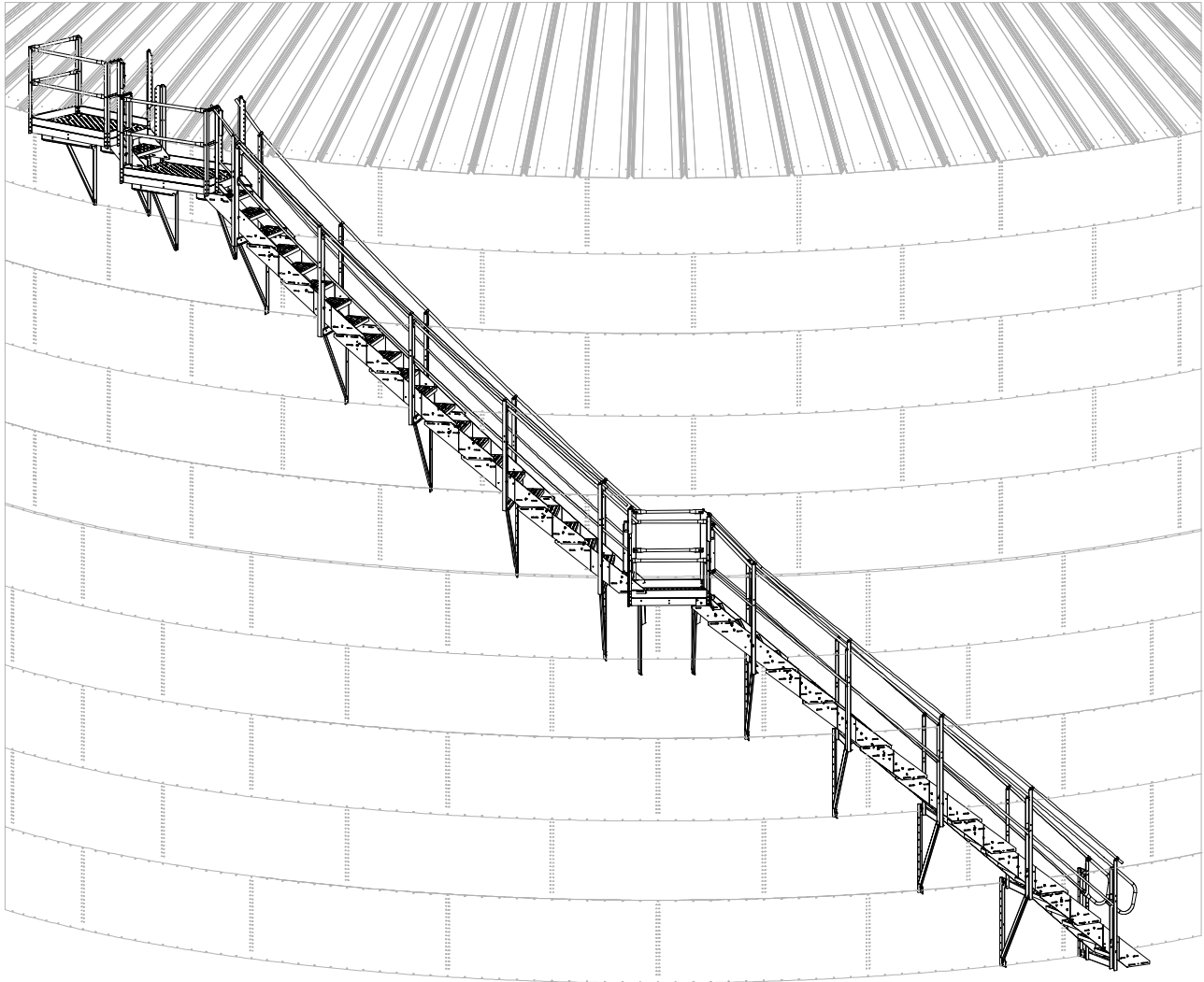


CC4400

44" C-Series Commercial Sidewall Stairs Assembly Instructions



GREENE

C-Series Commercial Duty Sidewall Stairs

Document Guide

Wall Bracket Layouts.....5

4-panel Roof Start.....6

3-panel Roof Start.....8

Platform 8544 Components & Assembly.....12

Platform 8644 Components.....16

3+1 step stair section.....18

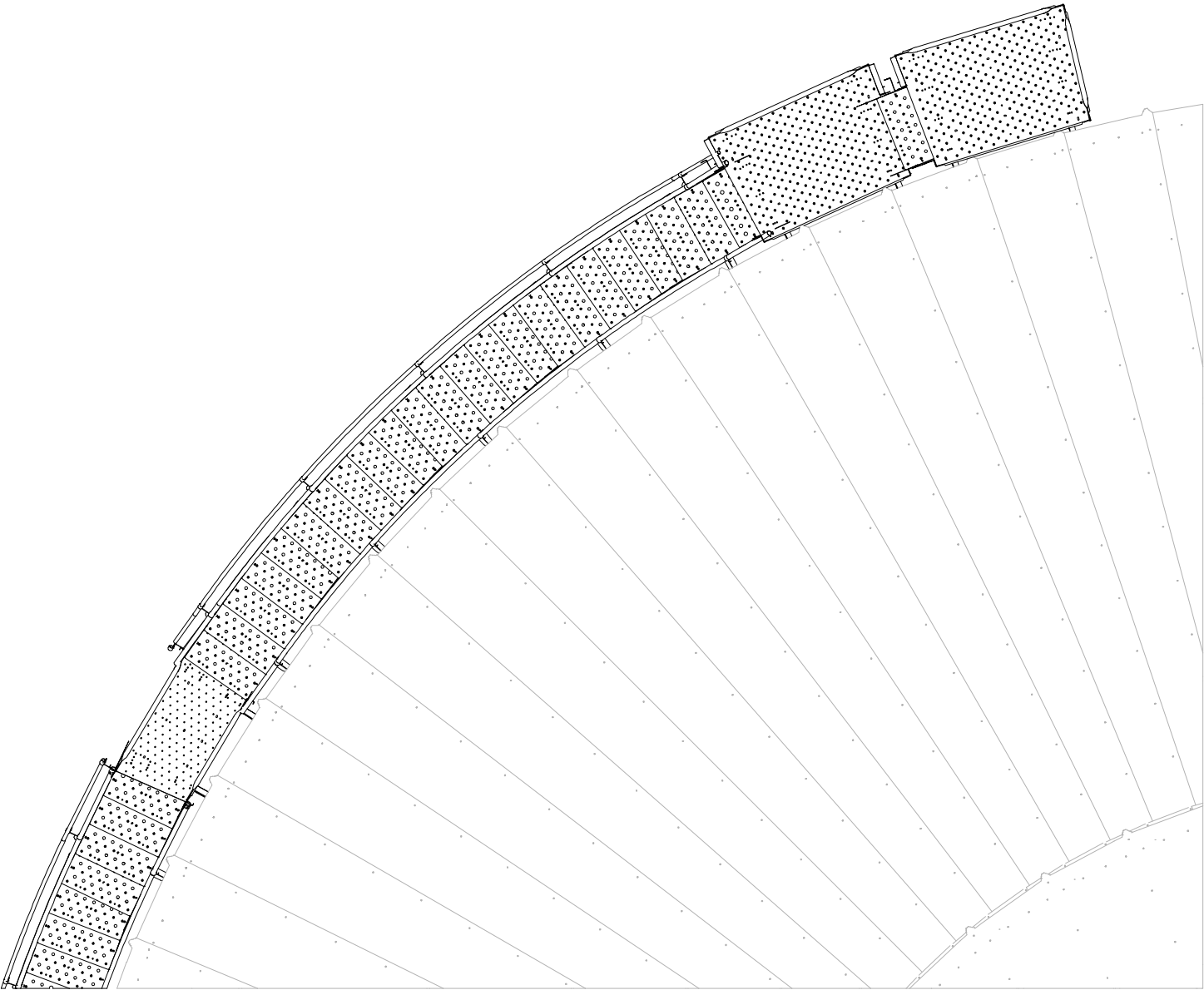
Typical Stair Run.....21

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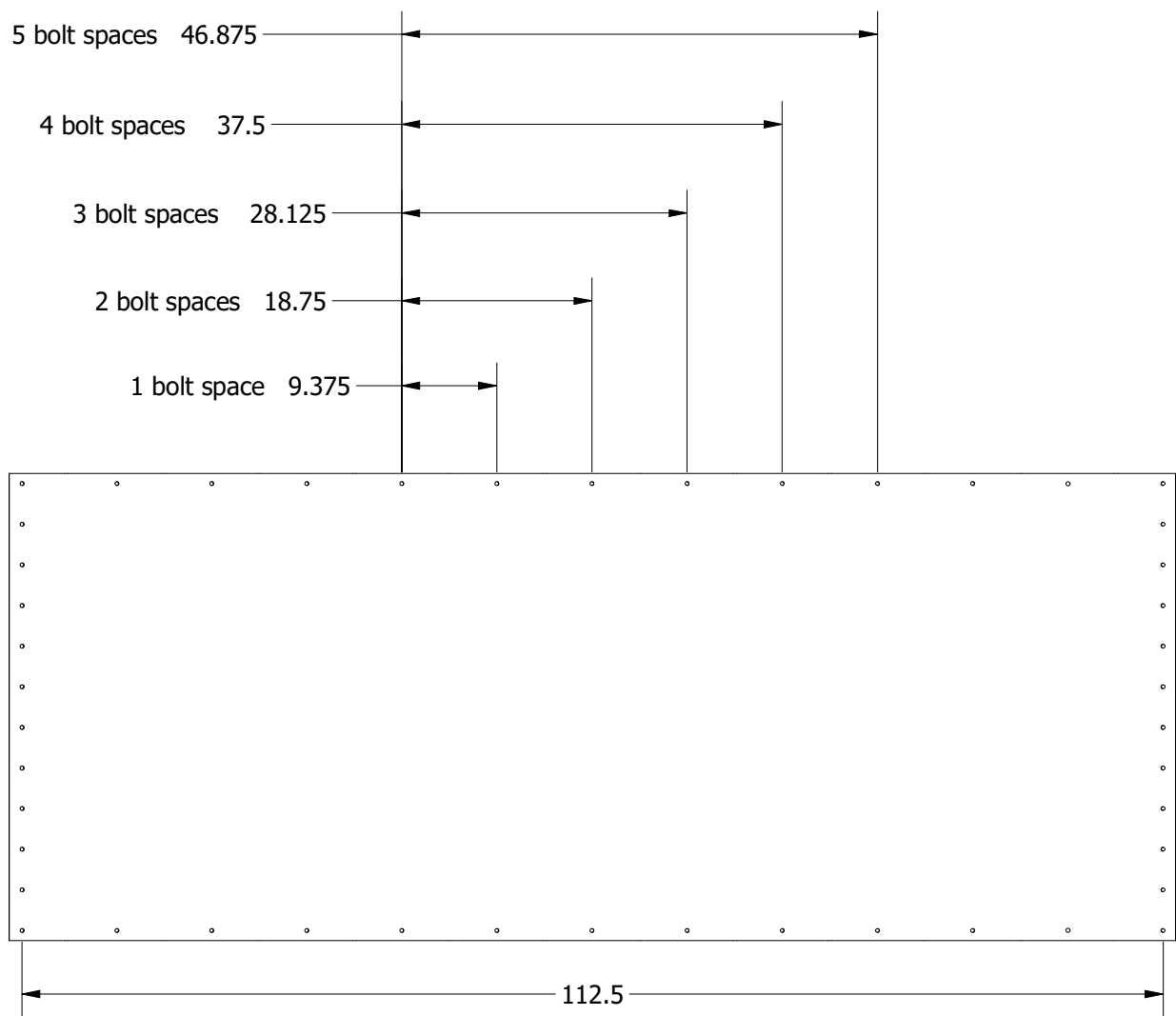


44" Bin Sheet Bolt Spacing

A standard 44" bin sheet is shown below. Wall bracket placement is marked by "Bolt Spaces" throughout these instructions. On a 44" sheet, a bolt space is equal to 9.375 inches. (Double punched sheets have 24 bolt holes, the spacing should be counted every other bolt space on double-punched sheets)

Use this page to convert distances given in bolt spaces to inches. Example: 5 SPC = 46.875"
Correct spacing between wall brackets is crucial for proper stair assembly.

NOTE: C-Series Commercial stairs are approved for installation on storage structures of other types, such as non-corrugated steel plating or slip-form concrete. These structures may not have a typical "bolt space" layout to follow. In these cases, always refer to the actual dimension value provided in inches regarding wall bracket placement.



44" Bin Sheet
(1 Sheet = 12 bolt spaces)

Securing Stairs to Structure

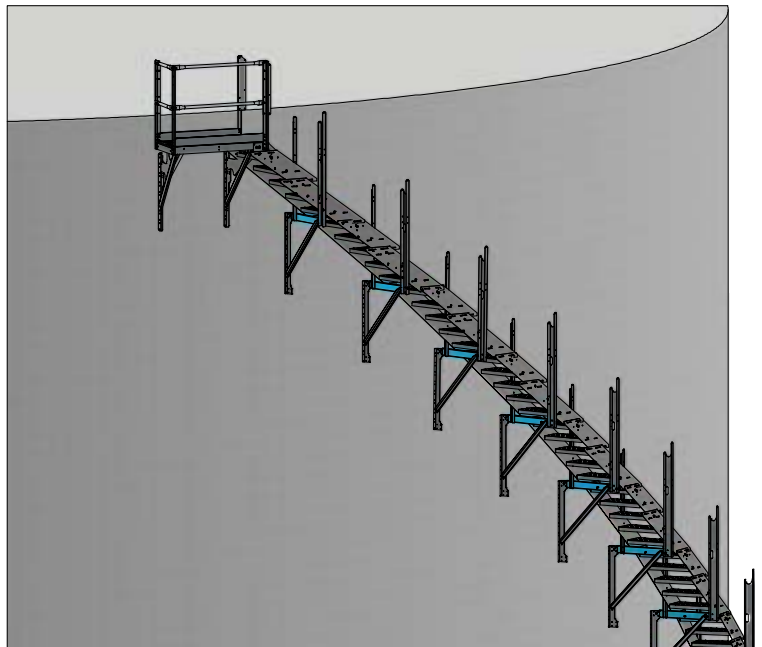
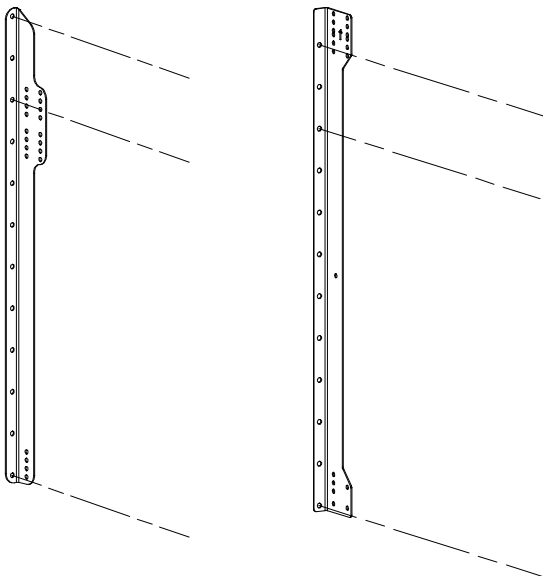
Typical steel grain silo with corrugated panels. 44" vertical seams align with top and bottom holes of bracket.



Other Mounting Options

Stairs can be installed on a concrete silo with continuous wall surface: We approve the use of the Hilti 3/8" x 3-3/4" zinc plated KWIK Bolt 1 Wedge Anchor (#2231456) for C-Series Commercial.

Use a minimum of three (3) anchors per wall bracket. One at the top, one at the bottom and at least one other between the middle and top of the wall mounting bracket. All anchor nuts torqued as specified by Hilti.

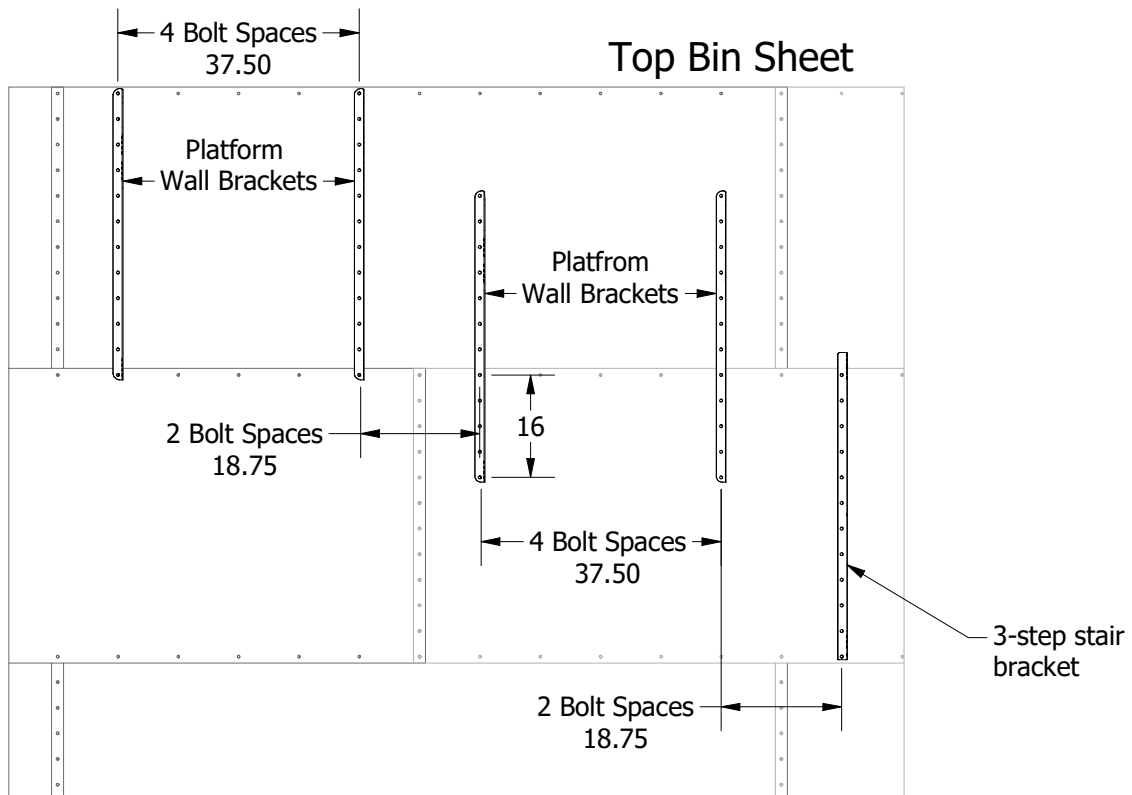


Platform Wall Bracket Horizontal Bolt Spacing, 4-Panel Roof

Align the platform wall brackets with the roof panels as shown. There should be an empty panel between the roof stair and manhole access.

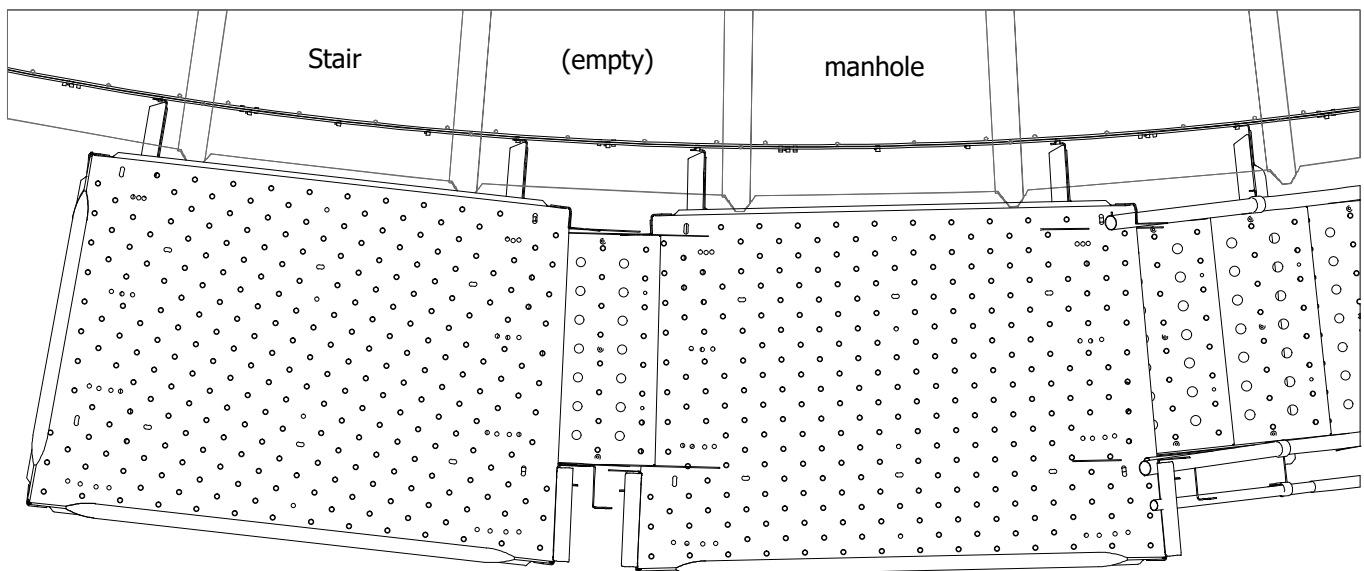
The horizontal spacing between the long eave platform wall brackets is 4 bolt spaces (37.50")

The horizontal spacing from the platform wall bracket to the 3-step stair wall bracket is 2 bolt spaces (18.75")



4-panel roof (Ideal layout)

Empty panel between roof stair and manhole,
single step between platforms



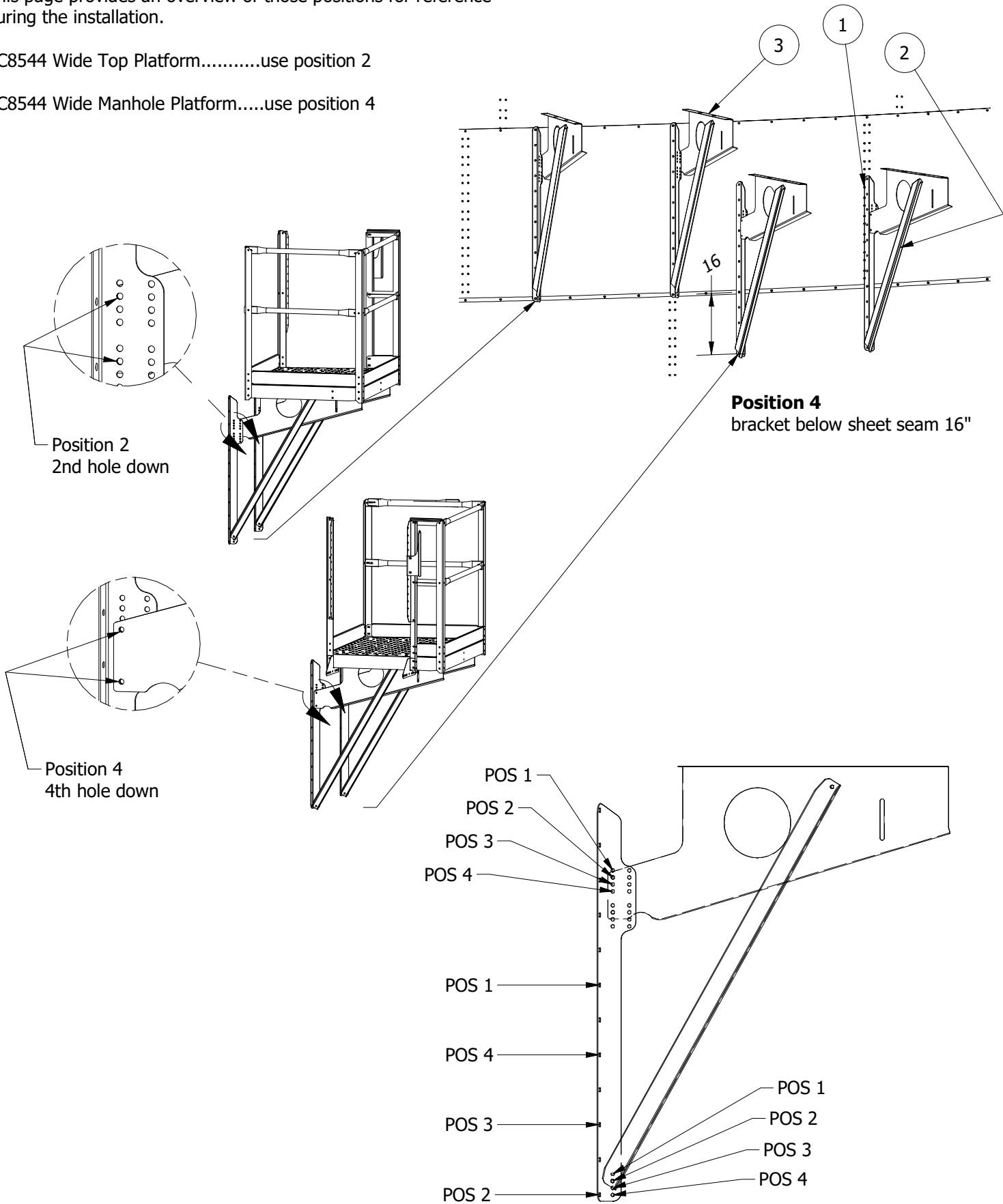
Eave Layout Platform Adjustment
4-Panel

C-Series Platforms have four elevation positions to provide the correct step rise at different locations in the stair run. This page provides an overview of those positions for reference during the installation.

CC8544 Wide Top Platform.....use position 2

CC8544 Wide Manhole Platform.....use position 4

PARTS LIST		
ITEM	PART NUMBER	DESCRIPTION
1	CS-34401	Bracket, Wall, 44 Platform
2	CS-44002	Channel, Brace, 44
4	CS-34422	Brace, Plate, Wide Platform

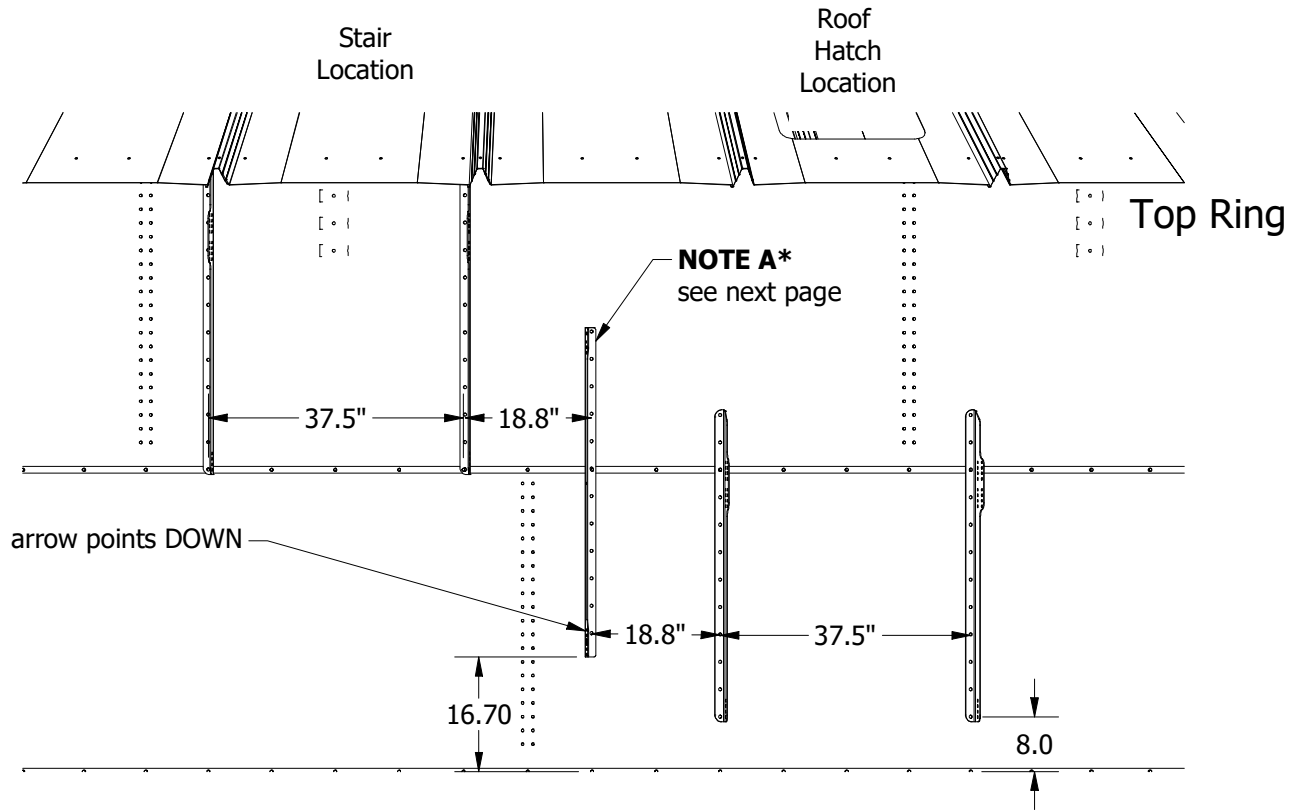


Platform Wall Bracket Horizontal Bolt Spacing, 3-Panel Roof

Align the platform wall brackets with the roof panels as shown. There should be an empty panel between the roof stair and manhole access.

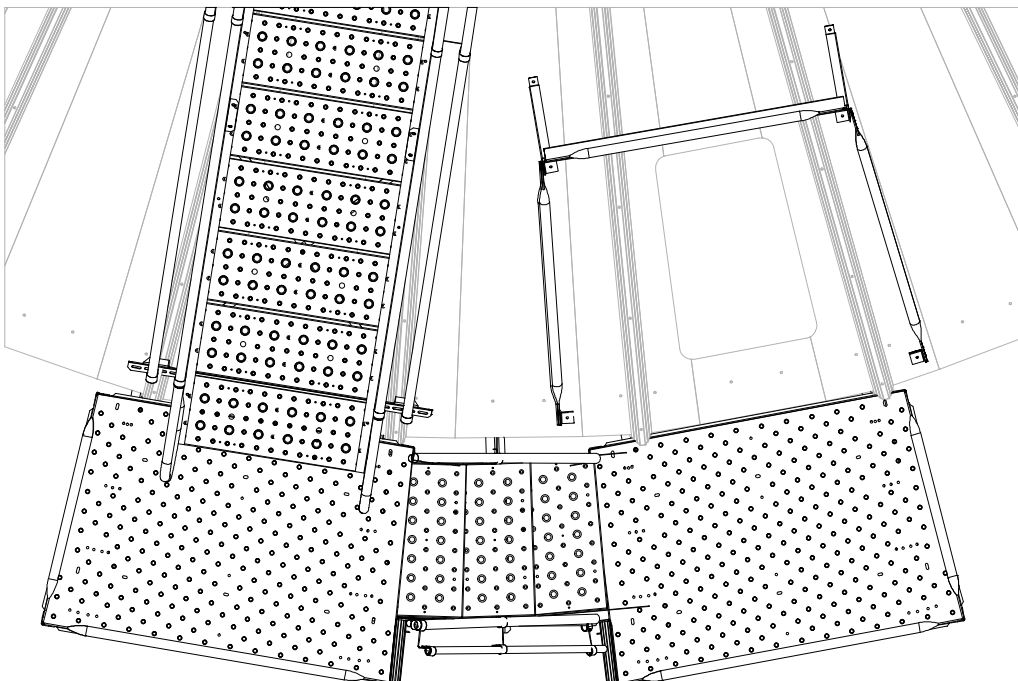
The horizontal spacing between the long eave platform wall brackets is 4 bolt spaces (37.50")

The horizontal spacing from the platform wall bracket to the 3-step stair wall bracket is 2 bolt spaces (18.75")



3-panel roof

Stair platform slightly offset from roof stair, with empty panel between stair and roof hatch



Elevation Adjustment Detail

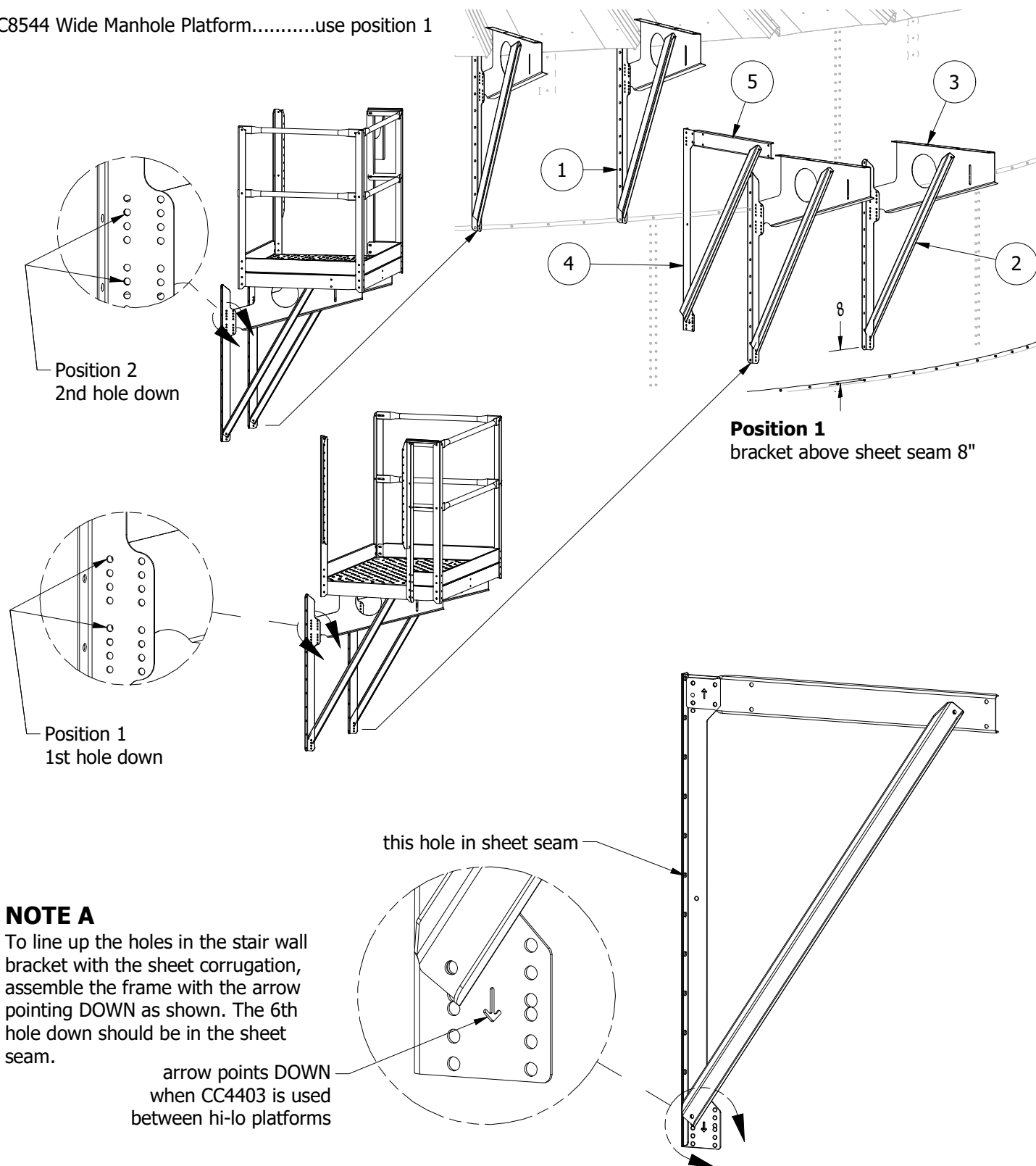
CRITICAL DIMENSIONS!

C-Series Platforms have four elevation positions to provide the correct step rise at different locations in the stair run. This page provides an overview of those positions for reference during the installation.

PARTS LIST		
ITEM	PART NUMBER	DESCRIPTION
1	CS-34401	Bracket, Wall, 44 Platform
2	CS-44002	Channel, Brace, 44
4	CS-34422	Brace, Plate, Wide Platform
5	CS-44001	Bracket, Wall, 44" Ring
6	CS-44002	Channel, Crossbar

CC8544 Wide Top Platform.....use position 2

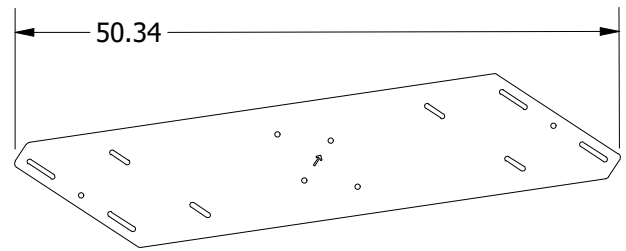
CC8544 Wide Manhole Platform.....use position 1



CC4403 (3-panel roof only)

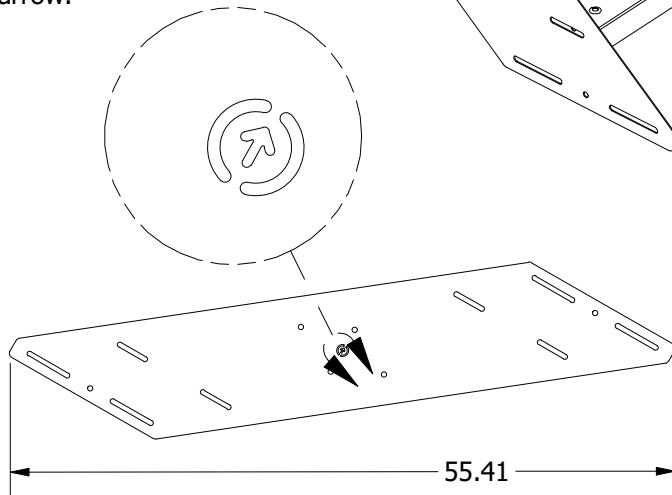
3-step stair section

Clockwise stair wrap assembly is shown, mirror the assembly for counter-clockwise stairs.



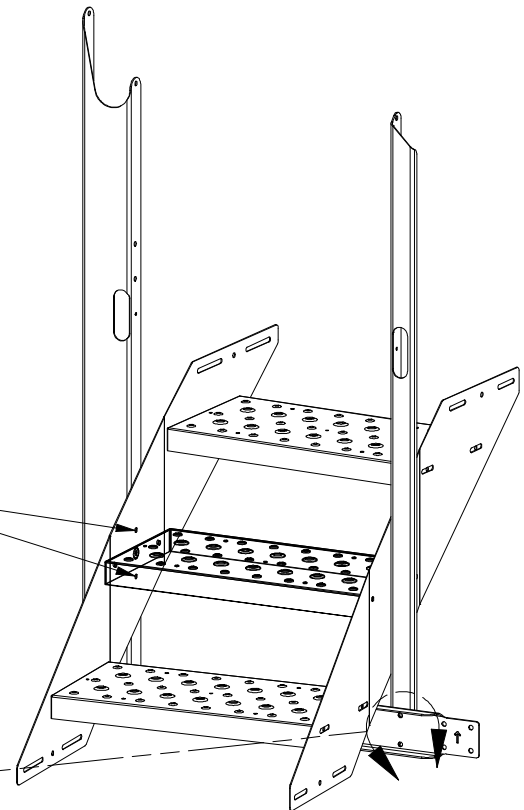
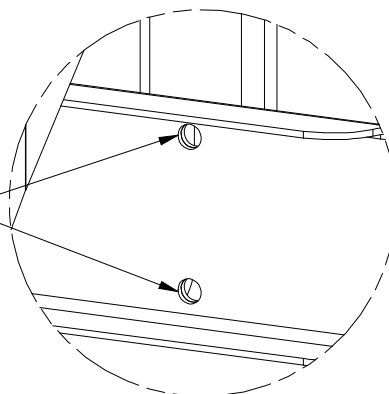
Inside siderail CS-44043 is 50.3" across the diagonal and has a plain arrow at the center

Outside siderail CS-44048 is 55.4" across the diagonal and has an "O" around arrow.



stair posts bolt above and below middle step
outside post is wider than inside post

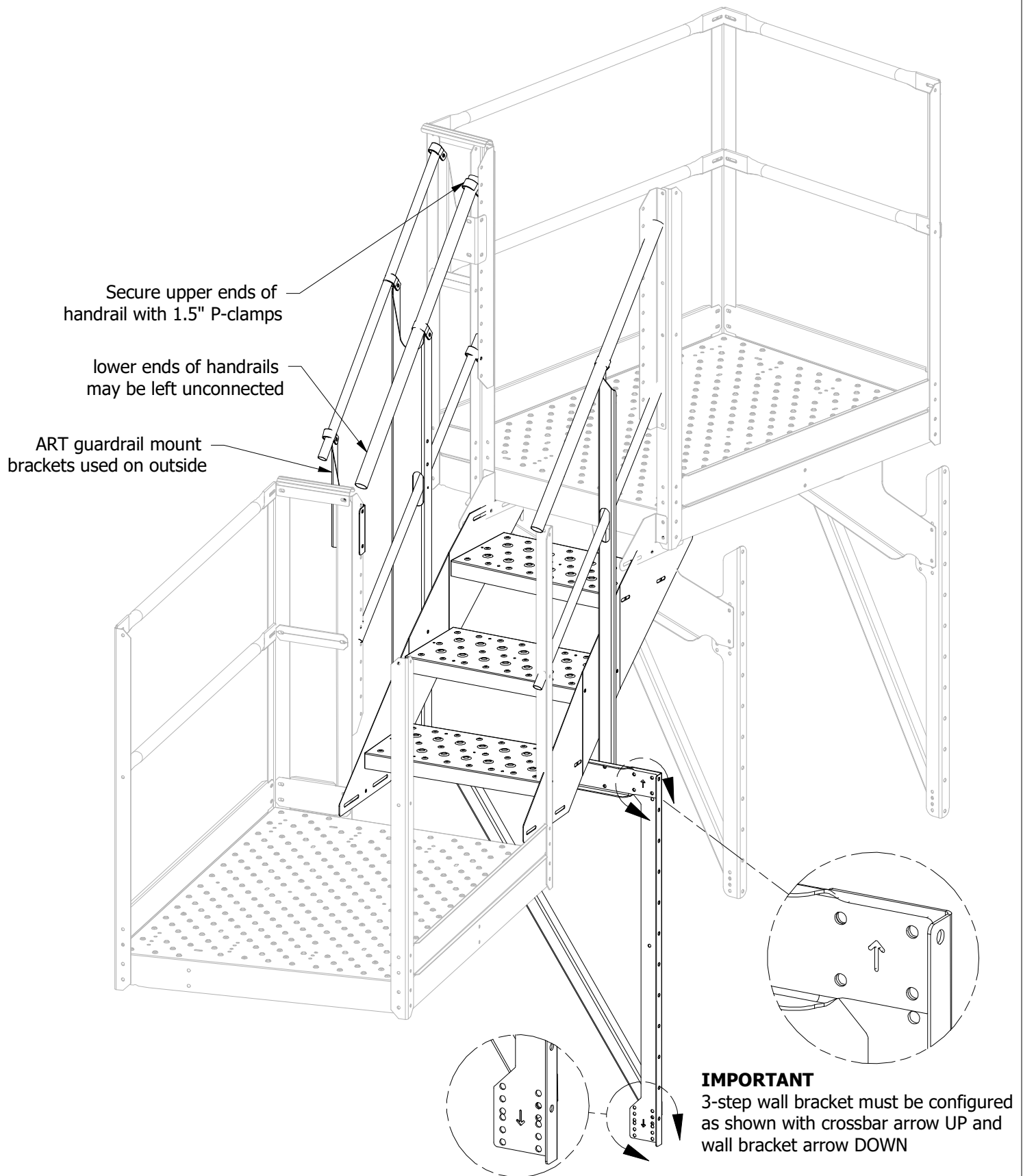
base of posts attach to crossbar



CC4403 (3-panel roof only)
Midrail, Handrail and Guardrail

Tubing is to be cut to length as needed. Use the P-clamps to secure the ends of the railing to both platforms along the mounting plates and ART guardrail mount brackets.

The 1" diameter tubing is used for midrails and outside guardrail, and the 1.5" tubing is used as handrails.

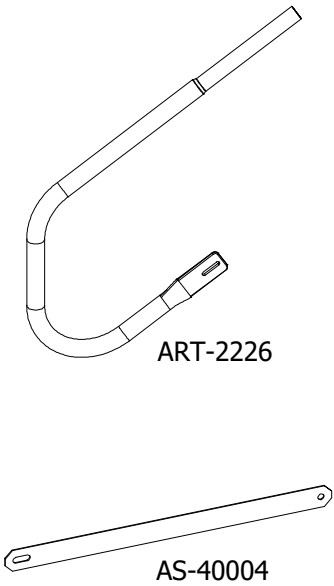


CC8544

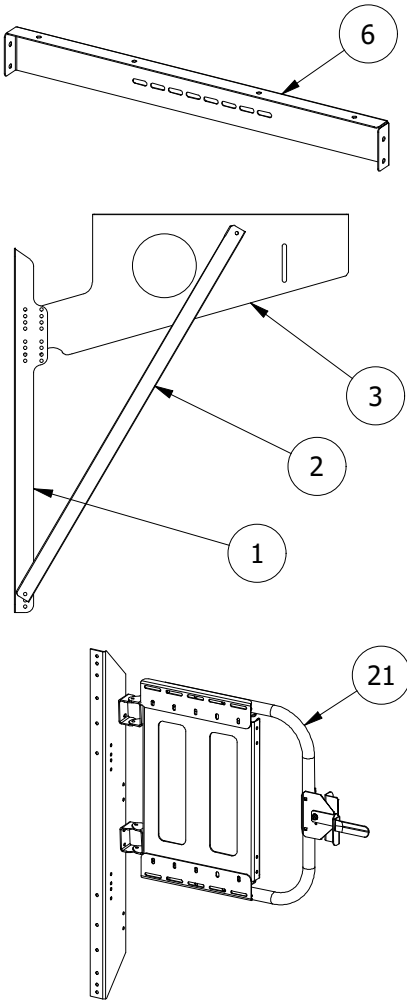
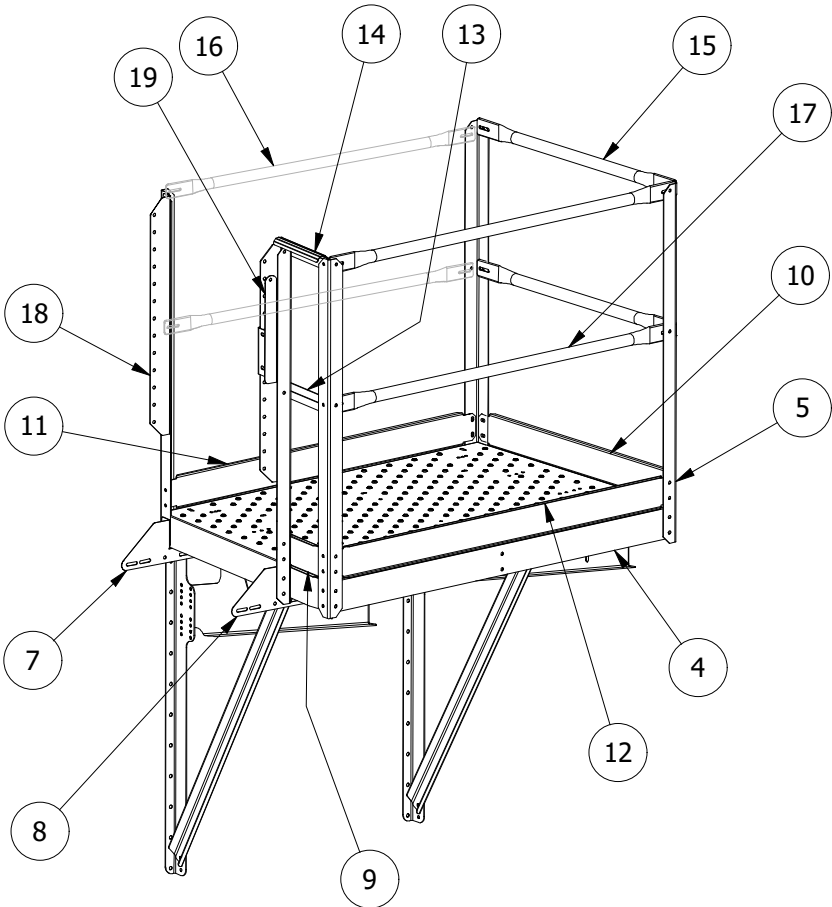
Wide Platform, Single Entry

(CCW entry shown)

Platform package includes these components for finishing stair (see pages 45-46)



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	CS-34401	Bracket, Wall, 44 Platform
2	2	CS-44002	Channel, Brace, 44
3	2	CS-34422	Brace, Plate, Wide Plarform
4	1	CS-F30003	Tread, Platform, wide 55" x 37"
5	5	ARD-0024	Angle, Post, Platform Corner
6	1	CS-30029	Wide Platfrom center brace
7	1	CS-40421	Siderail Extension, wide platform, left
8	1	CS-40422	Siderail Extension, wide platform, right
9	1	ES-8516	Channel, Kickboard, 10"
10	1	ES-8513	Channel, Kickboard, 37"
11	1	ES-3504	Channel, Kickboard, 50"
12	1	CS-34454	Channel, Kickboard, 54"
13	1	ES-8515	Plat Entry Int Rail
14	1	CS-34412	Angle, Rounded Handrail, Platform Entry
15	2	TRS1503700	37" 1.5 in tube railing slotted end tabs
16	2	TRS1505000	50" 1.5 in tube railing slotted end tabs
17	2	TRS1505500	55" 1.5 in tube railing slotted end tabs
18	2	CS-30020	Bracket, Platform Handrail Mount
19	1	ART-0007	Entry Guardrail Post Right
20	1	ART-0008	Entry Guardrail Post Left
21	1	ASG100	Self-closing Gate



Single Entry Platform, Clockwise entry shown

(for stairs wrapping clockwise from bottom to top)

Step 1: Attach posts to platform skin

Platform assembly uses 3/8" hardware
except where noted otherwise



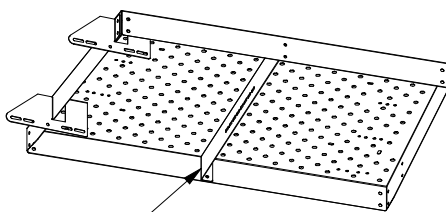
Clockwise wrap



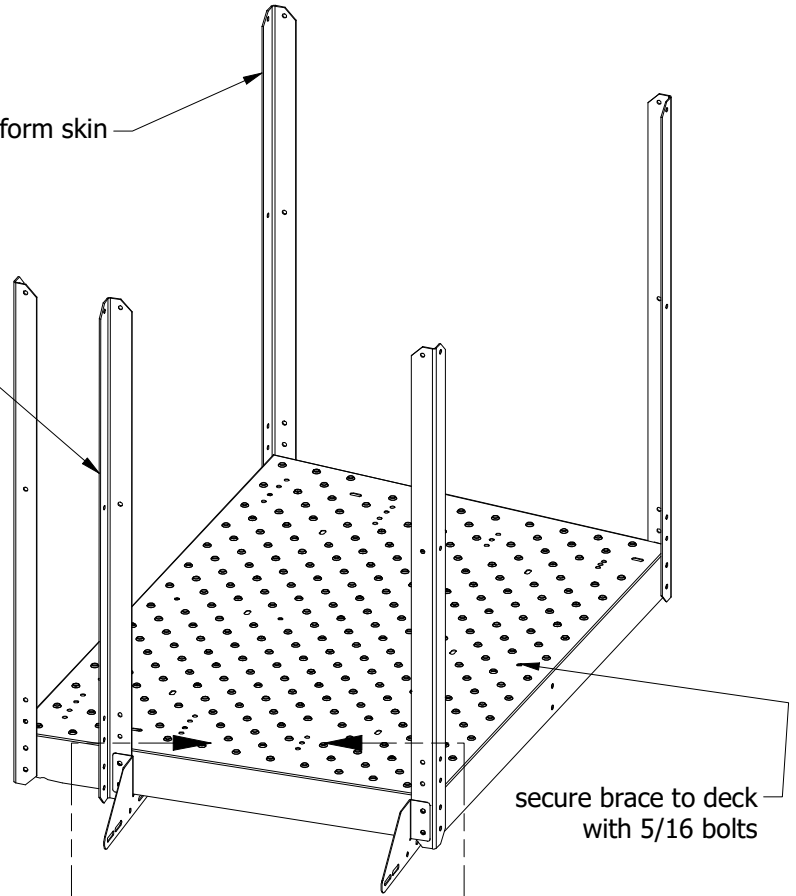
Counter-clockwise wrap

plumb posts in both directions and tighten bolts to platform skin

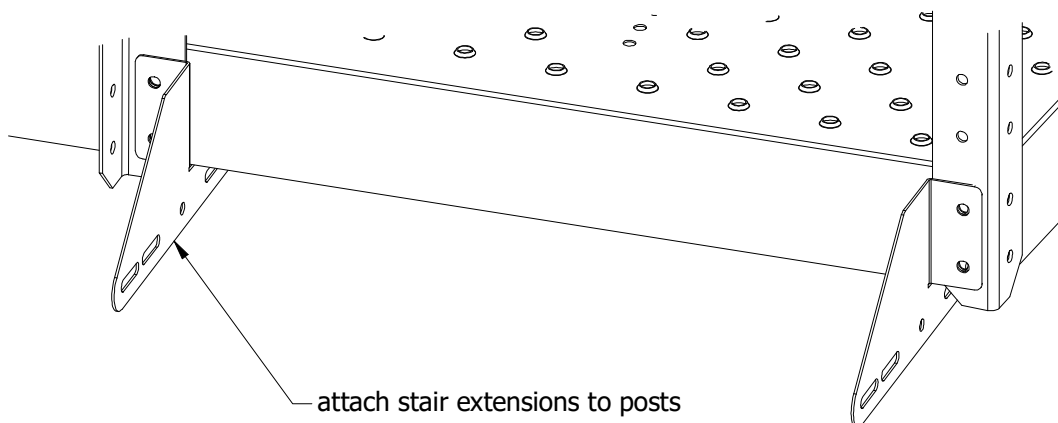
Attach corner posts and entry post
as shown. Entry post is oriented
with flange towards wider end
of platform (outside).



Attach middle brace to inside
of platform with 3/8" bolts



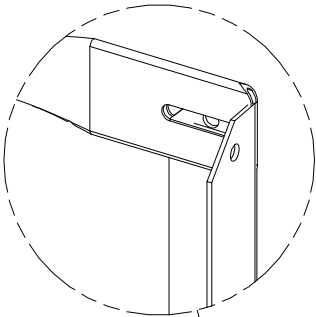
secure brace to deck
with 5/16 bolts



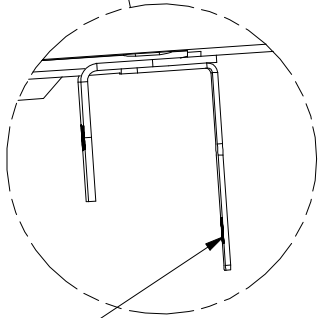
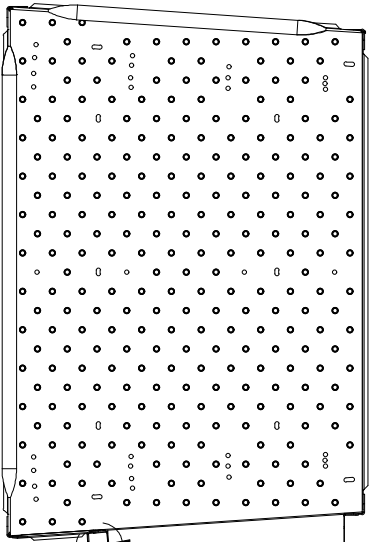
attach stair extensions to posts

Step 2: Attach the guarding rails and handrail brackets to posts

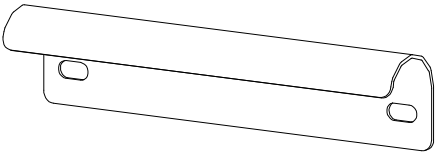
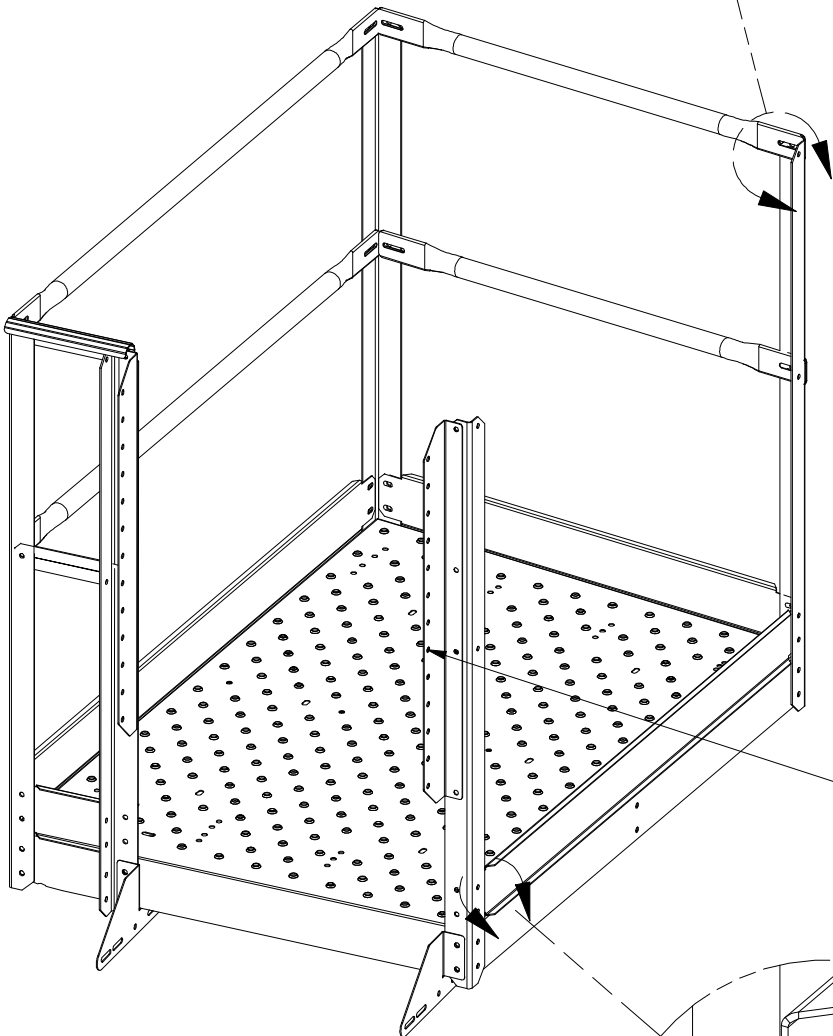
Handrail mounts to inside faces of post, plug bolts out. Weep holes down for drainage.



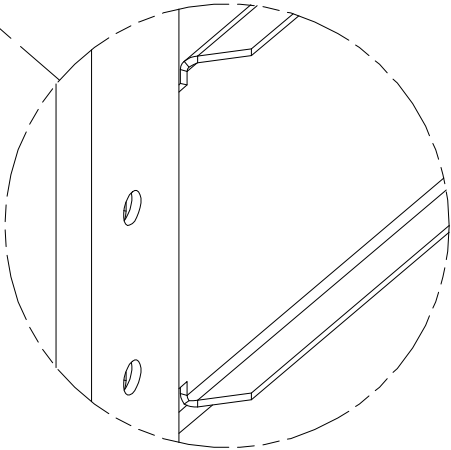
Top view



CS-30020 handrail bracket

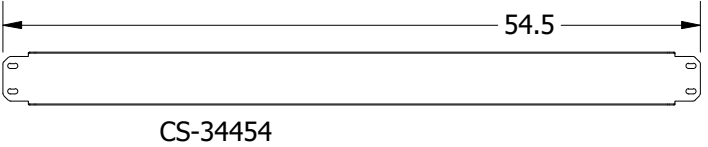
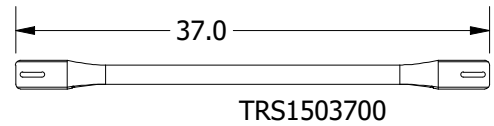
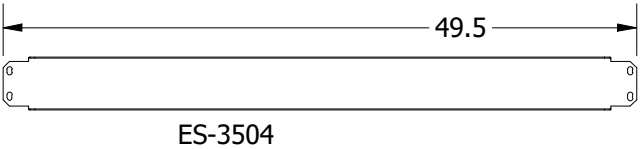
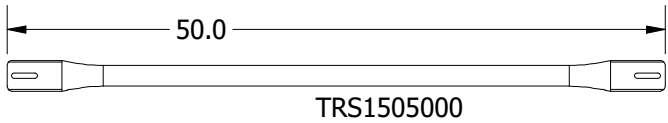
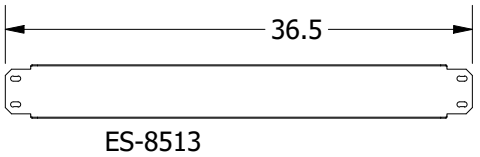
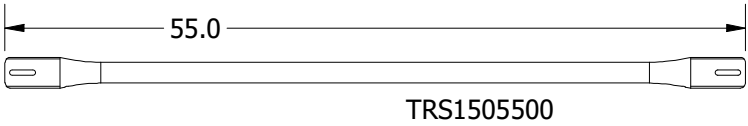
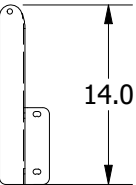
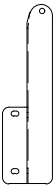
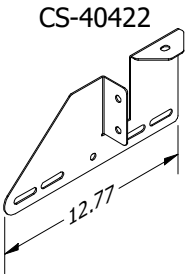
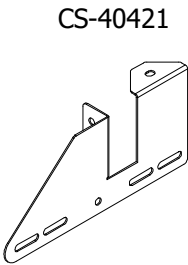
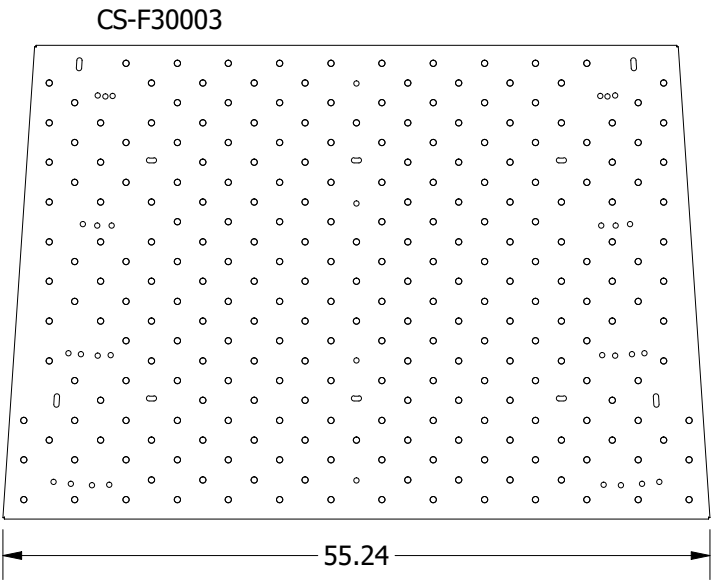
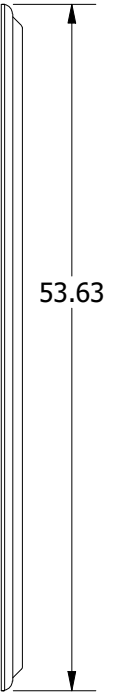
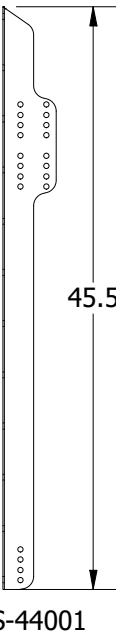
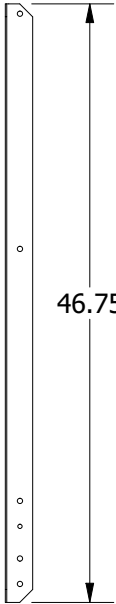
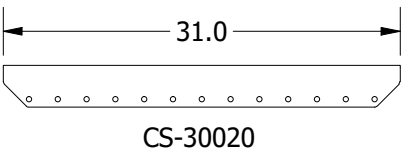
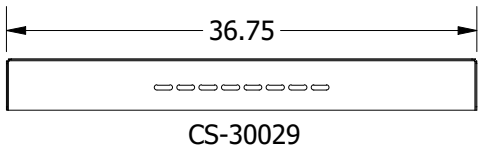
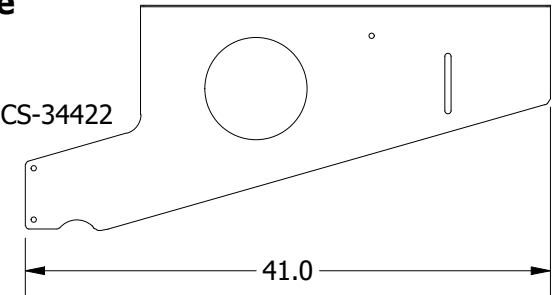
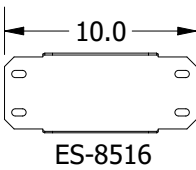
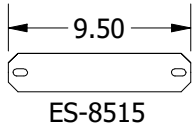
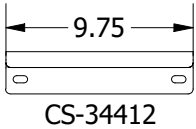


Short top handrail
(curve towards outside)



Kickboards bolt on inside faces of post with flanges pointing out

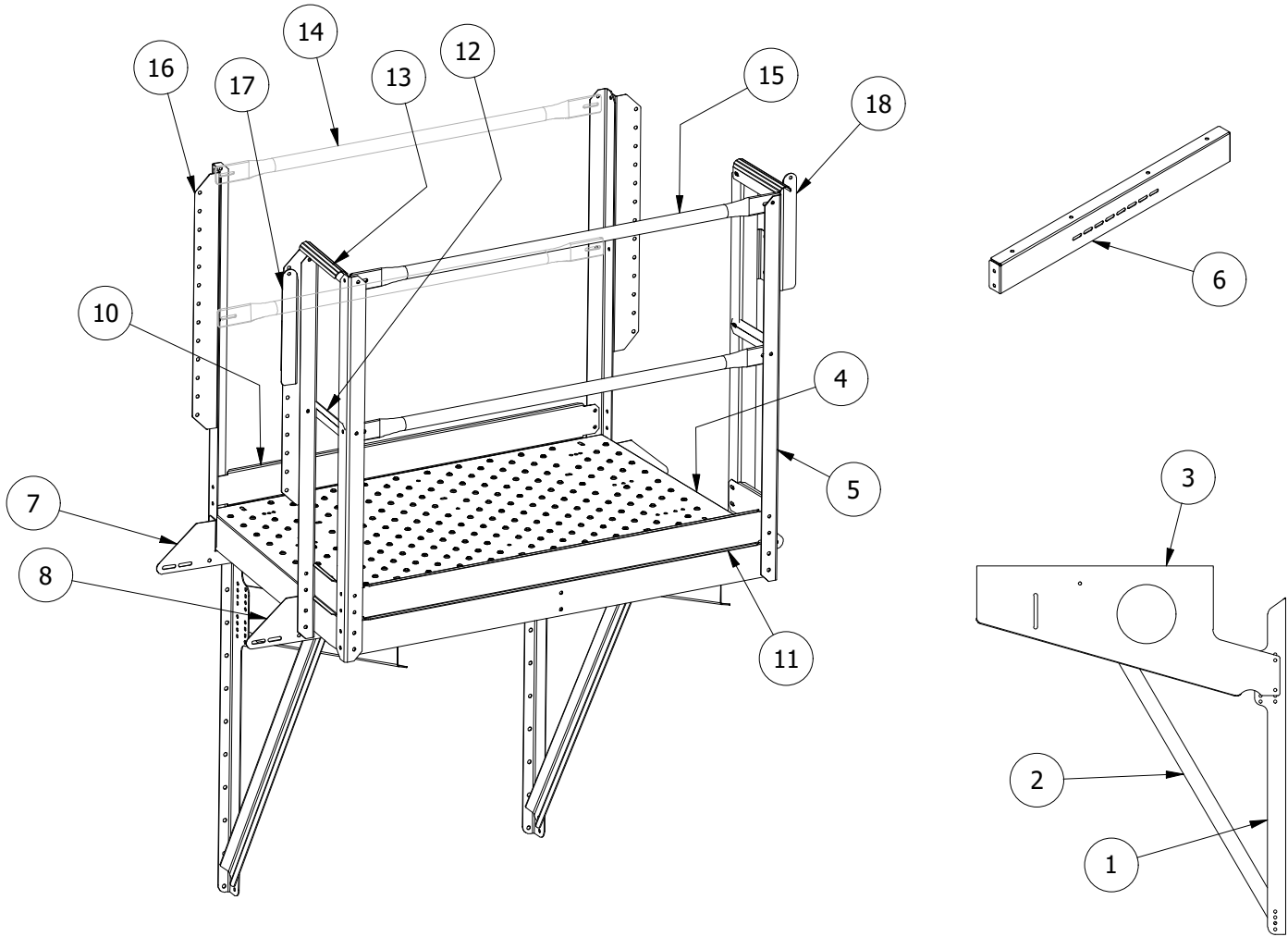
CC8544 Wide Platform
Parts ID Reference



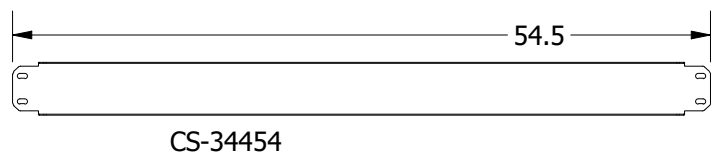
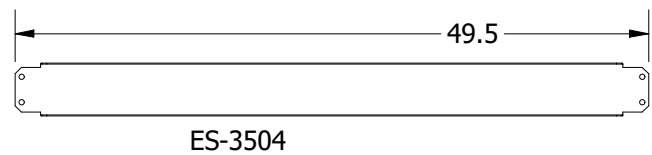
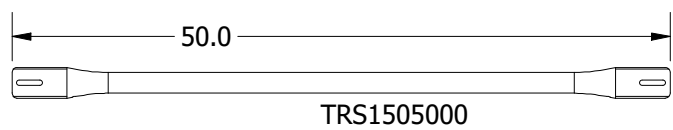
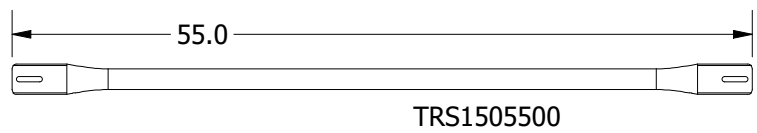
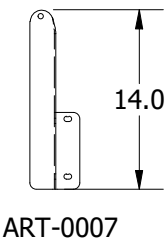
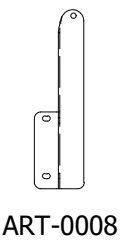
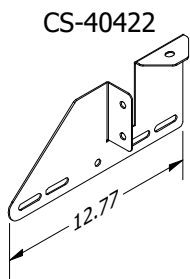
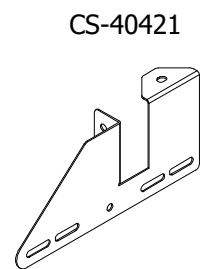
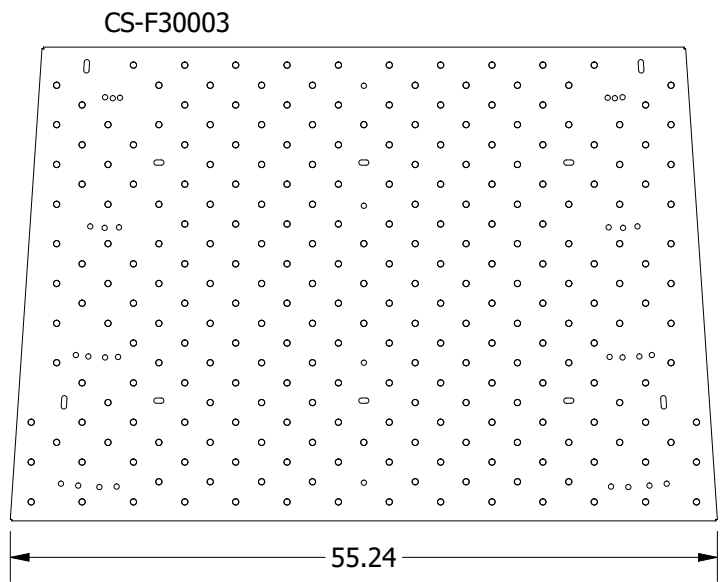
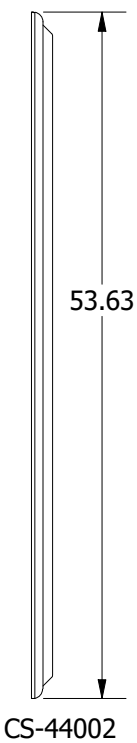
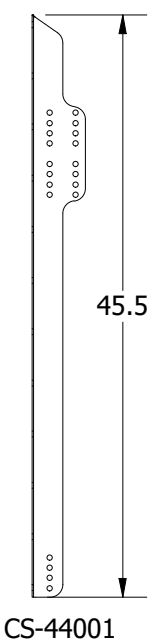
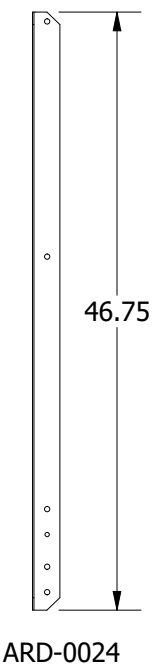
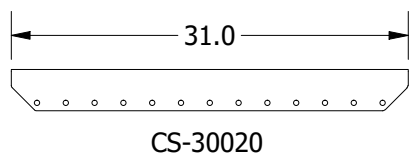
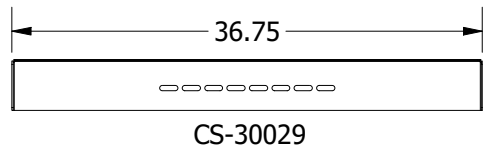
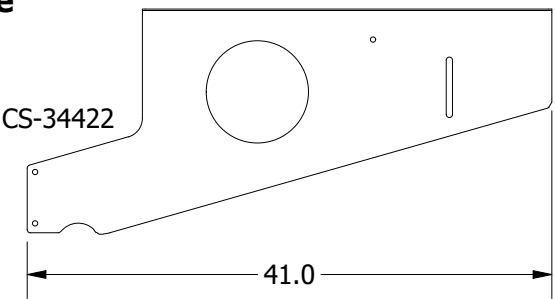
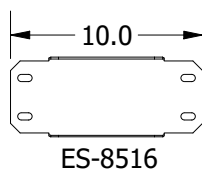
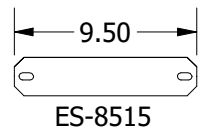
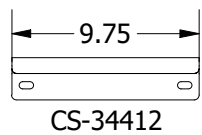
CC8644 Wide Platform

Bill of Materials

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	CS-34401	Bracket, Wall, 44 Platform
2	2	CS-44002	Channel, Brace, 44
3	2	CS-34422	Brace, Plate, Wide Plarform
4	1	CS-F30003	Tread, Platform, wide 55" x 37"
5	6	ARD-0024	Angle, Post, Platform Corner
6	1	CS-30029	Wide Platfrom center brace
7	2	CS-40421	Siderail Extension, wide platform, left
8	2	CS-40422	Siderail Extension, wide platform, right
9	2	ES-8516	Channel, Kickboard, 10"
10	1	ES-3504	Channel, Kickboard, 50"
11	1	CS-34454	Channel, Kickboard, 54"
12	2	ES-8515	Plat Entry Int Rail
13	2	CS-34412	Angle, Rounded Handrail, Platform Entry
14	2	TRS1505000	50" long 1.5 in tube railing slotted end tabs
15	2	TRS1505500	55" Long 1.5 in tube railing slotted end tabs
16	4	CS-30020	Bracket, Platform Handrail Mount
17	1	ART-0007	Entry Guardrail Post Right
18	1	ART-0008	Entry Guardrail Post Left

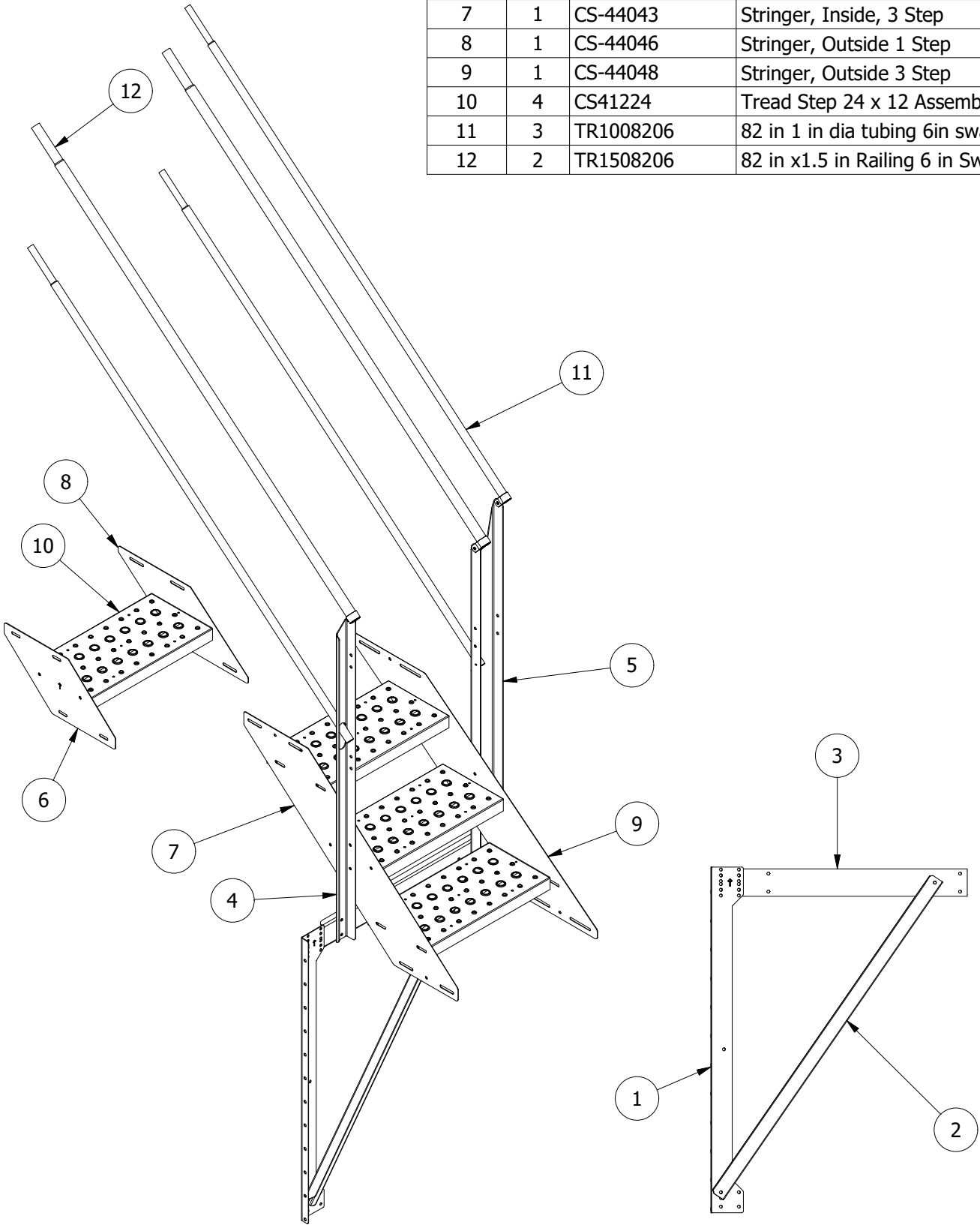


CC8644 Wide Platform
Parts ID Reference



CC4404P
C-Series Commercial 44"
1+3 Step Stair Section

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CS-44001	Bracket, Wall, 44" Ring
2	1	CS-44002	Channel, Brace, 44
3	1	CS-40002	Channel, Crossbar
4	1	CS-40001	Post, Inside Stair
5	1	CS-40011	Post, Stair Rail, Guard Rail Outside
6	1	CS-44041	Stringer, Inside, 1 Step
7	1	CS-44043	Stringer, Inside, 3 Step
8	1	CS-44046	Stringer, Outside 1 Step
9	1	CS-44048	Stringer, Outside 3 Step
10	4	CS41224	Tread Step 24 x 12 Assembly
11	3	TR1008206	82 in 1 in dia tubing 6in swage
12	2	TR1508206	82 in x1.5 in Railing 6 in Swage

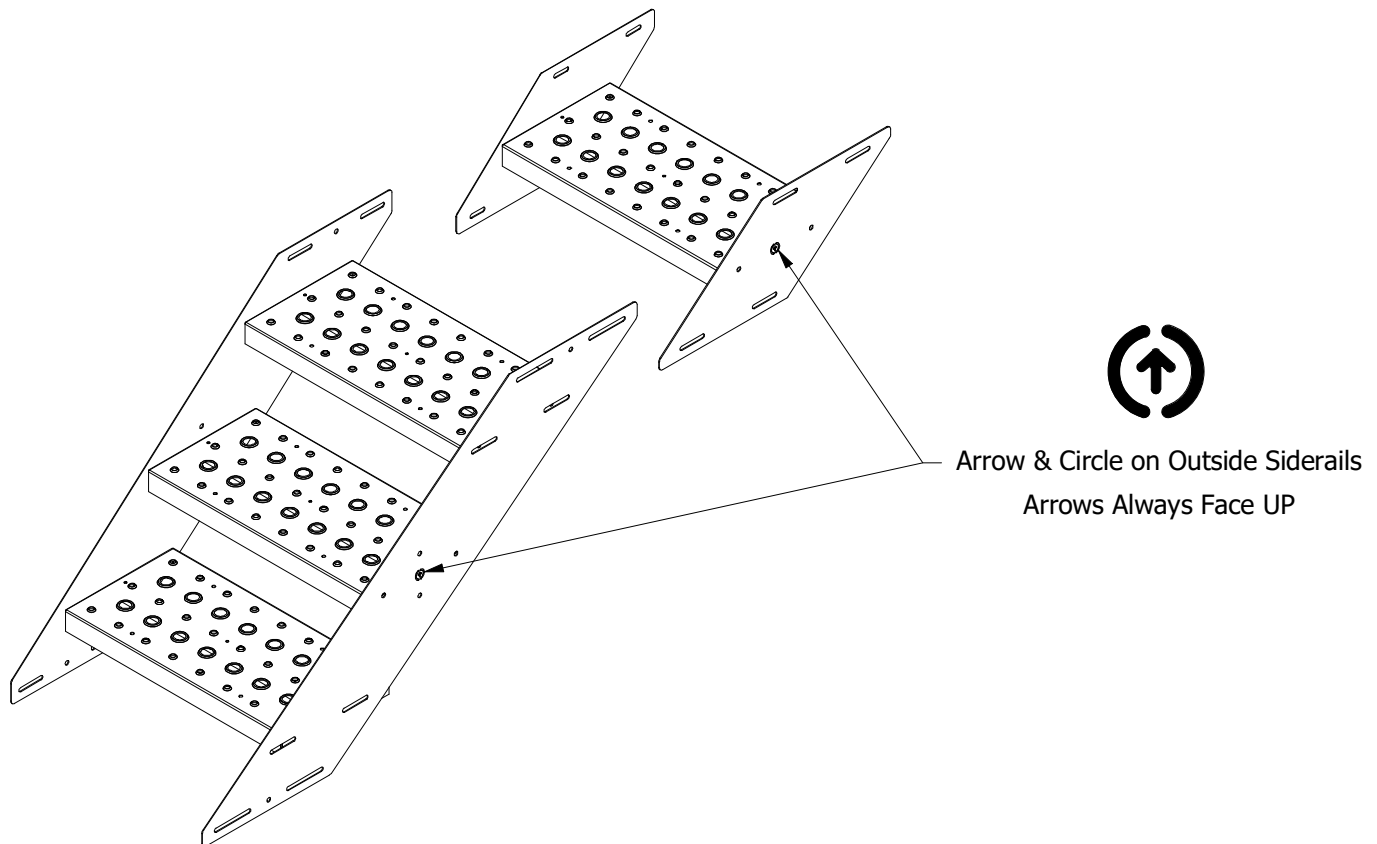
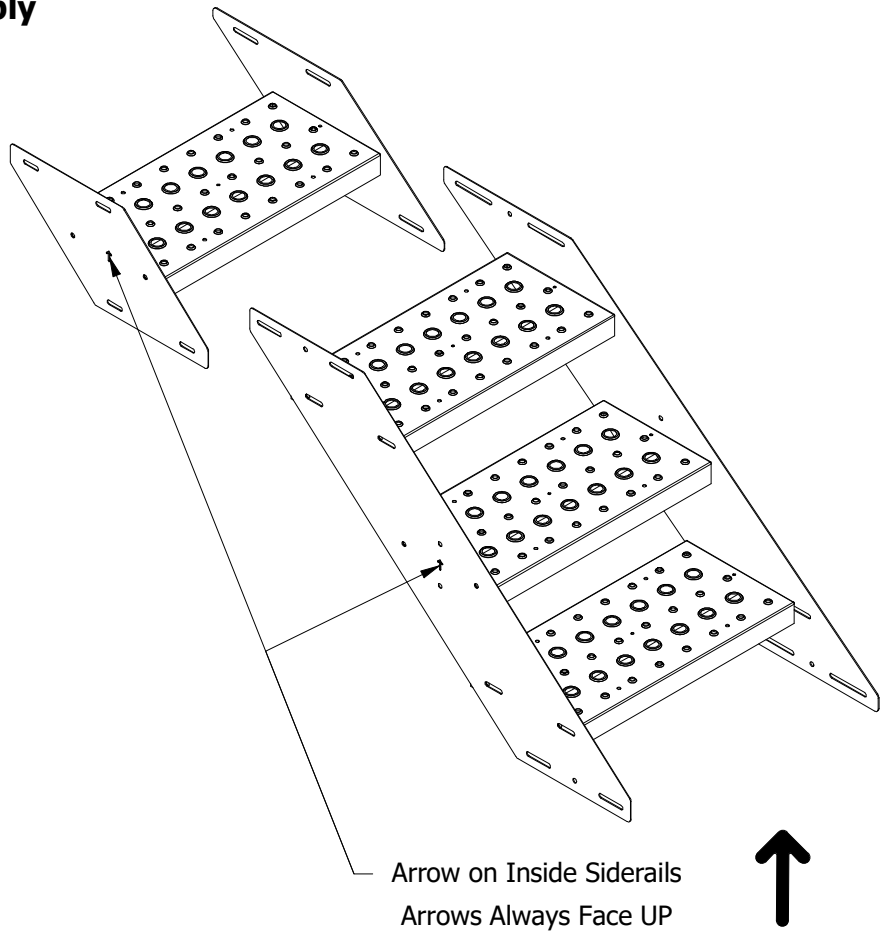


CC4404P overview of stair assembly

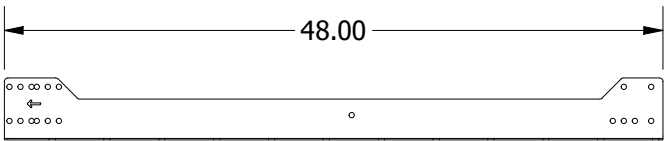
In the CC4404P stair section,
The lower 3-step uses a single siderail
inside and outside.
the upper section is also a single
siderail inside and outside.

Refer to pages 6-7 for 4-panel roof;
assemble as separate sections

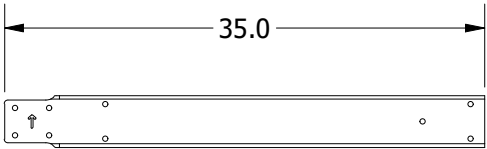
Refer to pages 8-11 for 3-panel roof;
assemble as single section



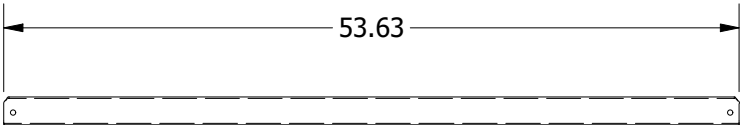
CC4404P Parts ID



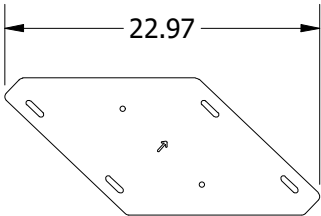
CS-44001



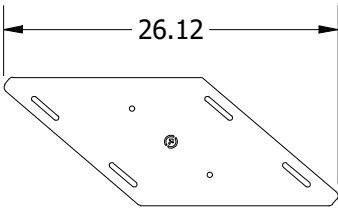
CS-40002



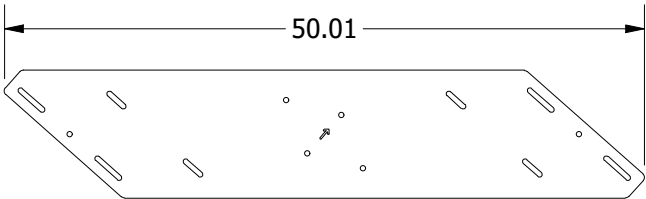
CS-44002



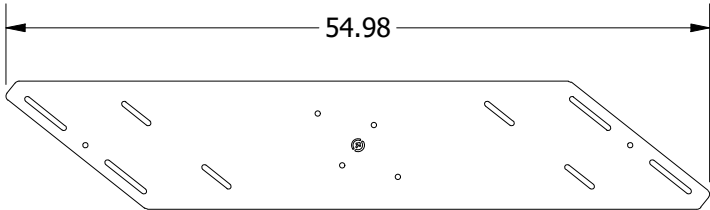
CS-44041



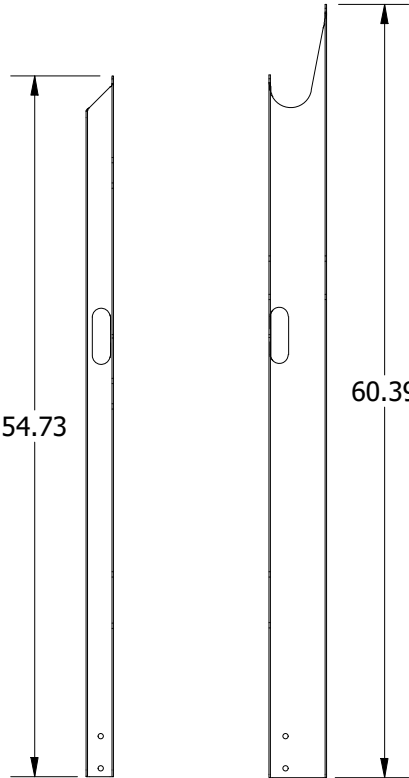
CS-44046



CS-44043

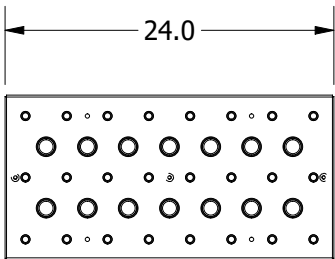


CS-44048

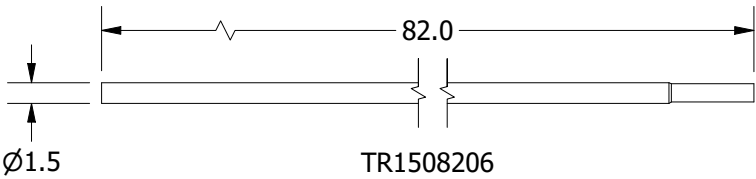


CS-40001

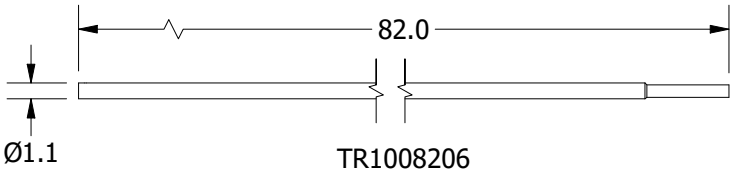
CS-40011



CS41224



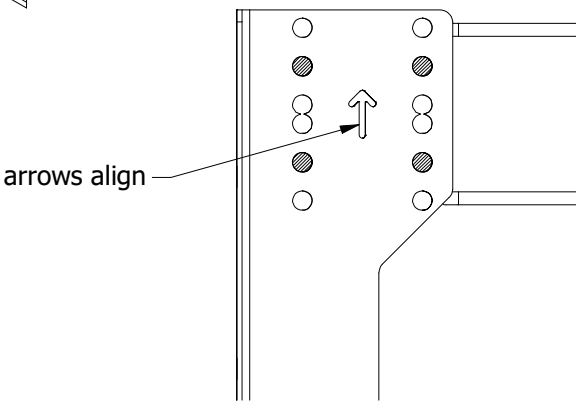
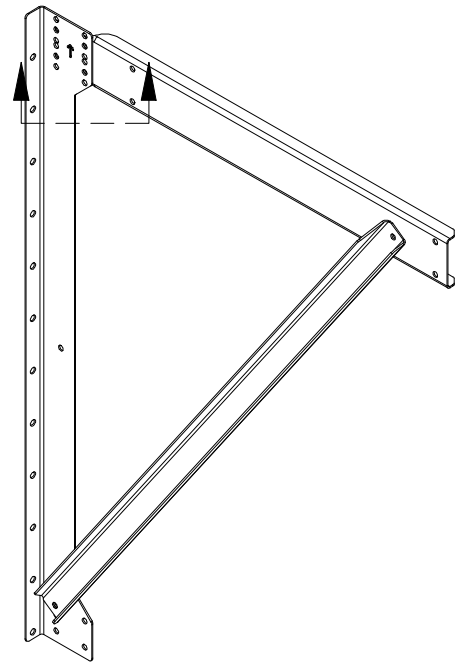
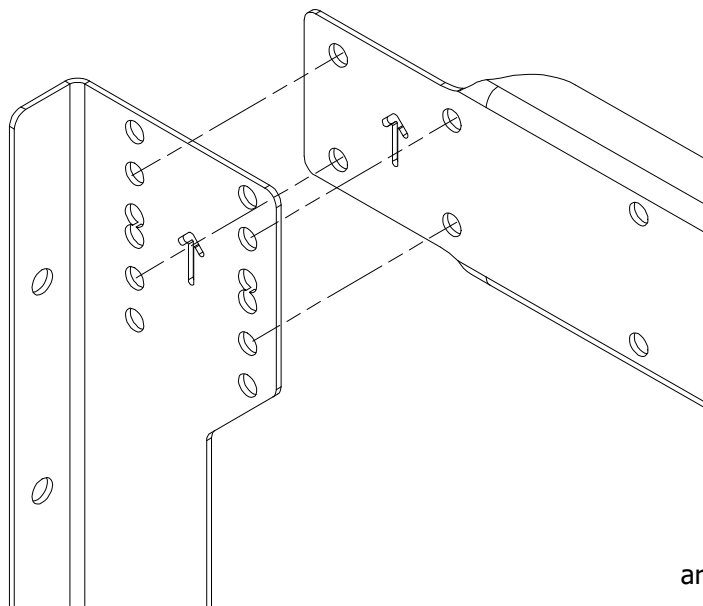
TR1508206



TR1008206

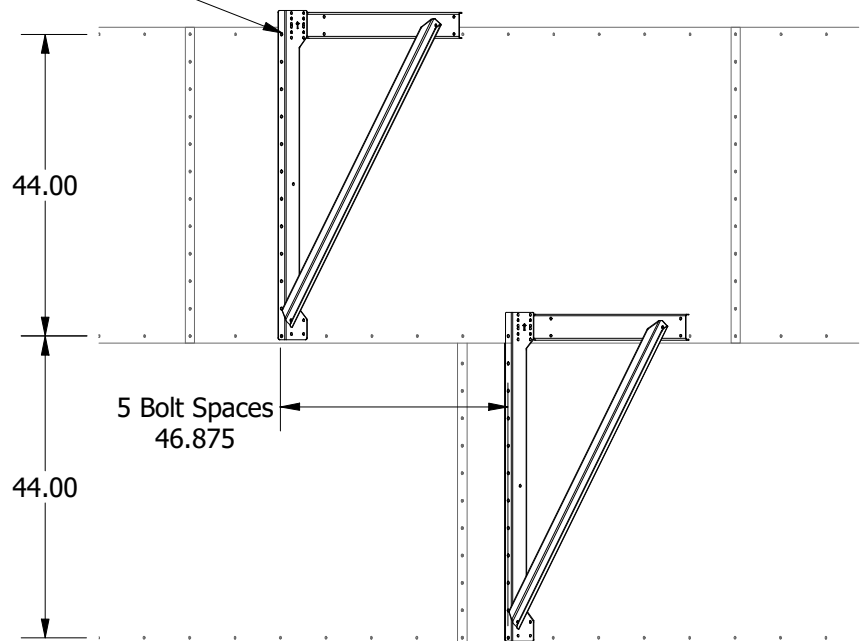
Stair Wall Bracket
Default Position and Wall Spacing

Like the platform wall brackets, the stair wall brackets provide elevation adjustments for different stair configurations. The standard seam-to-seam placement is shown below, with the crossbar attaching to the center set of bolt holes. Use 3/8" hardware and level the crossbar before tightening down the bolts.



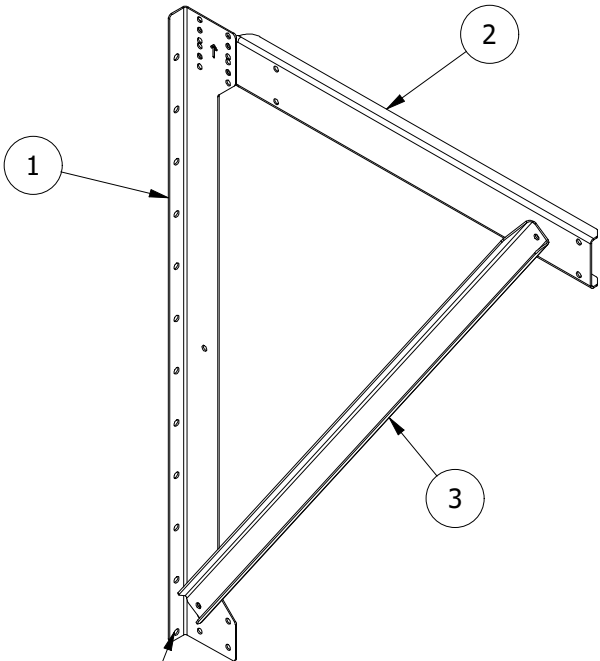
Top and Bottom Holes of
Stair Wall Bracket in the
Horizontal Seam

The horizontal spacing between the long eave platform wall brackets is 5 bolt spaces (46.875"), and is consistent the remainder of the way down the bin, unless using a rest landing.



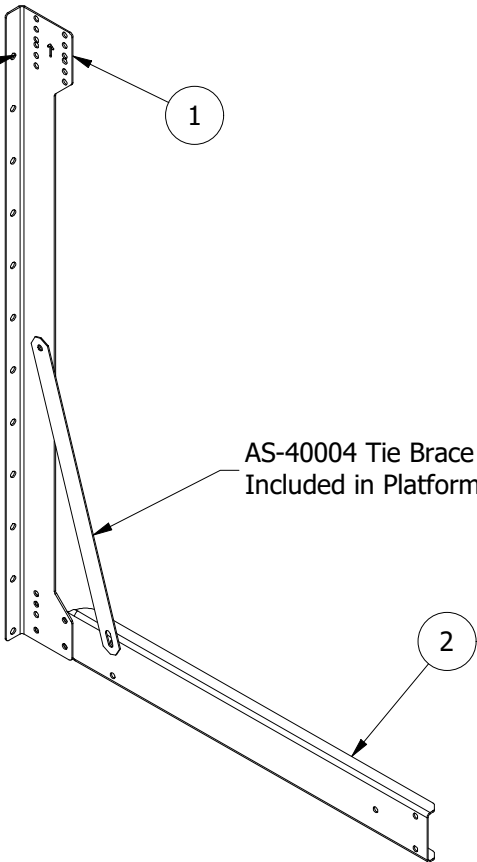
A-Frame Layouts

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CS-44001	Bracket, Wall, 44" Ring
2	1	CS-40002	Channel, Crossbar
3	1	CS-44002	Channel, Brace



Stair Run Section

Always include seal between bracket and bin sheet

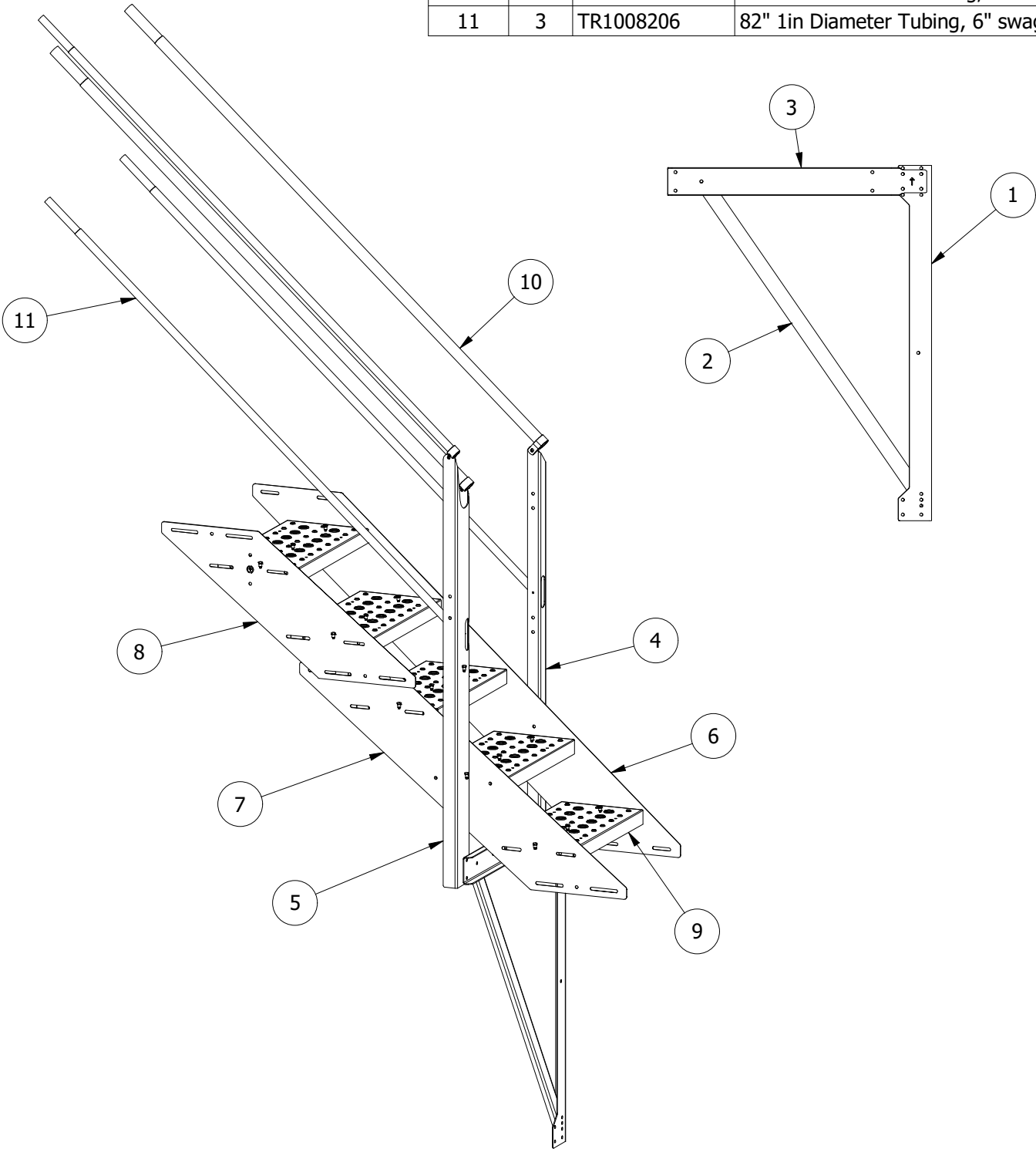


AS-40004 Tie Brace Bracket
Included in Platform Package

Bottom Stair Section
See page 45

CC4400
C-Series Commercial 44"
5-Step Stair Section

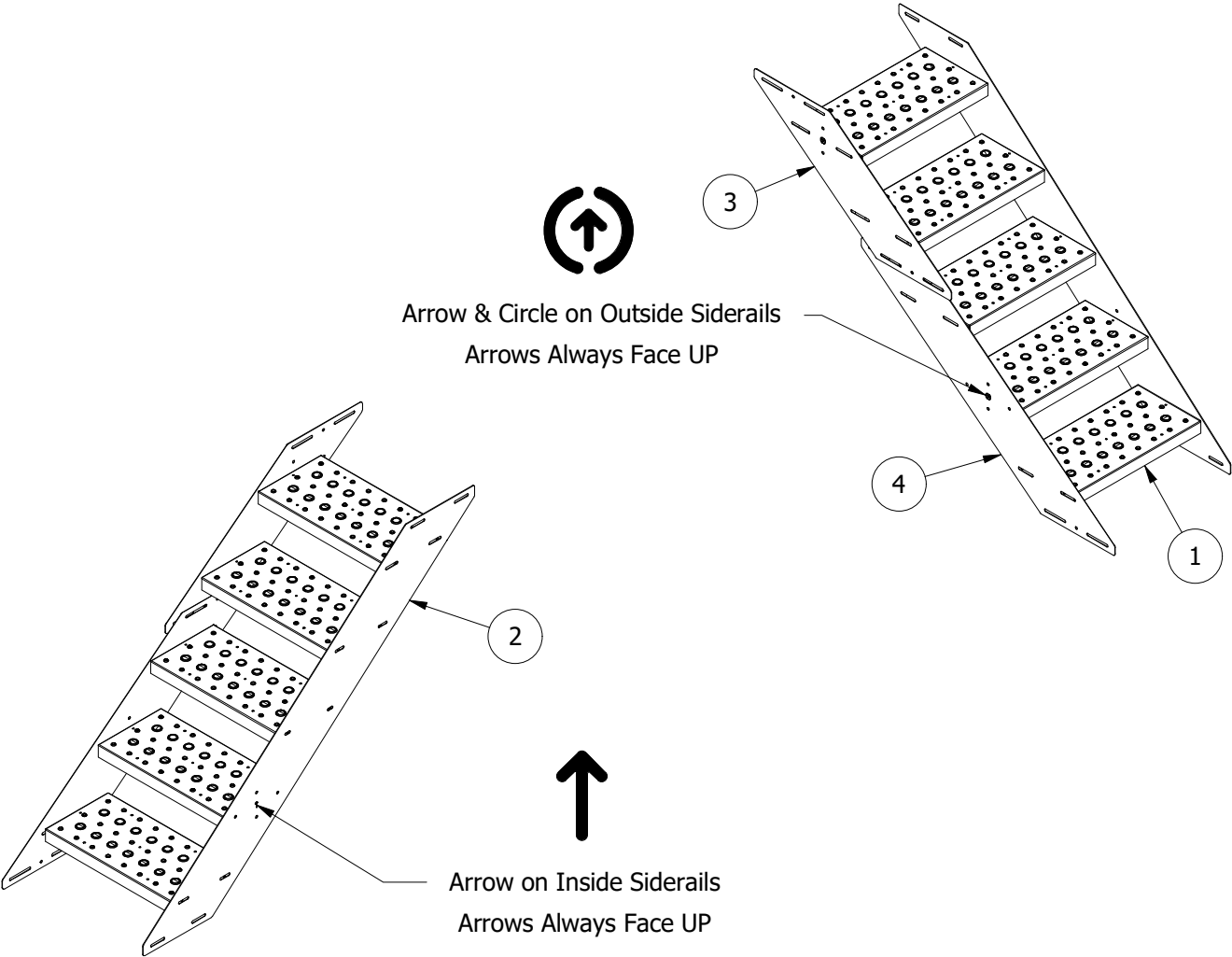
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CS-44001	Bracket, Wall, 44" Ring
2	1	CS-44002	Channel, Brace, 44
3	1	CS-40002	Channel, Crossbar
4	1	CS-40001	Post, Inside Stair
5	1	CS-40011	Post, Stair Rail, Guard Rail Outside
6	1	CS-44045	Stringer, Inside 5 Step 18-156
7	1	CS-44048 CW	Stringer, Outside 3 Step 18-105
8	1	CS-44047 CW	Stringer, Outside 2 Step 18-105
9	5	CS41224	Tread Step 24 x 12 Assembly
10	2	TR1508206	82" 1.5in Diameter Tubing, 6" swage
11	3	TR1008206	82" 1in Diameter Tubing, 6" swage



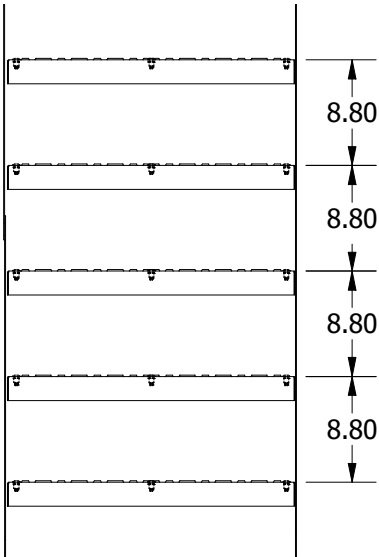
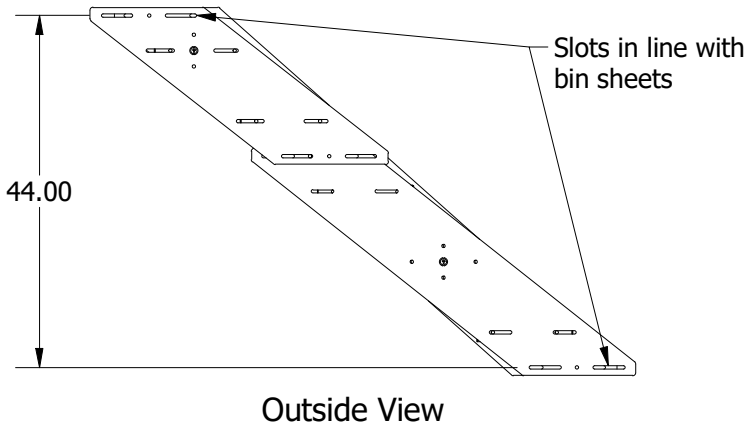
CC4400
Commercial 44"
5-Step Stair Section

On the CC4400 stair section,
the inside siderail is a one piece 5-step,
the outside siderail is a two piece, 3-step and 2-step.

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	5	CS41224	Tread Step 24 x 12 Assemble
2	1	CS-44045	Siderail, Inside, 5 Step
3	1	CS-44047	Siderail, Outside, 2 Step
4	1	CS-44048	Siderail, Outside, 3 Step



The step rise is 8.8".
The top and bottom slots of the siderails should stay in
line with the seams of the 44" bin sheets.



Attach Posts and Stairs to Support Frame

Attach the inside and outside posts to the siderails at the 2nd step from the bottom. Bolt at the holes shown in detail views.

Continue down the bin with 5-step sections until a rest landing should be added (see page 28)

OUTSIDE post
CS-40011

Bolt inside post to
siderail here

Inside View

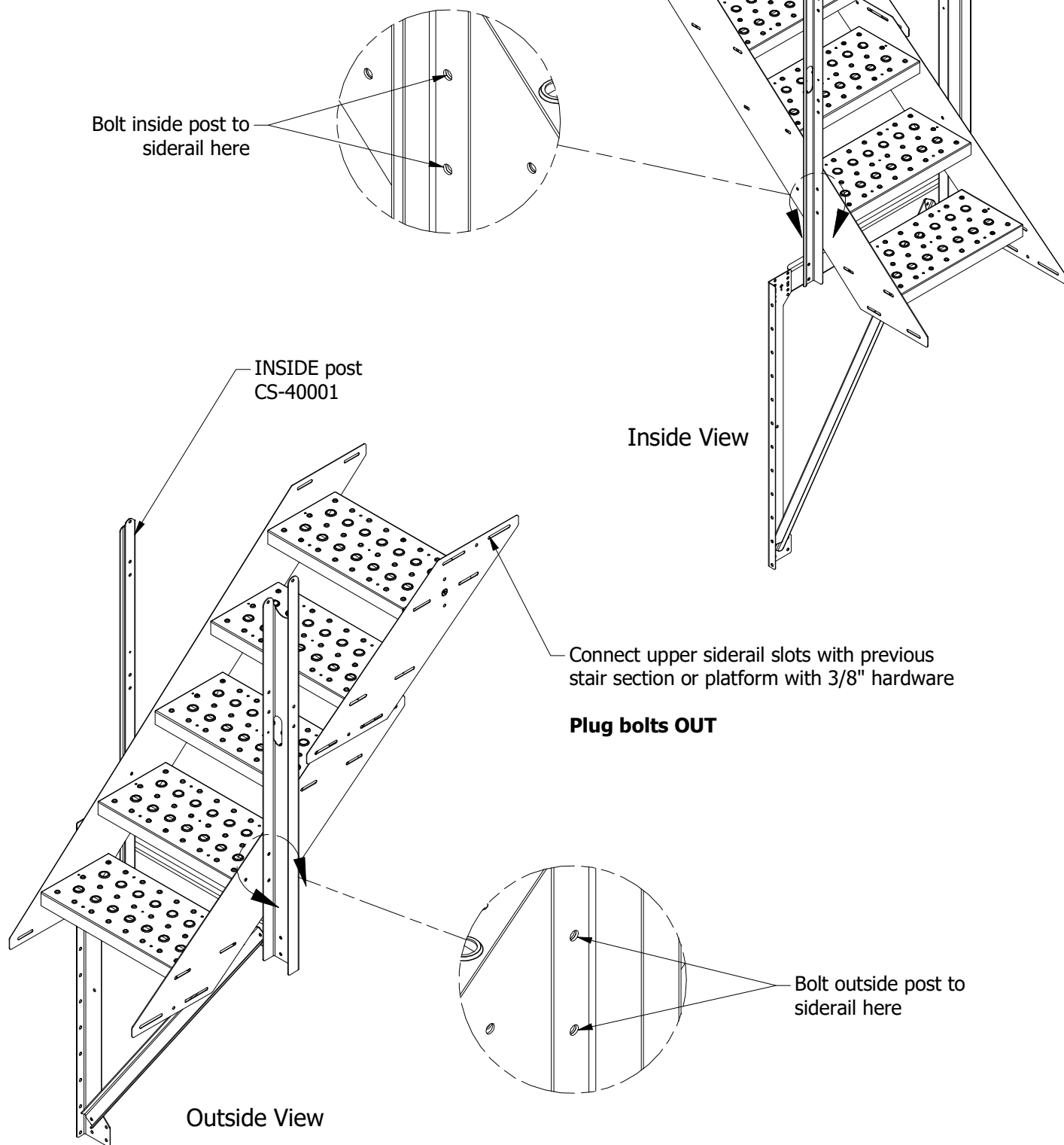
INSIDE post
CS-40001

Connect upper siderail slots with previous
stair section or platform with 3/8" hardware

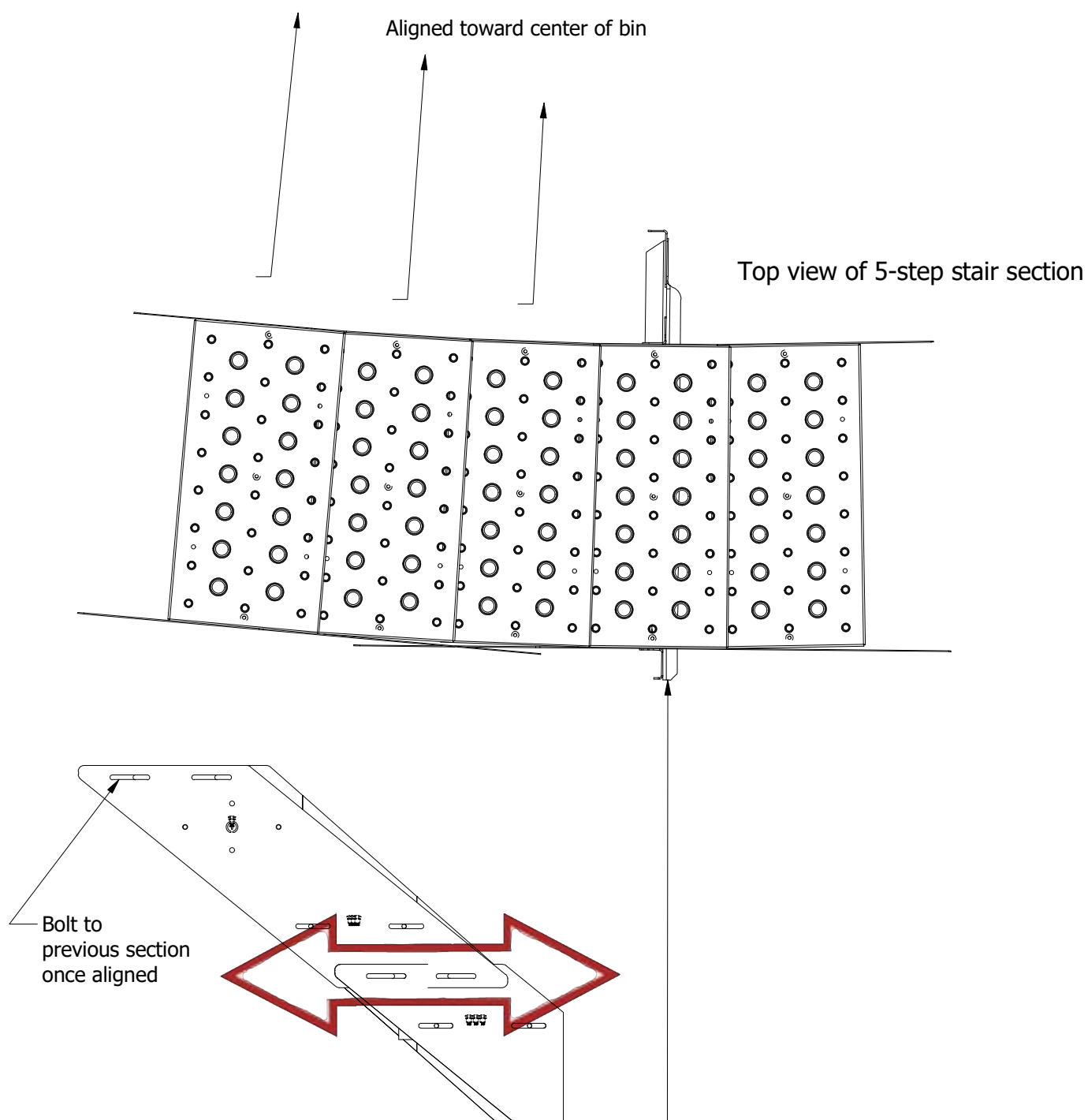
Plug bolts OUT

Bolt outside post to
siderail here

Outside View



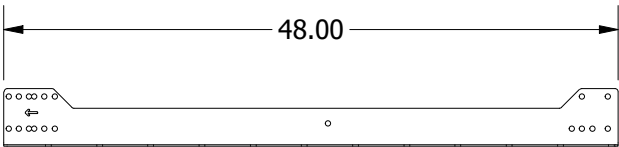
Correct Alignment of Stair Components



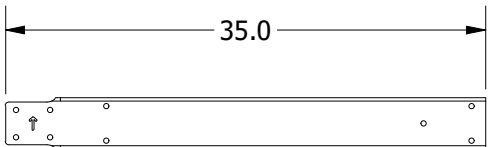
The Slotted Siderail system is designed to fit a range of bin diameters.

Before the stair section bolts are tightened all the way, some adjustment should be made to "fan" the steps and align the A-frames along the radial from the bin center.

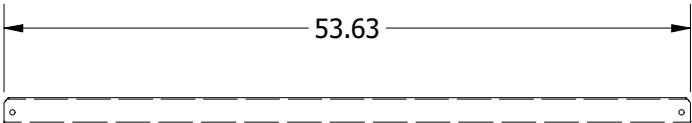
CC4400 Parts ID



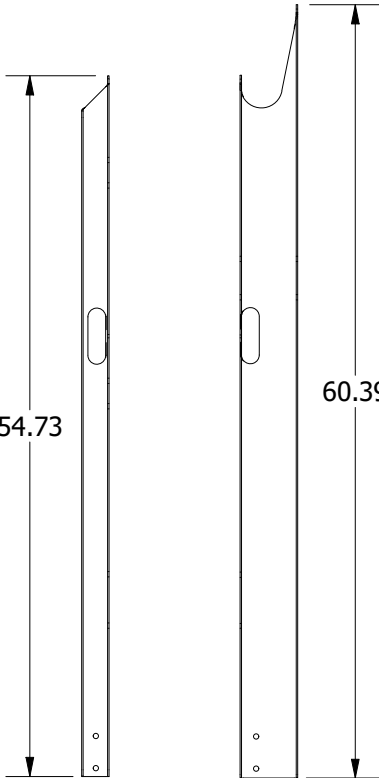
CS-44001



CS-40002

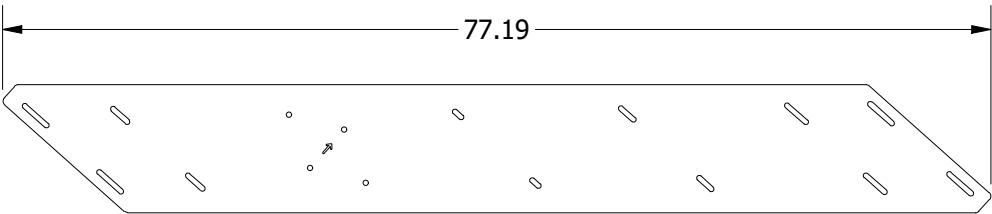


CS-44002

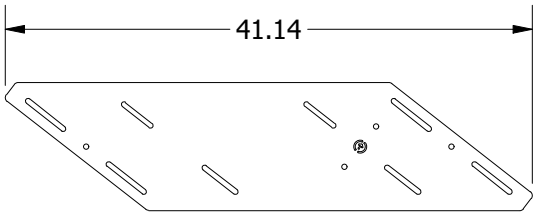


CS-40001

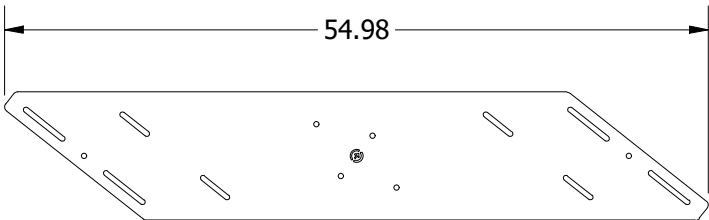
CS-40011



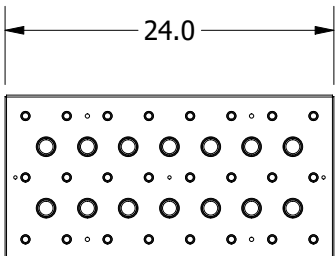
CS-44045



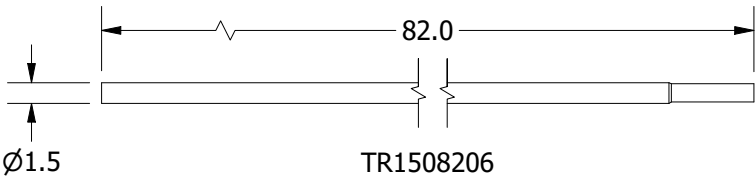
CS-44047



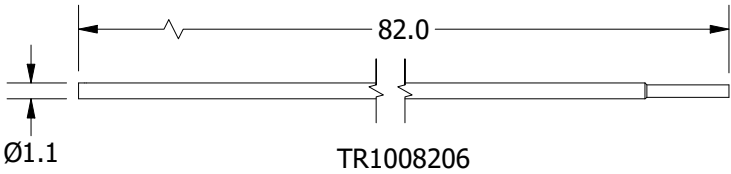
CS-44048



CS41224



TR1508206



TR1008206

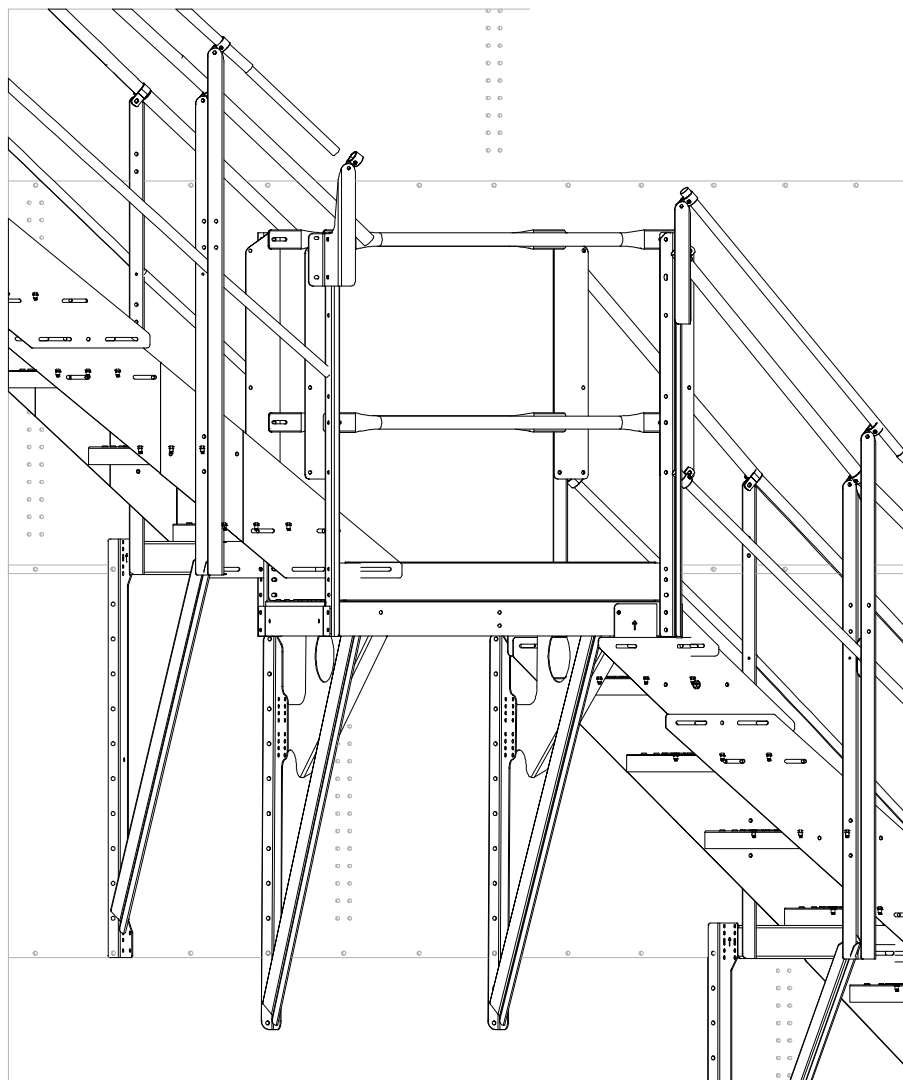
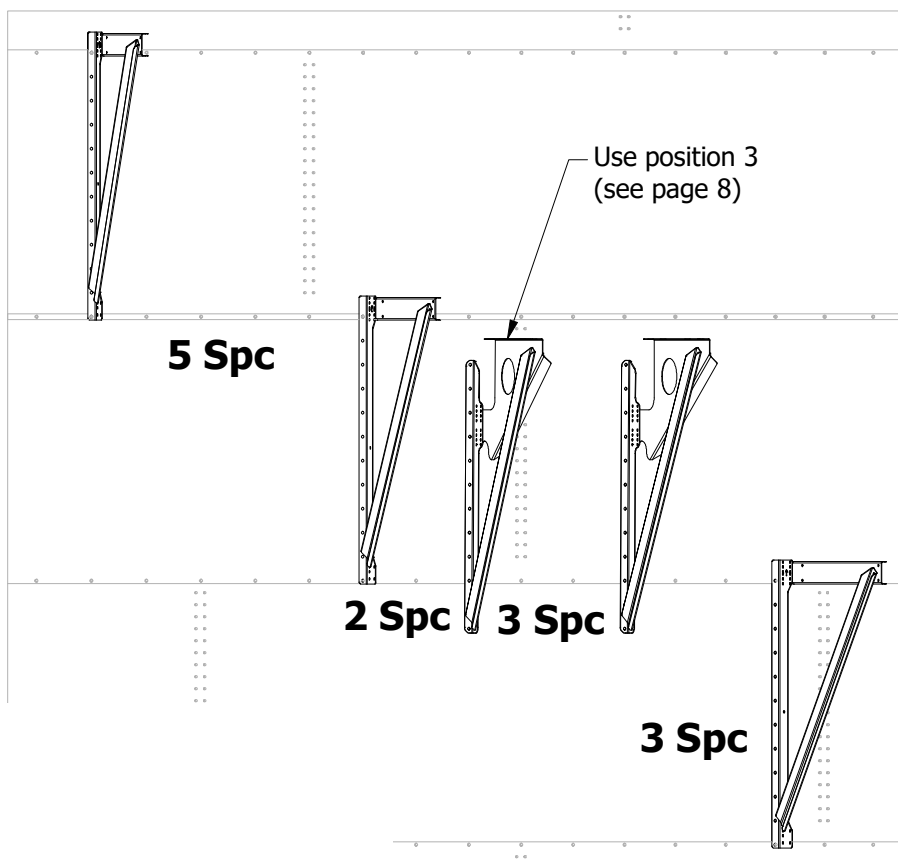
Wall Bracket Bolt Spacing

CC3644S Short Rest Landing Platform

For the brackets supporting a rest landing CC3644S (shown below), there is a progression of 5 spaces, 2 spaces, 3 spaces, 3 spaces. The layout then returns to 5 bolt spaces between each wall bracket.

Rest landings should be installed every 6th ring, or evenly divided over total rings after top platforms.

Example:
CC422 includes 3 rest landings for 22 rings.
Subtract 1 ring for top platforms and divide by 3.
 $21/3 = 7$ rings

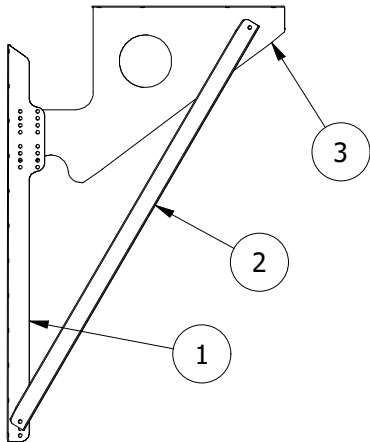
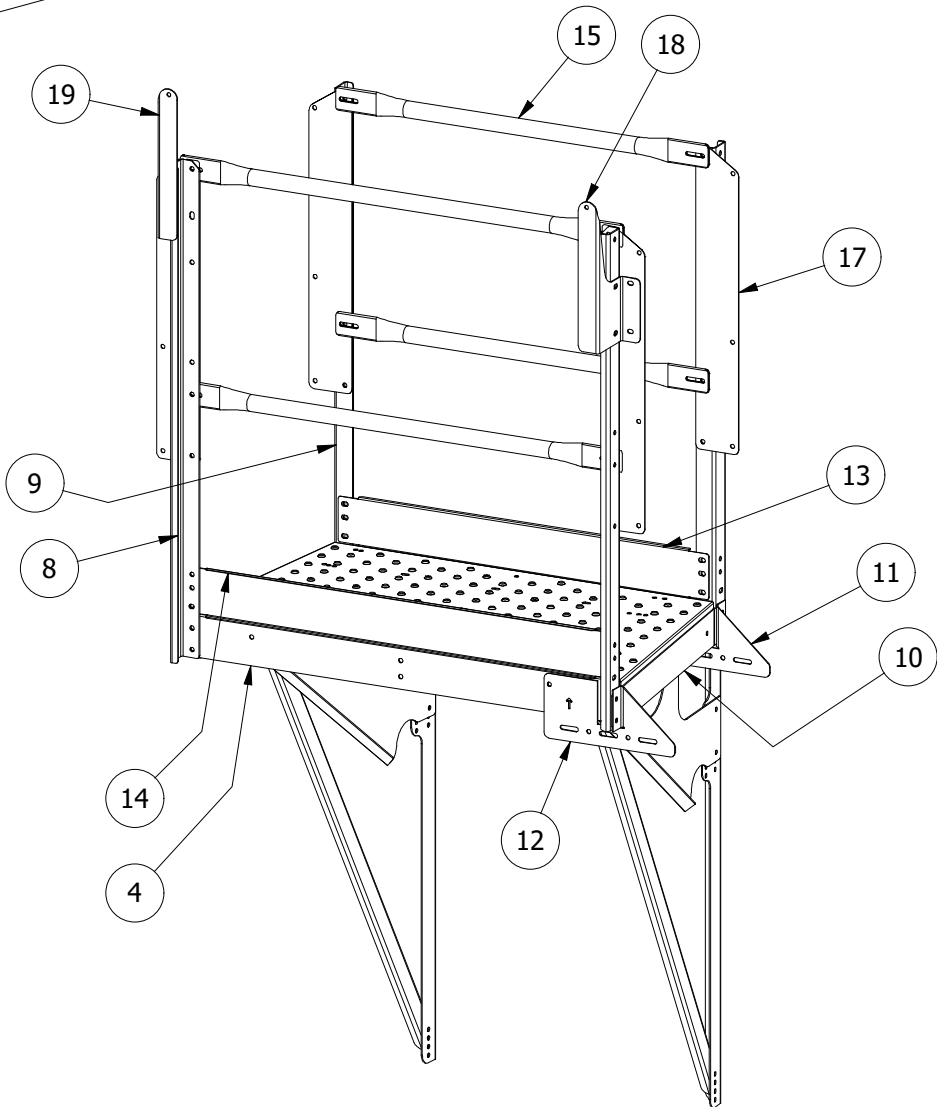
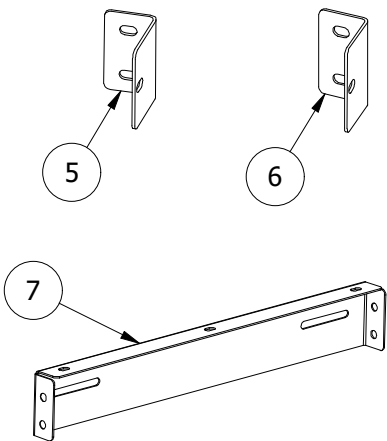


Completed platform and handrail detail

CC3644S
C-Series Commercial 44"
Short Platform

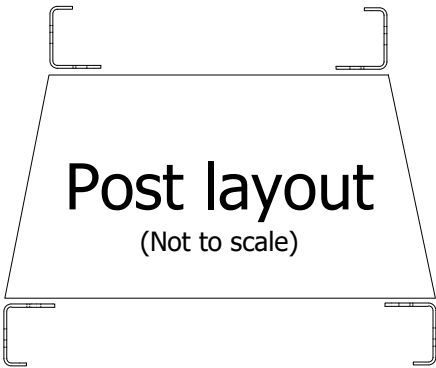
Rest Landing

Install a rest landing every 6th ring, or divided evenly among the remaining rings after the top platforms



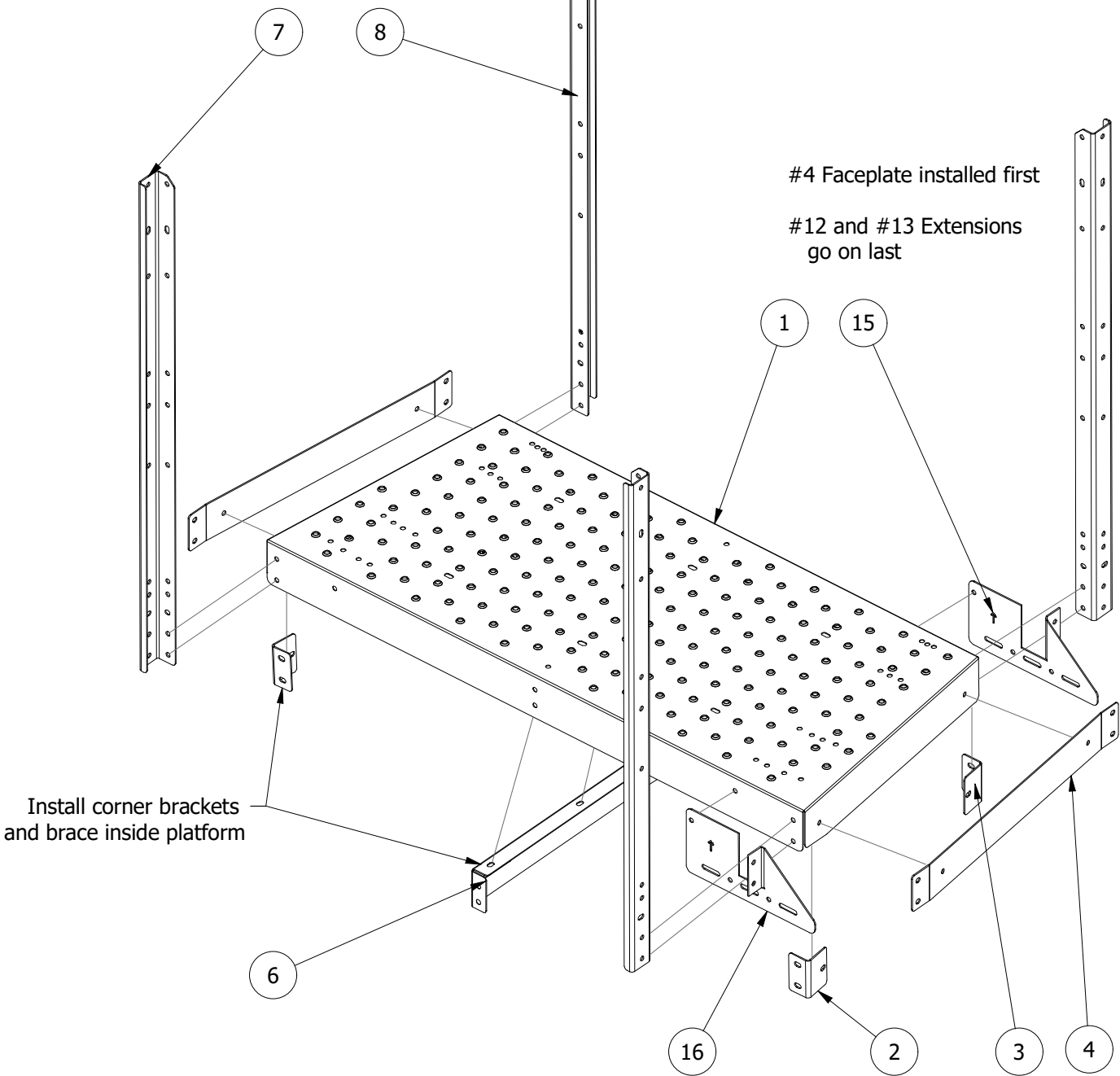
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	CS-34401	Bracket, Wall, 44 Platform
2	2	CS-34402	Brace, Plate, Platform
3	2	CS-44002	Channel, Brace, 44
4	1	CS-F30002	Tread, platform, Short, Trapezoid 44x24
5	2	CS-40005	Bracket, Brace, Acute
6	2	CS-40006	Bracket, Brace, Obtuse
7	1	CS-3009	Bracket, Support, Platform
8	2	CS-34500	Angle, Post, J-channel, Right
9	2	CS-34501	Angle, Post, J-channel, Left
10	2	CS-34414	Bracket, Faceplate
11	1	CS-40410	Lower Stringer Extension, Right 44
12	1	CS-40411	Lower Stringer Extension, Left 44
13	1	CS-34409	Channel, Kickboard, Inside, Short
14	1	CS-34410	Channel, Kickboard, Outside, Short
15	2	TRS1503700	37 Long 1.5 in tube railing slotted end tabs
16	2	TRS1504400	44 Long 1.5 in tube railing slotted end tabs
17	4	CS-30010	Bracket, Plate, Handrail
18	1	ART-0007	Entry Guardrail Post Right
19	1	ART-0008	Entry Guardrail Post Left

C-Series Commercial
Platform Assembly



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CS-F30002	Tread, Platform, Trapezoid 44x24
2	2	CS-40005	Bracket, Brace, Angle, Acute
3	2	CS-40006	Bracket, Brace, Angle, Obtuse
4	2	CS-34414	Bracket, Faceplate
6	1	CS-3009	Bracket, Support, Platform
7	2	CS-34500	Angle, Post, J-channel, Right
8	2	CS-34501	Angle, Post, J-channel, Left
15	1	CS-40410	Lower Stringer Extension, Right
16	1	CS-40411	Lower Stringer Extension, Left

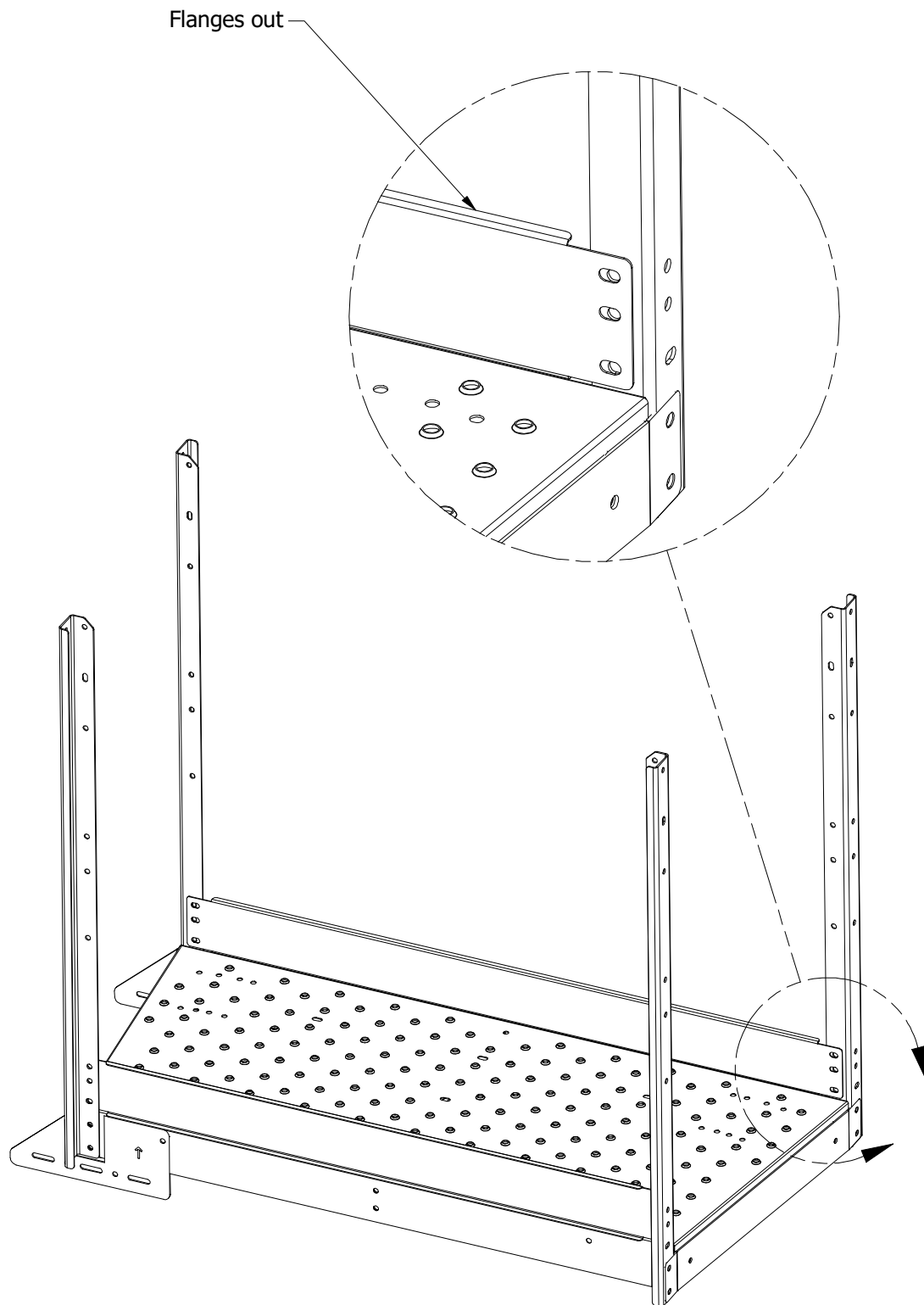
Clockwise configuration is depicted: mirror assembly for Counter-Clockwise stairs



C-Series Commercial Platform Assembly

Note:

On manhole platform and rest landings, there is no end kickboard
Additionally, the top bolts should be left out of the side kickboards
to allow clearance of incoming siderails

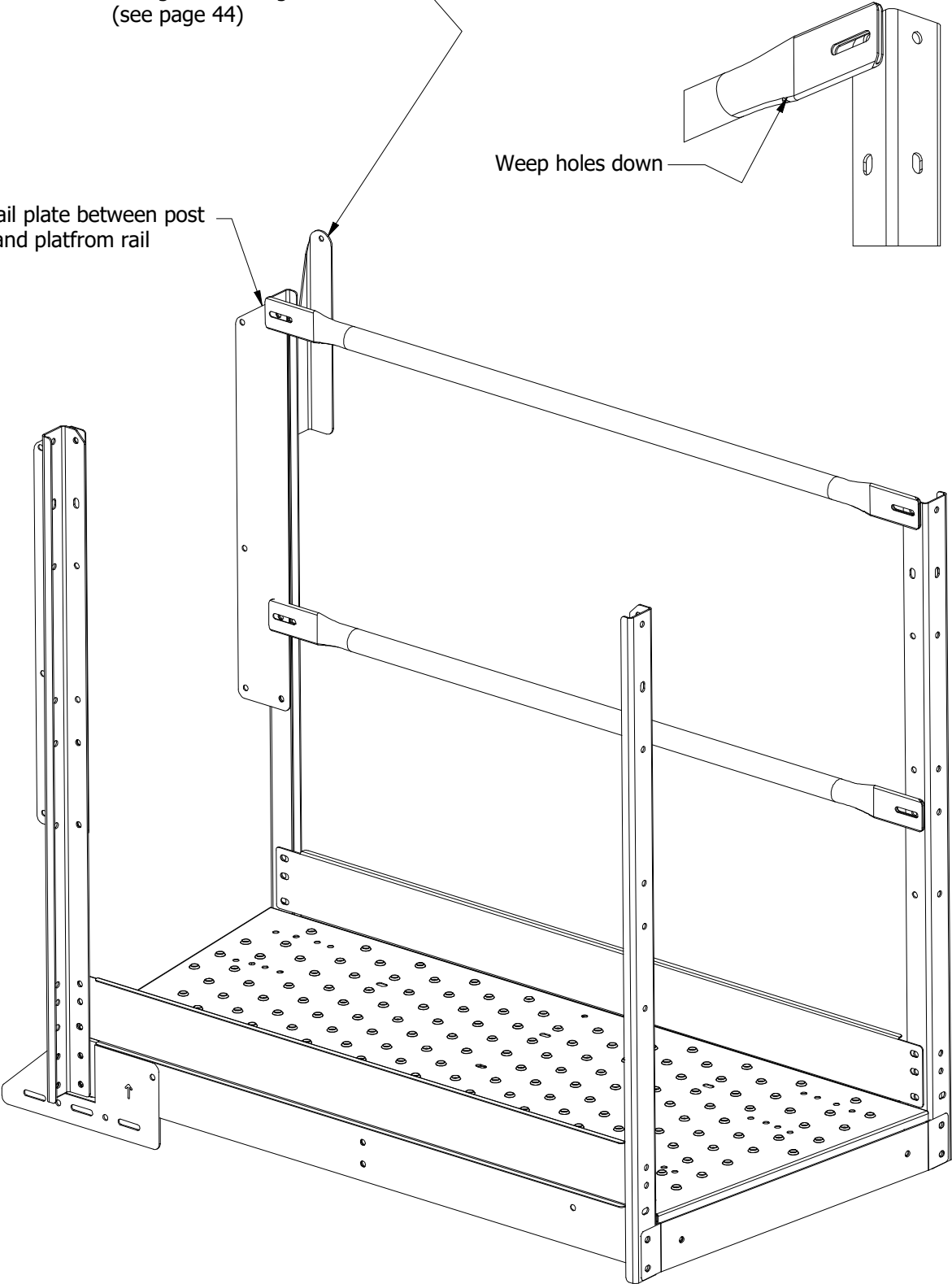


**C-Series Commercial
Platform Assembly**

ART-0007 and ART-0008 entry posts
may be field-drilled to set
the correct guardrail height
(see page 44)

Handrail plate between post
and platform rail

Weep holes down

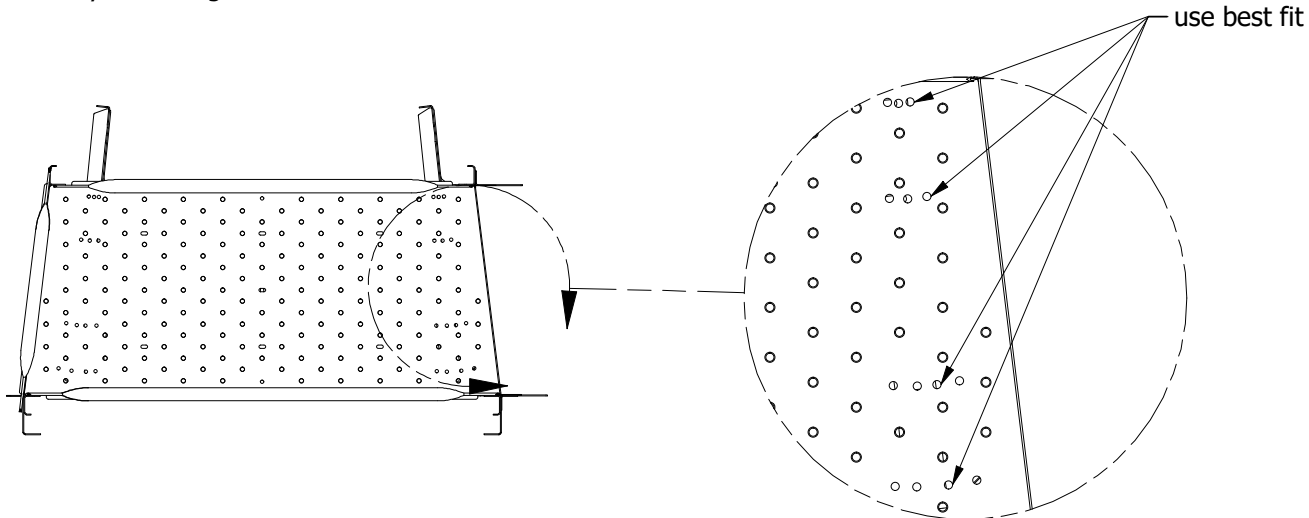


C-Series Commercial Platform Assembly

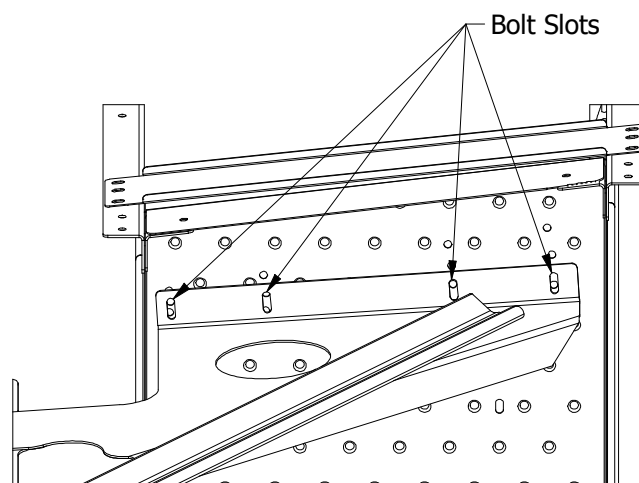
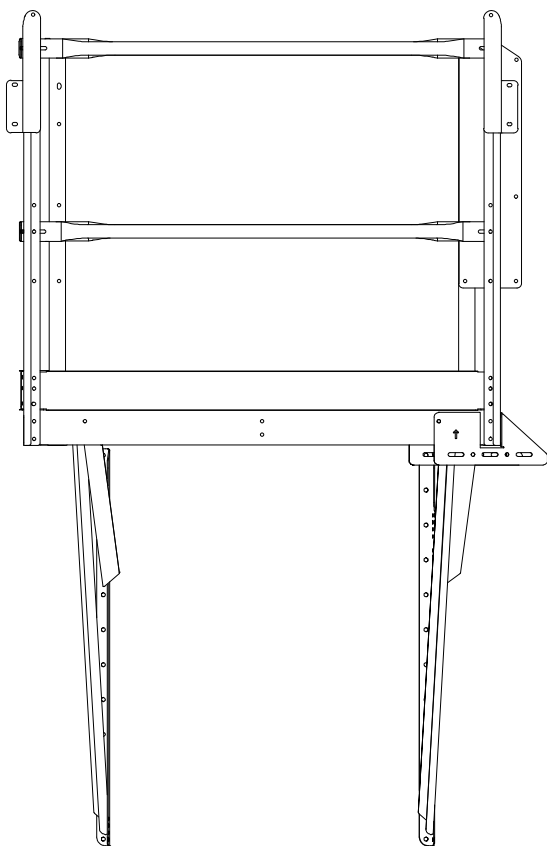
Center the platform assembly on top of the A-frame wall mounts.

Use 4 bolts to attach each wall mount plate to the platform.

Use the bolt holes in the platform that best align with the A-frame mounts, this will vary according to the bin diameter.

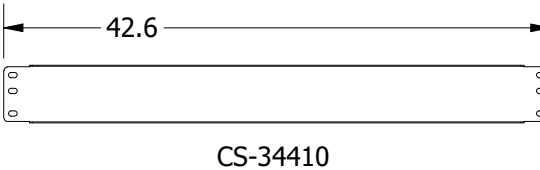
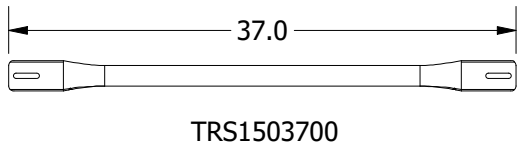
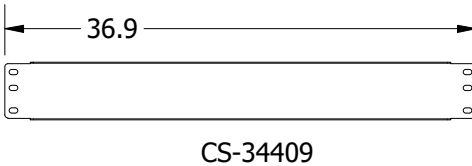
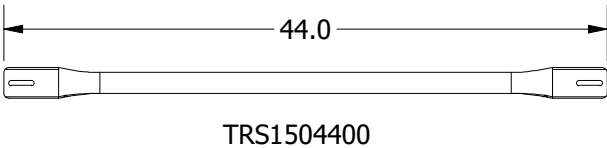
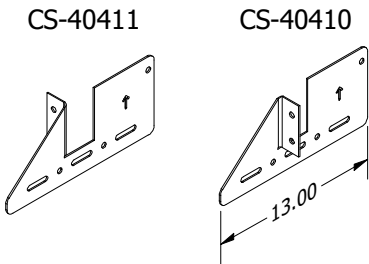
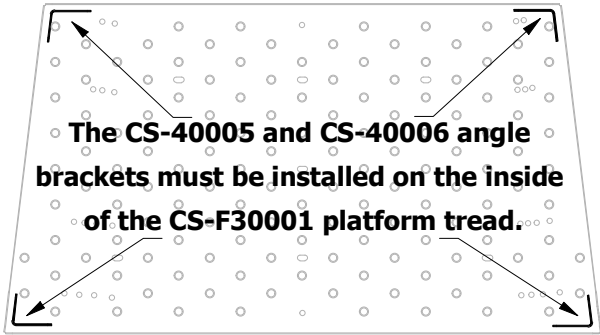
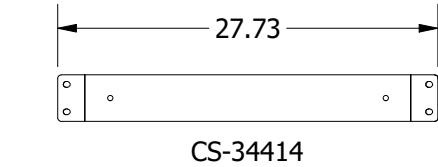
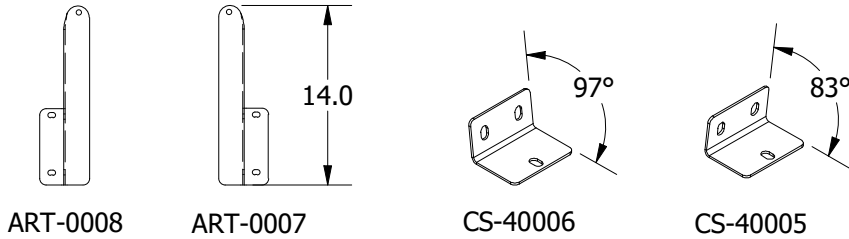
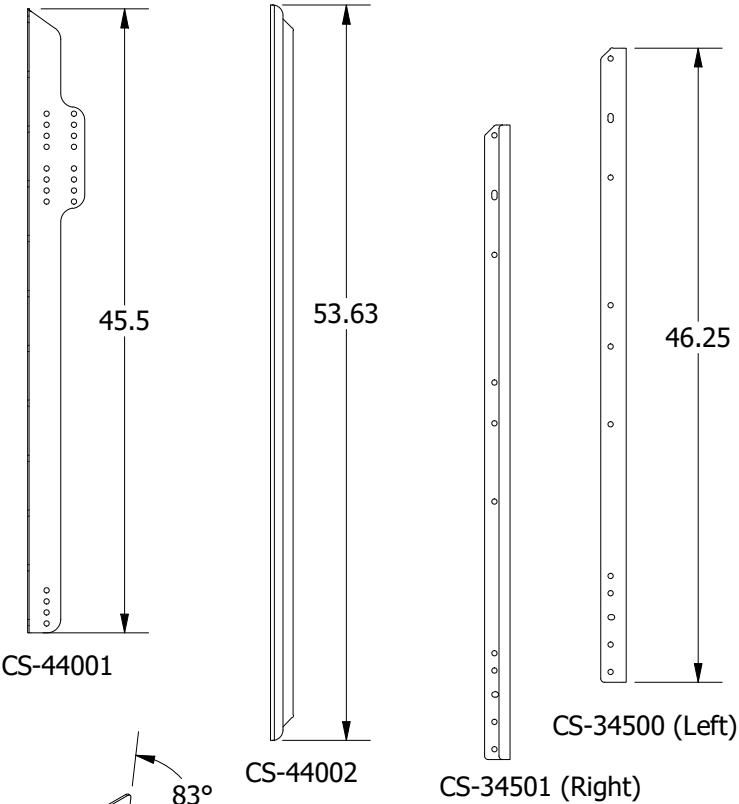
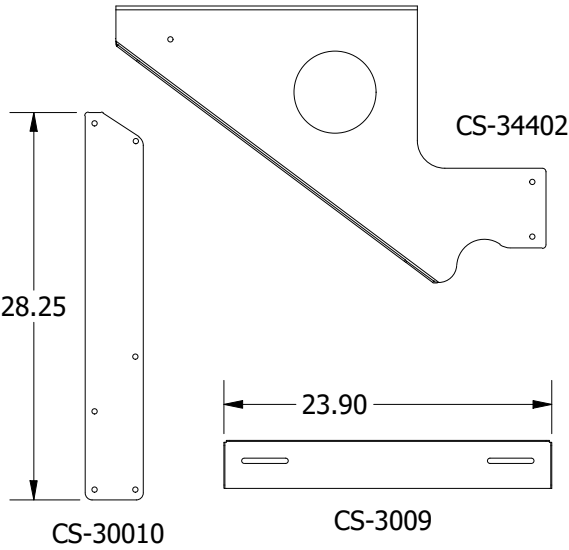


Bolt detail



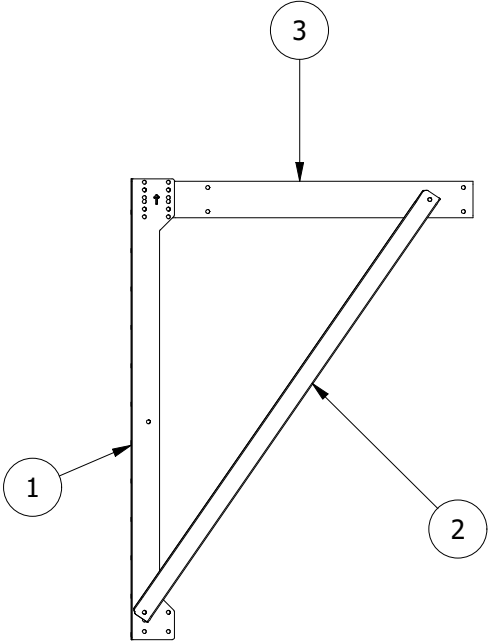
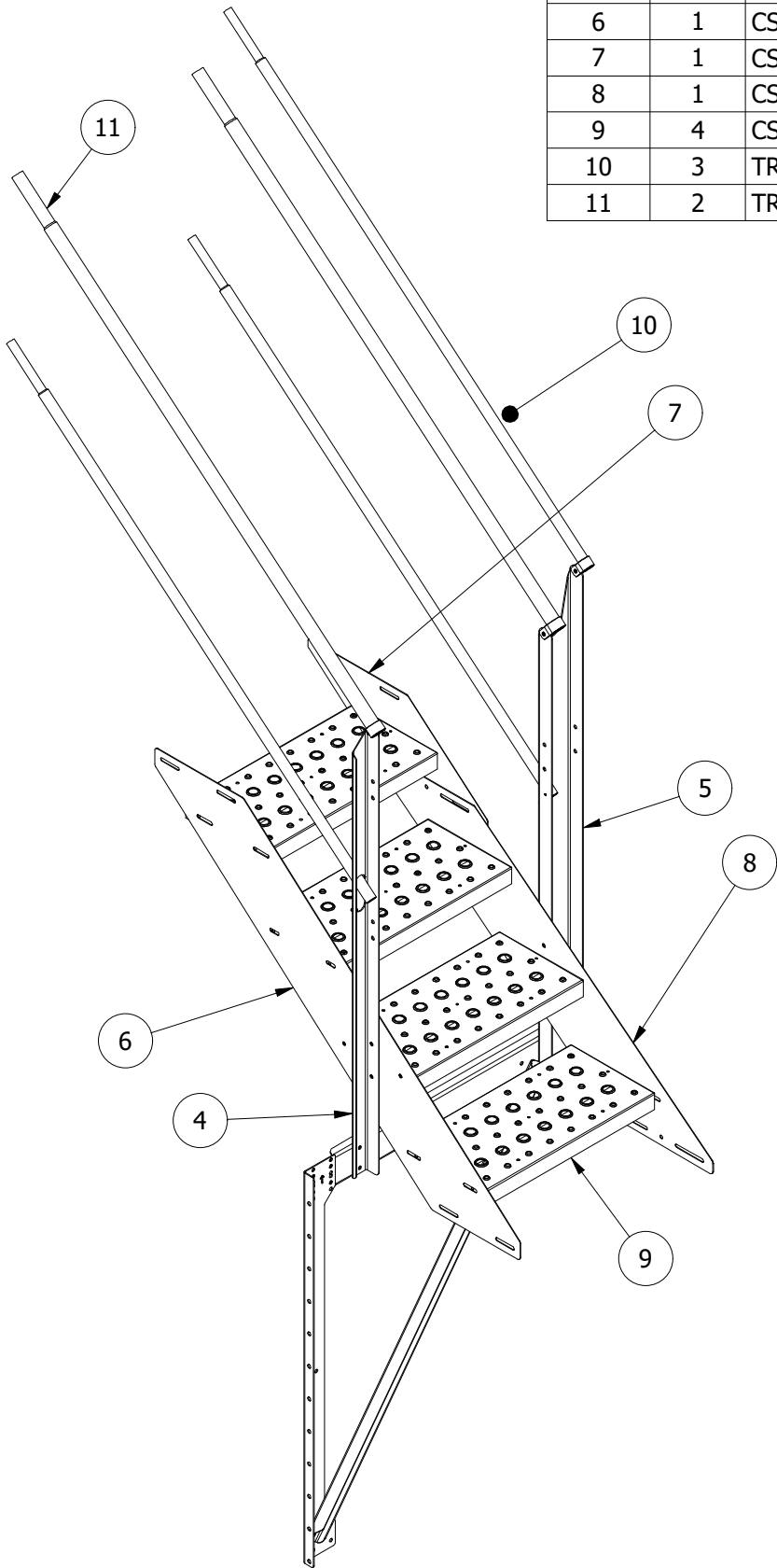
Underside View of
Platform Attachment

CC3644S Short Platform
Parts ID Reference



CC4404
C-Series Commercial 44"
4-Step Stair Section

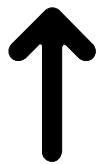
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CS-44001	Bracket, Wall, 44" Ring
2	1	CS-44002	Channel, Brace, 44
3	1	CS-40002	Channel, Crossbar
4	1	CS-40001	Post, Inside Stair
5	1	CS-40011	Post, Stair Rail, Guard Rail Outside
6	1	CS-44044	Stringer, Inside, 4 Step
7	1	CS-44046	Stringer, Outside 1 Step
8	1	CS-44048	Stringer, Outside 3 Step
9	4	CS41224	Tread Step 24 x 12 Assembly
10	3	TR1006706	67 in 1 in dia tubing 6in swage
11	2	TR1506706	67 in x1.5 in Railing 6 in Swage



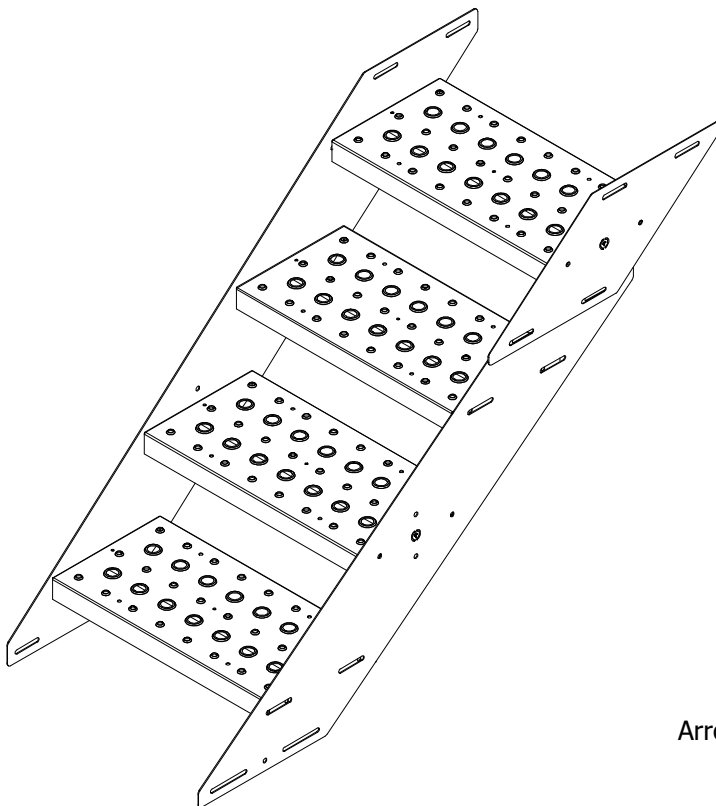
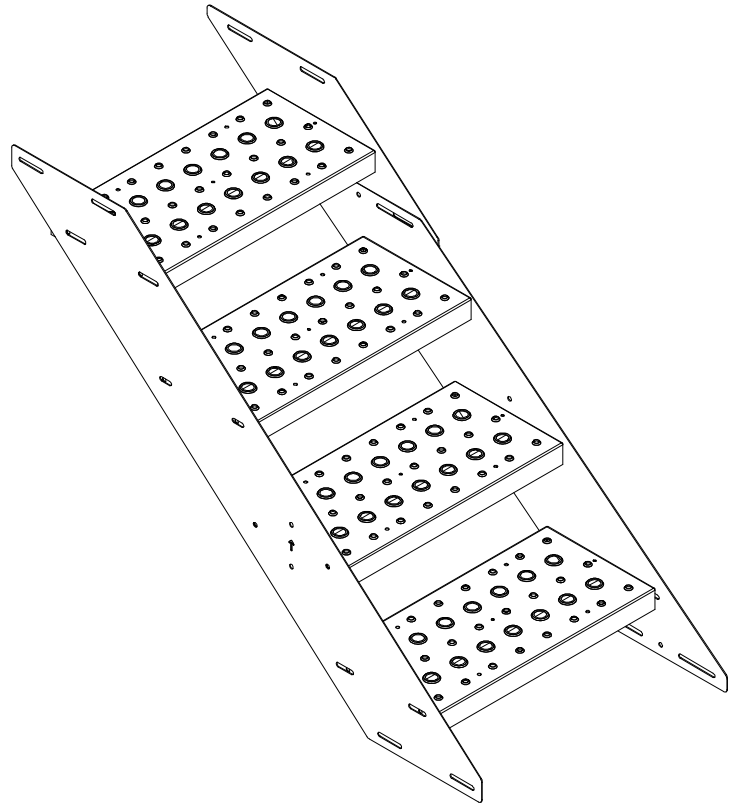
CC4404 C-Series Commercial 44" 4 Step Stair Section

On the CC4404 stair section,
the inside siderail is a one piece 4-step,
the outside siderail is a two piece, 3-step and 1-step.

This section is used with each rest landing

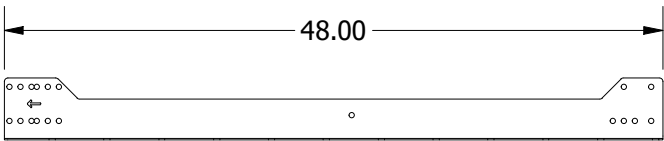


Arrow on Inside Siderails
Arrows Always Face UP

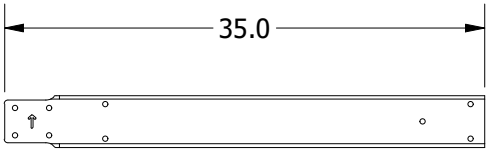


Arrow & Circle on Outside Siderails
Arrows Always Face UP

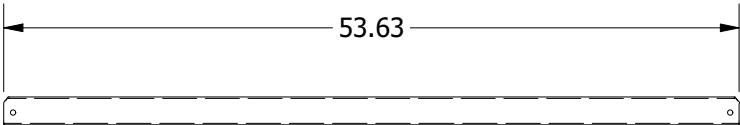
CC4404 Parts ID



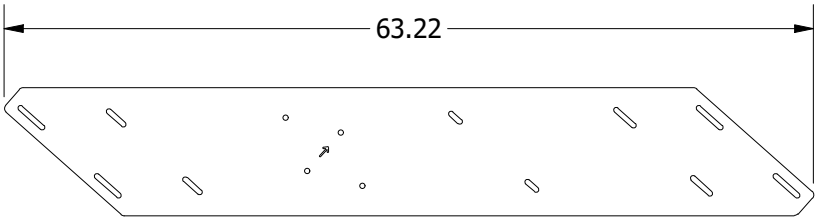
CS-44001



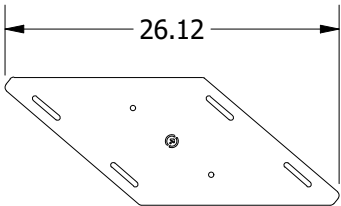
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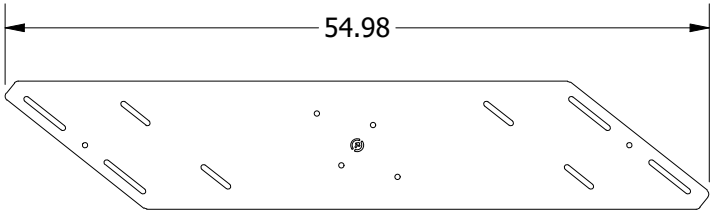
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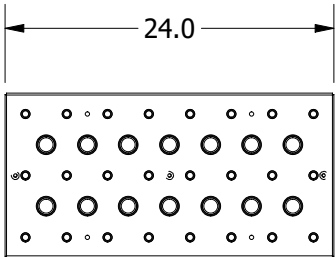
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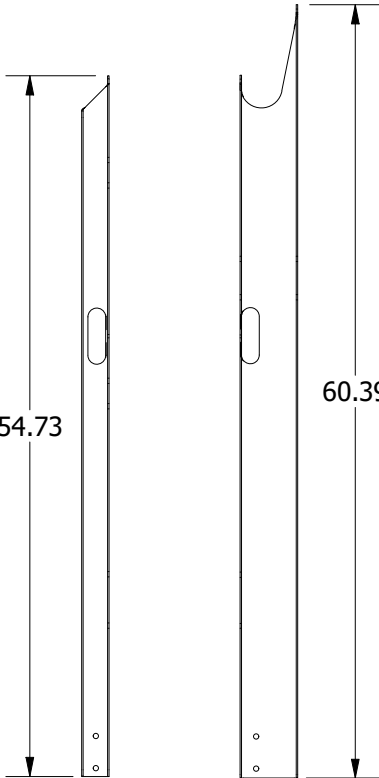
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CS-44048

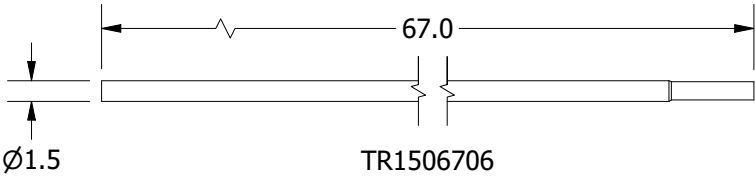


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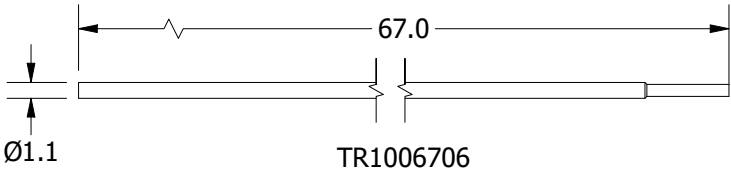


CS-40001

CS-40011



TR1506706



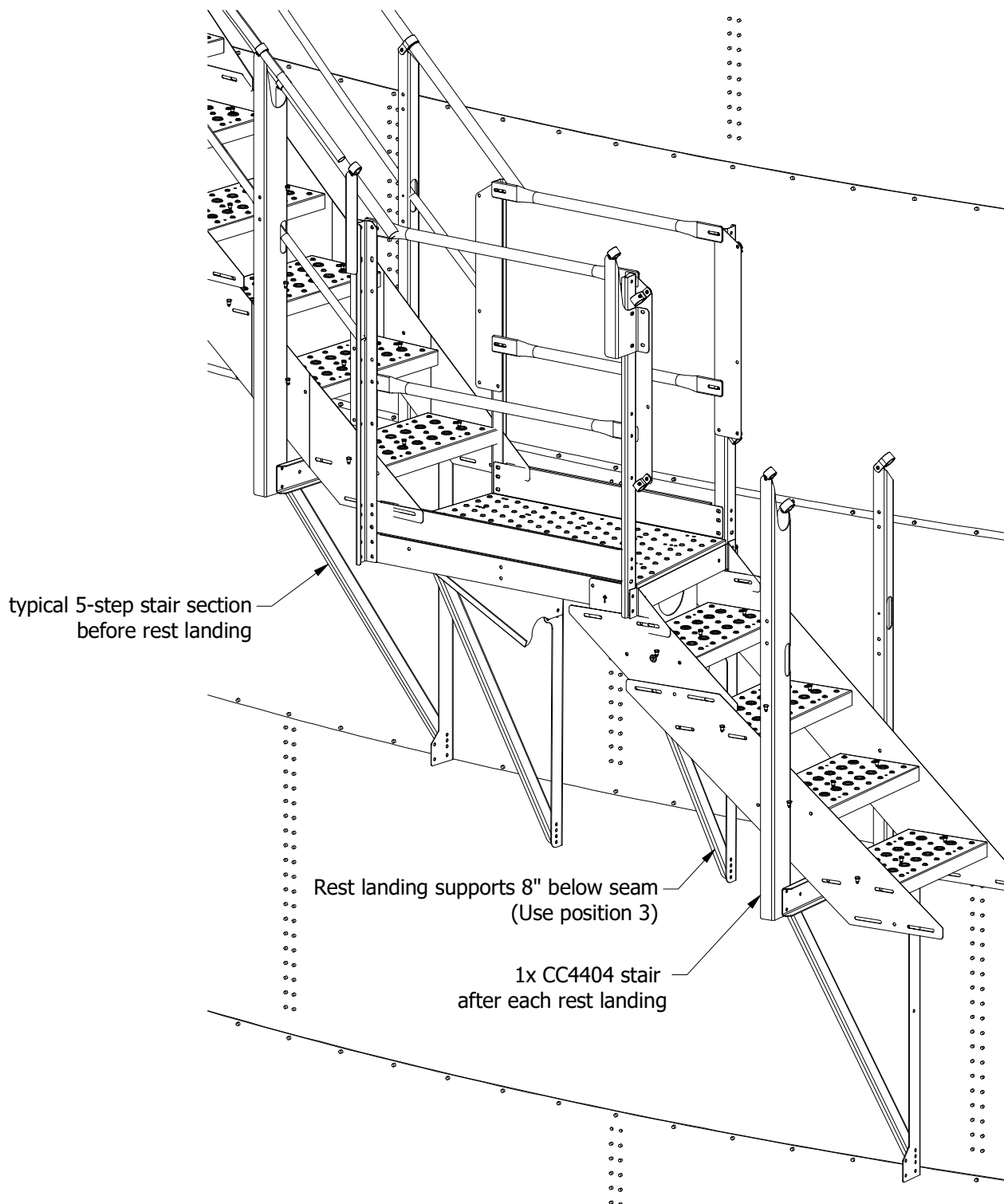
TR1006706

Rest Landing Overview

Once rest landing has been secured to the support frames, add the CC4404 stair section below the platform before continuing with 5-step stair sections. The slotted siderail splices should be in line with the horizontal sheet seams.

There is an alternative configuration for installing the rest landing wall brackets in a single sheet. In this configuration, the 4-step stair section must be used above the rest landing.

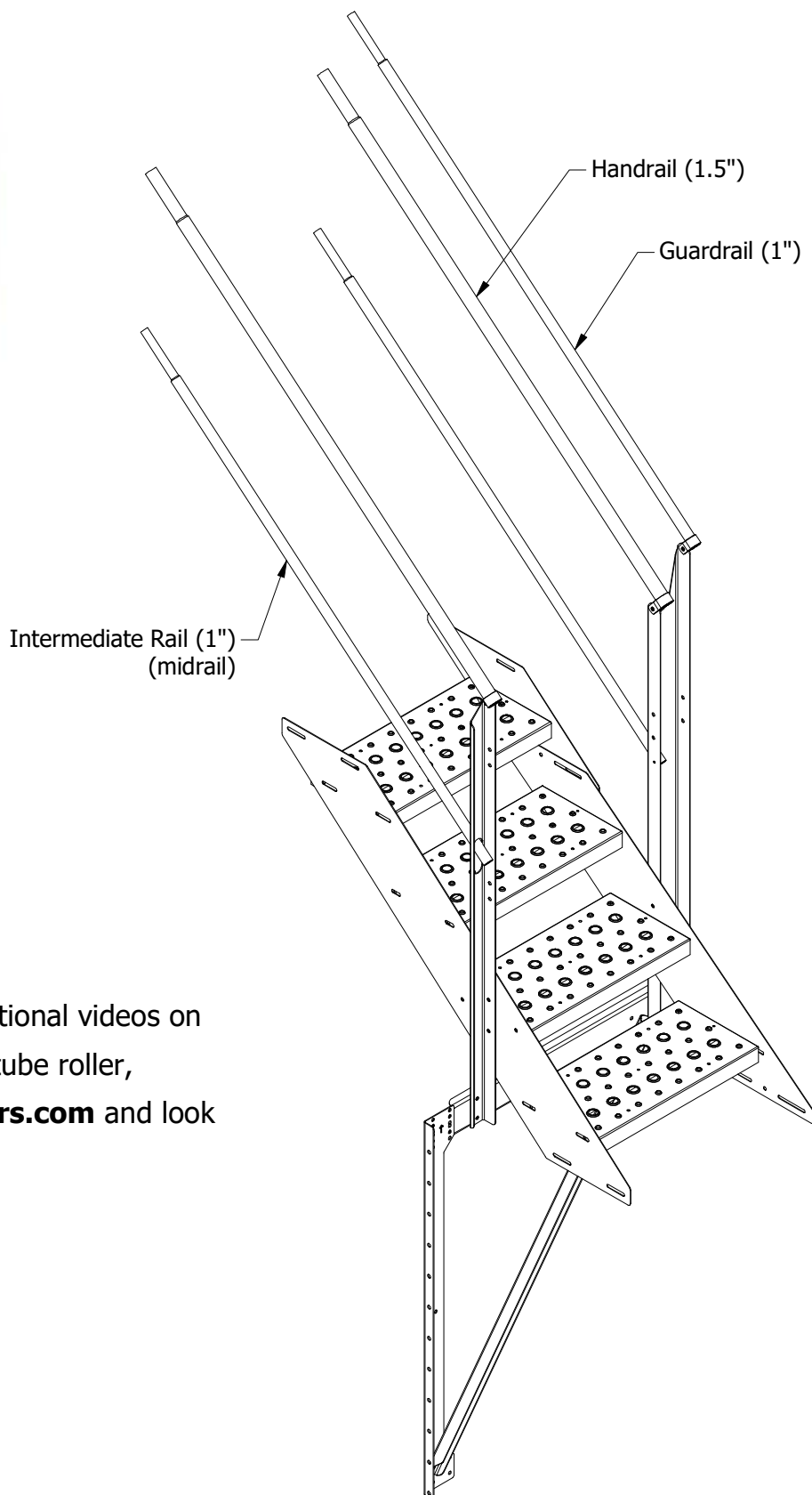
The diagram shows the standard configuration with the rest landing offset below the sheet seam and the 4-step section below the rest landing.




Installing Handrails

Using a Tube Roller Former as shown in the picture, curve all rails to fit the diameter of the bin.

The swaged ends of the rails should face up the stairs.



For more information and instructional videos on handrail installation and using a tube roller, go to our website at **[greenestairs.com](https://www.greenestairs.com)** and look for the  **YouTube** channel link.

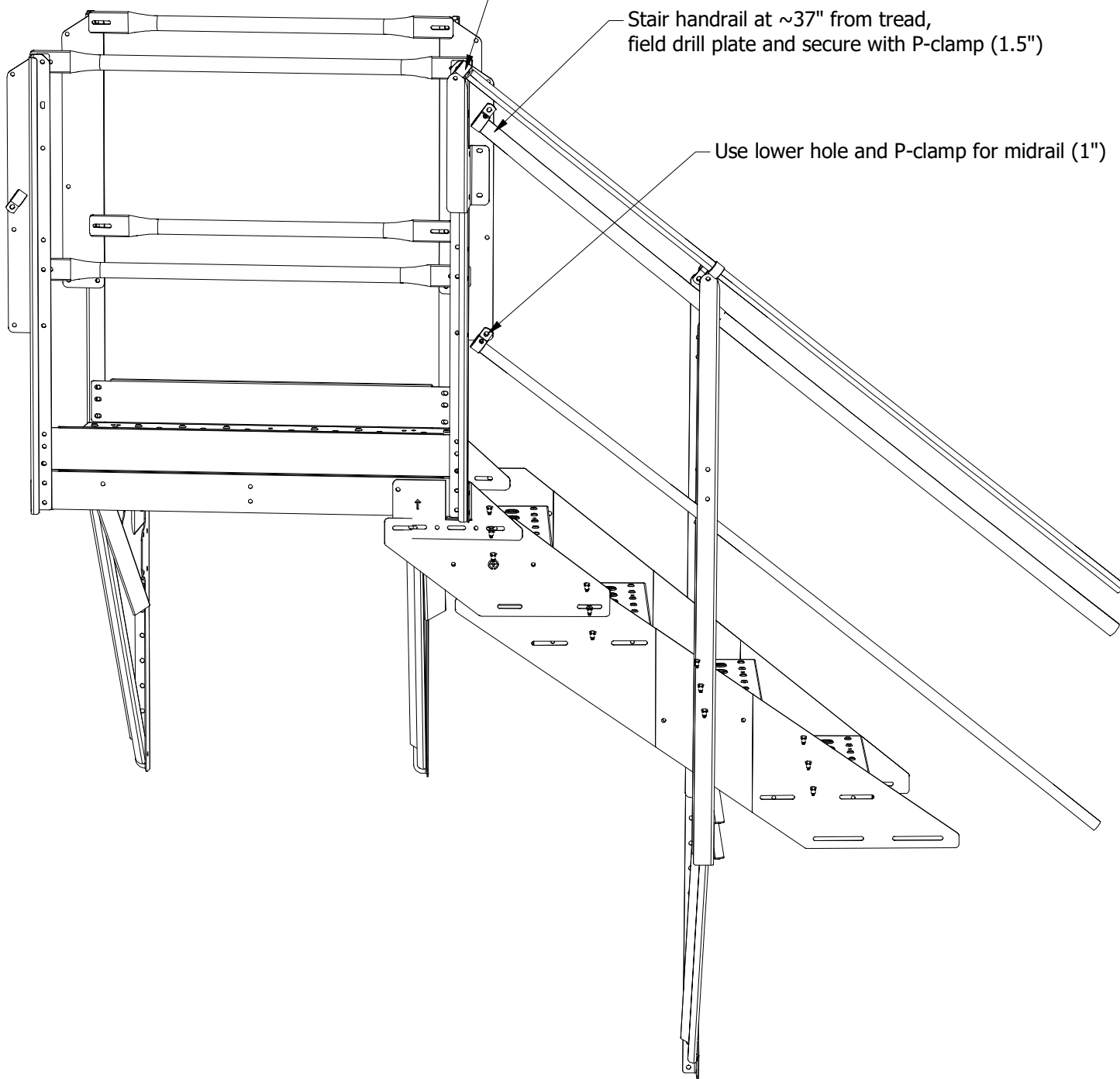
C-Series Commercial Platforms Midrail, Handrail, and Guardrail



stair guardrail at ~42" above tread,
secure with P-clamp (1") and field drill extension to platform post

Stair handrail at ~37" from tread,
field drill plate and secure with P-clamp (1.5")

Use lower hole and P-clamp for midrail (1")



C-Series Commercial Platforms Midrail, Handrail, and Guardrail

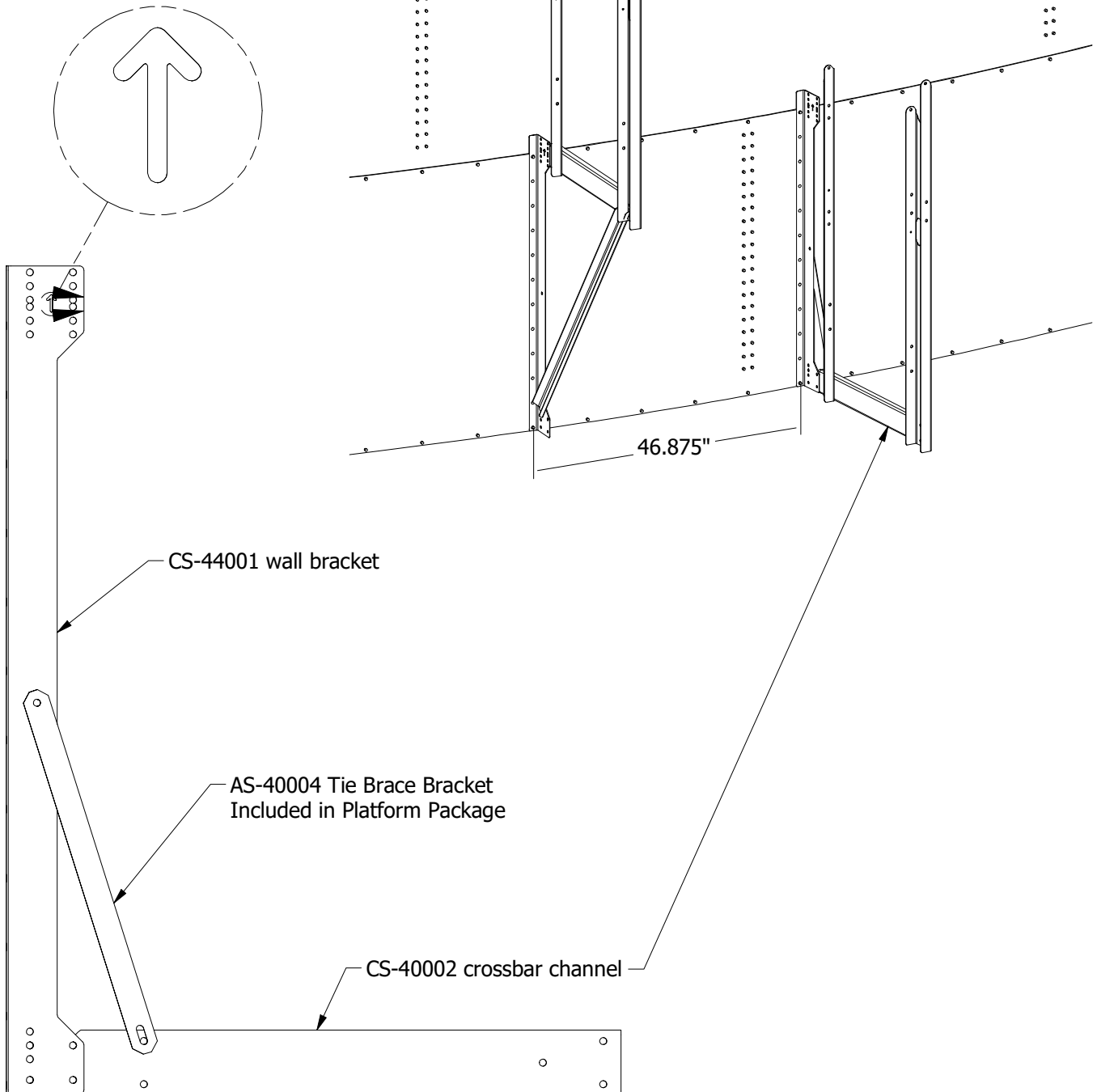


Finishing Base of Stair

To finish the stairway the final frame is assembled in the bottom step configuration. The wall bracket is still 5 spaces from the previous frame, but the crossbar is attached at the base of the wall bracket and the kneebrace is not used. Instead, attach the AS-40004 tie brace between the inside post and the crossbar to support the stair section.

The end of the stairway will continue past the frame about 16"

Install wall bracket with arrow pointing up,
attach crossbar to lower tab



Bottom Stair Section Assembly

Install the siderails and treads to finish the stair run. Use the handrail loops from the platform package to terminate the stair handrails and secure the flattened ends to the inside of the posts with self-tapping screws.

Secure the handrail loops with self-tapping screws through the underside of the P-clamps into the sleeved handrails.

