

GATE DESIGN GUIDE



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COMPASS
IRONWORKS

Elegance and Integrity

At Compass Ironworks, we carry into the 21st century the Amish traditions that forged our artistic sensibilities: honesty, integrity, and dedication to family, community, and craft. We do no mass production here; every installation reflects your unique needs. We are master craftsmen who work with both traditional and 21st century tools. At the end of the day, we close the doors and leave our tools at the shop, not to be touched until the next workday begins.

For more information about Compass Ironworks, please contact us Monday through Friday at (717) 442-4500.

Please use this guide as a tool for selecting the design, style, and finish that best suits your property, lifestyle, and needs. Most of the work we do for our clients is custom, so if you have an idea that is not in this guide, we will work together to custom-craft the appropriate design for your property. Before meeting with us, please consider what ideas you have for the design, finish, and detail of your project.

Secure your home with a work of art.



Our custom designed gate hinge for years of maintenance free access.

Wrought iron estate gates bring aesthetic value and curb appeal to properties across the country. For centuries, these iron masterpieces have been viewed and admired, giving a home elegance and grace, while ensuring privacy.

Estate gates make your property safe. Your children, grandchildren, or guests can be in the yard or driveway without the worries of strangers intruding within your safe haven.

Wrought iron gates substantially increase the security of a property and provide a physical barrier against burglars canvassing the neighborhood. Gates deter intruders from pulling up to the house or garage and targeting valuables that may be visible from the street.

Gates give you control over your privacy. Irritating salesman and hucksters will no longer have access to your doorbell—stopped at the gate, they will be forced to move on.

Seclusion is guaranteed when you limit the access of traffic in your driveway. You can unwind in the rose garden or relax in the pool without worrying about unwanted guests.

Estate gates also increase property value by providing controlled access. This deters foraging predators and deer from wreaking costly damage to the flowers, shrubs and landscape of your property.

The expression of wrought iron estate gates is instrumental in creating positive first impressions of your home. Ironwork makes sweeping, subtle statements that cannot be made by any other element on earth.

Wrought iron has a poetry and rhythm to it that displays taste and an appreciation for handcrafted works of art.

Iron gates are masterpieces built for the ages. These sculptural statements live on for generations, providing grace, elegance, and undying beauty for centuries.



Experienced Gate Craftsmen

Experienced gate craftsmen take extra steps and pay special attention to details so your gate can be built to your taste. Our craftsmen can forge custom accent pieces or initials that make a memorable impression as guests arrive in your driveway.

Our workers create exceptional design elements that will make your gate a functional masterpiece, such as custom steel columns with iron trim details, short sections or wings that can carry your design from the hinge post and create a fluid look. Four-sided columns can include design elements from the gate, creating a cohesive atmosphere reminiscent of a genuine Gold Coast entryway of the 1920s.

We firmly believe that “people don’t care how much you know, ‘till they know how much you care,” and it shows in our work. Our normal protocol is to go the extra mile on all projects. We facilitate on-site meetings with all involved parties—client, contractor, electrician, and security personnel—to make sure that construction runs smoothly. Our goal is to install the complete unit at once, with no onsite welding or grinding.

The most important (but often overlooked) part of any low-maintenance gate system is the hinge selection. Ease of operation is the key to less downtime for repairs, problems or operator maintenance. Sealed bearings and greasable ball bearing hinges are the two types we use that withstand the elements and heavy use.

All gate pickets, scrollwork, and accent pieces are forged from solid bar material just as master craftsmen did for centuries past. Today, the solid bar we use is 97%–100% recycled material, making our gates the perfect choice for responsible stewards of our planet.

Superior Finish to Withstand Elements

Proper powder-coat application is crucial for finish longevity. At Compass Ironworks, the powder-coating process is carefully developed and closely monitored, as pretreatment is our defense against corrosion. Pretreatment starts with aggressive sandblasting to remove all dirt, grease, and organic matter. More importantly, the process etches the metal surface and opens its pores for better finish adhesion. A hot water phosphate bath is applied, followed by two clean water rinses. At this point, the metal is ready for the powder-coating process, starting with a primer and followed by not one, but two durable top coats. Then, the entire project makes a long, slow pass through the curing oven. As technical as it sounds, our finishing process is very eco-friendly and emits zero VOCs into the environment. Our entire facility meets or exceeds both DEP and EPA requirements.



HINGE DESIGN

Hinges are one of the most critical but often overlooked components of a gate. Hinges perform the most important job of any estate gate regardless of the sophistication or simplicity. For centuries, hinges were simply a rounded pin inside a “barrel” that was periodically lubricated. If the gate was very heavy, a support plate was mounted on the ground and the hinge side of the gate rested directly on that. This resulted in metal grinding against metal, with the force of hundreds of pounds. The friction was not a serious issue, as guards, gatekeepers or footmen were hired to manually open the gate as a carriage desired to pass through.

gate that is standing ajar because of non-working hinges provides nothing for security. A gate in the open position is also detrimental to the ambiance and first impressions of an exceptional property, so hinges are extremely important!

Here at Compass, we take hinges very seriously. When we first started, we used an industry standard hinge. They were OK, not great and we were dissatisfied and about 5 years ago designed our own hinge with less maintenance, less hassle and less downtime, in mind. This hinge completely solves the friction issue, allowing 1,000 lb gates to be opened with the tip of a finger.

A shoulder/collar option allows for micro onsite adjustments so that perfect alignment can be achieved initially and also for years down the road to compensate for pillars shifting in freeze/thaw cycles. We feel the triple bearing design and double yoke thickness gave us the assurance of the best value for our clients.



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About a year ago, a couple industry experts were pushing for advanced polymer bearing hinges. We were open to recommendations, but wanted the proof that we were truly doing the right thing. So we built our own test lab, simulating 1,000 lb gates with a 10 ft swing, and tested 3 different hinges, the industry standard, our own design and the industry recommended advanced polymer bearings. We automated the gates for continuous duty and let them go. At 128,006 cycles the ears broke off of the advanced polymer bearing due to the higher friction caused by these bearings. At 150,316 cycles the industry standard bearings seized up. Our bearings kept going to 454,923 cycles, 0 3 times what the industry standard last, which is equivalent to 49 years of use on the average residential property. We were happy, but we learned some tips and are in the process of developing the next generation of hinges. Our goal is a million cycles with ZERO maintenance.



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❧ ESTATE GATES



Montauk

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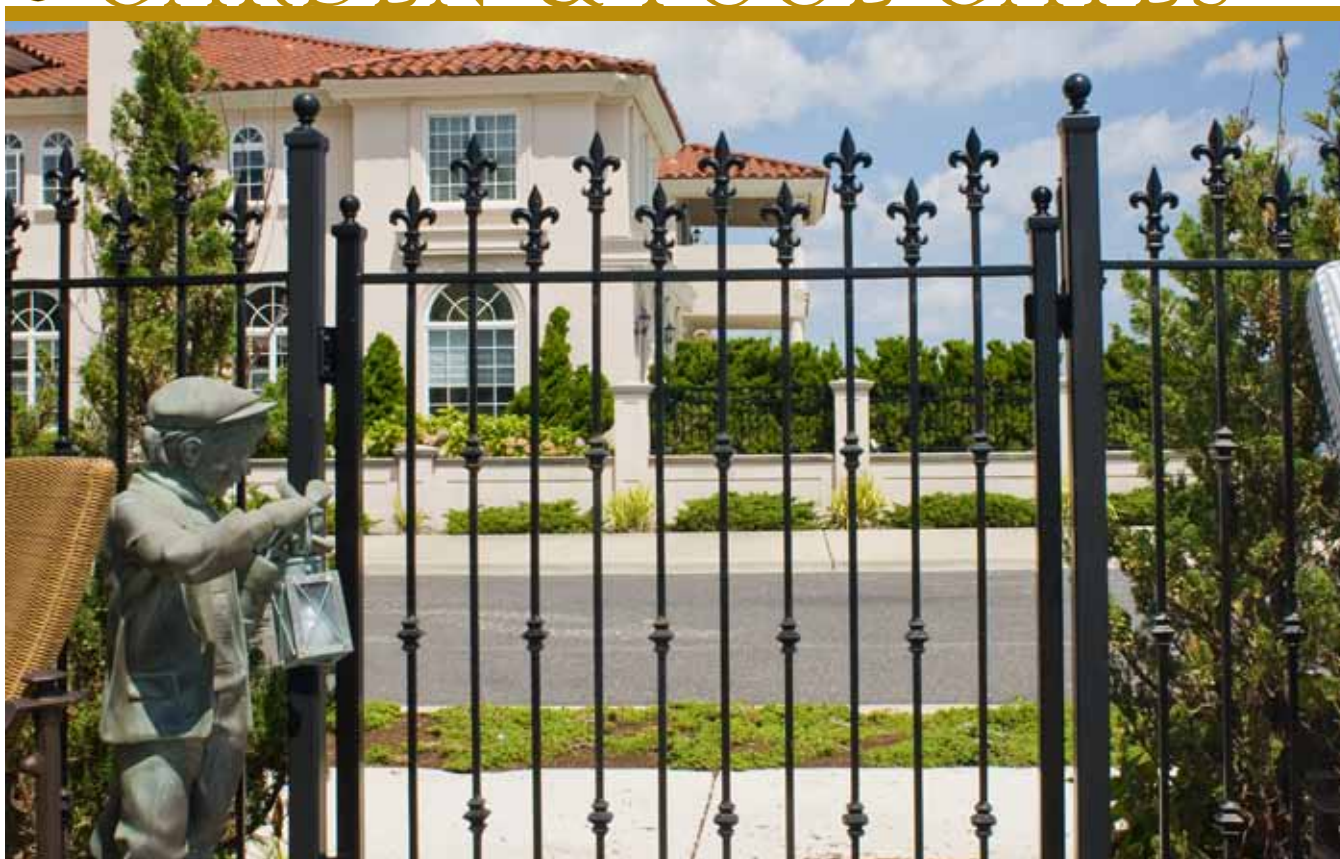


Red Bank with Beverly Column



Palisades

GARDEN & POOL GATES



Canterbury

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Bryn Mawr



Villa



Bayside

POSTS

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Beverly Column



10" Hampton Post
with Base Detail



Linden Post



Hampton Post



Acanthus

❧ GATE INSPIRATION IDEAS



Elegant barrier keeps out onlookers taking photographs and armed intruders while allowing controlled access.

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English design from 1861 is created with today's non-corroding metals.



Beautiful hinge post provides durability and detail.

Close up of custom detail and forged rosettes

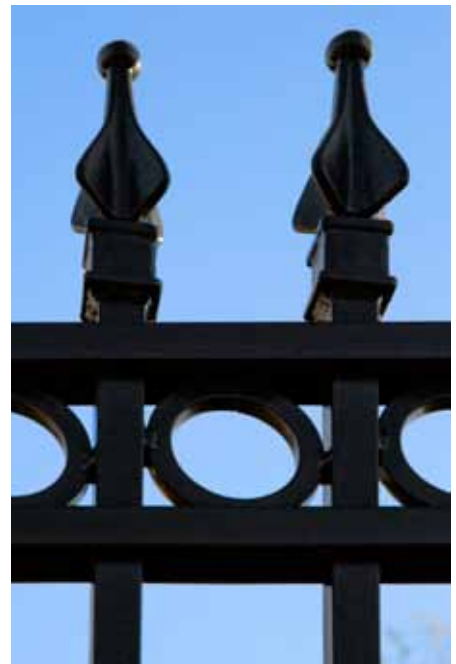




These automated gates keep out foraging animals from destroying the beautiful landscapes.



The beauty of an arched gate creates remarkable distinction



Custom finials close up



Marine grade, solid aluminum gates to add beauty and security while withstanding the elements

All decorative elements are pretreated and powder-coated with a robust shore process





Red Bank with Beverly Column



Vail



Neshanic



Roselle Park



Rumson



Gate Details



Family Crest



Montauk



Bayshore



Mainline



Owner's Initials



Chester

Fleur-de-lis medallion
and finials accent this
European style villa





Beautiful aged bronze finish gates



The top crests accentuate these phenomenal driveway gates



Above: Custom created solid aluminum castings to match design elements of existing bronze railings

Bottom Right: Close-up of the beautiful aged bronze patina with blue and green hues showing thru as well as some gold color



Custom design element on estate entry gate





A simulated wood gate done in non-corrosive aluminum



Gate opener programmed into car



Executive security gate with hidden gate openers



Left: Center crest of initials for the gate

Right: Detail of pierced and forged scroll



Landscape security gate with hidden automatic gate openers



Gold detail on baskets



Custom driveway gate in solid aircraft grade aluminum



The wifi keypad for gate opener in foreground and awesome security fence in background



Beautiful gate with hidden automation



The mobitix keypad to integrate into smart home system to operate gate openers



Smart home security camera reports estate gate area for observation



Above: Detail rich pedestrian gate



Top Right: Antique strap hinge and speakeasy grille on property gate



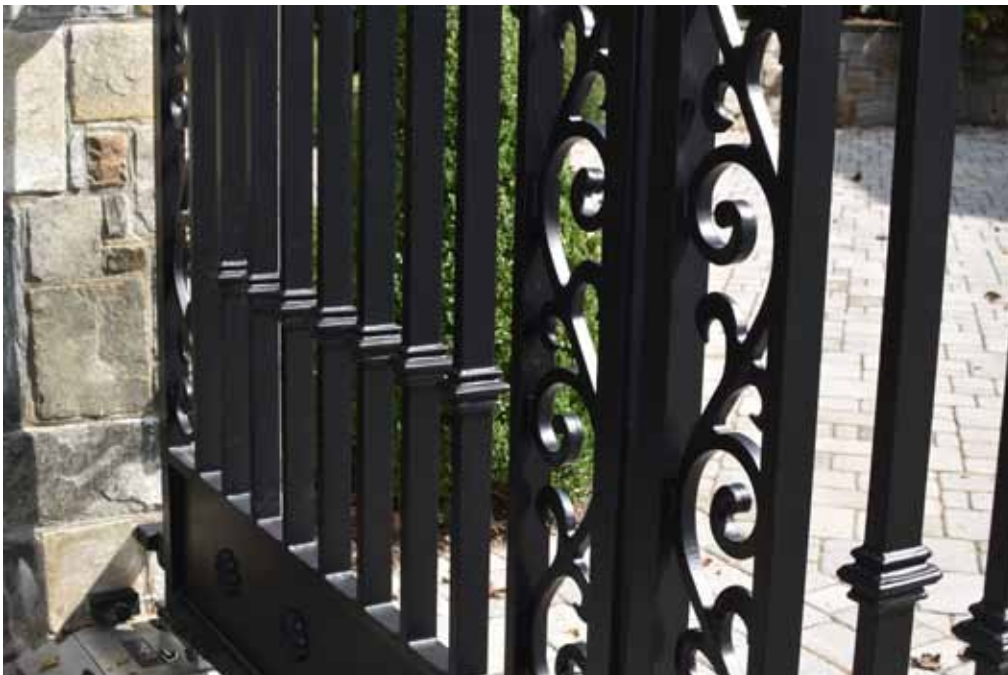
Middle Right: Mechanical keyless latch for security gate

Bottom Right: Hidden gate openers, antique strap hinges, and hidden heavy duty driveway gate hinges





Wrought Iron estate gates built in solid aluminum



Visual of the depth and strength of security gates



Hand forged
aluminum
scroll work on
driveway gates



Property security gate with electronic strike



Custom knuckle detail for driveway gate



Custom scroll gate



Beautiful hand forged
scroll and acanthus leaf
detail on driveway gate



Top crests custom forged on decorative metal gates

Intricate details for code-compliant pool gate



Villanova gates provide simplistic and historic elegance



Estate gates provide controlled access while deterring predators and deer from the estates' lush landscape



Custom estate gate with automatic operation provides security with automatic access



3/4" square knuckles add character to this personalized gate



Custom iron gate creates a resolute barrier in Alpine, NJ

Forged details and
fleur-de-lis finials





Custom front gate with hidden gate openers and wifi keypad

Remote phone access
to control gate access
through wifi keypad





Custom aluminum country estate entrance gates



Above: Custom driveway gate emblem

Right: Pile of cannon balls for authenticity



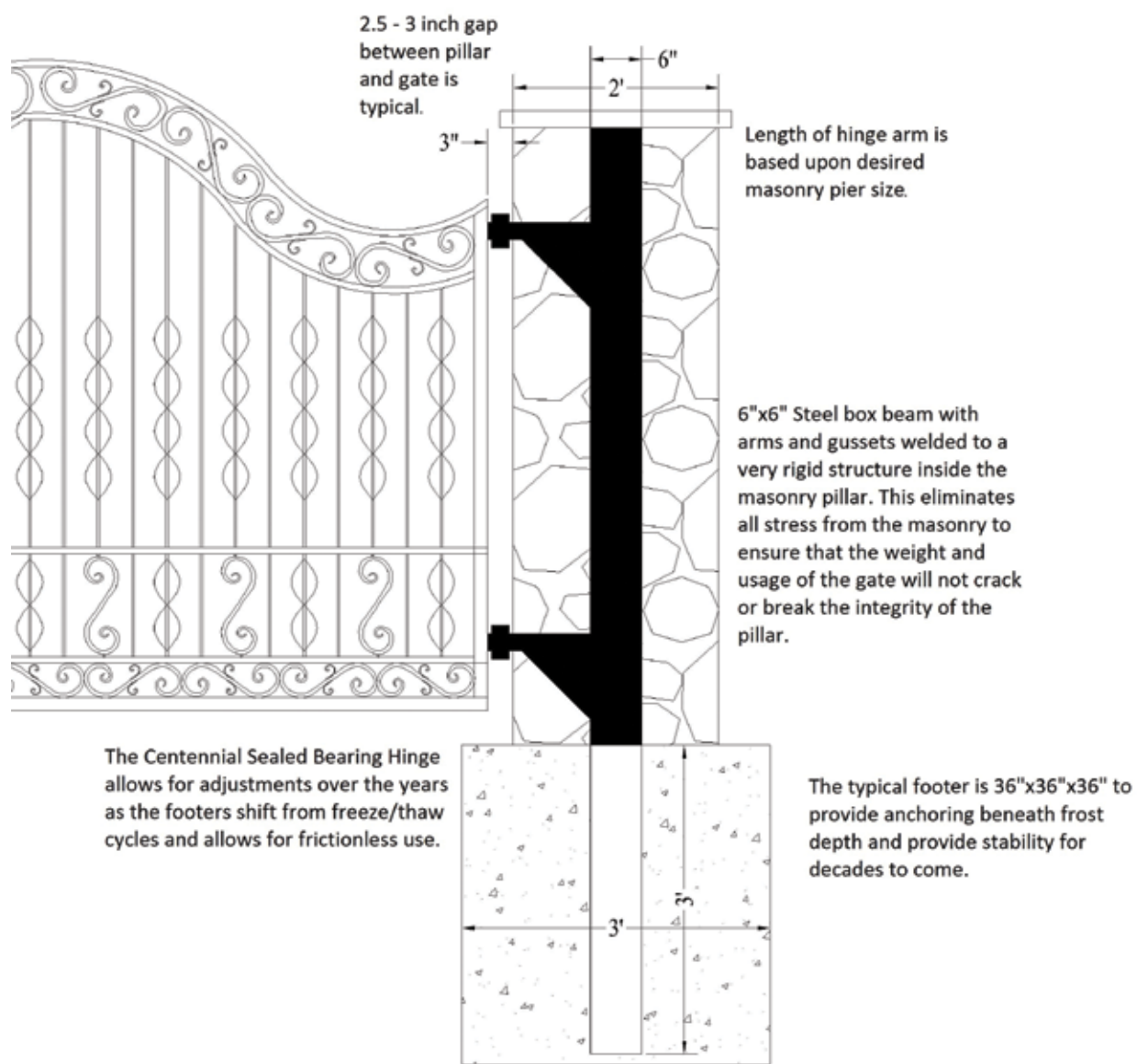


INSTALLATION

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Typical installation of steel structure to support iron gates

The ideal sequence of installation is for gates to be completely fabricated and powder-coated before being transported to the site. Then they are set in place and aligned perfectly. Next a supporting steel structure is cemented into its proper location. This will then sit for 20-50 hours for the cement to harden before being taken off and set aside. After that the masonry is done around the steel structure. The masonry and steel are tied together for maximum rigidity and longevity. Next the actuator technician follows to finalize the details of having a controlled and secure entryway. Then the gates are rehung and ensured to fit. With proper communication, installation is very straightforward. If the steel support structures are made to be perfectly plumb without the gates, small deviations from the handcrafted nature of the gate could cause imperfect alignment in the center. Therefore, though the steel structures are hidden in the masonry, they must be installed to fit the gate, to ensure symmetry and alignment.



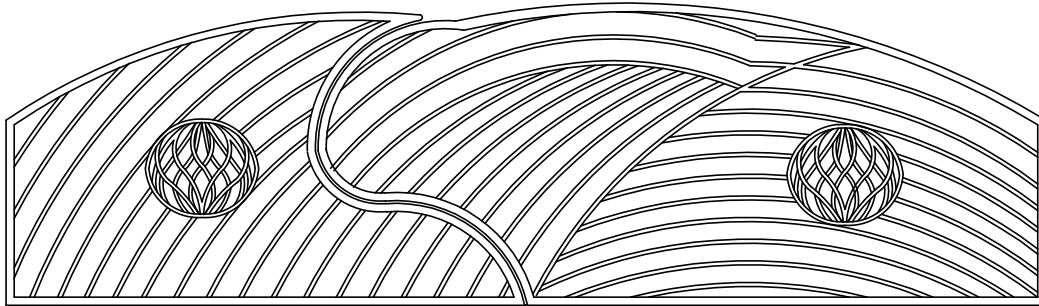
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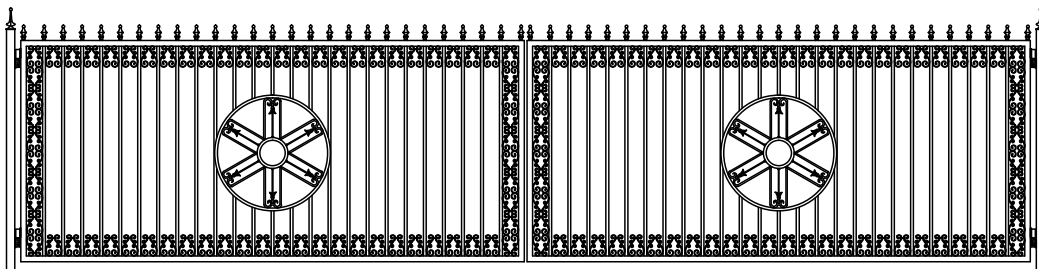
CONCEPTUAL DRAWINGS

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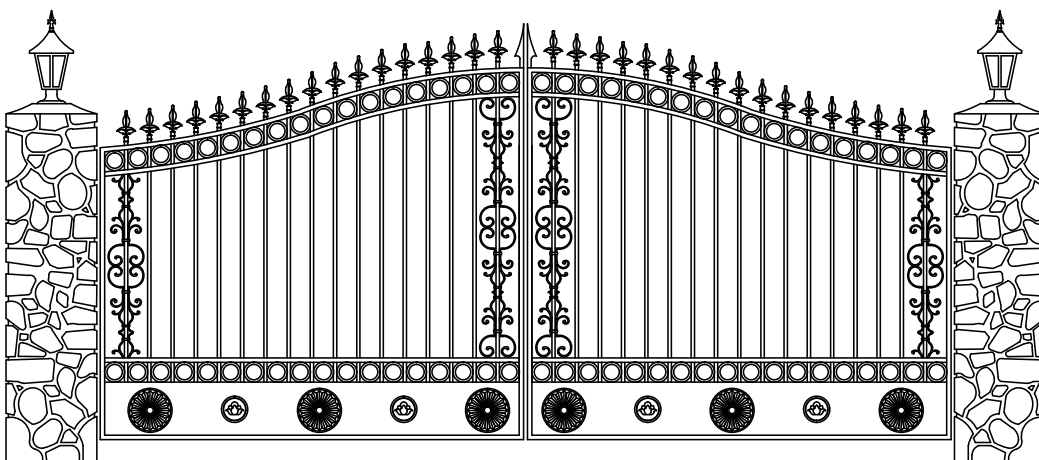
These concepts are intended to get your creative juices flowing. We can build gates exactly like these, or you can mix up any design elements to suit your taste—for instance, the Alpine style gate can have the Avalon center and the Belmar bottom panel. Design elements can also be customized to express your own personality.



Alpine



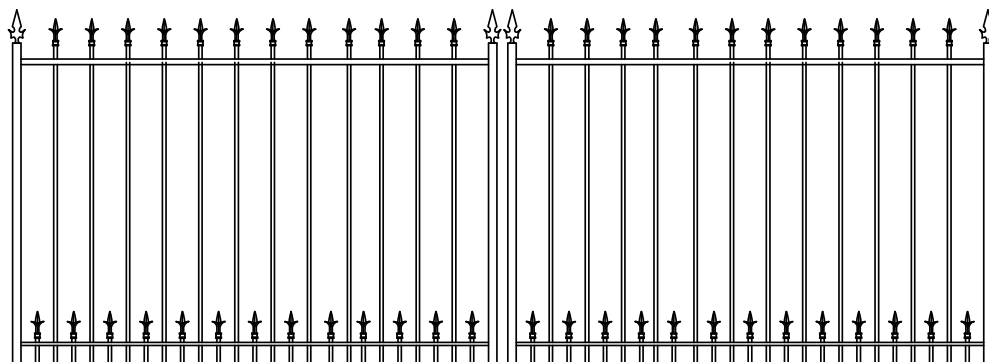
Avalon



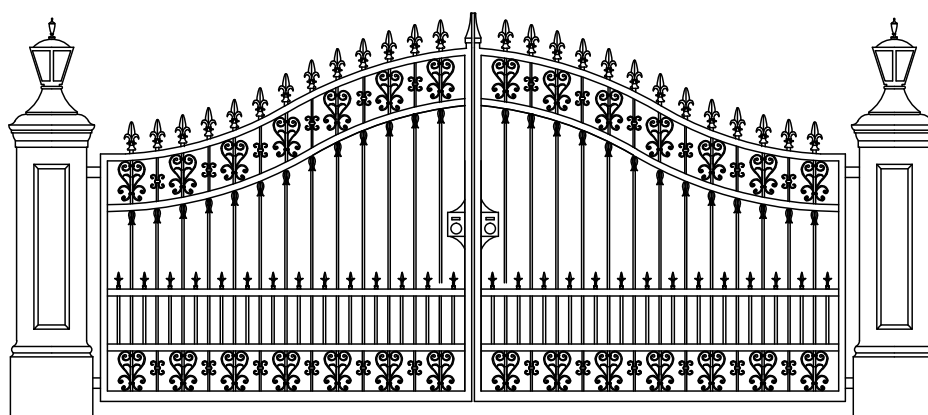
Belmar



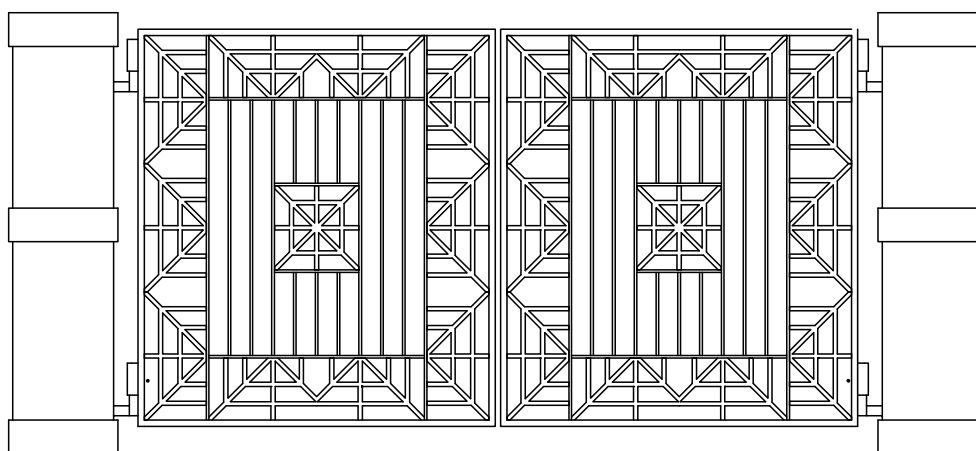
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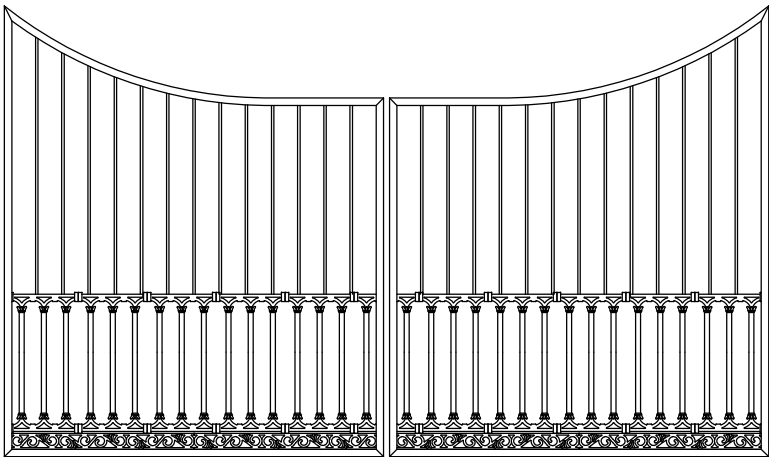
Caldwell



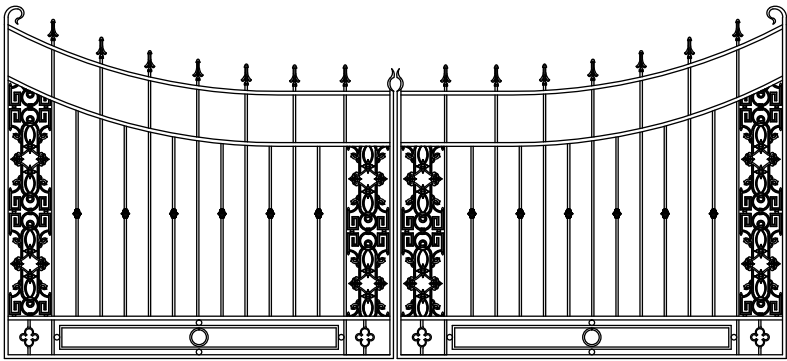
Chatham



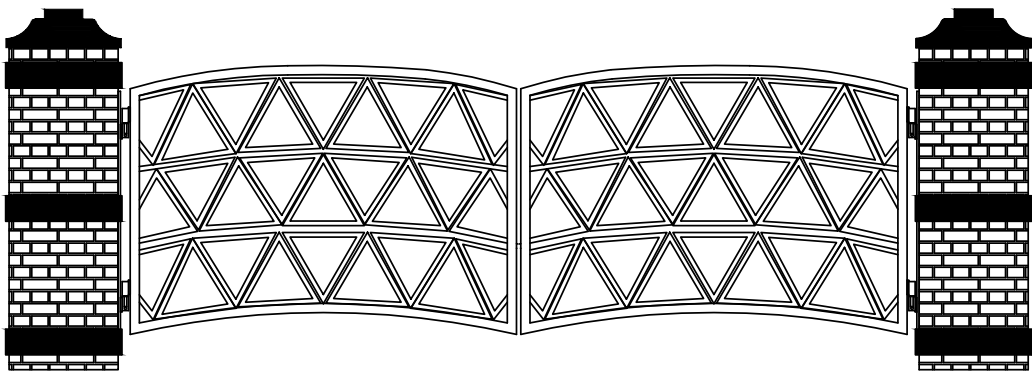
Colt's Neck



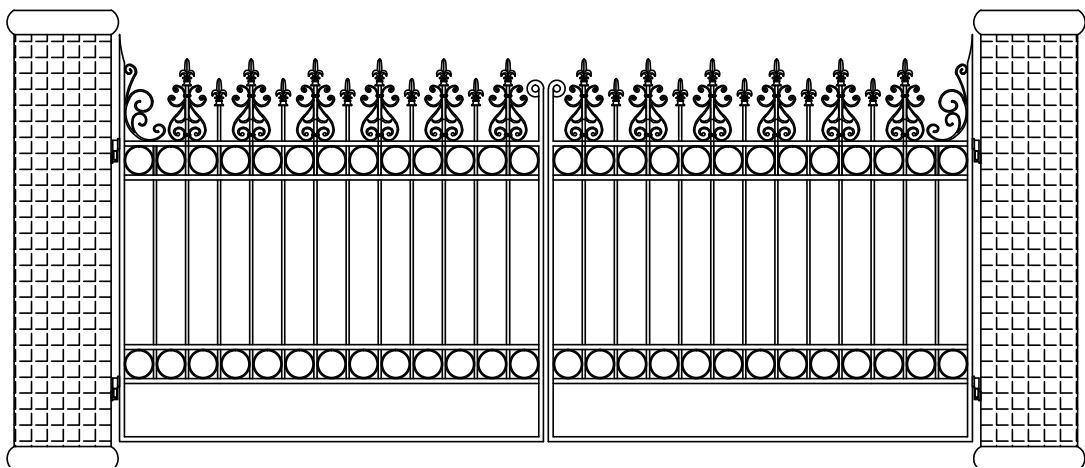
Deal



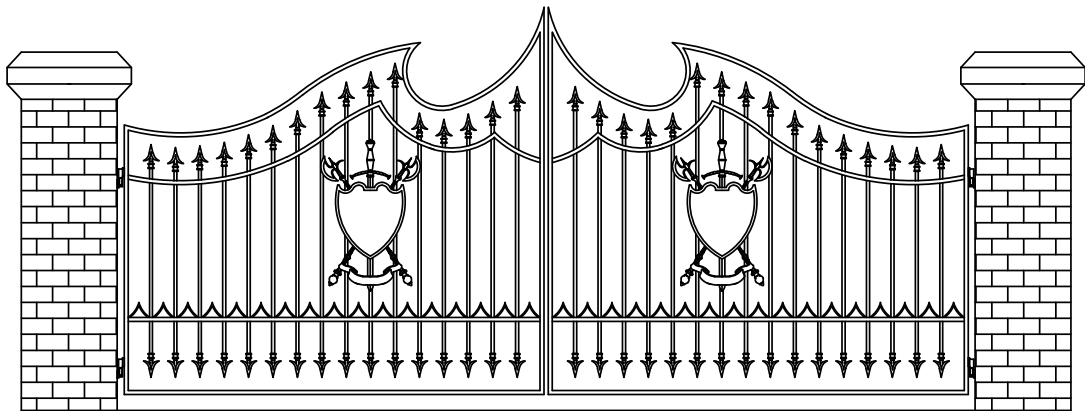
Englewood



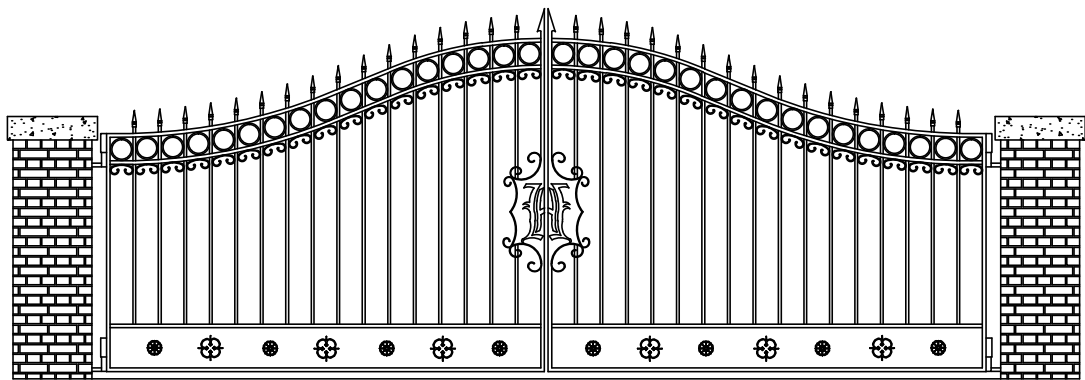
Far Hills



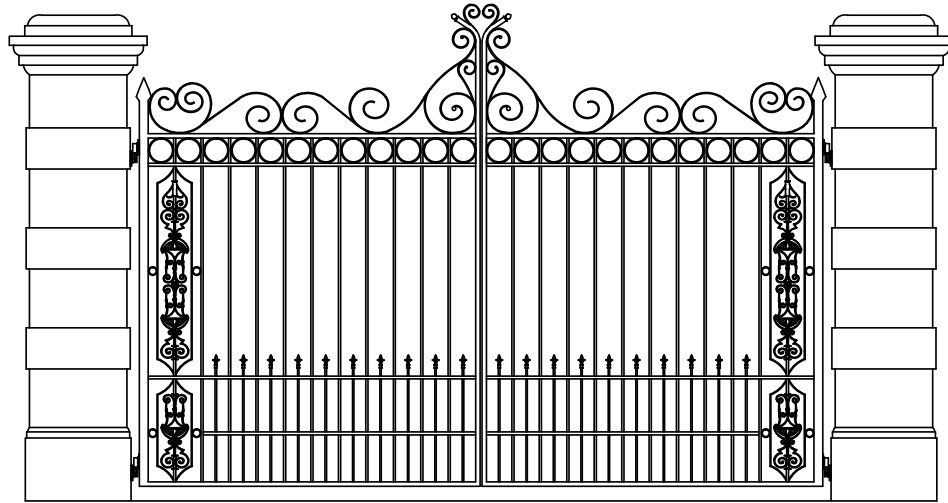
Franklin Lakes



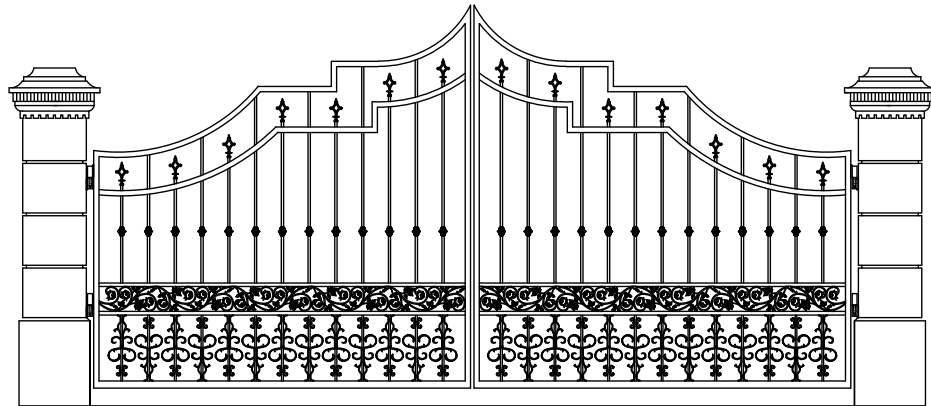
Ho-Ho-Kus



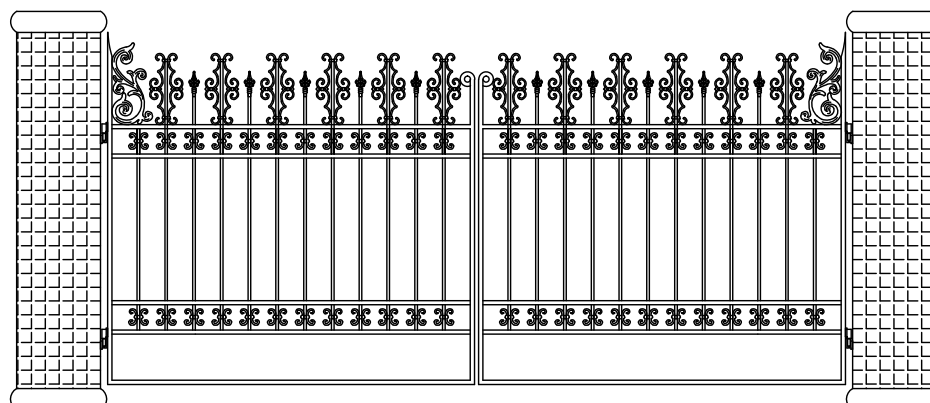
Holmdel



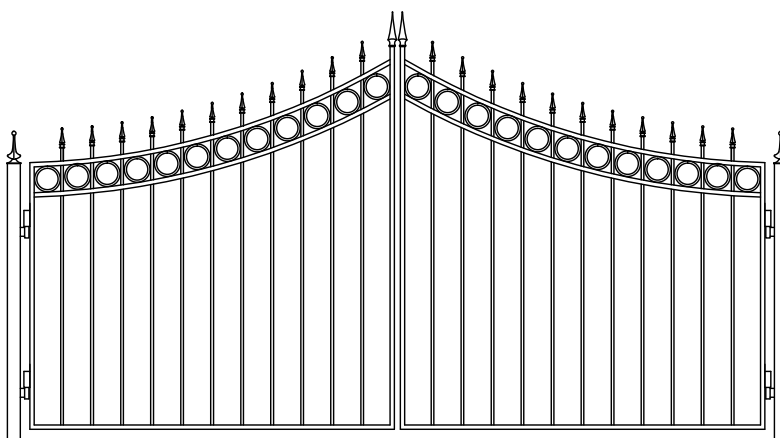
Little Silver



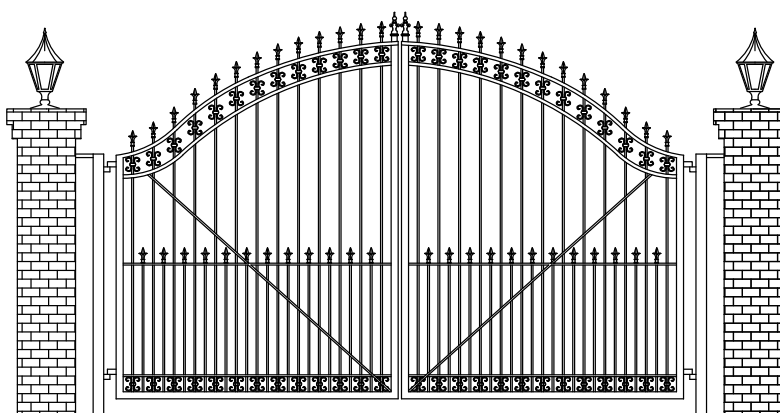
Livingston



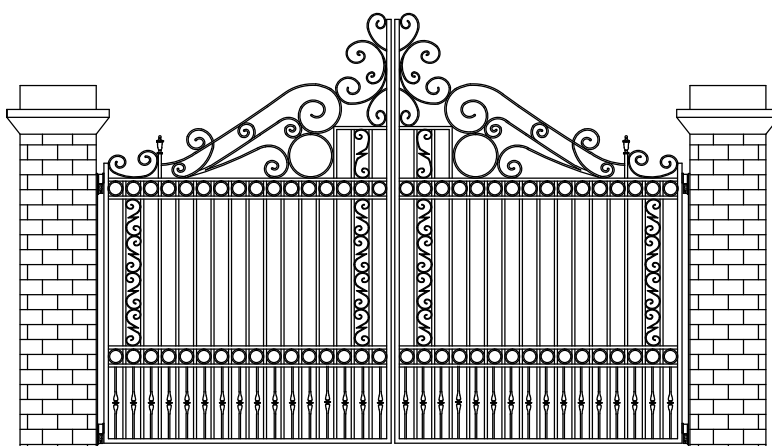
Millburn



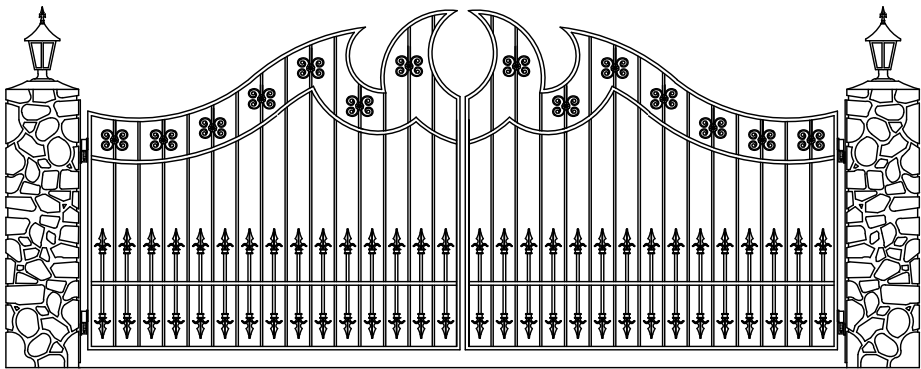
Montclair



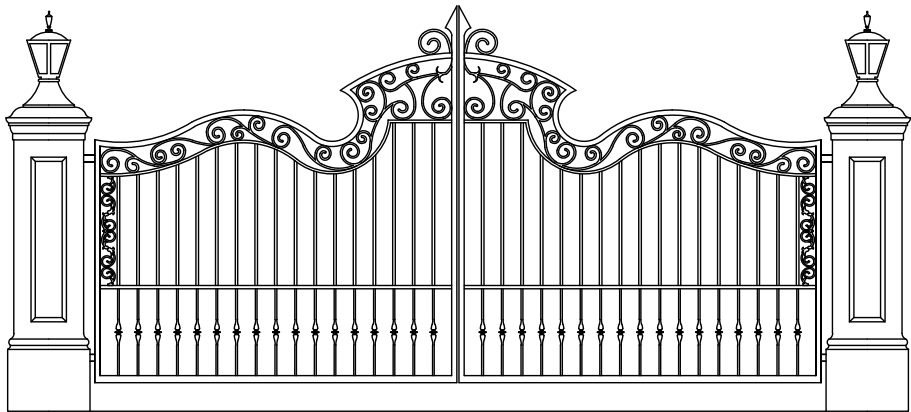
Moorestown



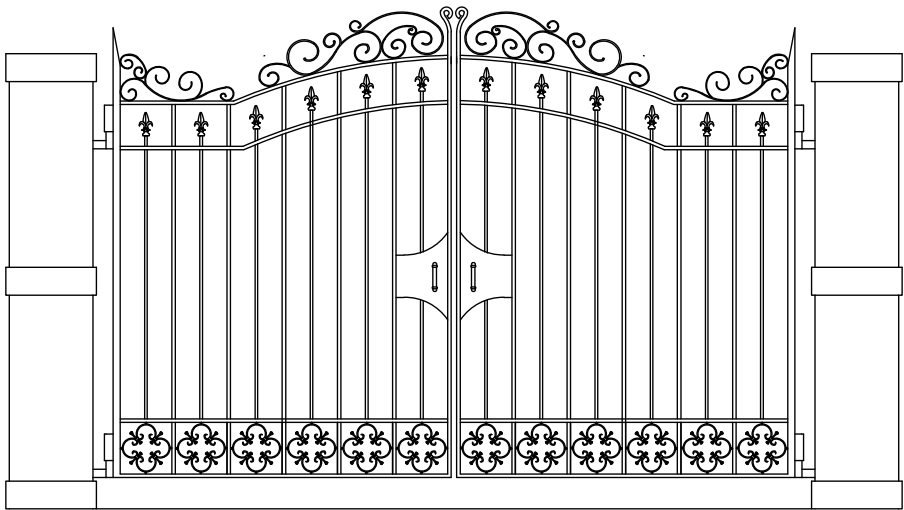
Navesink



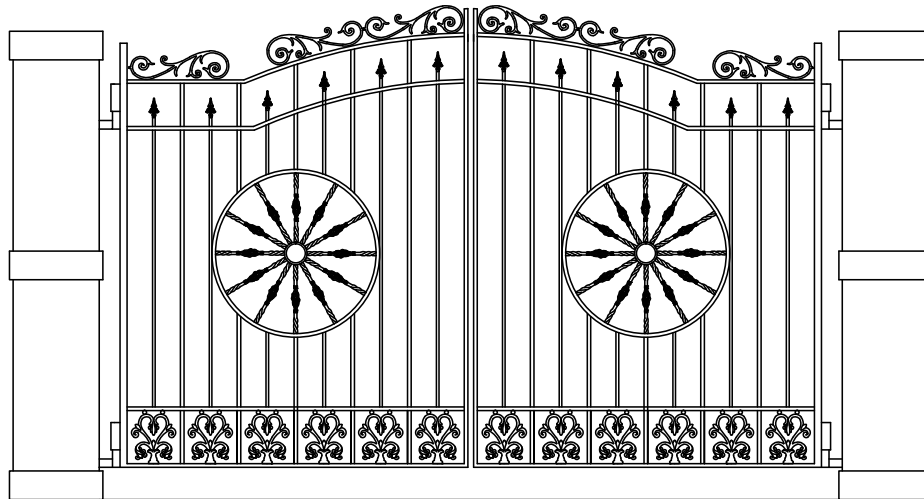
Ocean



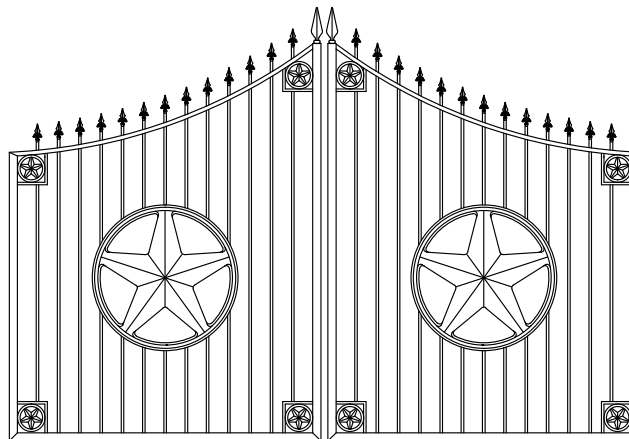
Red Bank



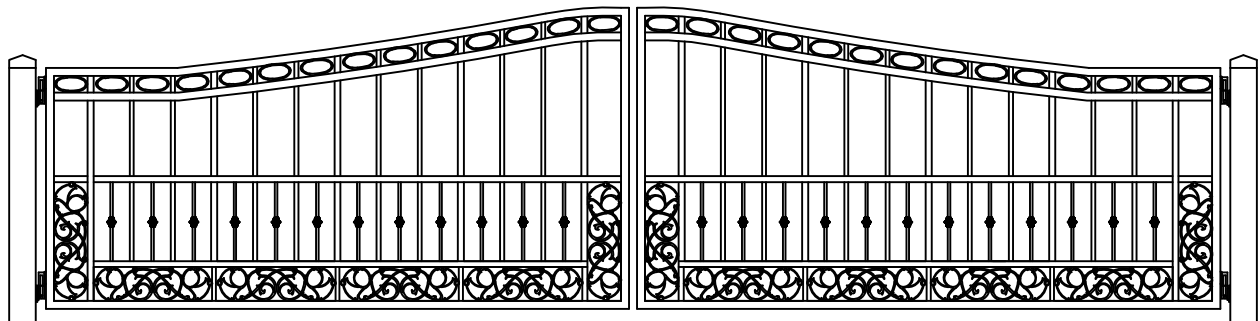
Saddle River



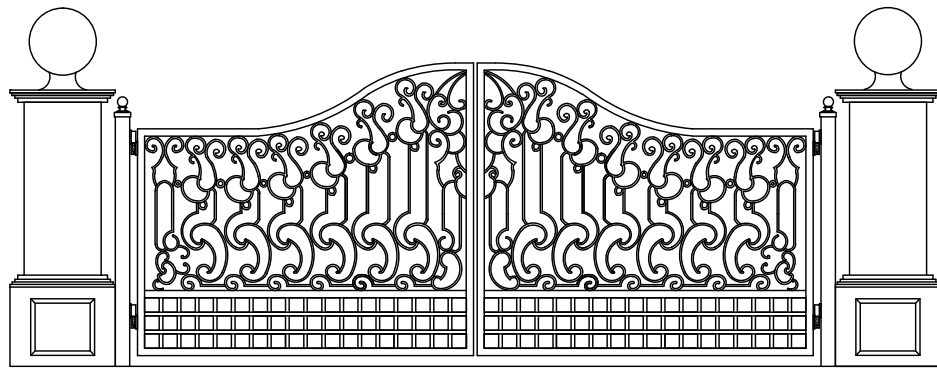
Short Hills



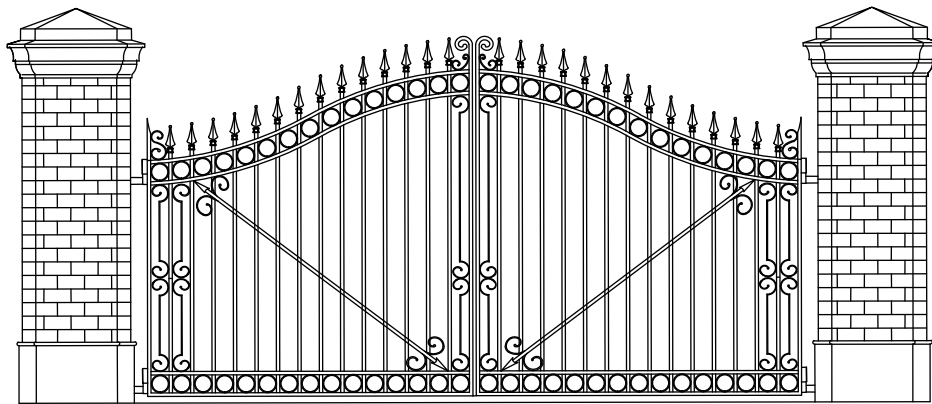
Summit



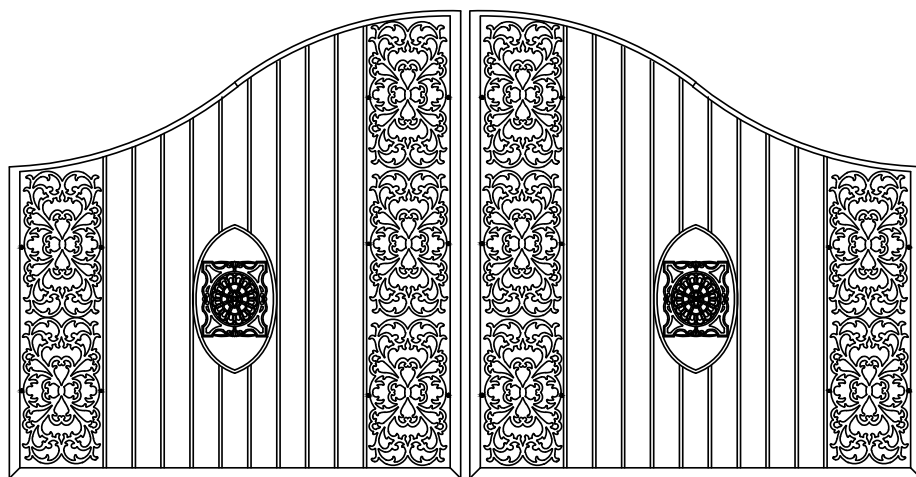
Tenaflly



Teterboro



Wayne



Wyckoff