



#### ABOUT US



Stanley and Carolyn Shrock brought their family of seven children to the village of Bird-in-Hand in 1998. As a foundational part of a Midwest compost turner manufacturing firm, Stanley had developed engineering and welding skills. He moved to Bird-in-Hand to work with Carriage Machine Shop on Maple Avenue in their compost turner and horse stall divisions.

In 2000 Stanley moved the horse stall division into the former Miller Metalcraft facility at 229 Maple Avenue and began Shrock Fabrication under the umbrella of Carriage Machine. There he used skills learned from his

mentors. Stanley also joined the National Ornamental & Miscellaneous Metals Association (NOMMA) to expand his expertise in the wrought iron industry. Shrock Fabrication collaborated on projects with other local fabricators and established a place for themselves in the community.

Stanley's son, Kendall, has joined him in the family business and they work together on a wide range of metal projects. Working along with them to manufacture high-end metal products is a team of skilled craftsmen.

#### LIST OF SERVICES

- In-house designing for clients & other companies
- Custom manufacturing of ornamental products for other companies
- Mass producing of parts for other companies
- Stamping
- Welding

- Structural steel welding
- Providing sheet metal plasma cutting and forming, as well as powder coating services
- Delivery and installation worldwide
- Laser cutting we work closely with a local laser cutter
- 3D design available on select projects

#### EQUIPMENT CAPABILITIES

- Stamping
- Hammering
- Texturing
- Forging
- CNC Twisting

- CNC Roll Bending
- CNC Press Braking
- CNC Plasma Cutting
- CNC Milling
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TECHNICAL DETAILS: The staircase frame has 1  $\frac{1}{2}$ " heavy wall, square tube posts and there are  $\frac{1}{2}$ " solid infill bars in the railing. Both are made of steel and are powder coated to match the colors of the building. Stainless steel plates surround the area at the top of the stairs and along the bridge. They have  $\frac{1}{2}$ " square perforated holes and a #4 brushed finish.

Lining both sides of the staircase are wooden handrails made of maple, which have metal subframes to provide durability, safety, and function in this commercial building. Shrock designers created a hidden fastening system for the bottom posts that makes their anchors in the concrete base invisible.

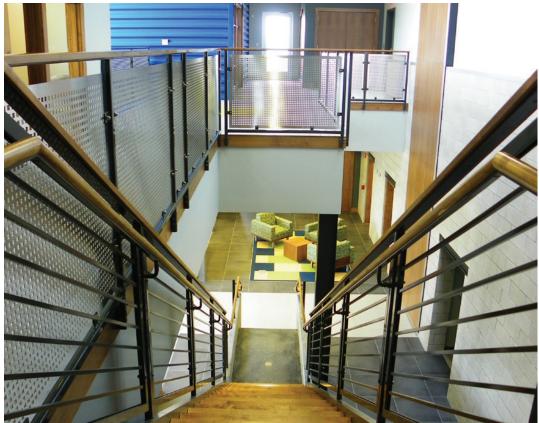


# STUNNING STAINLESS

Using nearby Lancaster Airport as inspiration for the outside architecture, Garber Metrology chose to match the surrounding landscape and erect a building resembling an airport hangar. Inside this commercial building there are wide-open spaces, much natural light, and many green, sustainable features. The staircase in the foyer incorporates visible metal, cement, granite, stainless steel, and hardwood maple. These materials are fitting for a company specializing in the exacting, concrete task of calibrations. The railings, featuring metal horizontal infill bars, direct the eye upward with calculated precision. Stainless steel perforated panels line the second floor bridge and add to the clean, modern look. This open staircase leads from the first floor where the laboratories are located to the administrative offices on the second floor.









In order to bring the exterior walls to code height on the terrace, a top rail was needed. Since the terrace is open to employees for their breaks during pleasant weather, the choice was to use metal railing that did not obstruct the view. The terrace wall is topped by an anodized aluminum miniature two-rail system. The railing adds to the clean lines of the building.



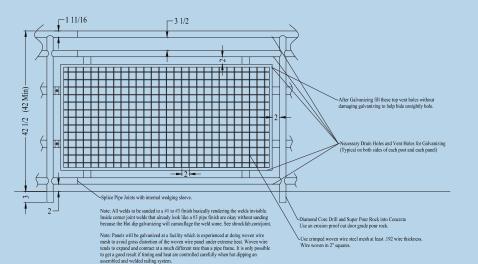
The extra heavy, solid stair stringer is 2  $\frac{1}{8}$ " x 12" and is available in 40' lengths. Mounted to the underside of each tread is a 4" x 6" angle iron, which serves as a kick plate. Its purpose is to keep the opening within the code requirement. The kick plate gives a safe feeling while also maintaining some openness in the stairway.

DID YOU KNOW?

Shrock works directly with architects to bring their designs to life.



### A+ WORK ON A LARGE School project





The interior and exterior metal work at Cocalico High School in Denver, PA has been a stepping-stone for Shrock, taking them to the next level of commercial work. The intricate design combined with the linear footage made this a large project.

The project was under special specifications and on a sharp timetable. In order to finish the courts in time for a scheduled tennis camp, Shrock's team worked night shifts from 5 pm to midnight.

At the entranceway to the gymnasium are super durable railings consisting of steel, hot-dip galvanized railing with a powder coated finish over the top. The brushed aluminum pipe handrails and top rails are clear anodized for a modern look.





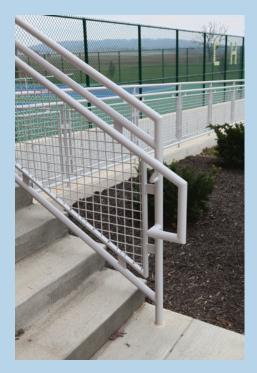
TECHNICAL DETAILS: The work on the tennis courts consisted of building railings for a retaining wall, stairs, ramp, and porch. The emergency exit for the gymnasium is an elevated porch that overlooks the tennis courts and serves as a great viewing area for matches. The porch railing also doubles as the tennis court fence at that location.

The tennis courts are built to a tremendous scale, twice as strong as regular courts. The line posts are 3 inches, the corner posts are 4 inches, and they have been drilled into the ground to a depth of 5 feet. The concrete footings are 18 inches in diameter as specified by the architect.

Inside the gym Shrock used lifts to install metal angle trimming on the I-beams, plus they welded and painted the trim. In the basement they welded gym equipment such as volleyball poles to the structural steel. They also installed chain link security fencing for sports equipment storage.







Components of the stairway railings are custom woven wire mesh panels and hot-dip galvanized steel pipe railing, which is powder coated gray.

TECHNICAL DETAILS: All railings were core drilled with diamond core bits and poured into concrete with Super Por-Rok®, a self-sealing, anchoring cement.





### INDUSTRIAL FABRICATION DONE RIGHT

An exciting segment Shrock's business that is rapidly expanding is the commercial division. Their expertise in fabricating commercial railings and staircases is gaining attention throughout the region.

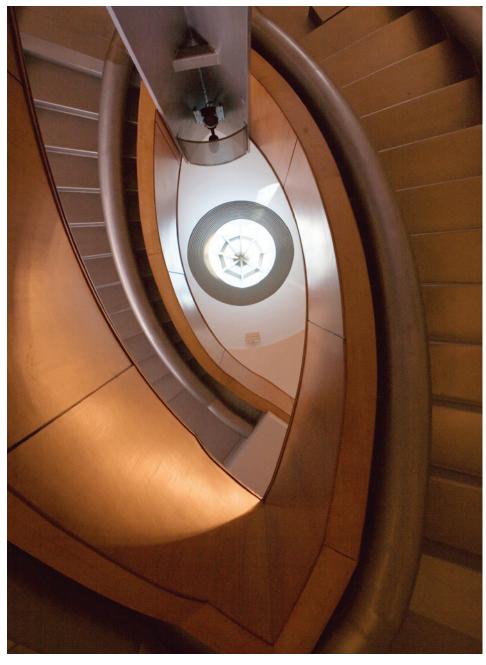
For commercial projects they offer...

- Detailed and precise engineering vitally important in commercial work
- 3D computer graphics design when necessary for complex projects, such as stairwells
- Variety of materials glass, stainless steel, hot-dip galvanized steel, etc.
- Light structural steel certified welders are on staff
- Stainless steel industrial fabrication sealed stainless steel floors for egg wash facilities and custom shelving
- Professionally engineered and stamped drawings – now used on a regular basis
- Lab tested railings an available option to determine strength
- Installation done right every time

▲ The blade wall at the Mercedes Benz dealership is 32 feet high and has a complicated X-bracing structure inside to withstand wind shear. Shrock installed it in one piece with a crane and welded it into the structure of the building.

Built for strength, structure, and practicality, this large tank base is used on a farm for liquid fertilizer. Shrock can do extensive manufacturing with heavy-duty structural steel.





#### SCIENCE OF STEEL

The Gettysburg College Science Center is a sleek, modern building that matches the subject material taught within its walls. At the top of the main atrium and

stairway is a spire for a light that is five stories high up in the roof. Shrock manufactured the spire's oval steel louvers that enhance air circulation in the building. Their dual purpose is to provide ventilation and to give a precise, artistic look to the foyer. Only the edges of the louvers are visible from down below.



The exterior of the glass spire is visible on the roof of the Science Center. TECHNICAL DETAILS: The louvers are made of hot rolled four-inch carbon steel flat bar. The oval shaped bars were laser cut out of 5' x 10' plates. The challenge was working with ovals and not true circles. Because the roof was designed on a pitch, the oval rings were installed on a pitch as well.

For this project they built a mockup off site, then went onsite to complete the installation.







### UP & DOWN, SPINNING AROUND

Laff Trakk, Hershey Park's 13th roller coaster, is the first indoor spinning glow-coaster in the United States. Resembling an old fashioned funhouse to make riders laugh, it features blacklights, mirrors, clowns, 2D fire rings, backward drops, and cars that free-spin 360° in the dark.

It is a production coaster made by MAURER, a German company whose slogan is "Dealing with extreme forces is our speciality." The ride is 50 feet high, has 1,400 feet of steel track, and lasts 70 seconds.

Laff Trakk was a very difficult project, with extreme rigging and erection, and was no laughing matter to Shrock because of space and time constraints.

They engineered and built the catwalks and stair systems that are used for maintenance and as emergency escapes. MAURER provided a 3D model of the coaster and Shrock built on to their very accurate model.

MAURER insisted that these systems be installed after the coaster had been assembled. This created many extremes. A crane was maneuvered into a 40 x 40 foot space and was used to reach up over the track to lower items into place. Shrock's team wore Class 3 full-body harnesses while in precarious positions. At times they were welding and bolting in tight spaces 50' in the air, or while sitting on a 6" round pipe extended mid-air!

Even though the building that houses the indoor coaster was behind schedule, Shrock was able to complete the most critical portions in a week, instead of the expected six to eight-week time period.

After the project was completed, every single bolt had to be torqued to proper specifications with a special torque wrench. This required crawling all over the coaster without the use of a lift. The reward was that Shrock's team was privileged to be test dummies on a very safe ride.

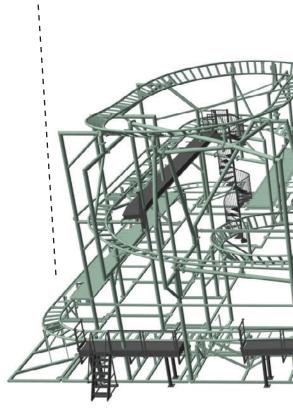




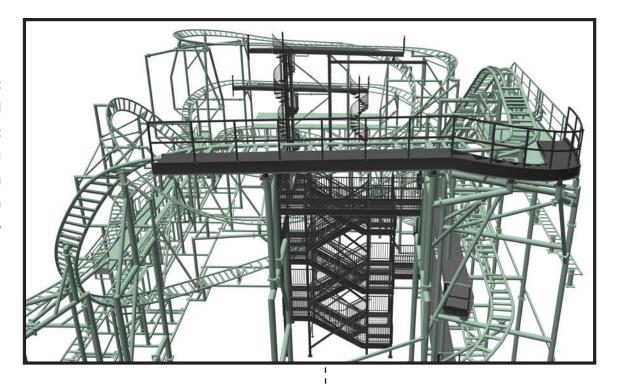




The loading platform has an actuated gate where people enter the ride. All of the catwalks have railings and safety gates. The gates fold down vertically and have safety switches so that the ride cannot operate while they are up.

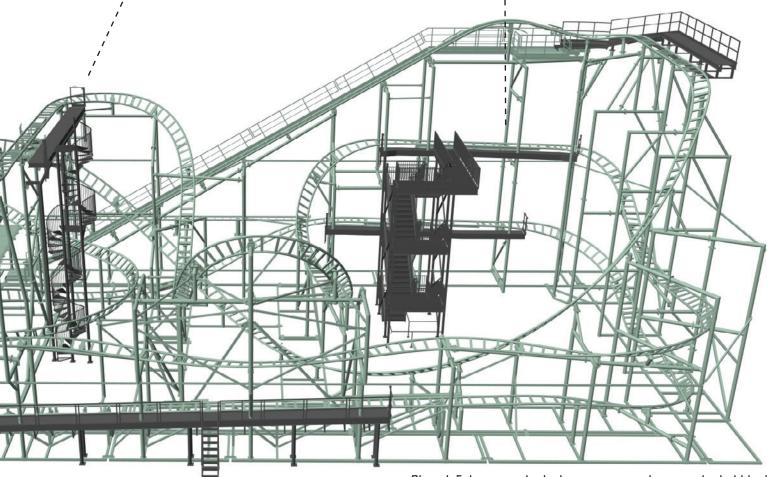


This is an enlargement of the east catwalk and curved stair, which is at the highest point of the ride. It was built from scratch in Shrock's shop along with the other catwalks and stairs.



This catwalk is 40 feet high. Shrock installed the custom spiral stair in two pieces using a crane and a 120 foot lift that was fully extended.

The majority of this stair tower was installed in three days. Installation had to wait till the very end of the project because it blocked lift access to sound equipment and lights in the 7D-foot ceilings.



Shrock Fabrication built the structures that are shaded black.



### A NIGHT OUT

The Pressroom Restaurant and Bar in downtown Lancaster has recently undergone a complete renovation and relaunch in its 1886 brick and cast iron building that had historically been a hardware store. The space is now all on one level and has a more open feel.

Shrock Fabrication crafted the backs for the retro-style stools out of spring steel. They were tempered for strength after being bent and welded. They also built the steel sconces on the walls and the two large rectangular lights hanging from the ceiling.

For unique and intimate family and friends dining, the Pressroom had wood, upholstered, high-backed booths installed. The long booth tables have a metal sub-frame and cantilever out from an original wall. This frame adds enough strength to the table to host a group of diners, while eliminating table legs.





#### CHEERS!

The bar at the Forklift and Palate Restaurant at Spooky Nook Sports near Lancaster has a 40-foot double serpentine curve with a bullnose edge. It is constructed out of steel sheet, with a black oxide and oil finish. It also has a hard clear coat and a bar wax rust prevention schedule.



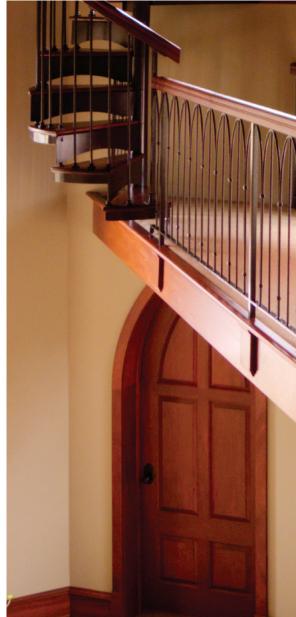
# CONVERSION & REUSE

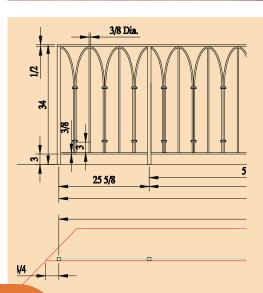
In the heart of a Lancaster City historical district, a 1893 church has been converted into a spacious, liveable home while preserving much of the unique character of the architecture. The façade, bell tower, steeples, several stained glass windows, and rich gingerbread woodwork beams in the ceiling have been retained.

Using three steel beams as support, a bridge was built to connect a secondfloor family room to the church's bell tower. Previously there had been no access to the bell tower other than by climbing a ladder. Today, original furniture from the church furnishes a very unique sitting area in the tower.

Forged steel railings line both sides of the bridge, which runs high above the Great Room on the first floor of the home. A Gothic motif is used in the railing design, a fitting choice for a former church building. The simple pointed arch points upward and incorporates the idea of aspiring tendencies found in Gothic architecture. To enhance the feeling of lift, the balusters are light and narrow and are further softened by a wooden top rail.







To accent your home, Shrock can customize your railing by repeating an architectural\_element from your house.

TIP:

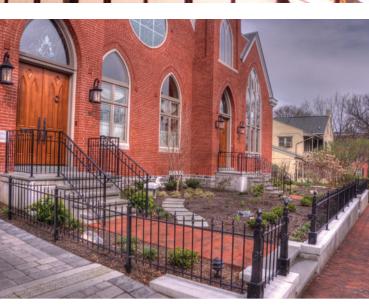
TECHNICAL DETAILS: Shrock Fabrication Staff made the Gothic form by hand and then hand forged the entire railing. The I" square posts are solid. The arches are 3/8" and there are also 3/8" round rods. The welds are a #1 finish and the railing is powder coated in speckled charcoal. The wooden top rail is plowed out and fits perfectly over the metal structural support for the wood.

TECHNICAL DETAILS: Much of the design detail along the front fence is in the six aluminum posts. The posts are totally unique in that they were tapered by hand, piece by piece, in the old style

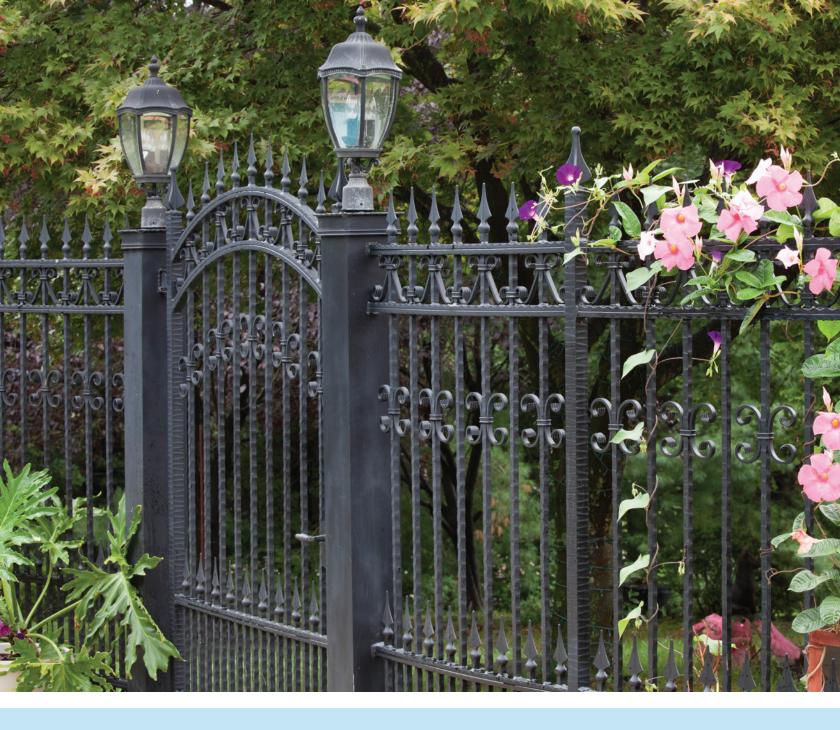


design. Halfway up on all four sides of the posts are rosettes. Some of the rosettes are steel and have been epoxied (applied with expoxy adhesive) so that the metals do not react to each other. The finials on the top of the fence are Shrock 10D-Style. The entire fence and stair railings are powder coated in satin black.

Because of the height of the church, the fence around the front yard was kept low in order not to distract from the building's façade. The two walkways leading to the front doors were left open and without gates in the spirit of its former use as a house of worship where all were welcome. The railing enhances the grasses, flowering bushes, and shrubbery that make up the front yard where the plantings are attractive and easy to maintain. Adding the fence gives the property an architectural feel.



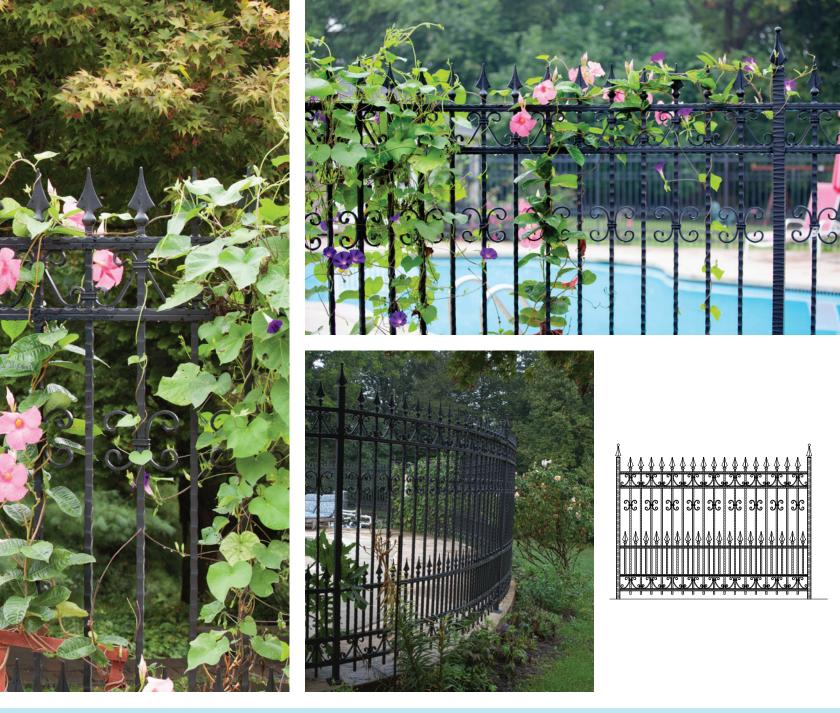




## RELAX IN STYLE

With teenage friends to entertain and a backyard bordering the woods, this active family had a vision to renovate their entire pool area. The inspiration came from a picture of a European driveway gate made of iron. Step-by-step, Shrock Fabrication worked with the homeowners to design this custom-made, curved pool fence, complete with east and west gates, that replaced their old redwood fence. Enhancing the functionality of the finished product is the landscaping, such as these climbing Morning Glories. From start to finish this project took three months and was finished in time for a Labor Day picnic.





TECHNICAL DETAILS: Except for the hollow posts at the gates, all parts of this pool fence system are solid aluminum: scrolls, horizontal rails, pickets, and 1 ½ inch square posts. Since the fence was hand-welded piece by piece, this project required time and skill. The entire system was blasted and powder coated in Super Durable Black.

> DID YOU KNOW?

Each picket is surface hammered on four sides. The custom-cast aluminum finials are cast of malleable aluminum. This aluminum, which bends before it breaks, is a non-brittle, quality aluminum casting. High-end decorative aluminum latches that lock are installed on the gates as a safety feature. The horizontal rails were processed through a specialty machine from Germany to inscribe a chisel line. Shrock used a two-step process on the rails, drilling a round hole and then broaching it into a square hole. This process is very laborintensive, and therefore has a higher cost than the use of channels, which can simply be punched with square holes.

Shrock is one of very few companies that offer all solid materials for a custom pool fence.

## TRADITIONAL IRON

Captivated by the Italians' eye for architectural beauty and their ornate craftsmanship while on a trip long ago, this designer has imported Tuscan charm for use in the front staircase. The forged steel railings are a perfect choice for a touch of Olde World décor in the foyer.

Since the stairway leads from the home office, dining room, and family room to the bedrooms on the second floor, this is a high traffic area for the family. The railing is durable and functional, but also very attractive.





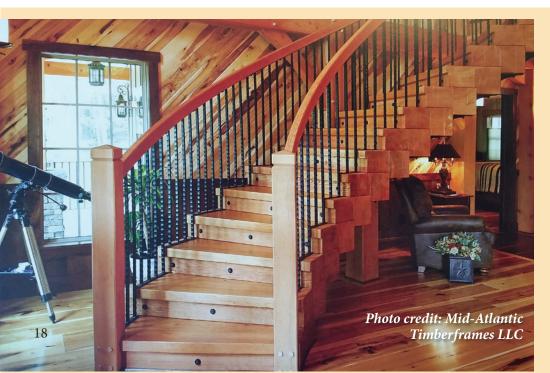
TECHNICAL DETAILS: The panel design is Tuscany Style Railing with vertical forged steel balusters. The balusters have alternating knuckles; one near the top and one near the bottom. The flat black powder coating is accented by subtle antique gold sprinkles and the railing has a lightly hammered finish.

By using cherry wood in mahogany stain as the top hand rail, there is variation in texture that creates interest. The black metal railing offers an eye-catching design as it contrasts with the wood tones of the stairs and top rail. In this way, it creates a mood that wood alone could not have accomplished.

Be inspired! Capture the feel of other lands and faraway places by choosing metal for staircases and other interior areas of a home.



There is a metal subframe for the cherry top rail, which is fastened with countersunk screws that are invisible from the side. The bottom rail keeps the panels and balusters in place and is two inches above the steps. This project was a complete metal package.



The forged ironwork in this curved staircase features surface-hammered solid balusters with a hand-rubbed blackened oil finish. The staircase appears to be floating in mid-air, and it is the structural steel underneath the timberframe stairs that makes this construction possible. The brackets are bolted through the front to hold the stairs together.

The floating staircase, along with large spaces and a high bridge, give this majestic mountain home a cathedral-like feel.

### FORGING FOR STRENGTH

Ocean City, New Jersey is the setting for a vacation home that blends north woods, Mediterranean, and nautical themes. The unusual design of the stair and porch bannister is reminiscent of the ropes used on docks and sailing ships. Shrock's craftsmen forged the twisted steel rope out of round rods. Forging is the manufacturing process in which metal is pressed, pounded, or squeezed under great pressure into high strength parts. The exposure of exterior house furnishings to salt air is a concern in this coastal area. Shrock used hot-dip galvanization to protect the steel roping from corrosion. They then blackened the metal with an oxide, rubbed it with oil, and clear-coated the rope for a matte finish. This corrosion-free solution is unusual and was entered into competition for an American Galvanizers Association's award in the Duplex System category.





TECHNICAL DETAILS: Hot-dip galvanizing (HDG) is the process of coating iron and steel with a layer of zinc by dipping the metal into a vat containing molten zinc. The iron in the steel metallurgically reacts with the molten zinc to form a coating that provides superior corrosion protection to steel.



DID YOU The hot-dip galvanizing (HDG) KNOW? process requires temperatures of more than 800°F.



## MODERN ELLIPTICAL

For the grand staircase in the foyer of this modern interior, Shrock partnered with a local upscale homebuilder. All six levels of the multi-story home can be accessed from the front entranceway stairs. In the photo, the checkered pattern is the main floor of the house. Using the motif on the front door as the basis for the staircase panels, the designer carried the theme into the foyer. Beginning with an oval shape and spiraling it upward into an elliptical staircase is an incredibly complex process. Virtually impossible to mathematically calculate in the shop, the staircase was formed on site by measuring, eye sighting, and building by hand. Shrock's staff spent two weeks inside the house bending and welding every curved piece of metal so that the fit was perfect. Similar to carving a piece of art from solid wood, only true artisans can create a masterpiece like this staircase.



TECHNICAL DETAILS: Because this is an elliptical staircase, each hand-built wooden tread in succession becomes deeper or narrower due to a constant change in both pitch and curve. That fact has an impact on the top rail, which is made from a ½" x 2" rectangular bar. This handrail/guardrail has to adhere to specific code regulations. Be assured that Shrock understands codes and works carefully to follow the letter of the law. A controversy arose in this project, but a letter from a senior architect at the International Code Commission confirmed that Shrock met the proper codes in spite of the complexities of the project. After building the stair rails on site, the staircase was disassembled and taken to the shop for finishing touches. The solid steel railing was blasted and powder coated silver.

> DID YOU Code KNOW? railing

Codes dictate many aspects of railing design including heights, spacing, and strength.













# TUDOR MEETS THE ORIENT

Formerly a farm on the edge of Lancaster City, the quiet tree-lined street was a new suburb in 1922 when this gracious Tudor home was built. That out-in-thecountry feeling is carefully preserved with the landscaping and new iron fencing that separates the front yard from the saltwater pool in the back. The archway and gate continue the Tudor motif of the rounded header and leaded glass zigzag pattern found in the front doorway.

Behind the home the rectangular pattern in the fencing is inspired by the pool house, which features Asian influences. Near the carriage house a gate opens to a gently sloping cobblestone walkway leading from a rear courtyard to a peaceful sitting area near the pool. Blending the new with the old is evidenced by how the angle of both the handrail at the steps and the top rail of the new fence match the roofline above the carriage house door.



TECHNICAL DETAILS: Because this fencing replaced a board fence that was slowly deteriorating, durability was important. Steel was chosen for the new fences and archway and they were hotdip galvanized, a process that lasts 5D years or more before rust sets in. The use of premium paint imported from England gives double protection. Formulated specifically for wrought iron, this paint was chosen both for its look and durability. It dries slowly to a hard, true flat black finish, which is similar to antique fencing.



▲ The caps are designed to resemble the stone corbels on the house.

The vertical bars in the front yard fence are  $\frac{5}{8}$ " square steel with a chisel line in the center, twisted to appear as if four bars have been twisted together for a very unique look.

The top and bottom have panels made of a plate of steel with cast iron rosettes that have been pinned to the fence. The posts are 3" square, heavy wall tubing with custom-made caps designed to simulate the stone corbels of the house.

The gate is made of plate metal, 2" deep, with a hollow center and reinforcement inside. All of the welds are invisible to make it look like a solid door. At the bottom of the gate two specially woven, crimped, and flattened wire stainless steel panels were installed. This unique pattern is similar to an original antique screen door in the house. The gate hinges are ball bearing and utilize stainless steel pintels to prevent rusting.

> DID YOU KNOW?

Beside the carriage house, the fencing has  $\blacktriangle$  posts that are 1 ½" solid square and pickets that are  $\frac{5}{8}$ " solid square bars. Both are made of wedge-hammered galvanized steel. The rectangular panels in the top of the fence are of  $\frac{3}{8}$ " square steel. Unlike the decaying board fence it replaces, this fence will be here two hundred years from now with full functionality!

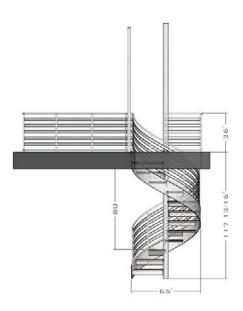


If a project is built out of solid material, the average person cannot cell whether it is iron or aluminum.

## SPIRAL STAIRCASES

A two-toned spiral staircase leads from the fourth floor to the fifth in a downtown Lancaster City penthouse. Shrock's in-house designer worked in 3D to create a spiral case that is aesthetically pleasing and also saves space.

Shrock Fabrication is capable of successfully completing challenging projects to the satisfaction of their customers. They problem-solved throughout this installation process. City streets were closed early on Saturday morning as a crane lifted the entire staircase in one piece over the top of the fourth floor balcony railing, avoiding a roof overhang by inches. Then they manually pushed it through double doors, turned it vertically, and hoisted it into place.





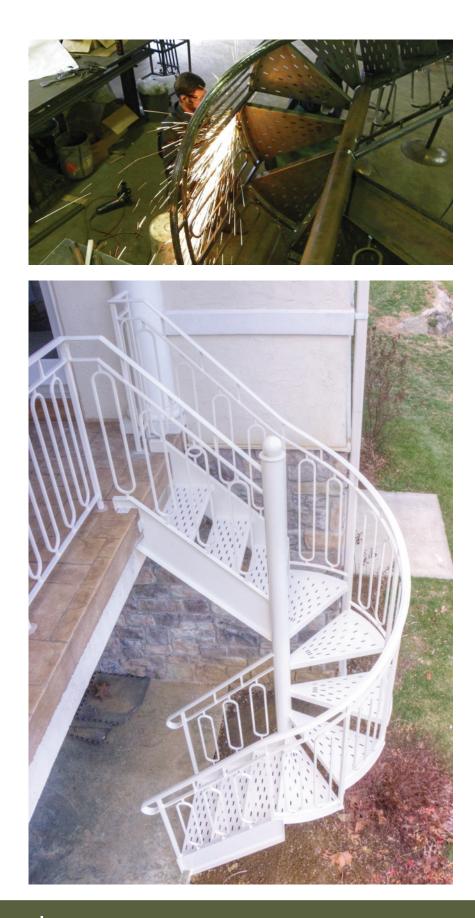
The entire staircase was powder coated and then the stringer, posts, and steps were painted to achieve a two-toned look. Shrock provided the support for the treads that are finished out in wood to match the flooring for an elegant look.

TECHNICAL DETAILS: The entire structure is made of aluminum. The balustrade is  $\frac{3}{8}$ " x 4" solid flat bar and the stringer is  $\frac{3}{8}$ " x 12" flat bar. The goal was for the stringer to appear smooth and flawless. For every foot of curve, there was a certain amount of twist; in fact, lots of twist. This was labor intensive and required careful craftsmanship.

Before re-landscaping the back lawn, a wooden staircase was replaced to allow for more natural light to enter the lower level of this home. An aesthetically pleasing spiral staircase would leave the smallest footprint, but it was mathematically impossible to fit a standard spiral staircase in the space because of codes. Designing a straight/ regular stair at the top and bottom and a spiral mid-section solved the problem.

The staircase was built in one piece and then carefully transported to the property, carried across soft ground, and set in place. The homeowners were amazed at the perfect fit and the condition of their lawn after the installation.

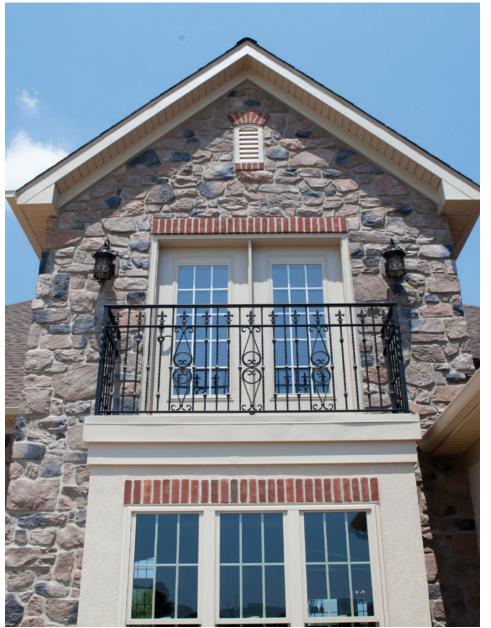
TECHNICAL DETAILS: The steel staircase is blasted. zinc/epoxy primed, and powder coated antique white, which gives it long-lasting durability. Matching the oval baluster system and color of the existing porch railing and enhancing the back exterior of the house were the primary goals. The white staircase is striking against the gray stone of the house and stamped concrete floor. Although careful measurements are taken on site, whenever steel is heated as in welding it slightly pulls together. The warp is hardly detectable by the naked eye. The craftsman needs to control it by knowing where to weld, when to weld, how to weld, and how hot to weld. By skillfully compensating for the warp, everything matched up when the staircase was put into place, with a perfect fit to the existing porch railing.



**Not a mark** was left as Shrock's workers walked the staircase through our yard. We are very appreciative that they went beyond our expectations and we highly recommend them. -- Homeowner

## MAGNIFICENT BALCONIES

Captivated by the castles of Europe, a vision was born to incorporate some medieval character into this home. The railing outside of the daughter's second floor bedroom doors provides a WOW factor to the exterior. An avid reader, she loves to slip out onto her own balcony and let her imagination transport her to castles in other times and lands. Warm and inviting, this house feels like Europe...and also feels like home.



TECHNICAL DETAILS: Using a CAD drawing to visually show the options in real life, Shrock Fabrication offered four beautiful designs for the balcony railing. The final version encases the pointed fleur-de-lis finials below the top rail to give them context and soften the look. The three panels on the front showcase a scroll motif and a staggered knuckle pattern on the chiseled balusters. The iron railing is a combination of forging and casting. In the end, the balcony railing met the homeowner's goal of enhancing the house rather than drawing attention away from it.





DID YOU KNOW?

Custom designed balcony railings serve as great accent pieces for a home.



This 10,000-square-foot house has a large balcony with long stretches between stucco pillars. The aluminum balcony railing was designed using four horizontal rails to bridge the distance between the columns, plus two posts were placed in each railing section to give additional support. The railing has solid pickets and a cap and channel top rail.

### EXQUISITE DESIGNS

Whether a home is ultra-modern with a sun-lit balcony that overlooks a pool or resembles a majestic mountaintop castle with romantic second story balconies. Shrock can provide the railings that complete the picture. Adding a high quality balcony railing to this outdoor space increases the living area of a home and makes it an exquisite place to relax after a hectic day or to gather with family and friends.

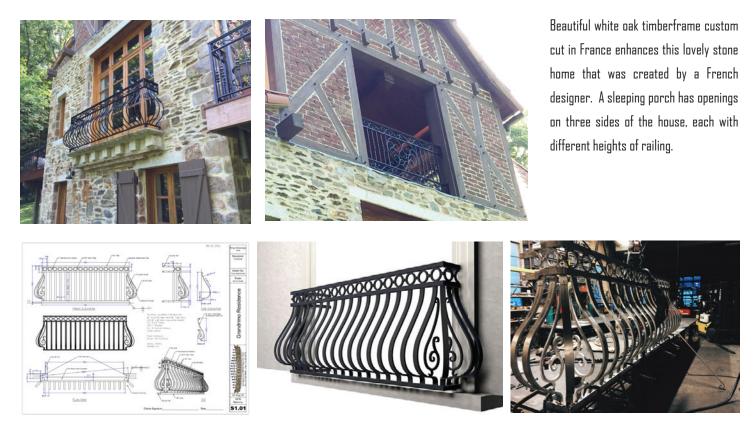
Shrock designs balcony railings to have the dual functions of safety and aesthetic appeal. They are experienced in crafting a wide variety of balcony railings as shown in these examples.

These railings are mainly made of aluminum or steel. Some are reproductions of railings that caught the eye of homeowners and inspired them to add that same feature to their homes. Most are custom designed to match the architecture of the home or building. Shrock is also able to build walkout balconies complete with a subfloor.

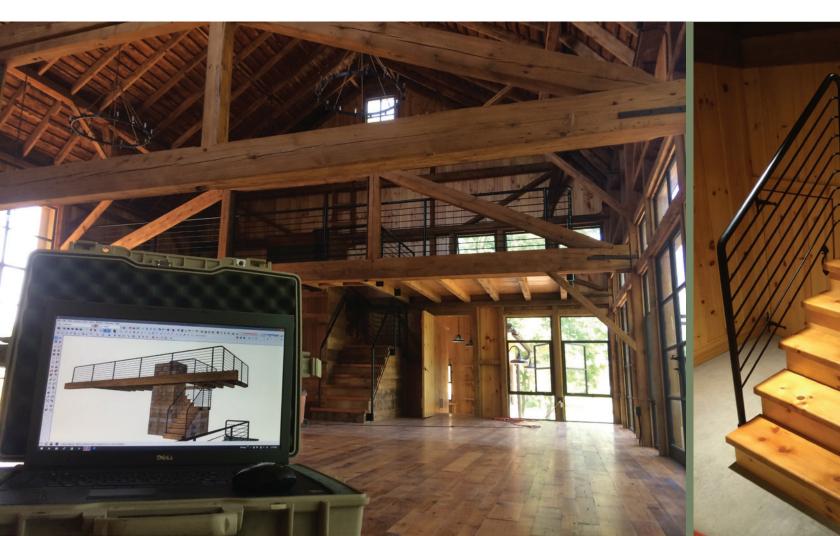








Already from a distance, the balconies on the house make it look distinctive. This Juliet balcony is hot-dip galvanized and then powder coated. The balcony, which features dentil molding, is a solid granite slab. The owner has a business that provides marble and granite for hotel properties.







With the remodel of the master bedroom suite, these homeowners added an aluminum balcony structure with forged aluminum balusters and large posts made of marine grade cast aluminum. The structure of the balcony extends inside and is fastened to the existing joists of the house. This gives additional strength and security.

There is a striking contrast between the black powder coated balusters and the rich hues of the mahogany wood used in the flooring, handrail, and decorative banding. Shrock Fabrication used a special ipe oil to bring out the luster of the wood.



### NEW BARN, OLD LOOK

Interior and exterior railings were crafted to prepare this newly constructed barn as a wedding venue. A rustic timberframe gives the barn an old look, while the powder coated steel railings are very simple and clean.

On the main barn floor, the 3D CAD drawing on the screen is in front of the actual staircase and loft.

This small insert shows a 3D drawing of the exterior balcony railing.



# BELLY RAILS



For this Mediterranean-style home, belly railings are used to accent the balcony and windows. They provide a striking contrast to the stucco and stonework of the exterior walls.

The belly rails here are purely for aesthetics. The balcony cannot be accessed, and even the windows with their closed shutters are faux, made to imitate real windows as closely as possible with real metal railings. Their purpose is to add a dramatic and gorgeous look that catches the eye of passersby.

a) The back patio has a belly railing that functions
as a guardrail and a boundary, separating the
patio from grass, and defining the patio area.
b) Double French doors lead out to a functional
balcony with belly railing. c) This belly railing both
curves and goes up hill. There is more cost to a
project like this one because of the complexity of
a curved and pitched railing. d) Belly railings

completely enclose this balcony. Shrock also builds structural metal balconies instead of wood-framed balconies. e) The top section of this railing has a frieze, which is a horizontal band of sculpted and cast decoration. f) A builder specified using belly railings with clapboard for this commercial building.







Basically there are five different belly railing profiles to choose from. Combining those with multiple materials gives many options. It is possible to have smooth, hammered, flat bar, or square pickets. The pickets can be twisted, as well as bellied. The top of the belly picket can have a top curl, a frieze, or a straight handrail.

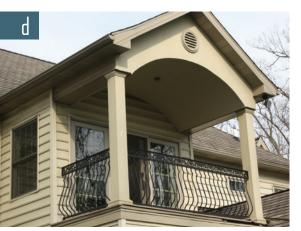
When it is time for you to choose your belly railing, Shrock invites you to their showroom. They take the guesswork out of your selection by giving you the opportunity to view samples of belly pickets on display. Plus, if you have your very own special design, Shrock can recreate it with a custom die.

Shrock uses aluminum, steel, and stainless steel in their belly railings. For an upscale project, bronze or brass are available. Most belly railings are aluminum. It is strong, light, and mostly rustproof. Steel is even stronger, but adds some weight to the project.



DID YOU KNOW?

Belly railings are generally used with stone or stucco exteriors to enhance Mediterranean architecture.







# PRESERVING HISTORY

In 1734, two hundred forty German immigrants from the Schwenkfelder Church arrived in Philadelphia and settled on 1,071 acres in Lower Salford Township, Montgomery County, PA. At first they worshipped in homes and then in a log building. In 1869, they built the Salford Schwenkfelder Meetinghouse adjoining the existing cemetery on one acre of farmland to the belonging Kriebel family. The Federal-style meetinghouse was used until 1920, and fortunately has been kept in its original condition ever since.

The earliest tombstone in the Salford Schwenkfelder Cemetery is dated 1738. After the Battle of Germantown in 1777, George Washington camped with his troops on the neighboring farmland and buried eight of his wounded soldiers in the middle of the cemetery. Since six generations of Kriebels are buried in the Schwenkfelder Cemetery adjacent to his family farm, ninetyyear-old Samuel F. Kriebel decided, "I owe the church a fence."

Years ago, the original metal cemetery fence was replaced by a wooden fence, which rotted eventually away. Samuel asked Shrock Fabrication to restore as many of the 80-pound, deteriorated badly 1912 cast-iron posts as possible. They had been removed from the nearby Christ Reformed Church and used on the Kriebel farm in the 1930s and 40s to fence in cattle.

After installation of the fence, Samuel was grateful for the superb workmanship. He exclaimed, "When I look down the row of fence, nothing is out of line, not even by a quarter of an inch. Fantastic job, great people!"



TECHNICAL DETAILS: A local farm machinery company, Huebener & Sons, crafted the original cast iron 1912 posts. The best hexagonal posts were salvaged, sandblasted, repaired, and welded to reuse again. To replicate the finials and daisies, dies and molds were built and molten iron poured into sand casts. The daisies make a staggered pattern along the vertical rails and the unique finials resemble arrowheads. A middle horizontal bar was added for strength because of the distance between the posts.



#### DID YOU KNOW?

Shrock can reproduce an infinite number of antique elements by casting or forging in almost any material.





TECHNICAL DETAILS: Hexagonal posts support the name Salford Meetinghouse in Olde English lettering in an archway over the gate. They were cut from a plate of heavy steel on a taper and then carefully bent with a break press. That process brought the metal around to create the two halves of the post. The halves were welded together and the seam was ground smooth.

The fence around the square 80' x 80' cemetery was to appear old, but in good shape. A finewrinkled powder coat finish was used to achieve this look. Always practical, the fence was kept off of the ground for trimming purposes. Today the church and cemetery are still well maintained, especially for the Harvest Home service in June and the hymn sing in September.



Sam Kriebel stands with Stanley and Carolyn Shrock

#### BRINGING HISTORICAL Designs To LIFE

A hallmark of Shrock Fabrication is the value they place on architectural treasures from the past that showcase classic motifs and historic designs. If you have a very special antique design that stirs warm memories within you, they will recreate it for you. For example, if you want an antique frieze along the top of a railing, Shrock can have it custom cast in aluminum, stainless steel, cast iron, or even silicon bronze.

Shrock Fabrication enjoys big dreams, with the sky as the limit. Challenging projects inspire them and they work closely with clients to achieve their goals. Recreating the items that are special to you is a very significant part of their services. They will journey with you to places and projects that others cannot even dream about.

Shrock keeps history alive by reproducing and casting your antique designs.



### RESTORATION & MASONRY

In 2009, the Holy Ghost Ukrainian Orthodox Church of Coatesville, Pennsylvania celebrated the 100th anniversary of the founding of their parish. As they grew into an established church, they erected a new church building in 1919, complete with a wrought iron fence along the front of their property on Charles Street. To mark this historic occasion, the fence was beautifully restored.

The pattern for the ethnic churches in Coatesville was for the members to settle into neighborhood homes surrounding their churches. This was also true for the Ukrainians, who today are scattered throughout the city, but still have a vibrant and thriving community of faith.



TECHNICAL DETAILS: In this restoration project the fencing had been disassembled and stacked in piles behind the church. The wrought iron fence was rusted and bent and the posts were missing. Shrock restored the pickets and reconstructed the posts using a photo of the post finials. By installing the fence further back from the new sidewalk, damage during snow clearing is prevented.

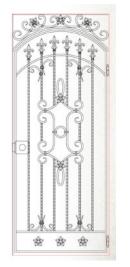
At the cemetery, a truck had accidently bent the sign that is over the gate and also damaged the top of the pillar. Shrock straightened the sign and rebuilt the pillars.

# MAKING AN ENTRANCE

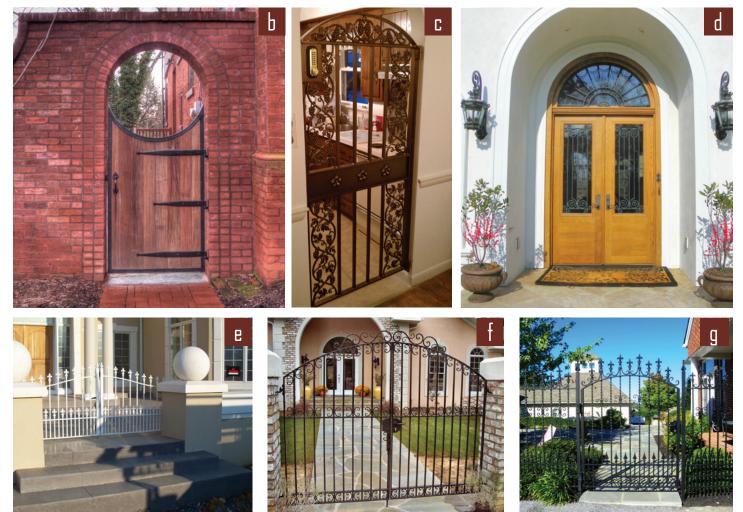
Decorative gates make a pleasing first impression as visitors enter a property or home. Entrances with well-designed and attractive gates add an inviting appeal that is visible from the street. Depending on the gate's function, such as separating front yard from back yard or keeping pets in or out, a gate can be single or double and locked or unlocked.

(a) An interior gate/door with decorative grillwork is designed to keep a pet away from the lower level of the house. It is solid steel with cast iron finials. (b) The combination of brick, wood, and metal makes for a very nice gate. This type of wrought iron hinge is one example of the many hinges available for gates. (c) This is one of 10 attractive interior gates installed in a home as a safety feature to protect a handicapped child. (d) Using a

French design as inspiration, a solid, hand-forged metal grill forms a sunburst on this door transom. (e) This gate leads onto a walled front porch. The narrow spaces between the bottom pickets keep the homeowner's small pet on the porch. (f) A manual latch opens and closes this arched double entranceway gate. The gate adds to the grand appearance of the home from the street. (g) Designed for functionality and safety, a pool gate such as this one can also be aesthetically appealing and match the design of the fencing.







# BEAUTIFULLY SECURE DRIVEWAY GATES

Add privacy and security with a classy, upscale driveway or entranceway gate that complements the architecture of your home. Shrock's expert designers can aesthetically enhance your grounds with a gate engineered for any size or slope, both single gates up to 30 feet and double gates.

Gates can be installed in conjunction with mason pillars, steel posts, or fencing around the entire property that matches the style of the gate.







Beautifying the entranceway to a wooded estate is this front driveway gate made of solid aluminum with an electrical magnetic latch. The challenge with this gate was to design it so that it swings uphill without cantering from side to side. In this very large 22' front driveway gate, each of the pickets are 1" solid square steel. It is designed to have a gate operator, making it a very secure and strong gate.



▲ This rear courtyard sliding gate is built for maximum security. It is made of 2 ½" thick, custom milled white oak and weighs over 3,000 pounds. There are security posts on the side of the gate.

An arched gate opening onto the front driveway of a stately home has a clean, uncluttered look, as electrical wires, communications wires, and the gate operator are installed underground.

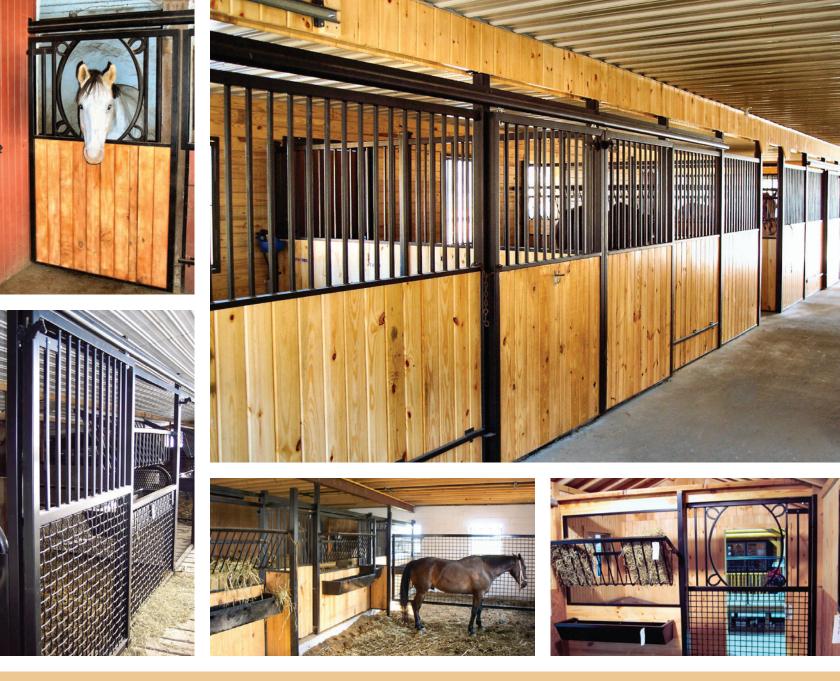


#### Access & Security Features

For security reasons, the following are access modes that Shrock offers homeowners. They can install one or any combination of these using state-of-the-art equipment.

- Free entry or free exit loop sensory magnetic fields
- Remote buttons for car or to carry (operable up to a few hundred feet)
- Card readers for swiping

- Proximity cards activates up to 15 feet
- Phone entry system
- Biometrics recognizes the iris in a person's eye
- Photo eye senses a physical presence



### HOLD YOUR HORSES... WITH PANACHE

Because of Shrock's expertise in ornamental and exotic metal fabrication, they excel at building horse stalls. Serving clients who want custom, one-of-a kind horse stalls built to fit their barns, Shrock's work compares with the finest workmanship found in Europe, often at a lower price point.

Shrock draws a custom design for your barn to meet your specific needs, with the possibility of choosing many features such as stainless steel waterers with drains. The doors are designed to fit perfectly, work flawlessly, and last for years. They offer a heavy steel, hot-dip galvanized stall with an option of black over galvanized. Compared to mass-produced brands, Shrock builds the posts and bars heavier and thicker, and thus sturdier. They offer the utmost quality including solid bars, stainless steel, or even bronze bars. Bronze ball tops or plates with horses' names laser-engraved add classy touches.

Since the very beginning of Shrock's business in 2000, they have been building horse stalls. Over the years they have collected wisdom and experience in this area and have developed the highest standards. Now they offer this expertise to you, their clients, so that you can have the horse barn of your dreams.

### TWISTED & TEXTURED

For beautifully designed gardens and backyards, sculpted railings along the walkways and outdoor stairways add a piece of art to the area. Shrock styles the railings to depict a natural environment by creating wood grains, hammering different textures, twisting ropes, fashioning vines and grape clusters, and hand-forging leaves, roses, and other flowers. For the front of your house, sculpted railings add a majestic feature to entranceways.

Sculpted railings are also installed indoors. For example, Shrock's solid woodgrained balusters are used in mountain cabins where they are made to look like natural sticks or posts gleaned from the forest floor. Since no two twigs in nature are exactly alike, each handmade picket is unique. The flat black finish is sharp when contrasted with wooden steps and a wooden top rail. A combination wood and metal staircase is an attractive choice.

In sculpted railings Shrock offers steel, aluminum and bronze. They twist  $\frac{14}{2}$  to 1  $\frac{12}{2}$  solid square bars. In addition, they do both hot and cold twists, resulting in two different looks.



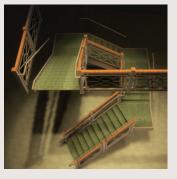




## TEMPERED GLASS SOLUTIONS

There are two types of tempered glass: tempered monolithic and tempered laminated. Many of Shrock's projects have used ½" tempered monolithic glass which is one pane of super strong glass. It is almost impossible to break, even with a hammer. Tempered laminated glass consists of two thinner panes that are glued together with a membrane in the middle. It is also very strong but not as cost-effective. Shrock Fabrication fastens tempered glass with glass clamps or a shoe system. They are also able to build railings without posts where the glass serves as the structure.

At this private state-of-the-art event center, Shrock designed, built, and installed heavy-duty railing with ½" thick tempered glass on the staircase. The glass and metal combination adds a beautiful feature to this certified facility that hosts meetings, banquets, and dances. Shrock's expert craftsmen install glass on site with great skill and painstaking care.





The classy look of glass, wood, and metal is used on the railing at the Lancaster County Convention Center.





## CHALLENGES & ONE-OF-A-KINDS

With money given to a memorial fund, this church in Maryland commissioned Shrock to design and construct an archway and pillar at the entrance to the church cemetery. The church had three requests for the archway: the Greek PAX symbol of peace for the top, a cross at each end, and surprisingly, two dragonflies. At every funeral the cherished tale is told of how the water bug climbs a lily stem, changes into a dragonfly, raises his wings, and flies into a joyous new life.





TECHNICAL DETAILS: A freelance artist was able to hand draw the scrollwork for the arch, which was traced with CAD. The two crosses with sharpened edges and the intricate dragonflies with details on the wings and tail were hand forged out of steel. The archway, of all solid steel bar, is 177" wide and has a clearance of 10'3". It was hot-dip galvanized and painted with European wrought iron paint.

#### UNIQUE TABLE BASE





A high-end department store requested a unique table with a base that is a perfect circle when one looks straight down through a tempered glass top. The base is a five-foot continuous circle with no visible seams, stands two feet tall, and is crafted out of <sup>1</sup>/<sub>4</sub>" x 6" steel. The steel was brass-plated and chemically oxidized black.

### VITE COMBINATION **OF MATERIALS & FINISHING OPTIONS**

Many different combinations of materials and finishes and colors can be used on your project. The choice is yours! Visit Shrock's showroom and explore hundreds of finish options. Also ask about their weld joint finishes.

#### **Mechanical Finishes**

- Random finish •
- Brushed •
- Blasted •
- Mirror/polished .
- Brushed & heated stainless steel • (colors vary from purple to gold)
- Variety of hammered textures • and wood grain

#### **Materials**

- Steel
- Aluminum
- Stainless steel
- Brass
- Architectural bronze
- Silicon bronze
- Rose bronze
- White bronze



Mirror/polished aluminum

brushed aluminum (top) brushed stainless (bottom)

#### **Finishes**

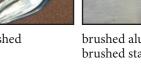
- Custom paints •
- Powder coating •
- Black oxide finish (oil rubbed)
- Chemical patinas





Brushed & heated stainless steel

Random finish





Textured wood grain

Most brass railings are technically bronze. True brass has a DID YOU KNOW? distinct bright yellow look. Bronze has a richer gold tone.

#### DELICATE BRASS & BRONZE

Bronze and brass are extremely challenging to weld. Even though they are the most difficult welds that Shrock's excellent craftsmen work on, it is very difficult to find the joints in the finished products. They have an example in their showroom of a mirror-smooth finish. They offer bronze in a satin (brushed) finish, a polished finish, and black oxidized or green patina to make it look antique.



## CUSTOM MANUFACTURING



- CNC roll bending
- CNC sheet & plate cutting
- CNC 3D break bending sheet & plate
- CNC automatic saw cutting w/ servo drive material feeder
- CNC bar & tube twisting
- CNC scroll & ring bending
- CNC metal rope twisting
- Certified welding, mig, tig & cold metal transfer capabilities
- Roll bending large & small profiles
- Bar & tube embossing
- Sheet metal part stamping & punching
- Power hammer forging
- 3D CAD & rendering
- Cutting up to 1 ¾" plate
- Miter saw cutting









Going into the Laff Trakk project we knew constructing the ride catwalks, stairs, and railings around and within our indoor coaster was going to be a challenge. Not only were we faced with the difficulties inherent to building a ride indoors, we would be required to construct these components after the ride was constructed within a very tight timeline. Shrock provided the expertise, technical skills, ingenuity, and manpower required to complete their tasks, contributing to the successful completion of our project as planned and on schedule.

> Steve McNulty, Senior Project Manager, Hershey Entertainment, Hershey, PA

I want to personally thank Shrock Fabrication's crew for your diligence and desire to keep our municipal school project moving ahead in spite of a very tight schedule. All went well with our inspections and there were no issues with the railings. Thank you for a job well done.

> Brian K., Project Foreman, Simeral Construction, Lititz, PA

Excelling in many areas:

- Serving satisfied clients since 2000
- Careful craftsmanship
- On-time delivery
- Top-of-the-line equipment
- Engineered projects
- Building code proficiency



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For the artistic mural panels at the Martin Luther King School wading pool, I used inspiration from King's "If you can't fly, then run..." quote. The many scenes show movement in the right direction from flying like a bird to rollerblading and walking. Shrock Fabrication worked beyond expectations to be sure the metal panels for this project were looking their best.

> Béatrice Coron, Silhouette Artist, New York City

