

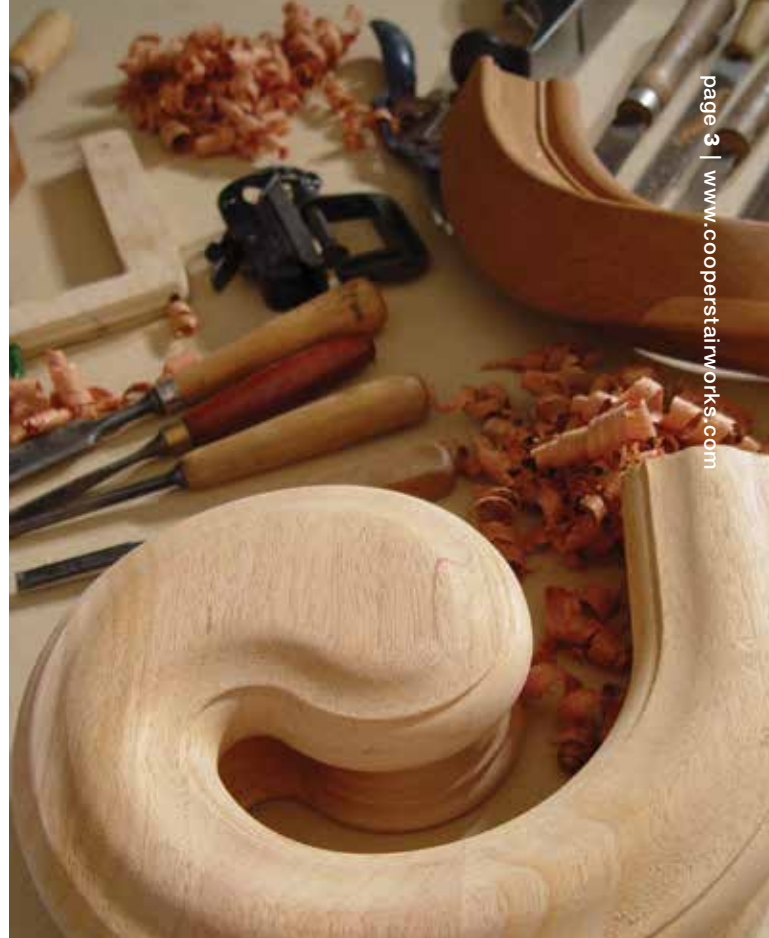
Cooper
stairworks

PREASSEMBLED STAIRS AND PREFIT RAIL SYSTEMS



“A habit cannot be tossed out
the window; it must be coaxed
down the stairs a step at a time.”

- Mark Twain





“Faith is taking the first step,
even when you don’t see the
whole staircase.”

- Martin Luther King Jr.




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Cooper Stairworks

SINCE 1974 COOPER STAIRWORKS HAS BEEN BLENDING CENTURIES-OLD METHODS OF STAIR BUILDING WITH STATE-OF-THE-ART DESIGN AND CONSTRUCTION TECHNIQUES ALLOWING US TO OFFER A COMPLETE STAIR SYSTEM FOR THE MOST SELECTIVE BUYERS. STARTING WITH THE FINEST KILN DRIED LUMBER, WE COMBINE OLD WORLD JOINERY, COMPUTERS, INNOVATIVE PRODUCTION EQUIPMENT, AND YEARS OF EXPERIENCE TO CREATE STRONG, BEAUTIFUL, COST EFFECTIVE STAIRS.



“There’s a lady who’s sure all
that glitters is gold, and she’s
buying a stairway to heaven.”

- Led Zeppelin

The anatomy of a stair.

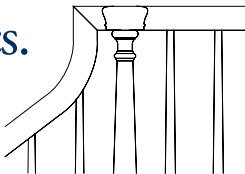


Volute
Newel Post
Wrought Iron Baluster
Railing



Starting Step
Tread
Riser
Box Newel
Wood Baluster
Gooseneck
Stringer

The basics.



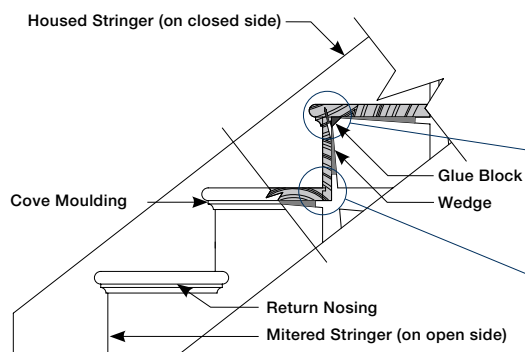
Over-the-Post
Handrail runs over the newels using a series of fittings. This design provides a continuous handrail.
(shown above left)



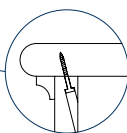
Post-to-Post
Handrail runs between a series of newels.
(shown above right)

“The elevator to success is out of order. You’ll have to use the stairs... one step at a time.”

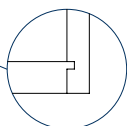
- Joe Girard



The Cooper difference is in the details:



Pocket Screw from Riser into Tread
Secures the tread to the riser to ensure a tight connection without relying on glue.



Tongue and Groove
Creates a sure fit for the riser and tread and virtually eliminates squeaks.

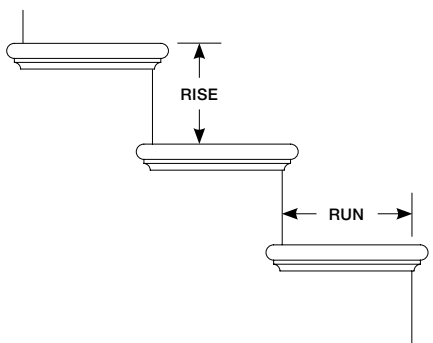
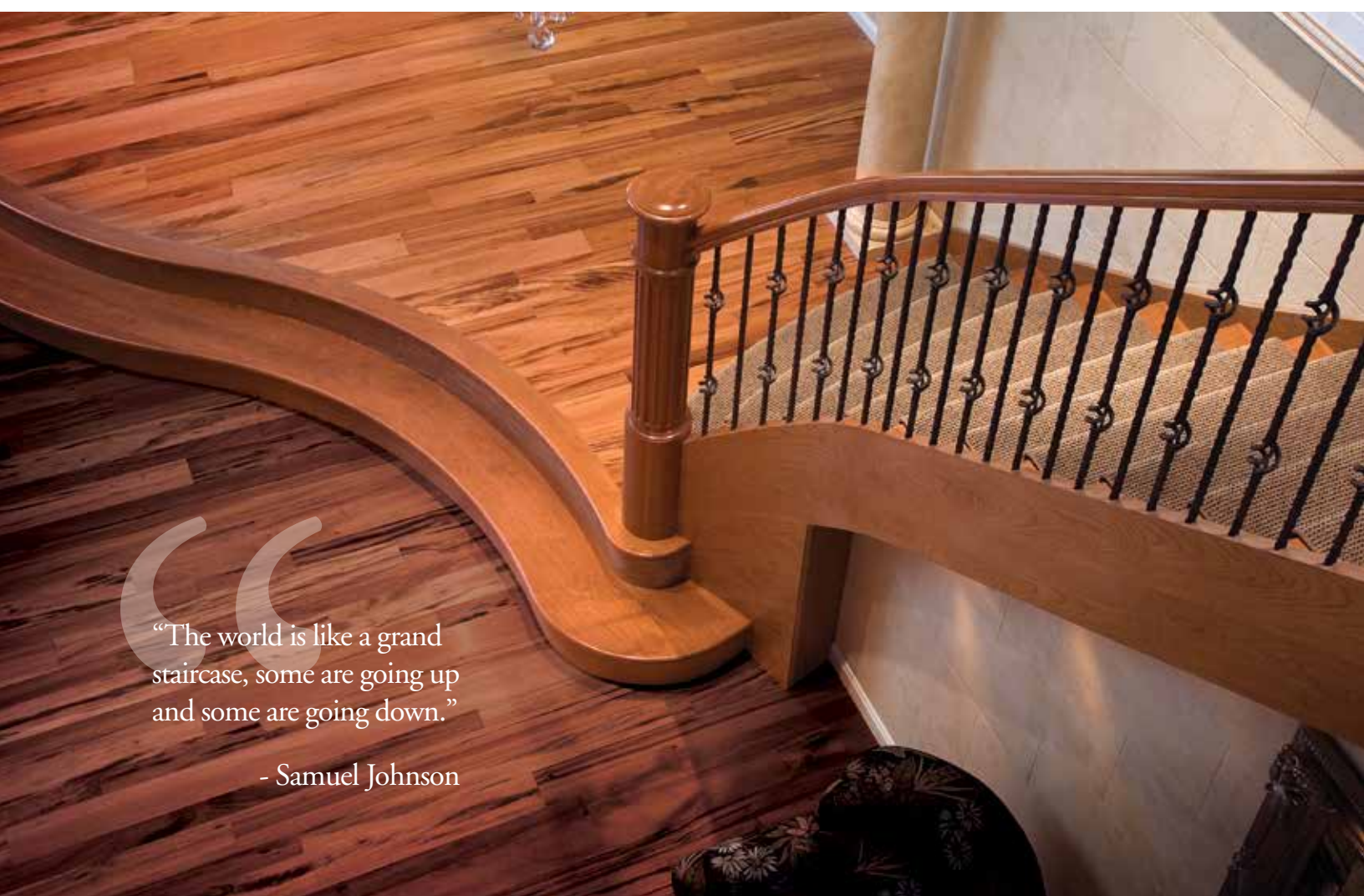
Why choose preassembled?

THE PREASSEMBLED STAIRCASE HAS LONG BEEN CONSIDERED THE MOST EFFICIENT METHOD OF STAIR BUILDING. ITS ADVANTAGES OF FAST, ACCURATE INSTALLATION AND JOBSITE LABOR SAVINGS ARE WELL RESPECTED THROUGHOUT THE INDUSTRY. COOPER STAIRWORKS COMBINES ADDITIONAL ENHANCEMENTS, ADDING STILL MORE ADVANTAGES OVER SITE-BUILT STAIRS AND EXCEEDING THE QUALITY EXPECTATIONS OF THE MOST DISCERNING CRAFTSMAN.



From simple to extraordinary...

Whether you need a simple and safe utility stair to the cellar, a rail system, or an aesthetic balance of curves from stair to balcony in a larger foyer, our staff of experienced stair builders will prove invaluable in time saving service.



Building Codes

A Cooper preassembled staircase is not only beautiful, it is safe. Part of the design process is understanding various building codes in the different states and being able to educate our customers. The rise and run are two of the most important variables in determining the space necessary for the stair. In addition, the handrail and balusters provide support and prevent falls. A Cooper Stairworks expert can help guide you through the intricacies of baluster spacing, handrail graspability, and headroom.

Curved Stairs.



KNOWN FOR DESIGNING AND PRODUCING THE FINEST QUALITY CUSTOM CURVED STAIRCASES, THE COOPER STAIRWORKS SYSTEM OF CURVED DESIGN OPTIONS ARE AVAILABLE WITH YOUR CHOICE OF PRE-FITTED RAIL SYSTEMS MADE FROM CUSTOM OR STOCK COMPONENTS. OUR DESIGNS SHOWN REFLECT THE MOST COMMON DIMENSIONS USED IN TODAY'S HOMES. BY CHOOSING FROM THIS ARRAY OF LAYOUTS YOU GAIN THE ADVANTAGE OF BEING ABLE TO DEVELOP AN ACCURATE DESIGN FOR YOUR PROJECT.

Stair Layouts

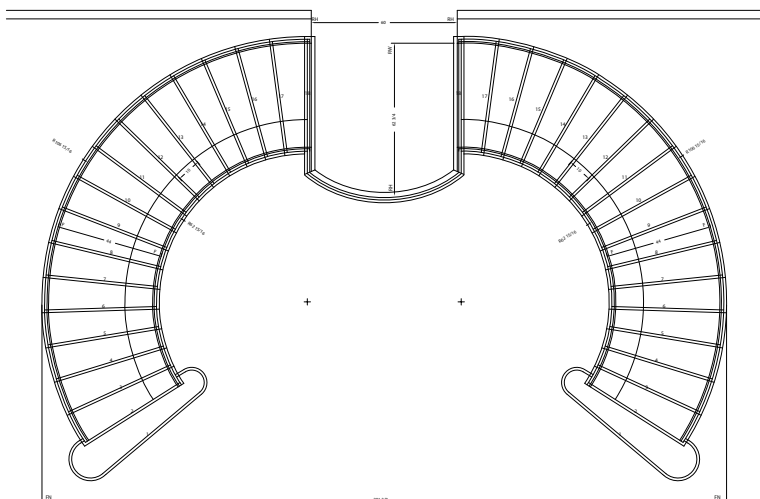
With a simple understanding of the number of risers you need, you may choose a layout that fits your space and determine the scale and balance so critical to the overall preliminary design phase.

The curved layouts shown walk safely with a 10" or 9" run at the walk line and are designed to meet residential building codes in most areas of the country. Our manufacturing system allows us to build each stair to your unique conditions and dimensions with no additional labor or setup. Unlike curved stair manufacturers with fixed bending forms, our processes allow complete dimensional flexibility, making custom sizes affordable.

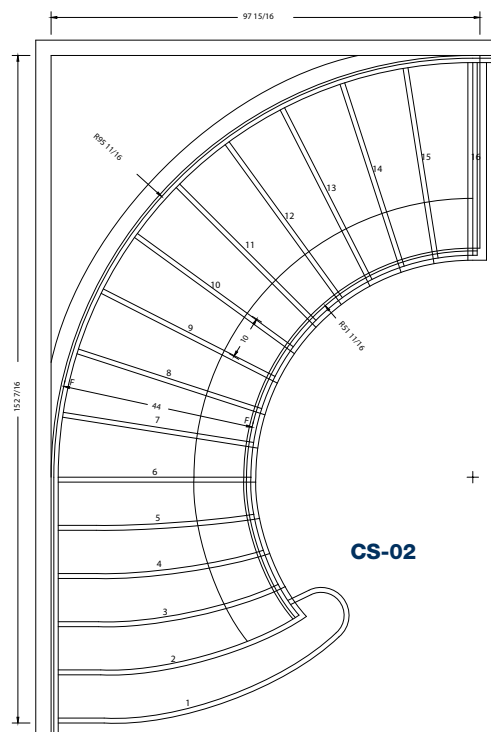
Each layout can be:

- constructed in any width
- made opposite hand
- treads can be added at either end
- be built with or without supporting walls

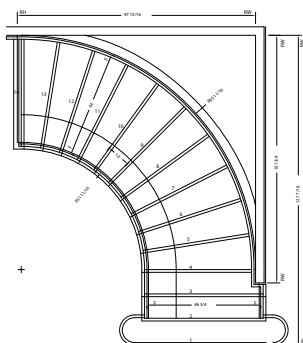
For an expanded collection of layouts, visit our website www.cooperstairworks.com or call for technical assistance 508.235.4397



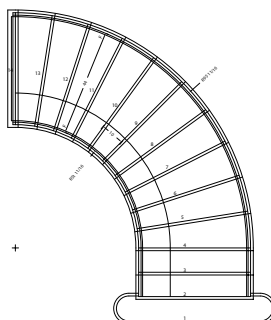
CS-01



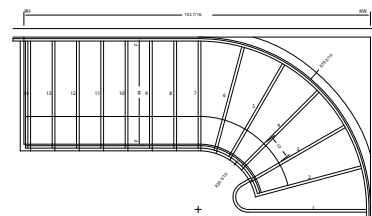
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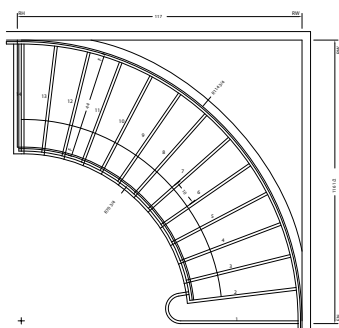
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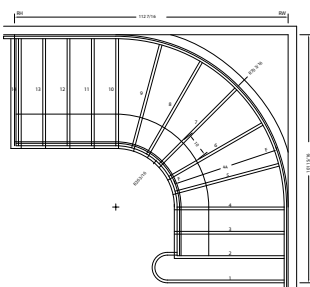
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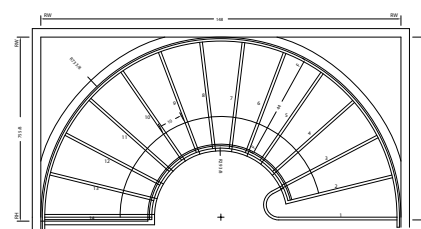
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CS-06



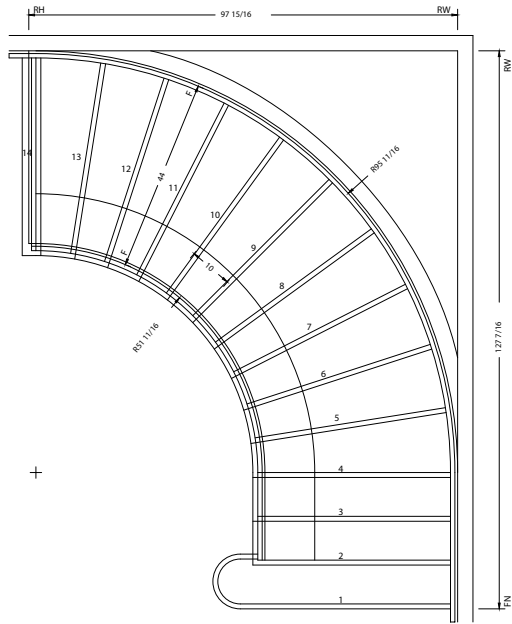
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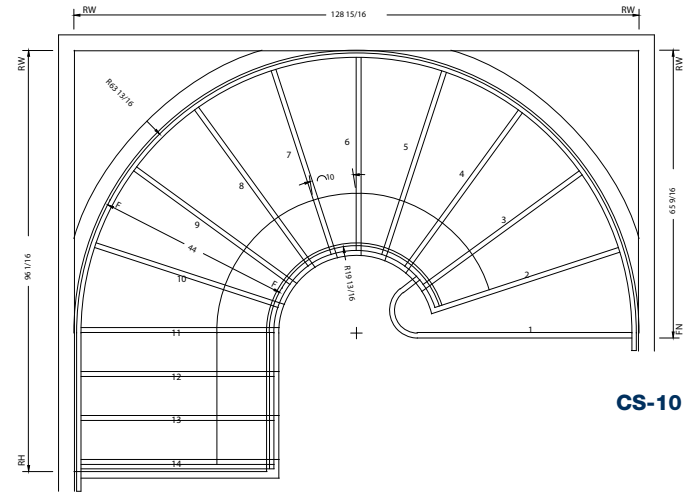
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Drawings are not to scale and dimensions shown are not meant to be read.
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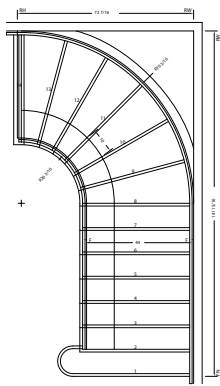
Curved Stair Layouts.



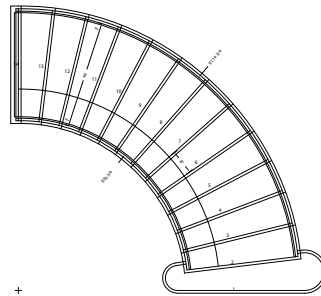
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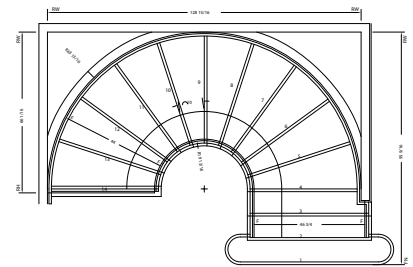
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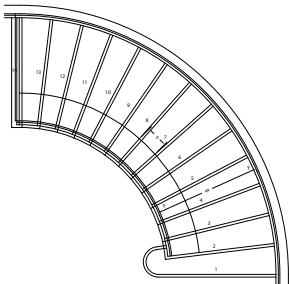
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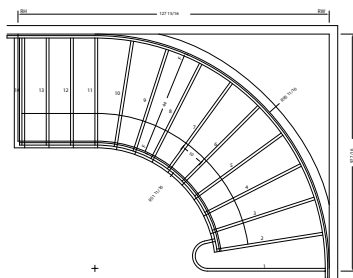
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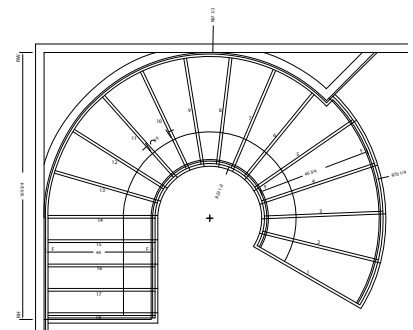
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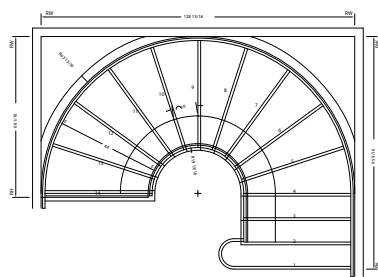
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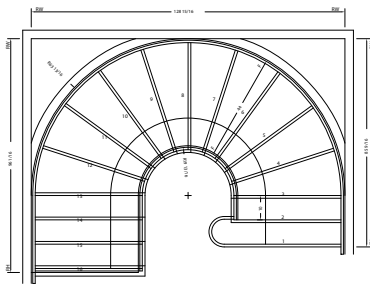
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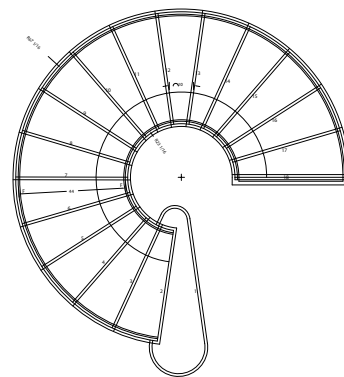
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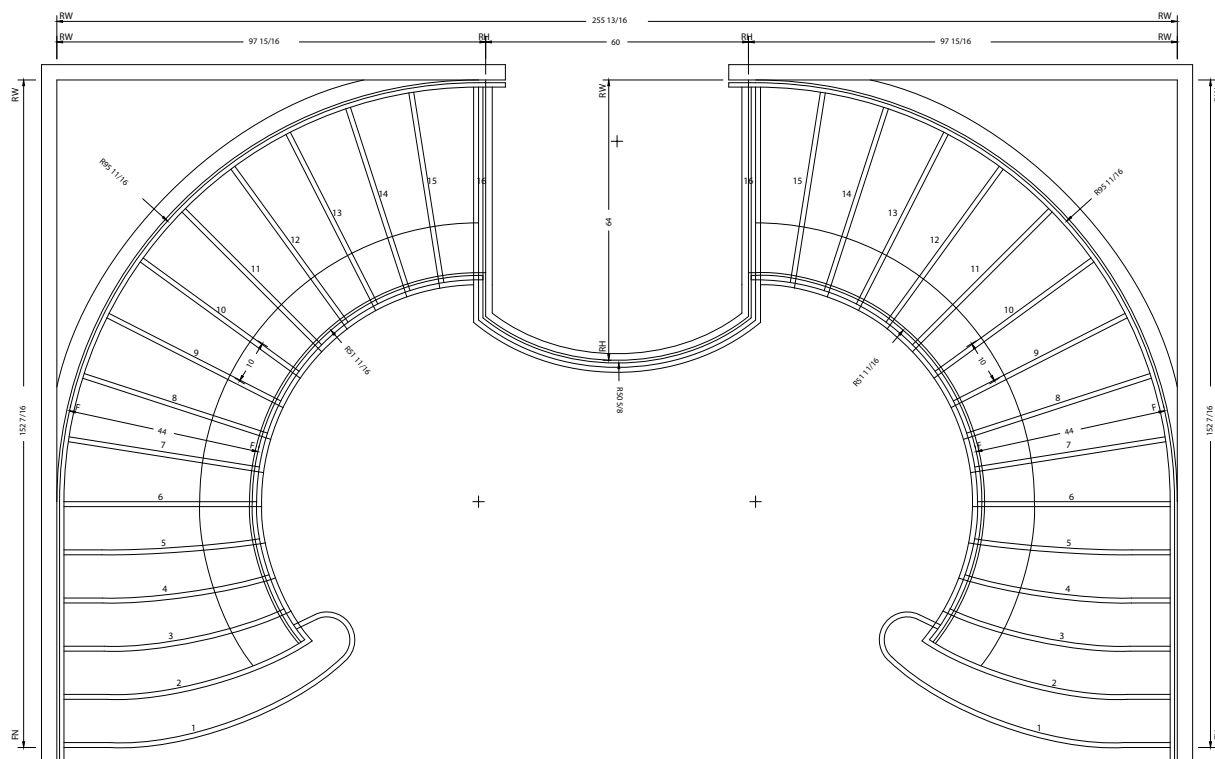
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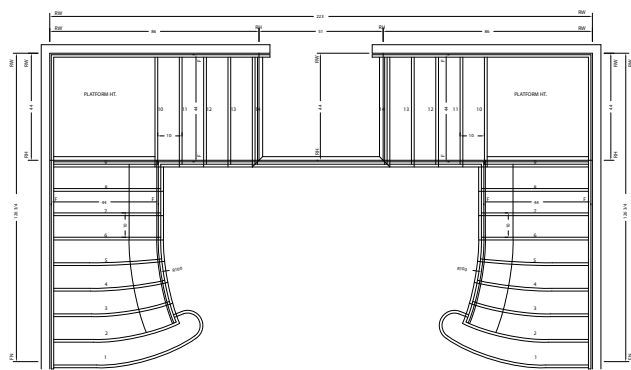
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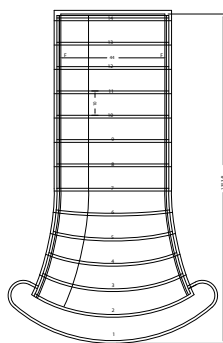
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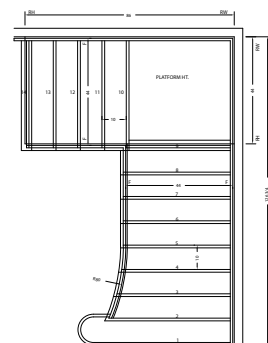
CS-20



FL-01



FL-02

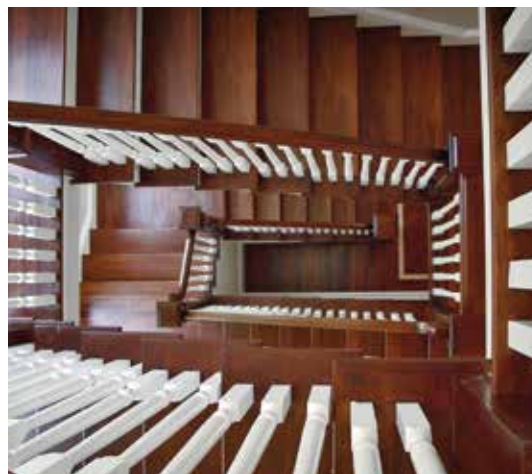
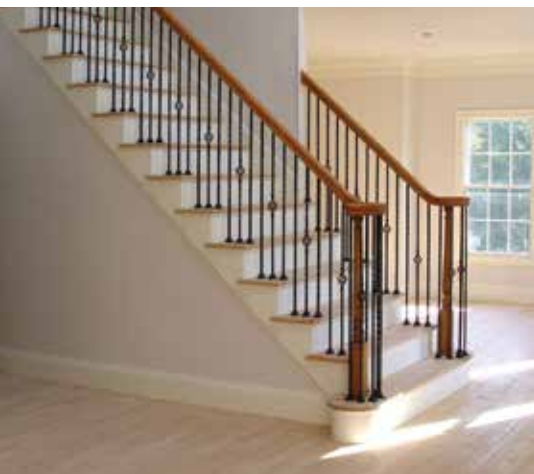


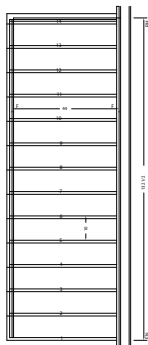
FL-03

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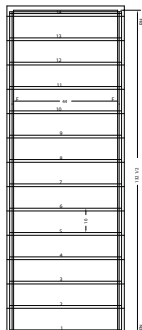
Straight Stairs.

STRAIGHT STAIRS ARE NOT JUST STRAIGHT, THEY TAKE ON MANY SHAPES SUCH AS AN L-SHAPED, U-SHAPED, SCISSOR-SHAPED, AND MORE; SEE DIAGRAMS TO THE RIGHT. STRAIGHT STAIRS MAY BE JUST AS ELABORATE AS CURVED; IT IS A MATTER OF PREFERENCE. WHEN CONSIDERED IN PARTS, A STRAIGHT STAIRCASE IS FULL OF ARCHITECTURAL DETAILS, EACH CONTRIBUTING TO THE VISUAL IMPACT OF THE WHOLE.

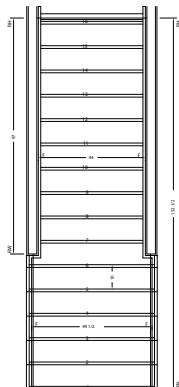




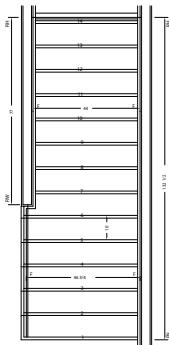
SS-01



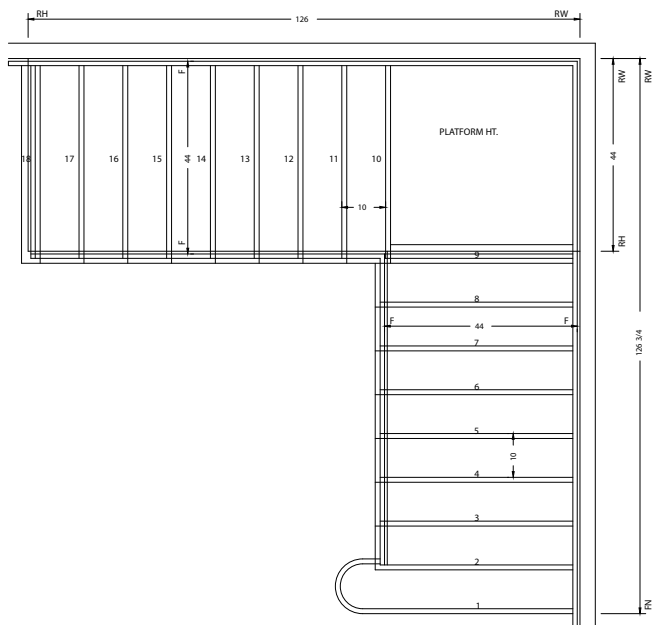
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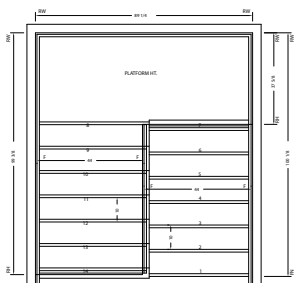
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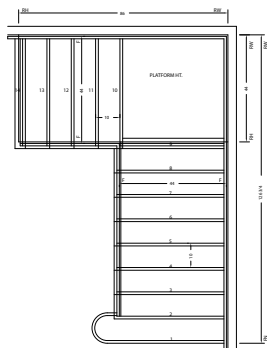
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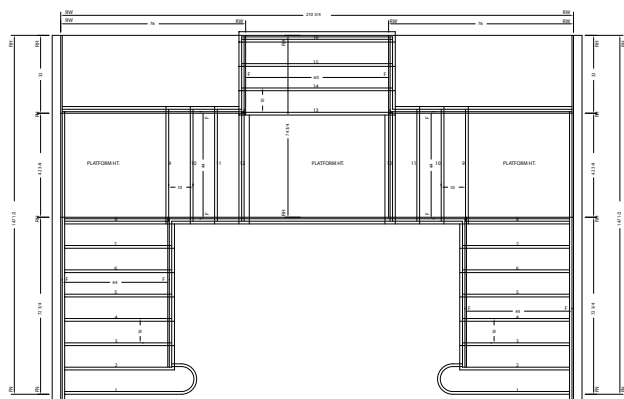
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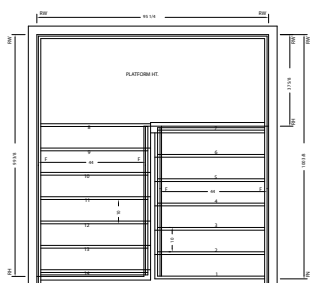
SC-01



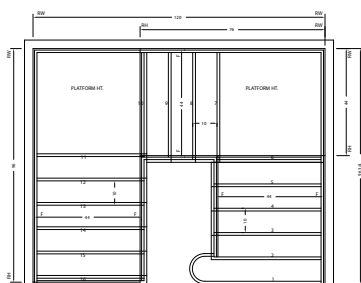
LS-02



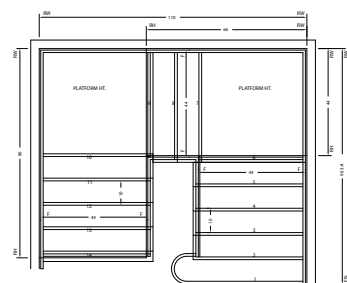
US-01



SC-020



US-02



US-03

Drawings are not to scale and dimensions shown are not meant to be read.
Visit www.cooperstairworks.com to download DXF or PDF drawings.



“Never look backwards or
you’ll fall down the stairs.”

- Rudyard Kipling



Now using the ZIPBOLT™ UT Rail Bolt on all Preassembled Stairs...

The ZIPBOLT™ UT Rail bolt is part of a program of fasteners and connectors ideally suited for the stair industry (see Cooper Stair Parts brochure). Instead of fumbling with a nut, washer, and special wrench, the ZIPBOLT™ uses a standard hex style driver to fasten rail parts securely together. Easier, faster, and stronger, the ZIPBOLT™ UT Rail bolt is fast becoming the preferred choice of professionals.



Prefit Rail Systems.

COOPER PREFIT RAIL SYSTEMS COMBINED WITH OUR PREASSEMBLED STAIRS ENABLE YOU TO REALIZE MANY COST EFFICIENCIES. NO MORE QUESTIONS ON WHAT PARTS TO USE, WHERE TO FIND THEM OR HOW THEY GO TOGETHER. SIMPLY SELECT ANY STOCK OR CUSTOM STYLE BALUSTRADE AND OUR PROFESSIONAL STAIR BUILDERS WILL CONFIGURE THE CORRECT PARTS AND ACTUALLY PREFIT THEM TO YOUR STAIR WHILE IT IS IN OUR SHOP.



Post is notched for exact location and height.



Stair is notched for post.



Treads are drilled for balusters, and inserts are installed.



One end of rail is precut for quick field installation with post to post rail systems. Opposite end is cut to fit in field.

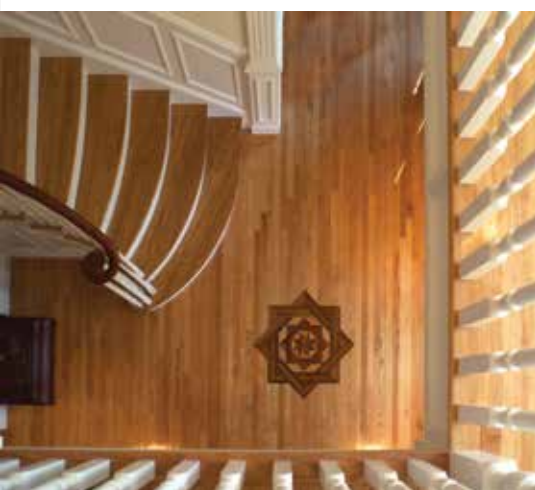


Rake rails on stair are drilled for easy baluster insertion, up into rail and down into tread.



Unsupported Staircases, also known as a 'flying' or 'gallery' staircases, shoot up from the center of an open space and are unsupported on either side and open underneath. The unsupported staircase makes a dramatic impact, both in the room as a whole and on the person ascending the stairs. Some designs are difficult to construct properly from scratch on-site. The unsupported staircase is just one of our many specialties.

How to order.



When do I start?

Contact us at the beginning of the design phase when you have the most options available and our expertise can be most helpful. We will meet your design requirements and bring value and dramatic design to your project. The longer you wait the more you limit your options or create unusual and costly framing changes.

How do I start?

Submit a copy of your plans in the area of the stair at each level and provide the height from floor to floor. You may request literature or view our website for our offerings to consider your rail and baluster preferences. Our "Stair Facts" form is available online to guide you through the planning process. We will send you a quotation for the complete stair system with your choice of balustrade or one we have recommended to meet your budget.

How do I order?

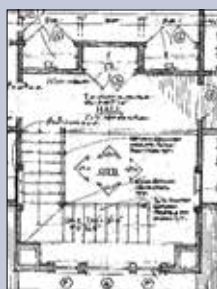
Simply approve the quotation. We will finalize the details and send a contract for you to sign. A shop drawing will follow for approval and if you are within reach of our service areas, a field technician will confirm field dimensions. If you have purchased a curved stair system we provide the curved wall plates, curved floor templates and a positioning diagram to coordinate the fit of the stair system while framing. This allows you to complete most of the framing and wall finish prior to taking delivery of the stair and rail system.

When does the stair arrive?

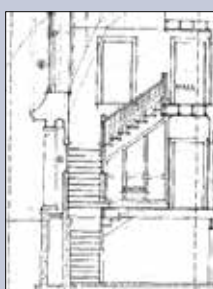
Once the job is weather tight, the stair and rail system will be delivered. The stair will be wrapped with six-mil polyethylene wrap and tread guards will be applied to protect the stair from jobsite traffic. When ready the protective wrap may be turned back and the rail system unpacked and applied. Complete installation is available within service areas.



1st Floor Stair Plan



2nd Floor Stair Plan



Elevation

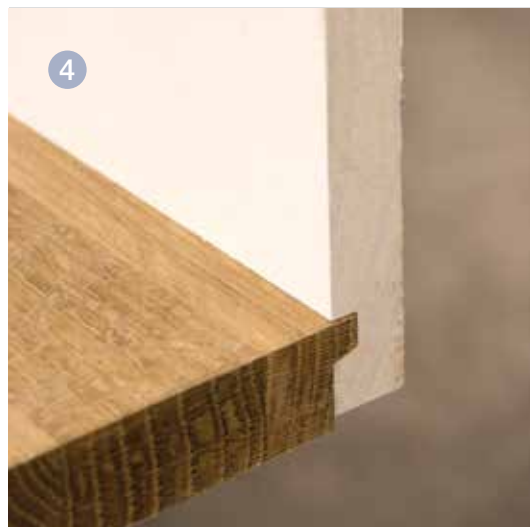
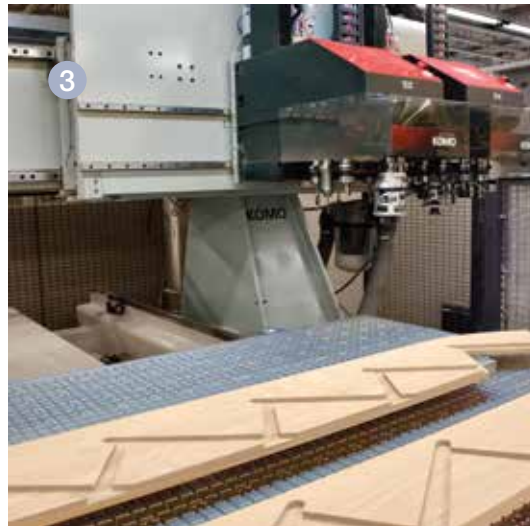


Stair Facts Form

Available online at:
www.cooperstairworks.com

...more features and benefits.

OUR GOAL IS TO MAKE IT EASY FOR YOU EVERY STEP OF THE WAY. BEGINNING WITH THE BASIC ELEMENTS: TREADS, RISERS AND RAIL SYSTEMS, WE WILL HELP YOU DETERMINE THE BEST LAYOUT FOR YOUR HOME. WE WILL TAKE INTO ACCOUNT ALL OF YOUR DESIGN PARAMETERS AND WITH OUR MANY YEARS OF EXPERIENCE, PROVIDE YOU WITH A COMPLETELY COORDINATED STAIR AND RAIL SYSTEM TO MEET YOUR PARTICULAR DESIRES.



1 Field Measurement

In our direct service area all our Tech people field measure the job completely, make recommendations as needed, and work with a Project Manager from beginning to end.

2 CAD Support

Not all stair projects require CAD support, but when necessary we provide very detailed drawings of the project for review.

3 State-of-the-Art Technology

We have invested in the latest technology available. Automatic stair design software is used to support two CNC routers with 4 and 5 axis machining capabilities.

4 Tongue & Groove Construction

This superior method of assembly creates a sure fit for the riser to the tread and virtually eliminates squeaks.

5 Notched Newels

With our prefabricated rail system, all newels are notched to the proper height to comply with code in conjunction with the rail system. They are dry fitted and marked for location.

6 ZIPBOLT™ UT Rail Bolt

All our rail joint connections are made using the ZIPBOLT™ UT Rail bolt. Easier, Faster, and Stronger. Tighten joints in seconds.



7 Threaded Inserts

On wooden, turned, tapered-top balusters, we use a threaded insert in the tread and a machine/lag screw in the baluster for superior strength and ease of installation.

8 Fas-n-Fast

A strong machine screw style connector is used to connect all pin bottom newels to the starting step.

9 Blind Fasteners

When we apply a return to a stair tread, all work is done on the backside so fasteners are never visible on the finish face and edge of the tread.

10 Packaging

The stair is wrapped in clear plastic with custom water resistant double thick cardboard tread and riser guards applied for protection during construction.

11 Plywood Templates

Plates are provided for framing balcony sections and supporting walls. Stairs are assembled back in our shop using exact duplicates of these templates.

12 Easy Installation

As soon as the project is weather tight, the stair is normally installed in less than half a day so it can be used during the construction process.

Prefinishing.

WITH THE ADDITION OF OUR FINISHING LINE WE CAN EASILY PRIME THE PAINT GRADE MATERIAL ON OUR STAIRS. WE CAN ALSO PROVIDE A CLEAR SEALER COAT ON THE TREAD MATERIAL. SAVING BOTH TIME AND MONEY, OUR PREFINISHING OPTIONS WILL BRING YOU ONE STEP CLOSER TO THE FINAL FINISHING PROCESS.



5 Year Warranty.

North Atlantic Corp. takes great pride in its workmanship and undertakes to manufacture the very best preassembled staircase product possible. This commitment to quality allows us to offer a FIVE (5) YEAR WARRANTY limited to the original contractor / consumer purchaser covering only defects in material or workmanship. The warranty period shall commence from date of delivery providing all recommendations are followed as noted in our Use & Care Guide. Natural variations in color and grain of wood shall not be considered defects. Defects resulting from or attributed to normal wear, abuse, or alteration shall not be covered. Defects resulting from installation shall be covered only when installation is provided by North Atlantic Corp and its subsidiaries. Upon written notification of a claim describing a possible defect and presentation of this certificate we will inspect the staircase within 5 business days. If after such inspection we determine there to be a defect, we will repair or replace it, unfinished, FREE OF CHARGE.

Use and care.

- Staircase must be installed level and square.
- Shim any void between framing and back of stringer (usually wall finish thickness) and screw through stringers into framing at each stud above and below tread. Where walls are not used to support the staircase adequate substringers must be used.
- Use glue under landing tread and glue nailing cleat behind bottom riser or squeak will result in these areas.
- Apply a minimum two to three top coat paint / finish system within 60 days of delivery to effectively seal wood.
- Staircase should be backpainted or ceiling installed underneath to provide vapor barrier from basement, crawl space, or other damp areas to prevent squeaks. Likewise shield under side of stair from heat sources such as water heaters, furnaces, etc.
- Do not subject staircase to extremes of temperature or humidity.
- Intense exposure to direct sunlight such as in sunrooms or windows with southern exposure, especially in enclosed areas, should be avoided.



Learn about our other stair and custom millwork products:



Cooper Stair Parts

Explore our line of stair parts including rail systems, treads and risers, custom turnings, box newels, and starting steps. In addition, we are capable of producing custom parts to your exact specifications.



Fitts Stair Parts

For more than a half century the Fitts name has been associated with quality in the woodworking industry. Fitts manufactures more than 6000 different stair parts in virtually any wood specie and wrought iron.



Spiral and Attic Stairs

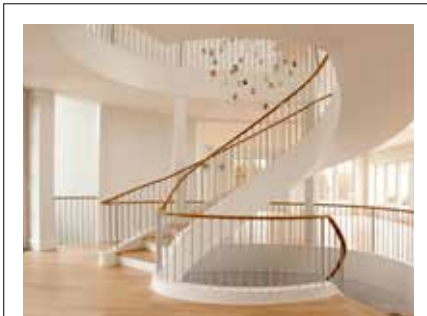
We are proud to distribute a full line of metal and wood spiral stairs as well as attic stairs.

Captiva Custom Wood Doors

Complement your staircase with beautiful Captiva wood doors. Each door is custom made to your exact specifications.

For more information on these products or to request/view literature visit www.cooperstairworks.com or call us at 508.235.4397.

Photo reference guide.



Front Cover

This stair project on the cover is showing the main stair of three elliptical stairs starting at the basement level and continuing to the third floor. The 1st to 2nd, and 2nd to 3rd floor stairs were achieved with minimal support and do not have any walls under either stair.

Treads: quarter sawn white oak, risers: poplar painted, stringers: buttress style poplar painted, balusters: solid 5/8" stainless steel, newels: 2" stainless steel, rail: custom white oak.

Page 2

Unsupported custom curved stair, open two sides, treads: stained red oak, risers: poplar painted, stringers: poplar painted with recessed panel detail, balusters: Indital black iron single PC49/1 and double knuckle PC49/2 balusters mixed with small scroll PC22/, newels: custom box poplar paint grade raised panel 7-1/2" with finial, starting step: custom.

Page 3

Top left: custom, open one side stair, treads: jatoba, risers: none, stringers: Viewrail steel cable system, rail: custom jatoba, posts: Viewrail 2" powder coat steel.

Top right: handcrafted volute: oak.

Bottom left: straight, unsupported, stringers: quarter sawn white oak, treads: quarter sawn white oak, risers: 1/2" thick tempered glass panels, rail: 1-1/2" dia. polished stainless steel.

Bottom right: custom curved, open two sides to open one side, treads: maple, risers: bowed jatoba and primed, stringers: primed, balusters: 2615 primed, rail: 6014 mahogany, posts: 5010 mahogany, starting step: 8010 style.

Page 4

(Different view of stair, pg. 2) Unsupported custom curved stair, open two sides, treads: stained red oak, risers: primed poplar, stringers: primed poplar with recessed panel detail, balusters: Indital black iron single and double knuckle balusters mixed with small scroll, newels: box custom poplar paint grade raised panel 7-1/2".

Page 5

Craftsmanship at its best.

Page 6

Open one side stair, treads: American walnut, risers: primed poplar, stringers: primed poplar, balusters Fitts 5415 primed, rail: 6014 American walnut, posts: custom turned American walnut, bottom step: custom bullnose.

Page 7

Curved buttress style with panels on the stringers, rail: custom oversized mahogany, balusters: custom black iron, posts: iron and wood newels, treads: marble.

Page 8

Left: scissor style, treads: red oak, risers: primed, stringers: primed, balusters: Fitts FI5512, FI5515 wrought iron, rail: Fitts 6010 red oak, posts: Fitts 4410 and Fitts 4454 red oak, starting step: 8010 style.

Right: L-shaped stairway with custom starting step, treads: red oak, risers: primed poplar, stringers: primed poplar, balusters: Fitts 5415 fluted primed, rail: 6014 red oak, posts: custom red oak box newels.

Page 9

Straight, open one side, treads: red oak, risers: primed, stringers: primed, balusters: Fitts 5415 fluted primed, rail: 6014, posts: Fitts 4454 red oak fluted, starting step: 8010 style.

Page 10

Flare stair, open one side, treads: recycled heart pine, risers: primed, stringers: primed, balusters: 5060 primed, rail: 6009 sapele, posts: 4092BD box newel with sapele cap.

Page 11

Buttress style stair, treads: American cherry, risers: American cherry, stringers: American cherry, balusters: HF16.1.11 and HF16.3.8 flat black iron, rail: custom, posts: custom turned American cherry with flutes.

Page 12

Custom curved, open two sides to open one side, treads: jatoba, risers: primed poplar, stringers: primed poplar, balusters: Fitts 5415 primed fluted, rail: 6008 mahogany, posts: Fitts 4410 custom mahogany fluted.

Page 16

Top: open one side stair, treads: red oak, risers: poplar painted, stringers: poplar painted, balusters: Fitts 5415 plain painted, rail: 6009 mahogany, posts: 4093RP poplar primed.

Bottom left: straight, open two sides to open one side, treads: white oak, risers: primed, stringers: primed, balusters: Fitts FI5512 and FI5515 wrought iron, rail: Fitts 6010 mahogany, posts: Fitts 4014 custom mahogany.

Bottom middle: U-shaped, unsupported one side, treads: jatoba, risers: primed poplar, stringers: primed poplar, balusters: Fitts 5070 primed, rail: 6014 mahogany, posts: mahogany box newels.

Bottom right: open one side, treads: quarter sawn white oak, risers: primed poplar, stringers: primed poplar, balusters: Fitts 5911 primed, rail: 6014 mahogany, posts: 6-1/2" raised panel primed, starting step: 8030 style.

Page 18

Custom elliptical type buttress style stair serving two levels, treads: sapele, risers: sapele riser guard, stringers: sapele, balusters: glass panels, rail: 6014 sapele, posts: custom turned sapele. Lighting: LED remote controlled under treads, rail and top of stringer below glass panels.

Page 19

Open one side stair with multiple platforms, treads: stained red oak, risers: poplar painted risers, stringers: poplar painted stringers, balusters: alternating paint grade Fitts 5405 plain and 5405 twist, rail: 6014 sapele, posts: painted 4092RP with sapele cap.

Page 20

Straight, unsupported, treads: American cherry, risers: American cherry, stringers: American cherry, rail: 6009 American cherry, posts: custom American cherry newels, balusters: 1/2" square black iron.

Page 21

Left: flared, treads: red oak, risers: primed poplar, stringers: primed poplar, balusters: Fitts 5415 primed, rail: 6014 mahogany.

Middle: flared, open one side, treads: maple, risers: primed poplar, stringers: primed poplar, balusters: 2615 primed, rail: 6014 mahogany, posts: custom raised panel mahogany box newel.

Right: custom curved, open one side with custom step, treads: jatoba, risers: primed poplar, stringers: primed poplar, balusters: Fitts 5500 scrolls and Fitts 5545 basket, rail: 6009 mahogany, posts: Fitts 4010 custom mahogany.

Page 25

Custom curved, unsupported, treads: jatoba, risers: primed poplar, stringers: primed poplar, balusters: 2015 primed, rail: 6009 mahogany, posts: 3815 mahogany.

Page 27

Top left: custom curved, open two sides, bowed risers, treads: mahogany, risers: mahogany, stringers: mahogany, balusters: custom turned mahogany, rail: custom mahogany, posts: custom turned mahogany.

Top right: custom winder with curved inside radius, stringers: paint grade, risers: paint grade, treads: red oak, rail: 6009 red oak, rail is the centerpiece of this stair as it gracefully winds down to the quarter turn tread, balusters: 13 different size custom paint grade balusters.

Bottom left: custom curved, "bridal" stairway, treads: red oak, risers: primed poplar, stringers: primed poplar, balusters: Fitts FI5500 and Fitts FI5521, rail: 6009 red oak, posts: Fitts 4010 red oak, starting step: 8015.

Bottom right: open one side, treads: cherry stained, risers: primed poplar, stringers: primed poplar, balusters: custom 1-3/4" / 1-1/2" custom design with square cherry stained medallions, posts: custom painted tapered newel with cherry stained accents to match balustrade, starting step: oversized square bottom step.

Back Cover

This is the same stair project as the cover. Showing the starting point of the stair at the 2nd floor.





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