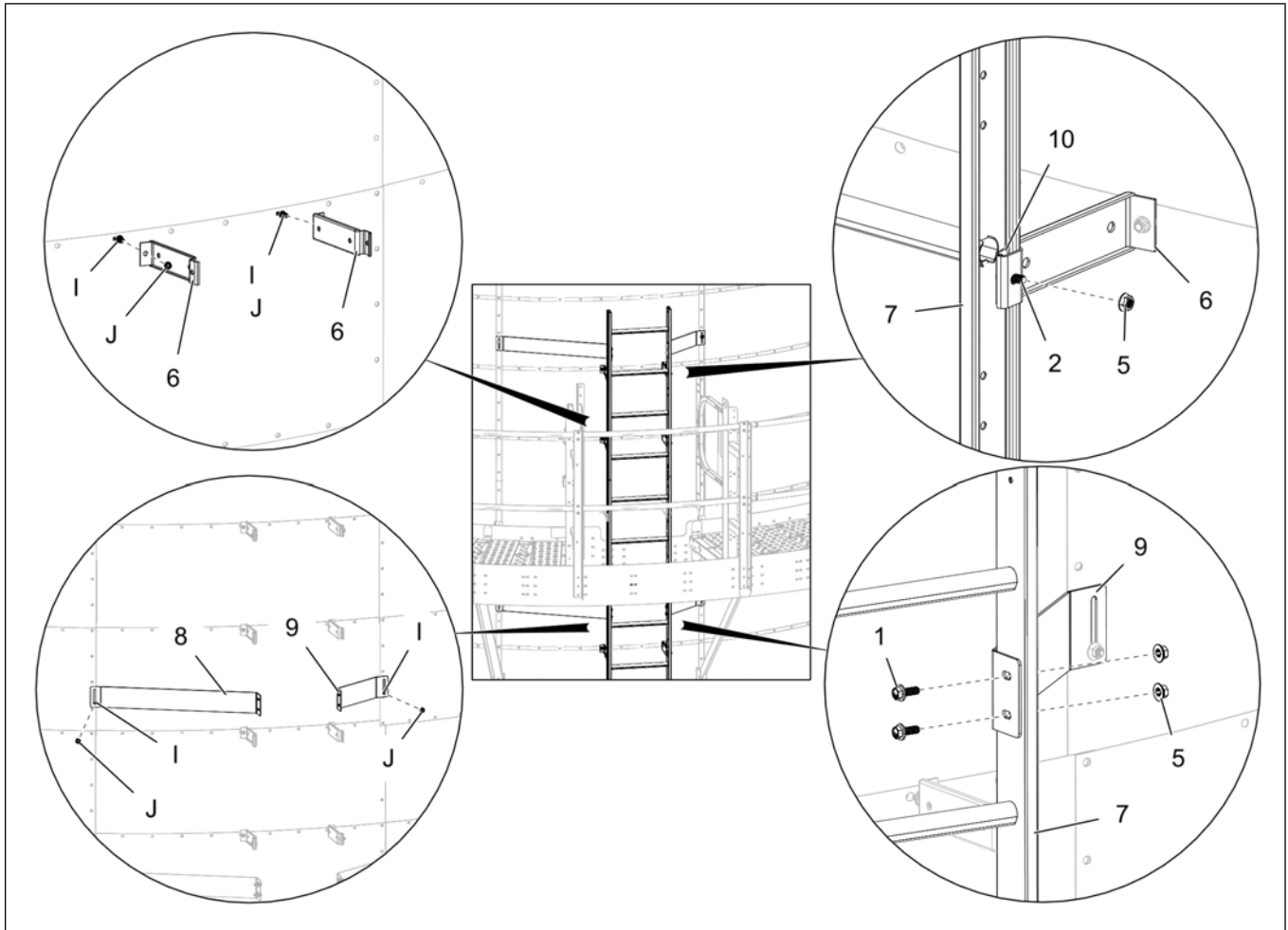
NOTE: Use one set of ladder brace brackets (8 and 9) per 4' ladder section and two sets per 8' ladder section.

3. Install the ladder section (7) to the ladder brace brackets (8 and 9) using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (5).

4. Slide the ladder wedge (10) along the ladder rail (7) and install it to the stand-off bracket (6) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).

NOTE: The ladder should extend 6' above from the catwalk floor.

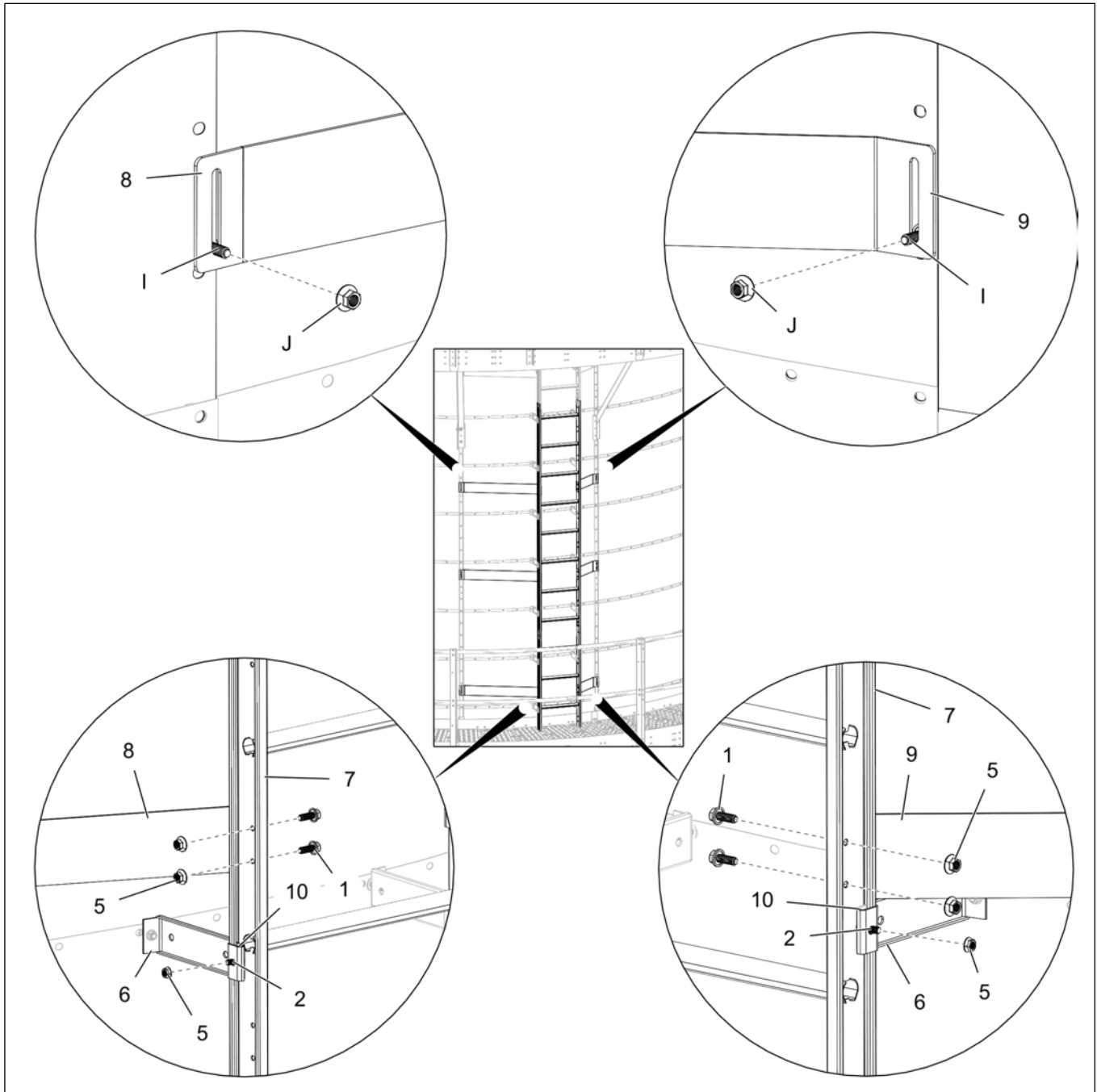
Figure 5-8 Installing the ladder stand-off and ladder brace brackets at catwalk



Chapter 5: Ladder Assembly with Safety Cage Only

5. Install the slotted end of the left ladder brace bracket (8) and right ladder brace bracket (9) to the vertical channels using existing vertical seam bolts (I) and nuts (J).
6. Install the ladder section (7) to the ladder brace brackets (8 and 9) using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (5).
7. Slide the ladder wedge (10) along the ladder rail (7) and install it to the stand-off bracket (6) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).

Figure 5-9 *Installing the ladder at remaining sections*



Installing the Safety Cage between the Catwalks

Before You Begin

Make sure the ladder assembly is completed and installed to the dryer.

1. Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

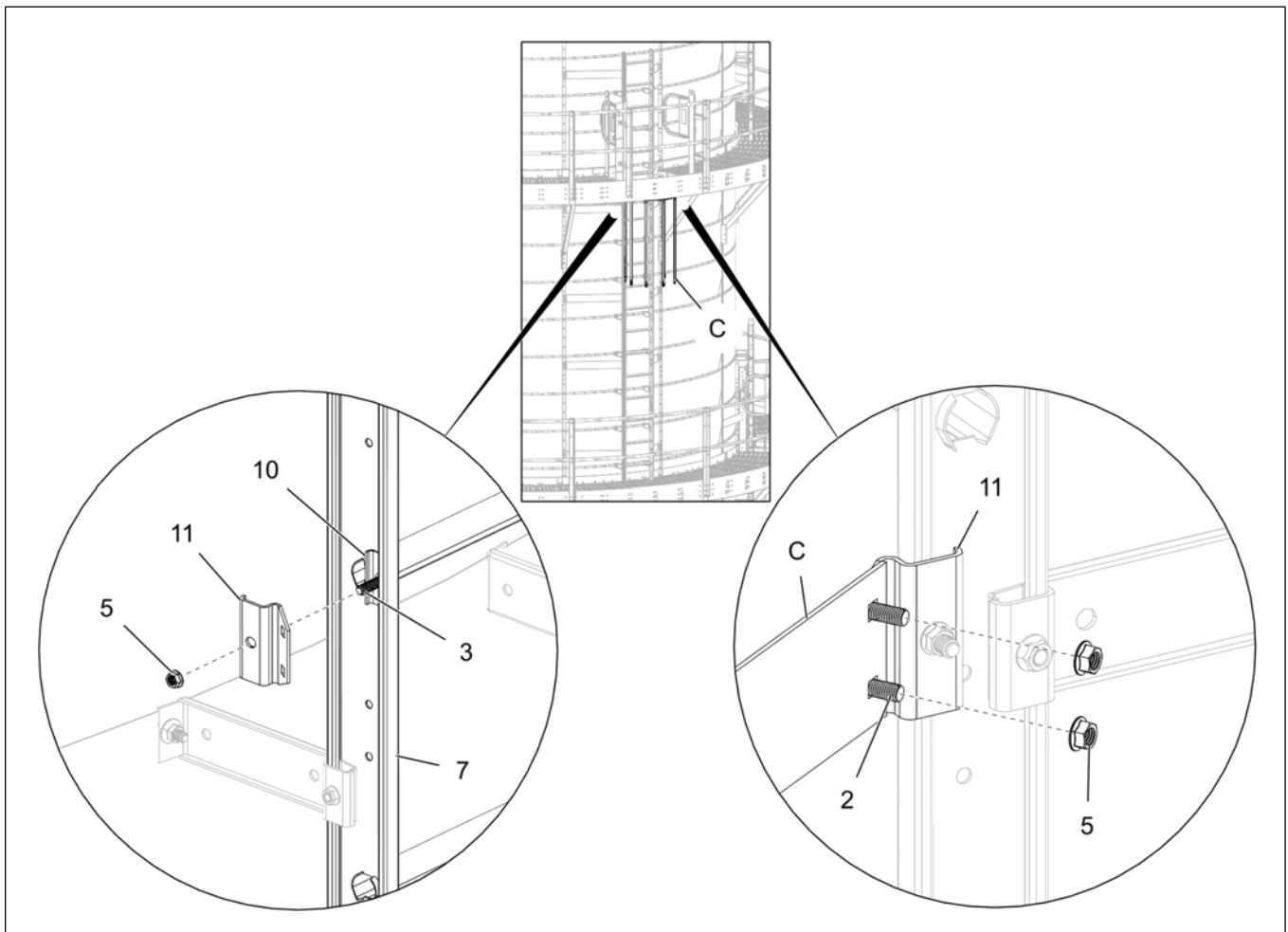
NOTE: You need to install two safety cage hoop brackets (11) for each safety cage hoop assembly at required places.

2. Install the 48" safety cage section (C) to the ladder section (7).

NOTE:

- a. Use 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5) to connect the safety cage hoop halves to the safety cage hoop brackets (11).
- b. Use 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5) to connect the vertical supports to the safety cage hoop halves.
- c. Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 5-10 Installing the safety cage extensions



Chapter 5: Ladder Assembly with Safety Cage Only

- Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

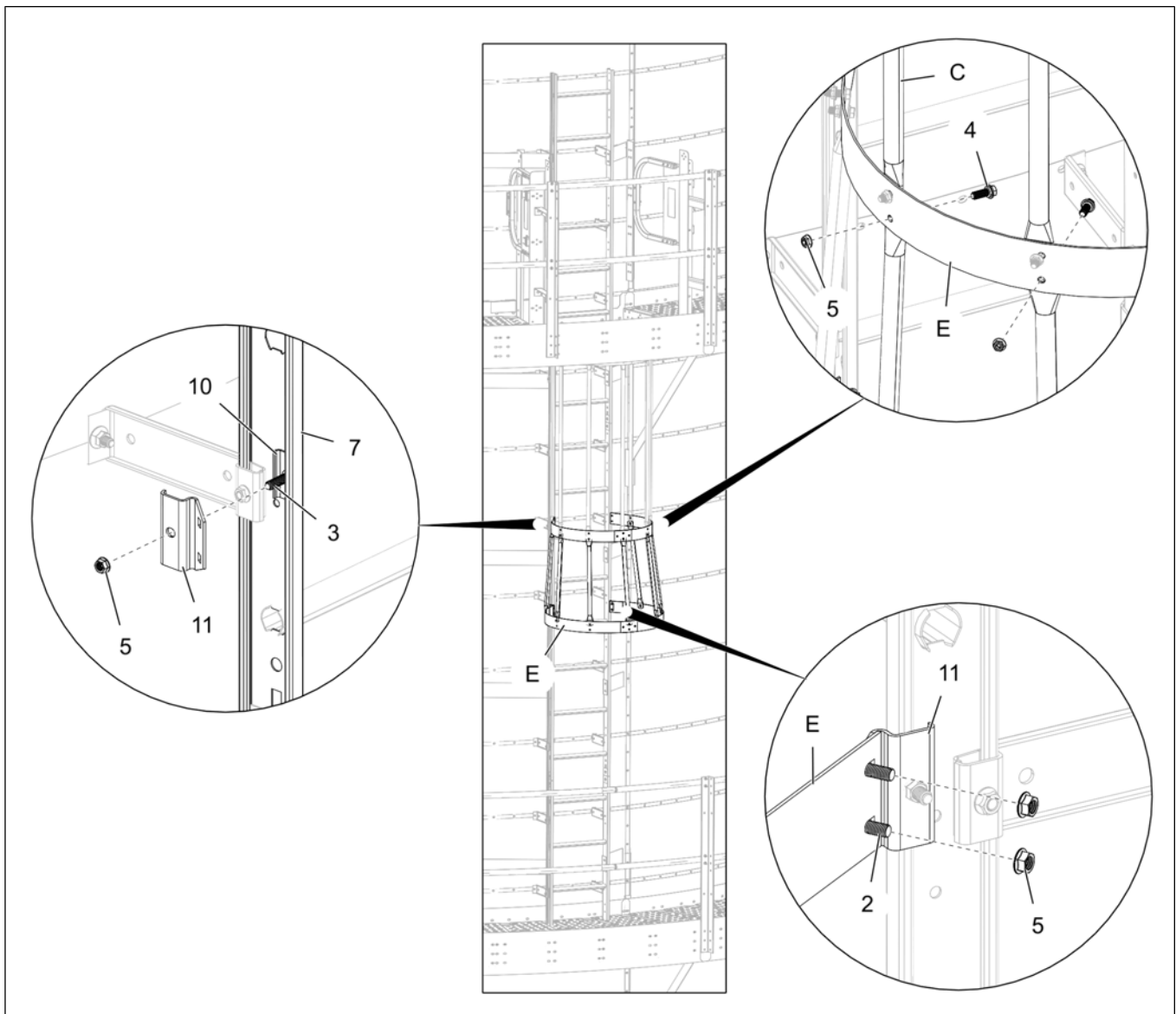
NOTE: You need to install two safety cage hoop brackets (11) for each safety cage bell hoop assembly at required places.

- Install the 24" safety cage bell section (E) to the ladder section (7).

NOTE:

- Use 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5) to connect the safety cage bell hoop halves to the safety cage hoop brackets (11).
- Use 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5) to connect the vertical supports to the safety cage hoop halves.
- Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

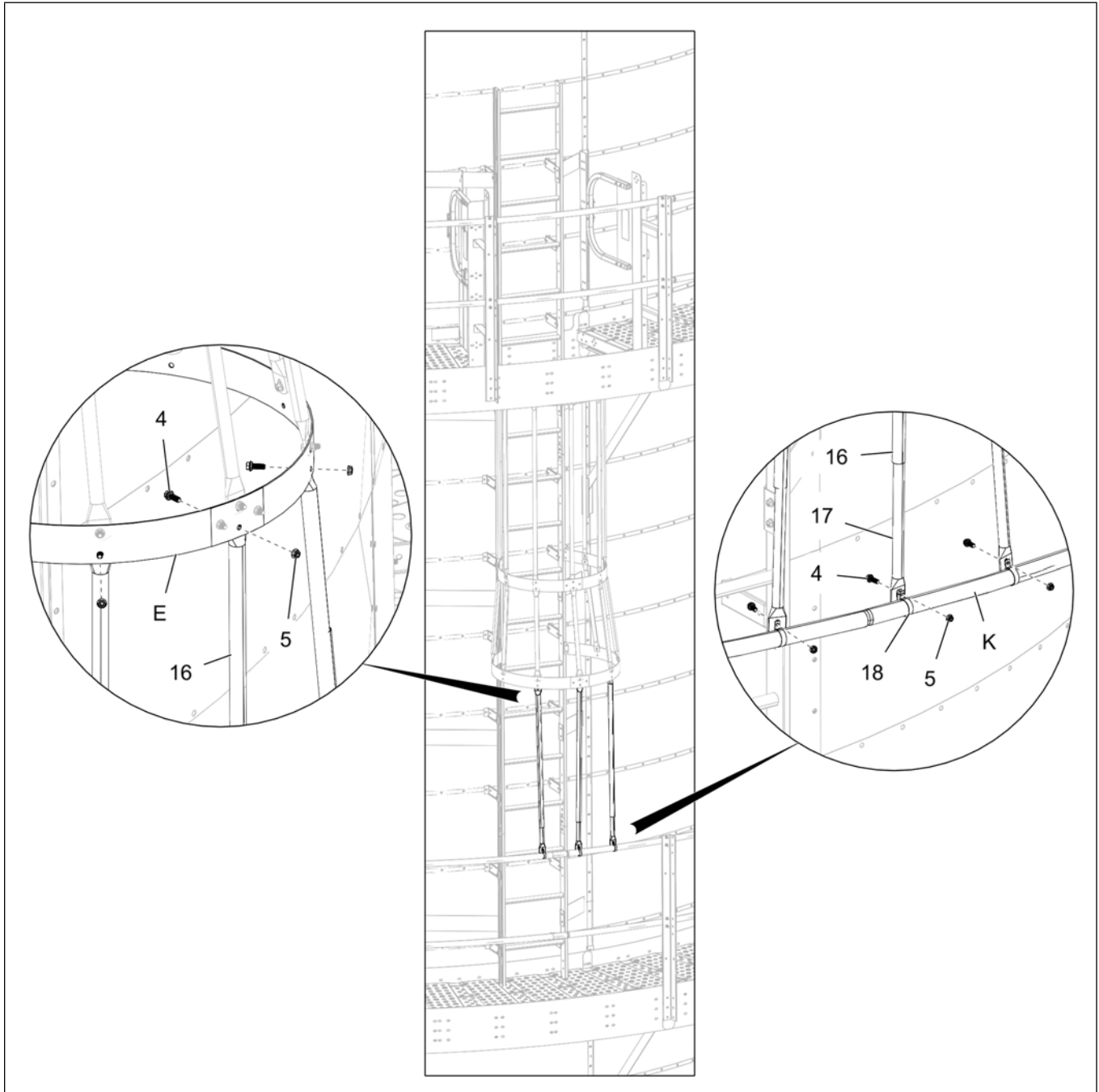
Figure 5-11 Installing the safety cage bell hoop sections



5. Slide the small handrail (17) into the large handrail (16) and adjust the length as required.
6. Install the flat ends of the large handrail (16) to the safety cage bell hoop halves and install using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).
7. Use a clamp (18) to secure the flat end of the small handrail (17) to the platform handrail (K) using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).

NOTE: Install bolts (4) with bolt heads on the inside of the cage or platform.

Figure 5-12 Installing the intermediate handrail



Installing the Ladder between the Catwalk and Fan Style Platform

1. Install one set of ladder stand-off brackets (6) where perforated sheets overlap using existing vertical seam bolts (I) and nuts (J).

NOTE: As a rule of thumb, make sure to use one set of ladder stand-off brackets (6) on every overlap, unless otherwise shown.

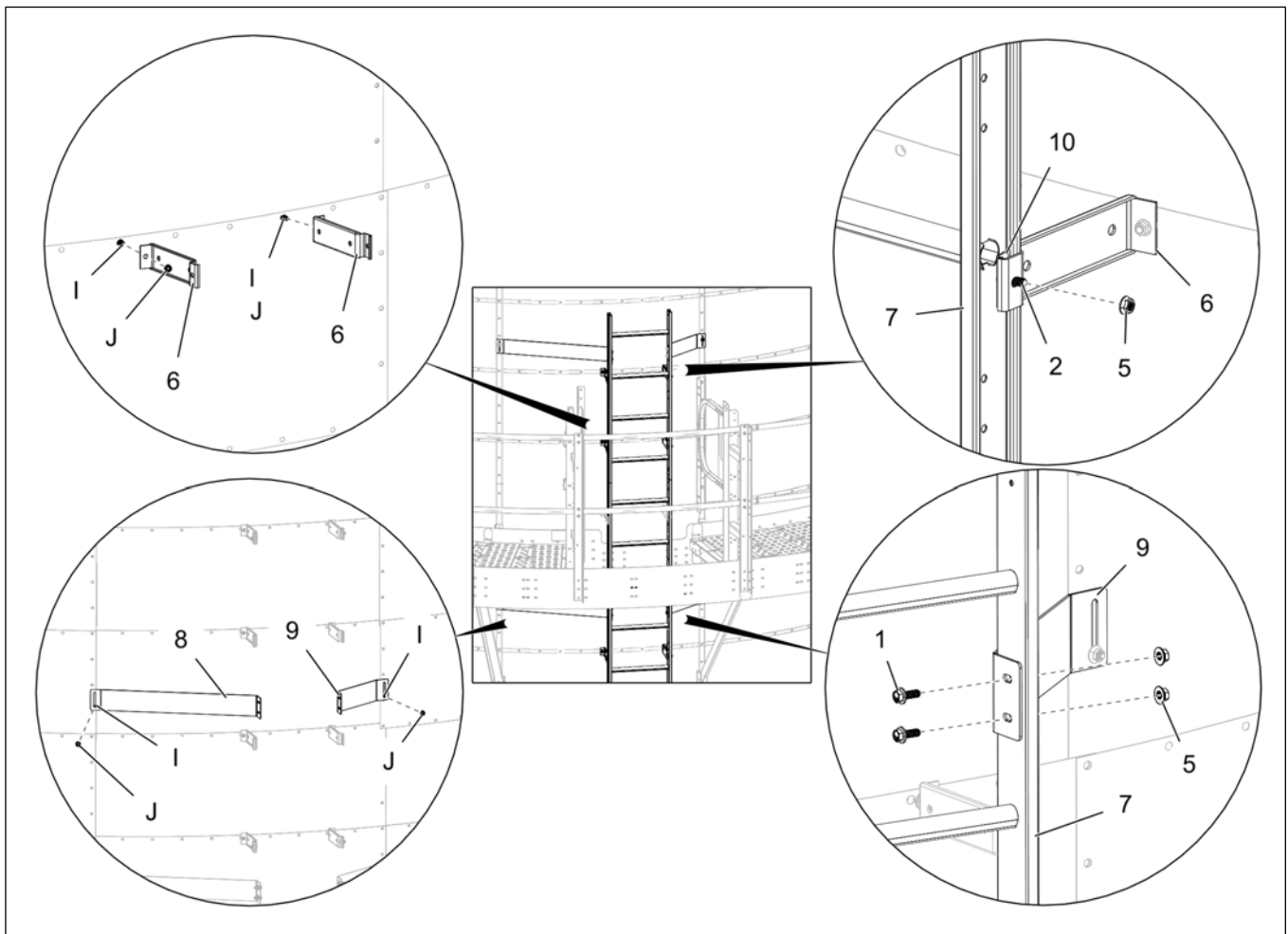
2. Install the ladder brace brackets (8 and 9) to the vertical channels using existing vertical seam bolts (I) and nuts (J).

NOTE: Use one set of ladder brace brackets (8 and 9) per 4' ladder section and two sets per 8' ladder section.

3. Install the ladder section (7) to the ladder brace brackets (8 and 9) using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (5).

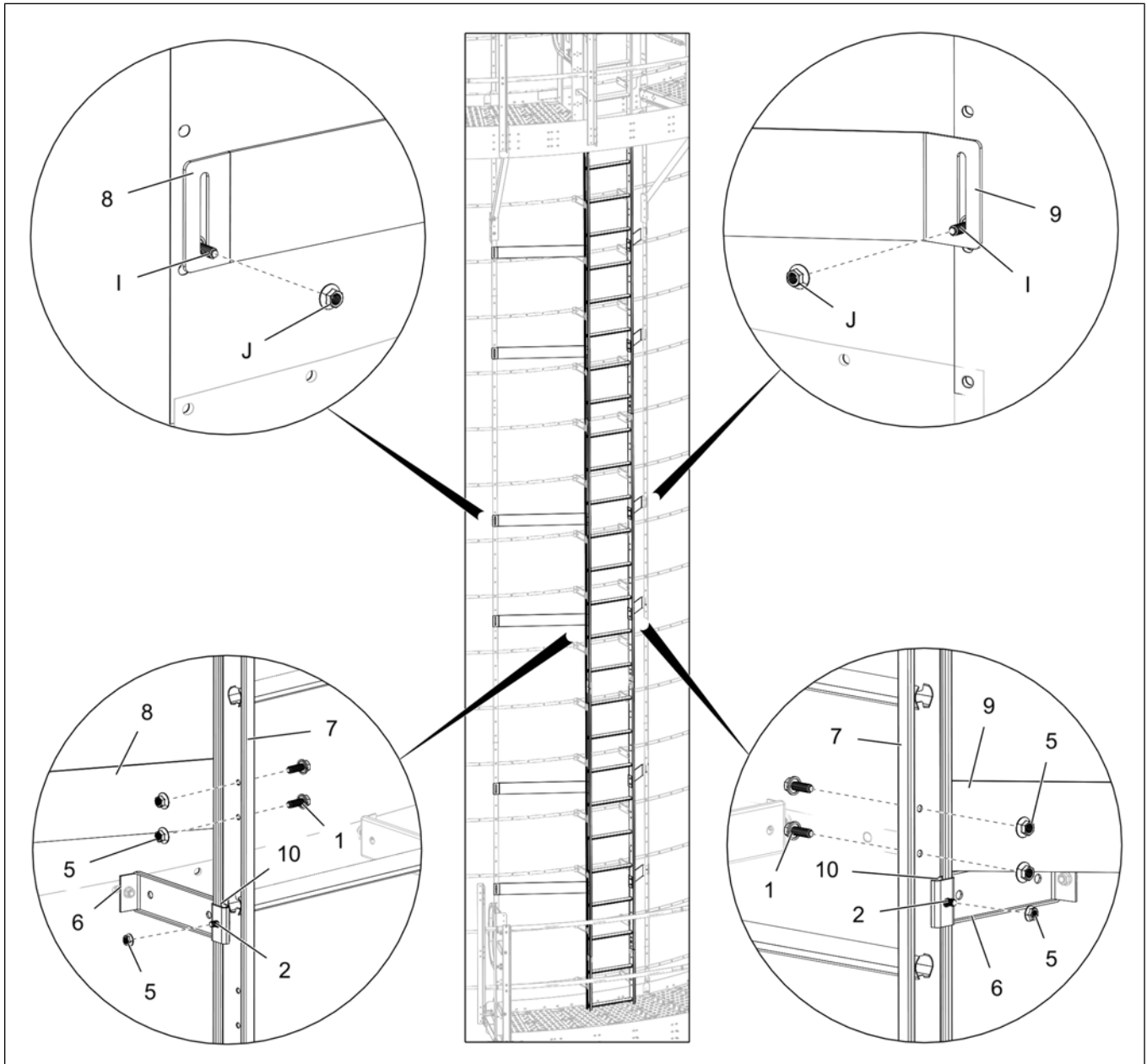
4. Slide the ladder wedge (10) along the ladder rail (7) and install it to the stand-off bracket (6) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).

Figure 5-13 Installing the ladder stand-off and ladder brace brackets at catwalk



5. Install the slotted end of the left ladder brace bracket (8) and right ladder brace bracket (9) to the vertical channels using existing vertical seam bolts (I) and nuts (J).
6. Install the ladder section (7) to the ladder brace brackets (8 and 9) using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (5).
7. Slide the ladder wedge (10) along the ladder rail (7) and install it to the stand-off bracket (6) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).

Figure 5-14 *Installing the ladder at the remaining sections*



Installing the Safety Cage between the Catwalk and Fan Style Platform

Before You Begin

Make sure the ladder assembly is completed and installed to the dryer.

1. Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

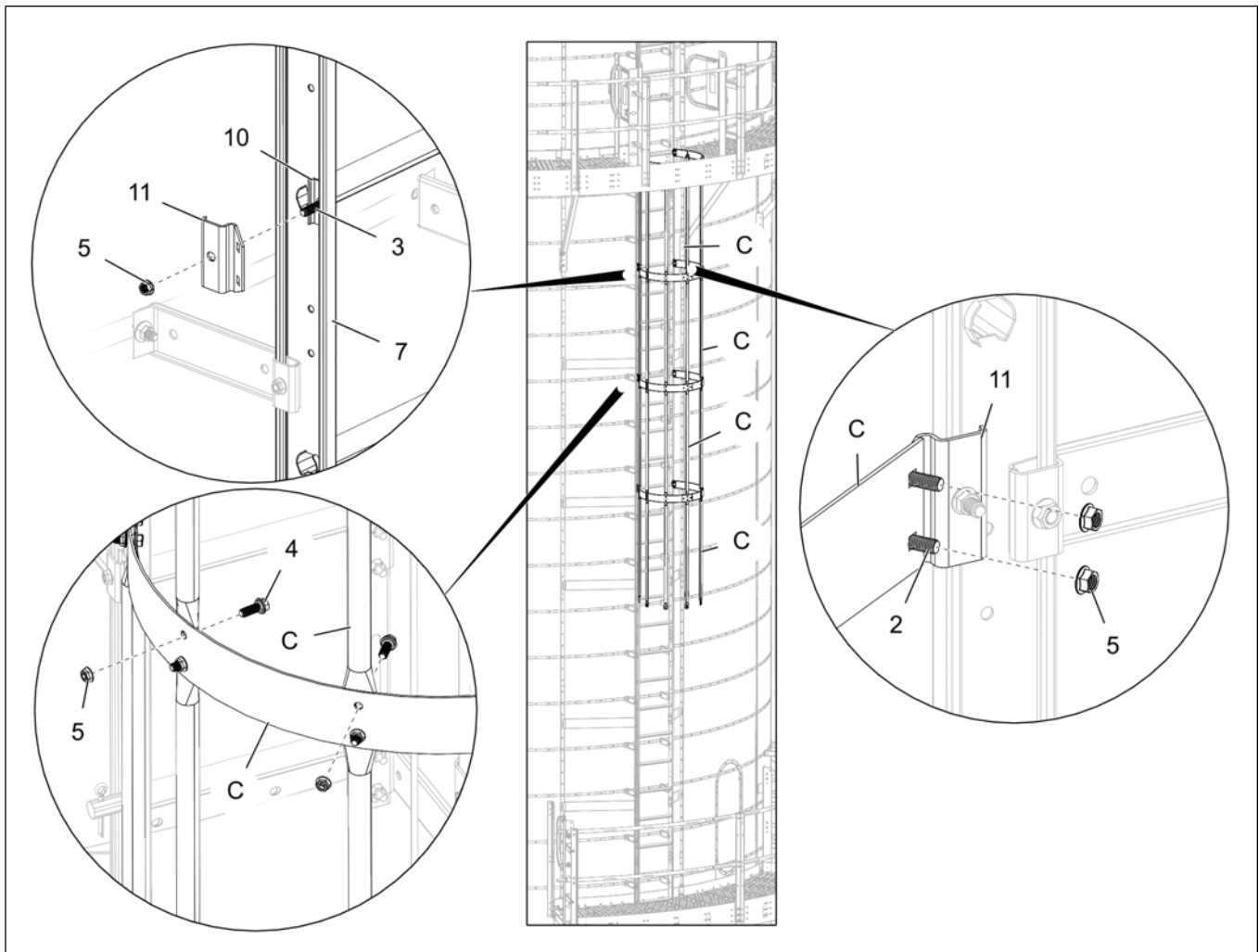
NOTE: You need to install two safety cage hoop brackets (11) for each safety cage hoop assembly at required places.

2. Install the 48" safety cage sections (C) to the ladder section (7).

NOTE:

- a. Use 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5) to connect the safety cage hoop halves to the safety cage hoop brackets (11).
- b. Use 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5) to connect the vertical supports to the safety cage hoop halves.
- c. Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 5-15 Installing the safety cage extensions



- Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

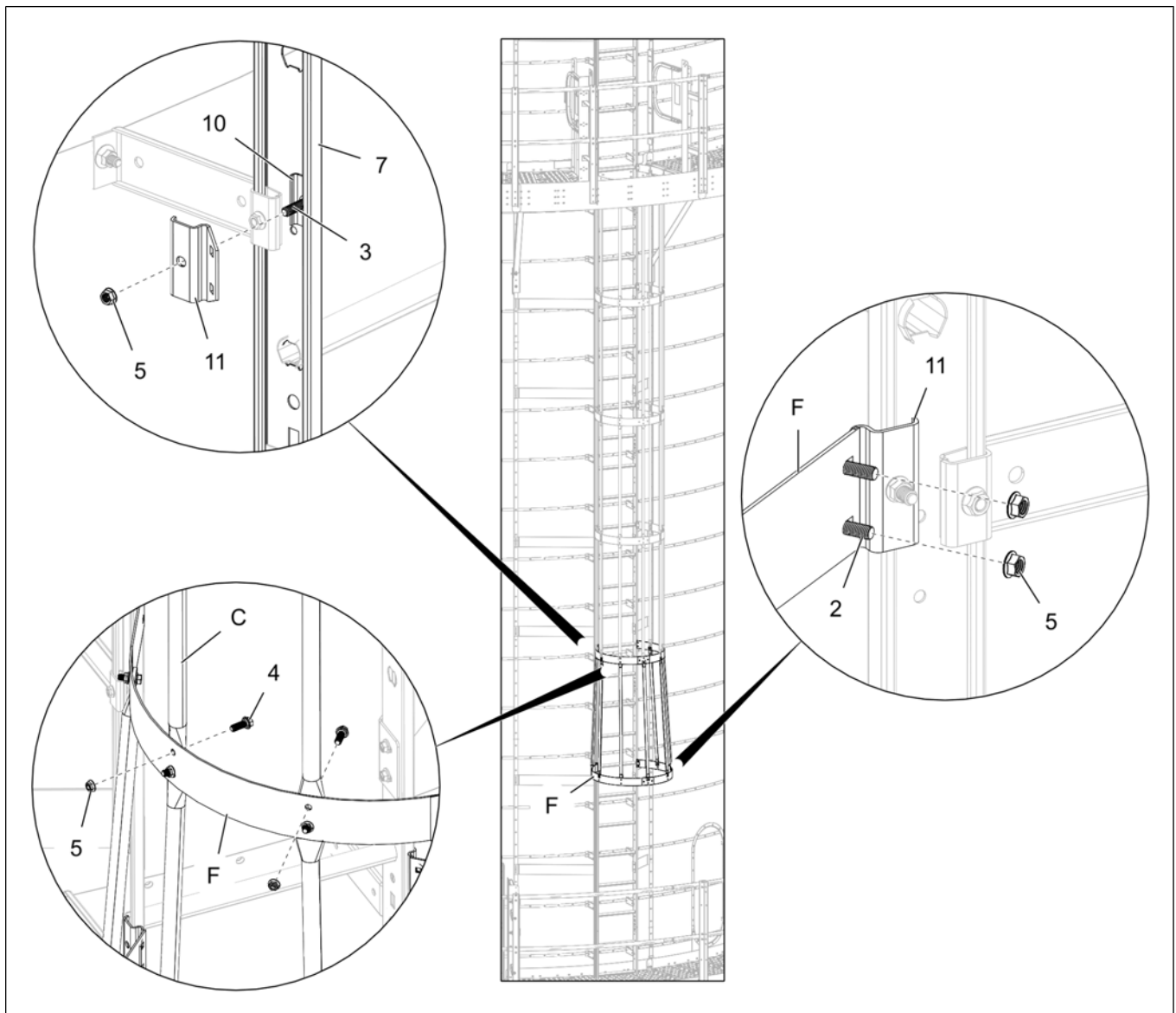
NOTE: You need to install two safety cage hoop brackets (11) for each safety cage bell hoop assembly at required places.

- Install the 48" safety cage bell section (F) to the ladder section (7).

NOTE:

- Use 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5) to connect the safety cage bell hoop halves to the safety cage hoop brackets (11).
- Use 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5) to connect the vertical supports to the safety cage hoop halves.
- Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 5-16 Installing the safety cage bell hoop sections

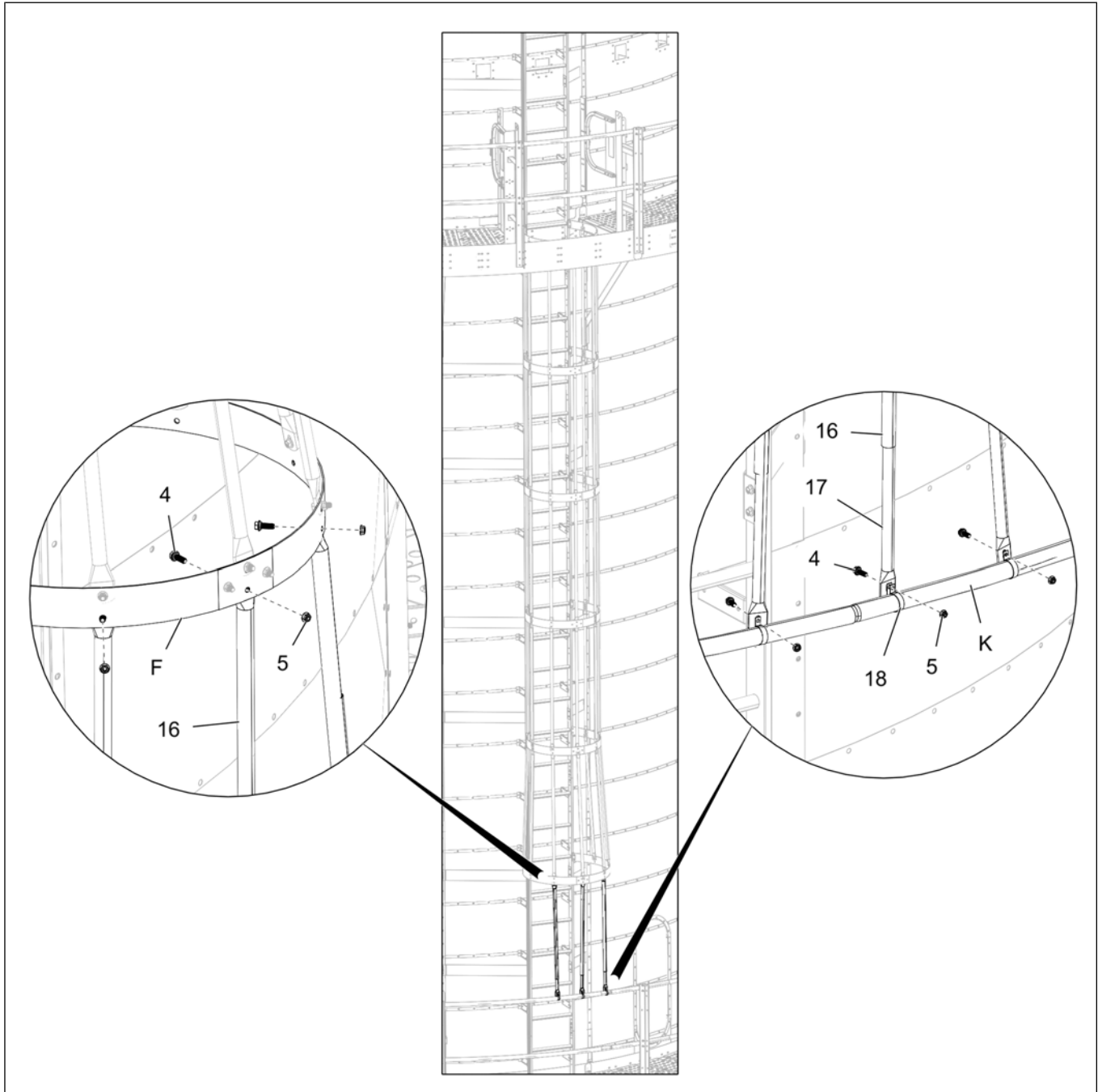


Chapter 5: Ladder Assembly with Safety Cage Only

5. Slide the small handrail (17) into the large handrail (16) and adjust the length as required.
6. Install the flat ends of the large handrail (16) to the safety cage bell hoop halves and install using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).
7. Use a clamp (18) to secure the flat end of the small handrail (17) to the platform handrail (K) using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).

NOTE: Install bolts (4) with bolt heads on the inside of the cage or platform.

Figure 5-17 Installing the intermediate handrail



Installing the Ladder Assembly between the Fan Style Platforms

1. Install one set of ladder stand-off brackets (6) where perforated sheets overlap using existing vertical seam bolts (I) and nuts (J).

NOTE: As a rule of thumb, make sure to use one set of ladder stand-off brackets (6) on every overlap, unless otherwise shown.

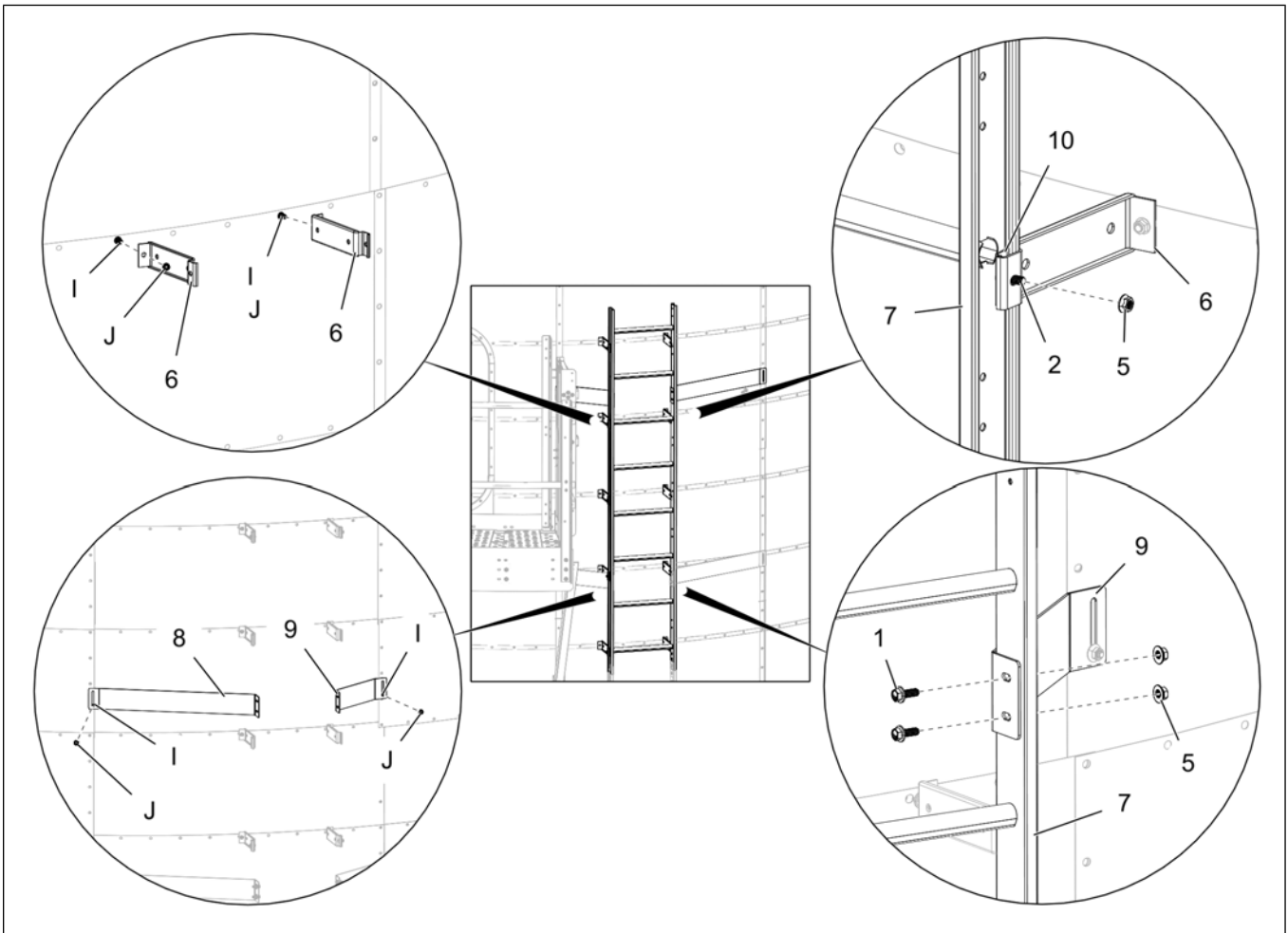
2. Install the ladder brace brackets (8 and 9) to the vertical channels using existing vertical seam bolts (I) and nuts (J).

NOTE: Use one set of ladder brace brackets (8 and 9) per 4' ladder section and two sets per 8' ladder section.

3. Install the ladder section (7) to the ladder brace brackets (8 and 9) using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (5).

4. Slide the ladder wedge (10) along the ladder rail (7) and install it to the stand-off bracket (6) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).

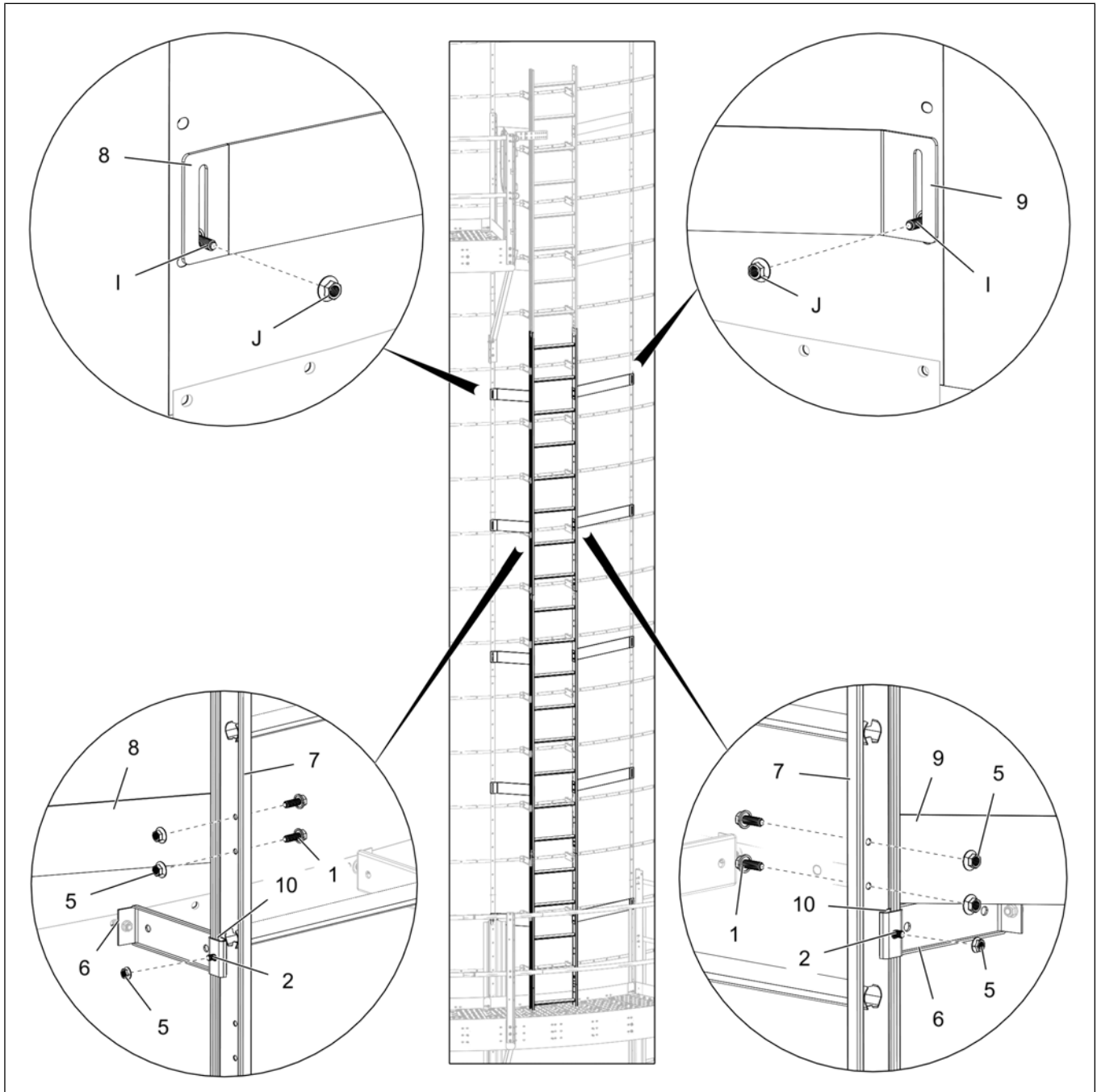
Figure 5-18 Installing the ladder stand-off and ladder brace brackets at the fan style platforms



Chapter 5: Ladder Assembly with Safety Cage Only

5. Install the slotted end of the left ladder brace bracket (8) and right ladder brace bracket (9) to the vertical channels using existing vertical seam bolts (I) and nuts (J).
6. Install the ladder section (7) to the ladder brace brackets (8 and 9) using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (5).
7. Slide the ladder wedge (10) along the ladder rail (7) and install it to the stand-off bracket (6) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).

Figure 5-19 Installing the ladder at remaining sections



Installing the Safety Cage between the Fan Style Platforms

Before You Begin

Make sure the ladder assembly is completed and installed to the dryer.

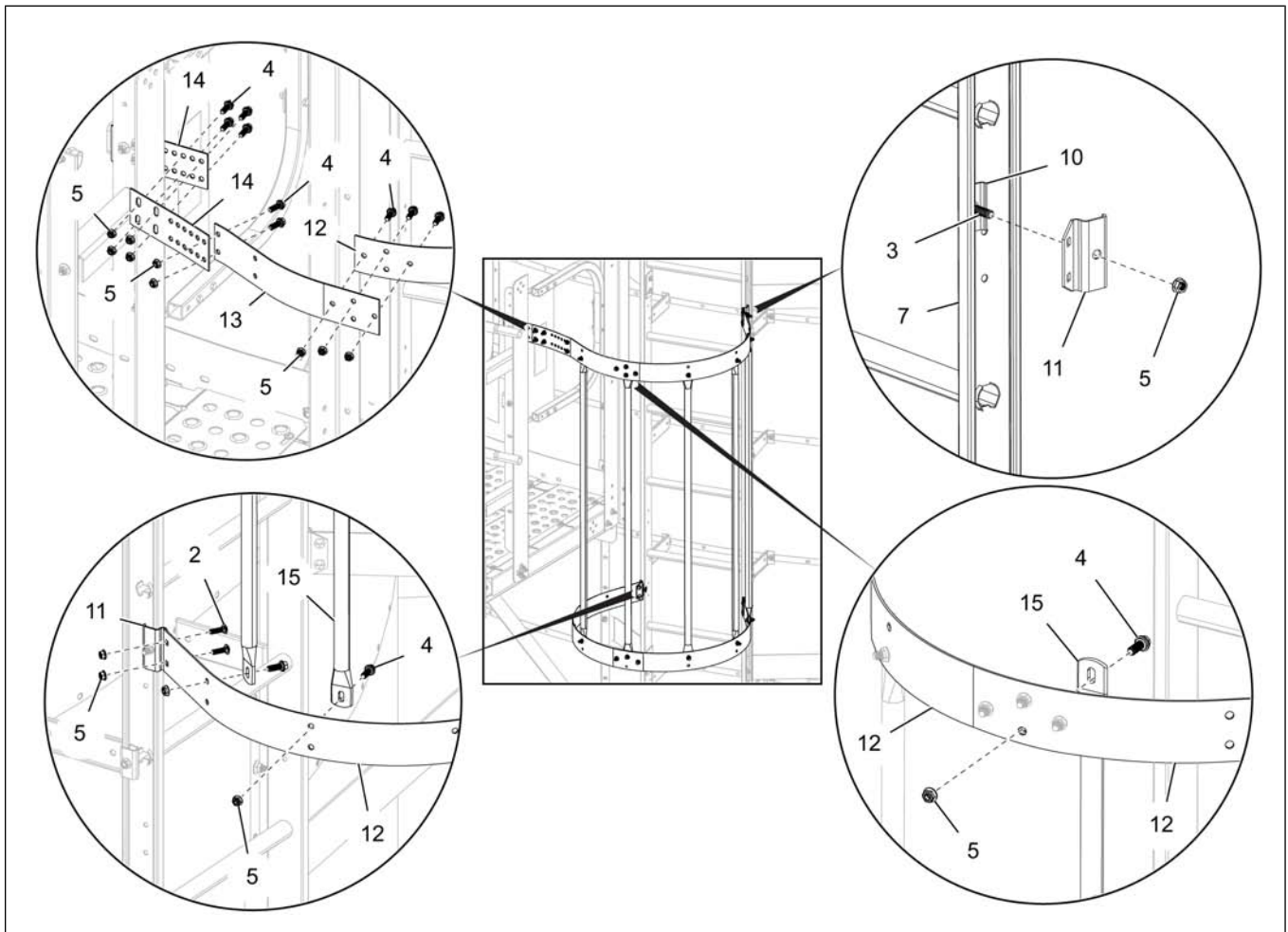
1. Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

NOTE: You need to install one safety cage hoop bracket (11) at the top and two below the platform as shown.

2. Assemble the safety cage hoop adapter (13) with safety cage hoop half (12) and install the hoop half to the safety cage hoop bracket (11) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).
3. Install the safety cage hoop adapter (13) to the platform post with two safety cage hoop adjuster plates (14) using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).
4. Assemble two safety cage hoop halves (12) together and install it to the cage hoop brackets (11) below the platform using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).
5. Install the 48" vertical supports (15) between the safety cage hoop halves (12) using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).

NOTE: Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 5-20 Installing the safety cage at the fan style platform



Chapter 5: Ladder Assembly with Safety Cage Only

- Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

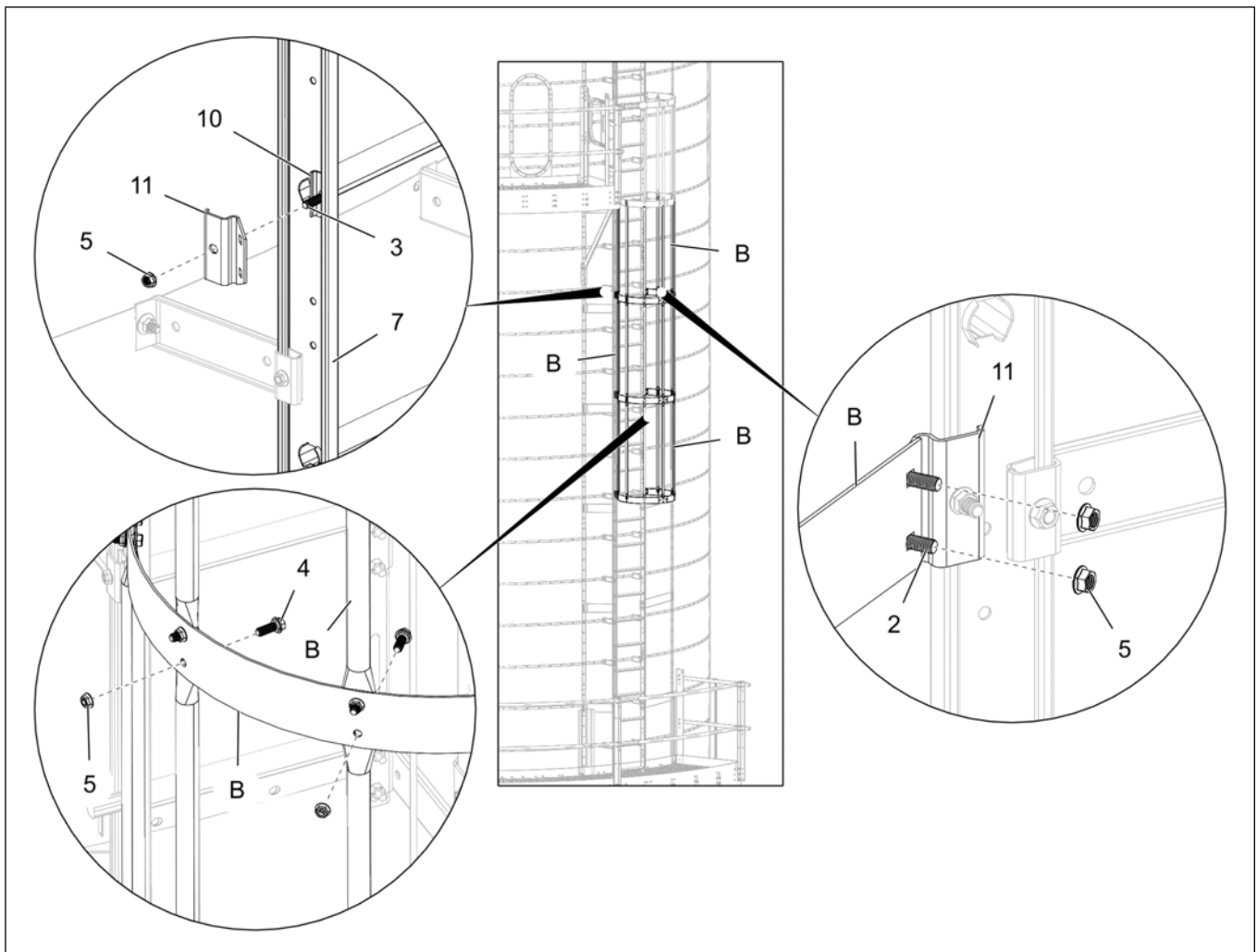
NOTE: You need to install two safety cage hoop brackets (11) for each safety cage hoop assembly at required places.

- Install the 48" safety cage sections (B) to the ladder section (7).

NOTE:

- Use 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5) to connect the safety cage hoop halves to the safety cage hoop brackets (11).
- Use 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5) to connect the vertical supports to the safety cage hoop halves.
- Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 5-21 Installing the safety cage extensions



8. Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

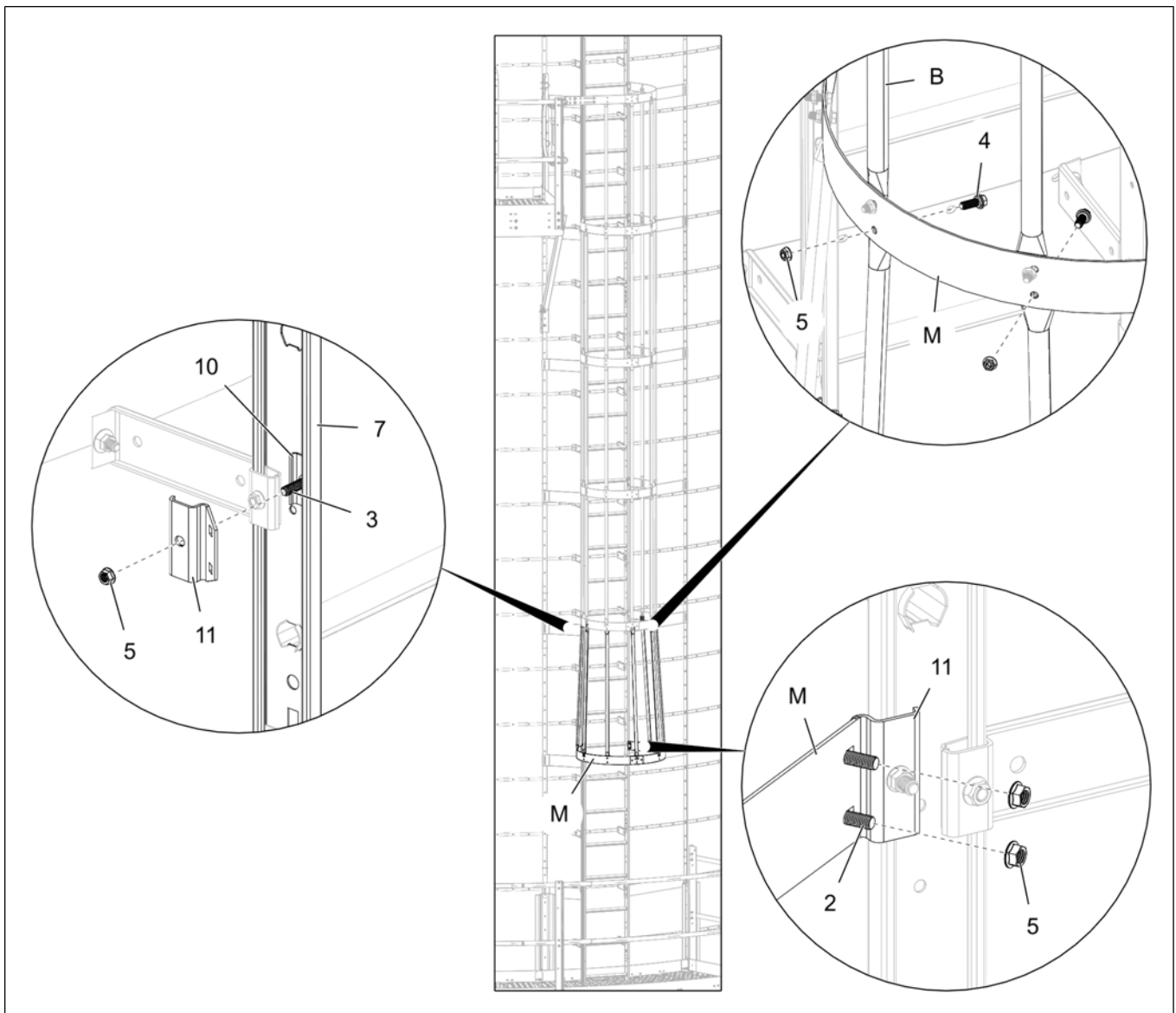
NOTE: You need to install two safety cage hoop brackets (11) for each safety cage bell hoop assembly at required places.

9. Install the 48" safety cage bell section (M) to the ladder section (7).

NOTE:

- Use 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5) to connect the safety cage bell hoop halves to the safety cage hoop brackets (11).
- Use 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5) to connect the vertical supports to the safety cage hoop halves.
- Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 5-22 Installing the safety cage bell hoop sections

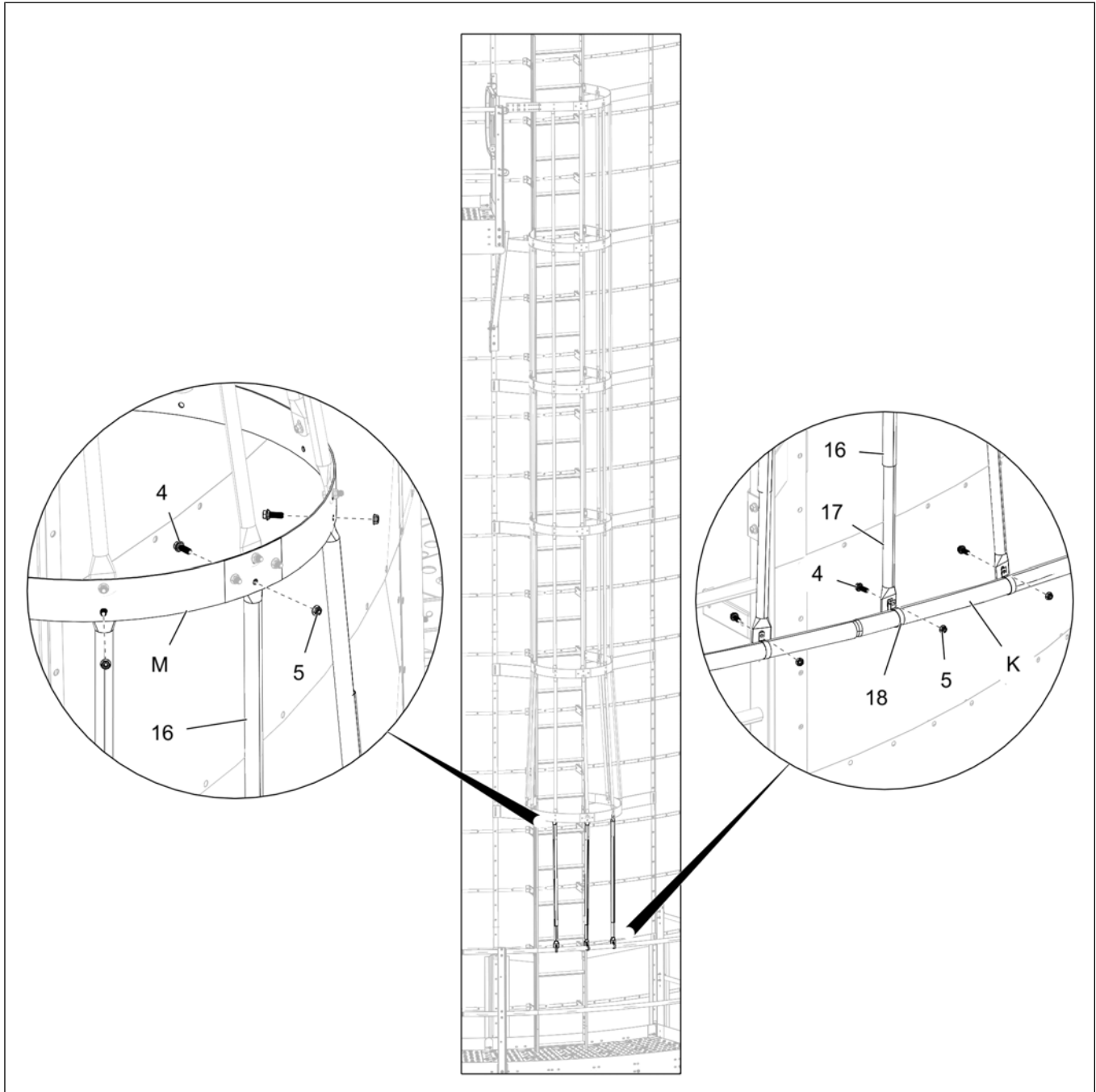


Chapter 5: Ladder Assembly with Safety Cage Only

10. Slide the small handrail (17) into the large handrail (16) and adjust the length as required.
11. Install the flat ends of the large handrail (16) to the safety cage bell hoop halves and install using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).
12. Use a clamp (18) to secure the flat end of the small handrail (17) to the platform handrail (K) using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).

NOTE: Install bolts (4) with bolt heads on the inside of the cage or platform.

Figure 5-23 Installing the intermediate handrail at last fan style platform



Installing the Ladder Assembly at the Last Fan Style Platform

1. Install one set of ladder stand-off brackets (6) where perforated sheets overlap using existing vertical seam bolts (I) and nuts (J).

NOTE: As a rule of thumb, make sure to use one set of ladder stand-off brackets (6) on every overlap, unless otherwise shown.

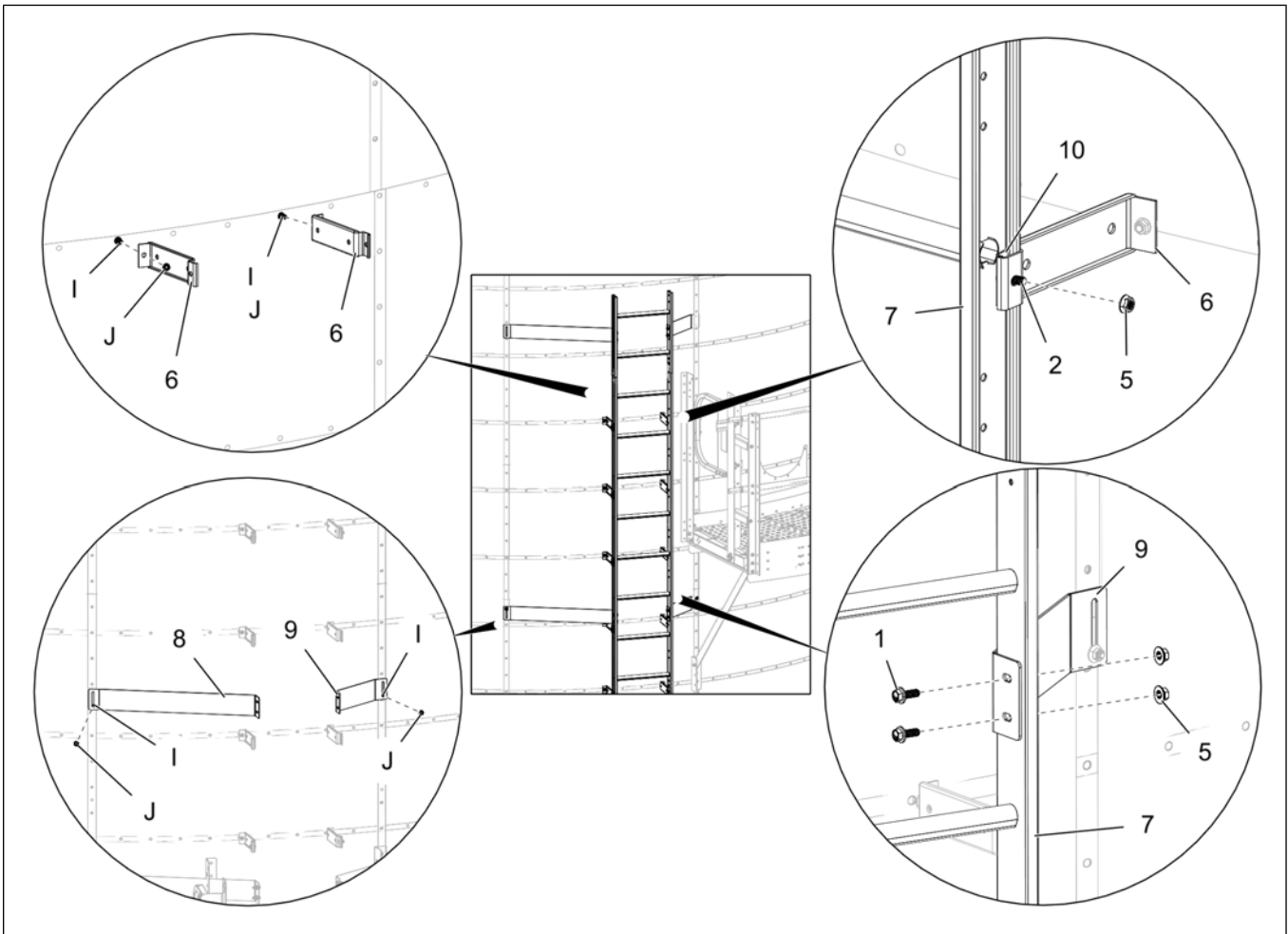
2. Install the ladder brace brackets (8 and 9) to the vertical channels using existing vertical seam bolts (I) and nuts (J).

NOTE: Use one set of ladder brace brackets (8 and 9) per 4' ladder section and two sets per 8' ladder section.

3. Install the ladder section (7) to the ladder brace brackets (8 and 9) using 5/16" x 1" flange bolts (1) and 5/16" flange nuts (5).

4. Slide the ladder wedge (10) along the ladder rail (7) and install it to the stand-off bracket (6) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).

Figure 5-24 Installing the ladder stand-off and ladder brace brackets at the last fan style platform



5. Continue to install the ladder sections (7) at the base of the dryer. To install the ladder sections at the base, refer to [Installing the Ladder Assembly at the Base, page 19](#).

Installing the Safety Cage between the Fan Style Platform and Base

Before You Begin

Make sure the ladder assembly is completed and installed to the dryer.

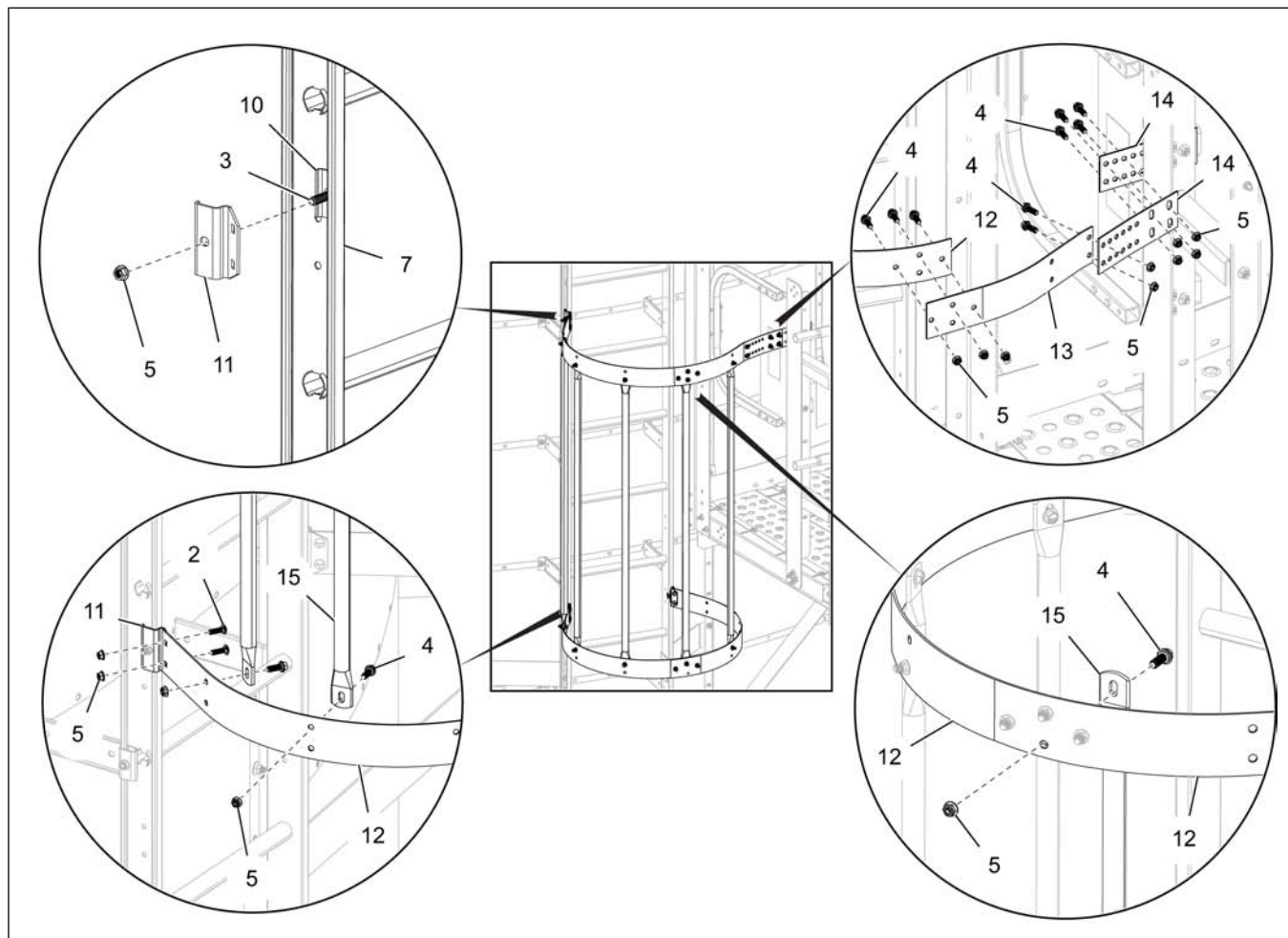
1. Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

NOTE: You need to install one safety cage hoop bracket (11) at the top and two below the platform as shown.

2. Assemble the safety cage hoop adapter (13) with safety cage hoop half (12) and install the hoop half to the safety cage hoop bracket (11) using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).
3. Install the safety cage hoop adapter (13) to the platform post with two safety cage hoop adjuster plates (14) using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).
4. Assemble two safety cage hoop halves (12) together and install it to the cage hoop brackets (11) below the platform using 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5).
5. Install the 48" vertical supports (15) between the safety cage hoop halves (12) using 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5).

NOTE: Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 5-25 Installing the safety cage to the last fan style platform



6. Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

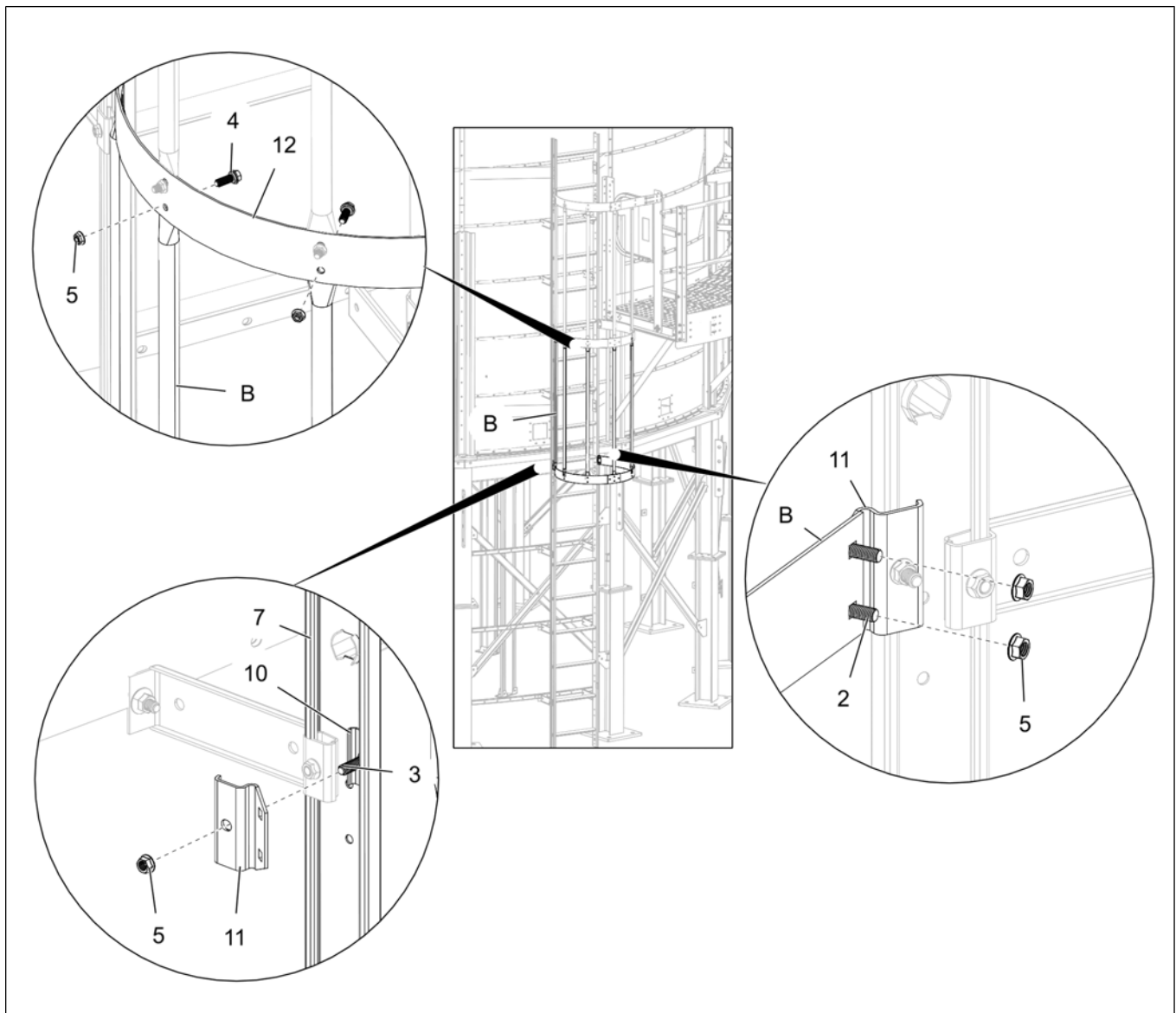
NOTE: You need to install two safety cage hoop brackets (11) for each safety cage hoop assembly at required places.

7. Install the 48" safety cage section (B) to the ladder section (7).

NOTE:

- Use 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5) to connect the safety cage hoop halves to the safety cage hoop brackets (11).
- Use 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5) to connect the vertical supports to the safety cage hoop halves.
- Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 5-26 Installing the safety cage extensions



Chapter 5: Ladder Assembly with Safety Cage Only

8. Slide the ladder wedge (10) along the ladder rail (7) and install the safety cage hoop bracket (11) using 5/16" x 1-1/4" flange bolts (3) and 5/16" flange nuts (5).

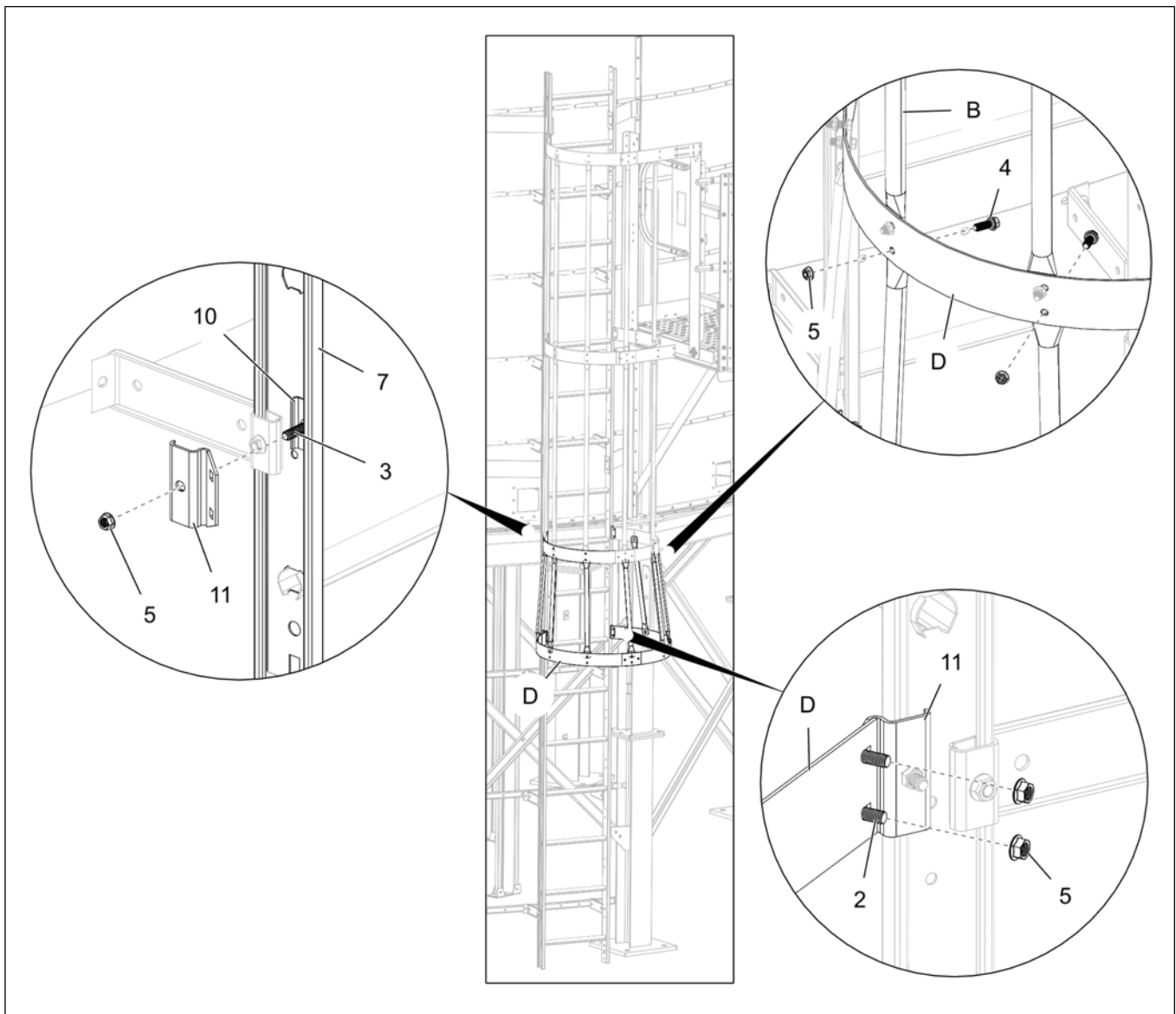
NOTE: You need to install two safety cage hoop brackets (11) for each safety cage bell hoop assembly at required places.

9. Install the 24" safety cage bell section (D) to the ladder section (7).

NOTE:

- a. Use 5/16" x 1" carriage bolts (2) and 5/16" flange nuts (5) to connect the safety cage bell hoop halves to the safety cage hoop brackets (11).
- b. Use 5/16" x 1" flange bolts (4) and 5/16" flange nuts (5) to connect the vertical supports to the safety cage hoop halves.
- c. Install bolts (2 and 4) with bolt head on the inside of the cage. Tighten all the hardware.

Figure 5-27 Installing the safety cage bell hoop sections



Limited Warranty — N.A. Grain Products

The GSI Group, LLC. ("GSI") warrants products which it manufactures, to be free of defects in materials and workmanship under normal usage and conditions for a period of 12 months from the date of shipment (or, if shipped by vessel, 14 months from the date of arrival at the port of discharge). If, in GSI's sole judgment, a product is found to have a defect in materials and/or workmanship, GSI will, at its own option and expense, repair or replace the product or refund the purchase price. This Limited Warranty is subject to extension and other terms as set forth below.

Warranty Enhancements: The warranty period for the following products is enhanced as shown below and is in lieu of (and not in addition to) the above stated warranty period. (Warranty Period is from date of shipment.)

	Product	Warranty Period
Storage	Grain Bin Structural Design • Sidewall, roof, doors, platforms and walkarounds • Flooring (when installed using GSI specified floor support system for that floor) • Hopper tanks (BFT, GHT, NCHT, and FCHT)	5 Years
Conditioning	Dryer Structural Design – (Tower, Portable and TopDry) • Includes (frame, portable dryer screens, ladders, access doors and platforms)	5 Years
	All other Dryer parts including: • Electrical (controls, sensors, switches and internal wiring)	2 Years
	All Non-PTO Driven Centrifugal and Axial Fans	3 Years
	Bullseye Controllers	2 Years
Material Handling	Bucket Elevators Structural Design	5 Years
	Towers Structural Design	5 Years
	Catwalks Structural Design	5 Years
	Accessories (stairs, ladders and platforms) Structural Design	5 Years

Conditions and Limitations:

THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE LIMITED WARRANTY DESCRIPTION SET FORTH HEREIN; SPECIFICALLY, GSI DISCLAIMS ANY AND ALL OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE IN CONNECTION WITH: (I) ANY PRODUCT MANUFACTURED OR SOLD BY GSI, OR (II) ANY ADVICE, INSTRUCTION, RECOMMENDATION OR SUGGESTION PROVIDED BY AN AGENT, REPRESENTATIVE OR EMPLOYEE OF GSI REGARDING OR RELATED TO THE CONFIGURATION, INSTALLATION, LAYOUT, SUITABILITY FOR A PARTICULAR PURPOSE, OR DESIGN OF SUCH PRODUCTS.

The sole and exclusive remedy for any claimant is set forth in this Limited Warranty and shall not exceed the amount paid for the product purchased. This Warranty only covers the value of the warranted parts and equipment, and does not cover labor charges for removing or installing defective parts, shipping charges with respect to such parts, any applicable sales or other taxes, or any other charges or expenses not specified in this Warranty. GSI shall not be liable for any other direct, indirect, incidental or consequential damages, including, without limitation, loss of anticipated profits or benefits. Expenses incurred by or on behalf of a claimant without prior written authorization from the GSI warranty department shall not be reimbursed. This warranty is not transferable and applies only to the original end-user. GSI shall have no obligation or responsibility for any representations or warranties made by or on behalf of any dealer, agent or distributor. Prior to installation, the end-user bears all responsibility to comply with federal, state and local codes which apply to the location and installation of the products.

This Limited Warranty extends solely to products sold by GSI and does not cover any parts, components or materials used in conjunction with the product, that are not sold by GSI. GSI assumes no responsibility for claims resulting from construction defects, unauthorized modifications, corrosion or other cosmetic issues caused by storage, application or environmental conditions. Modifications to products not specifically delineated in the manual accompanying the product at initial sale will void all warranties. This Limited Warranty shall not extend to products or parts which have been damaged by negligent use, misuse, alteration, accident or which have been improperly/inadequately maintained.

Notice Procedure:

In order to make a valid warranty claim a written notice of the claim must be submitted, using the RMA form, within 60 days of discovery of a warrantable nonconformance. The RMA form is found on the OneGSI portal.

Service Parts:

GSI warrants, subject to all other conditions described in this Warranty, Service Parts which it manufactures for a period of 12 months from the date of purchase unless specified in Enhancements above.

This equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installations are made.



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