



# COMPASS

IRONWORKS



G-01

## GATE DESIGN GUIDE

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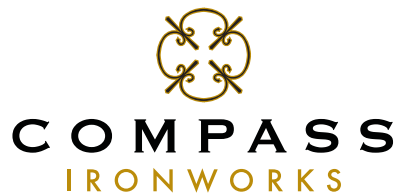


# COMPASS IRONWORKS

## 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.



# GATE DESIGN GUIDE

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When you see these icons on pages throughout the Design Guide, it indicates the following:



**Enhanced Physical Perimeter Security**



**Shore Environment Approved**

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.



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.



# GATE DESIGN GUIDE



## 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.

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.

A 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!



G-03

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.



G-04

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.

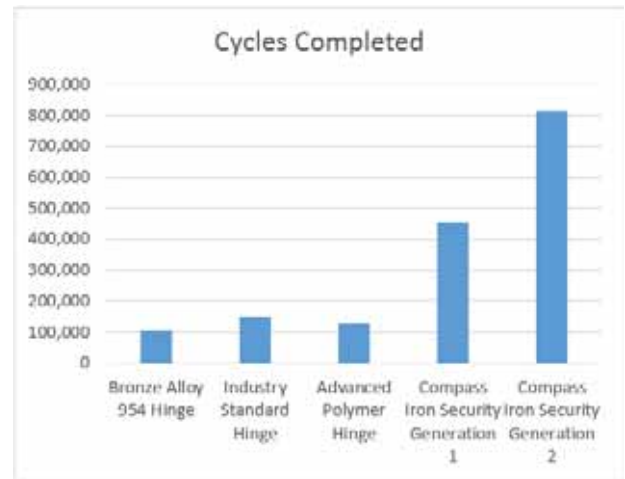
# HINGE FACT SHEET



## THE MILLION DOLLAR HINGE!



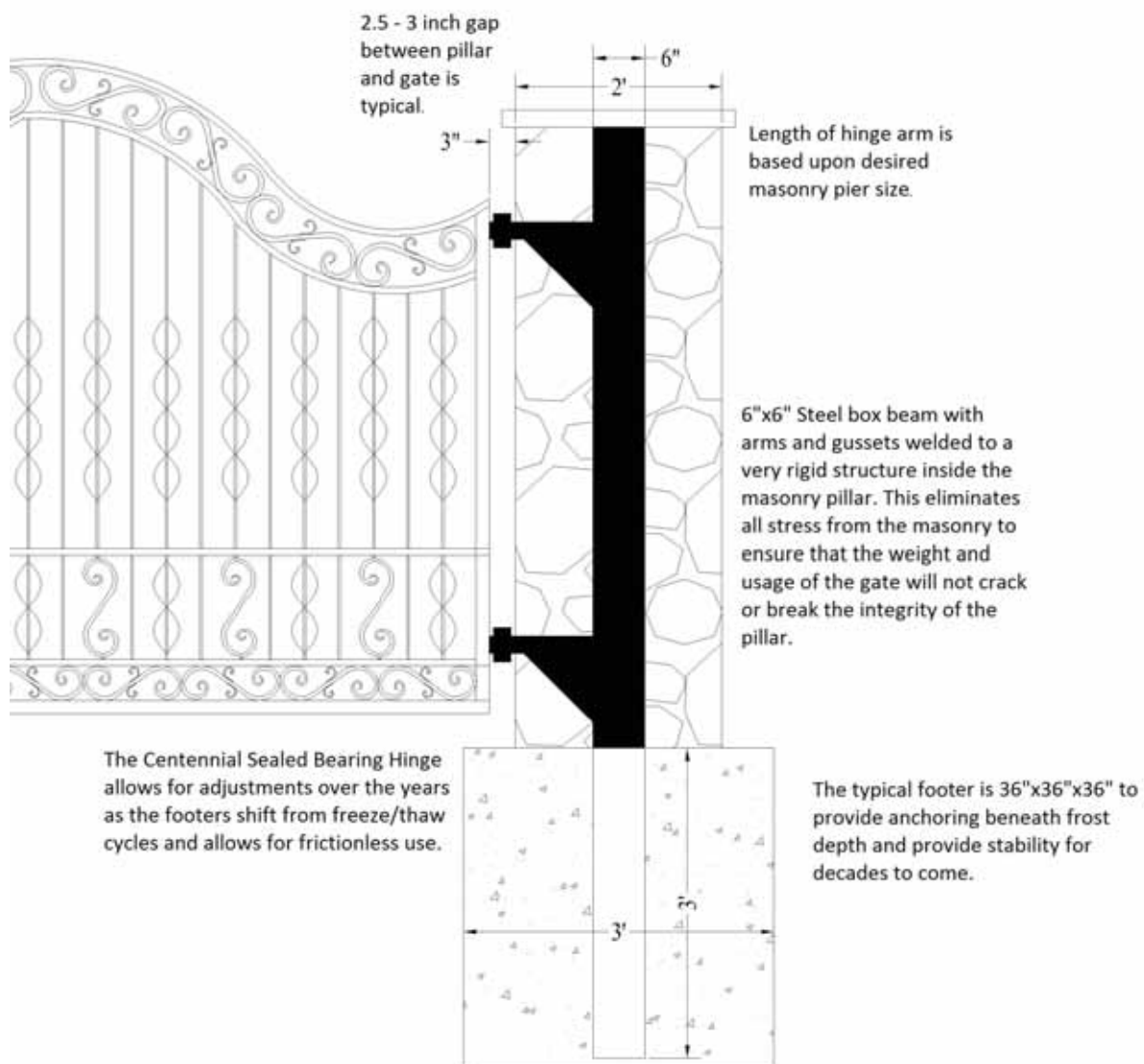
G-05



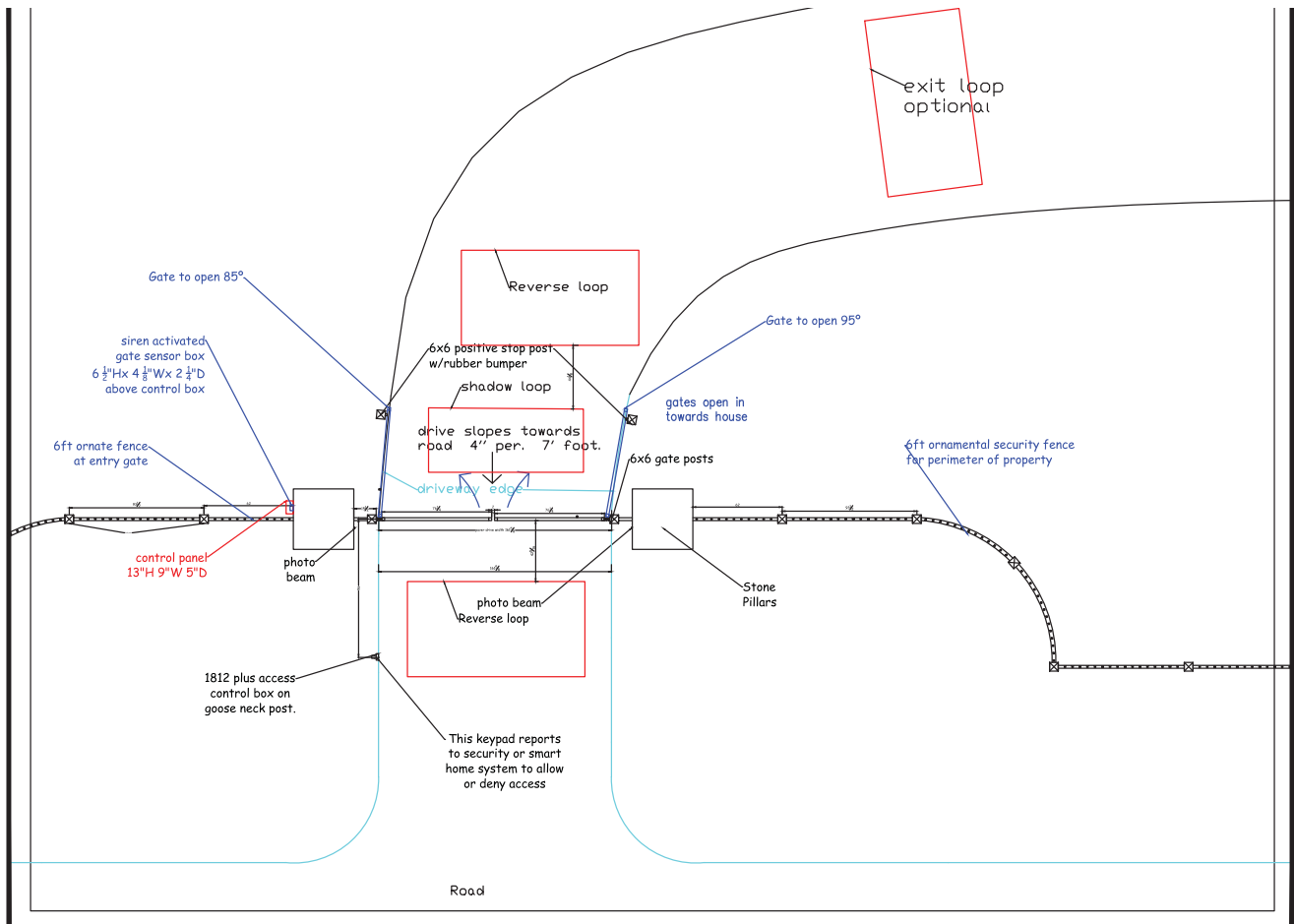
- Onsite adjustment, allowing for re-alignment, at installation and in the future!
- Frictionless operation, you can easily open 1,000lb gates with the tip of a finger!
- Fine threaded bolt can be removed to set aside gates to protect them or for work on hinge column
- 200% Yoke thickness over Industry Standard!
- No Welding, Grinding or Painting on-site needed.
- Over 5x the life of off-the-shelf hinges
- ZERO MAINTENANCE!
- Available in Steel or Aluminum body
- Enhanced Contaminant Protection

## Typical installation of steel structure to support iron gates

1 The ideal sequence of installation is for gates to be completely fabricated and powder-coated before being transported to the site. 2 Then they are set in place and aligned perfectly. 3 Next the supporting steel structure is cemented into its proper location. 4 This will then sit for 10-20 hours for the cement to harden before being taken off and set aside. 5 After that the masonry is done around the steel structure. 6 The masonry and steel are tied together for maximum rigidity and longevity. 7 Then the gates are rehung and ensured to fit. 8 Next the actuator technician follows to finalize the details of having a controlled and secure entryway. 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.







Typical plan view for automation install

For many, many years, driveway gates were attached to the center of big, square masonry pillars. When the gates opened back towards the pillar, this created a potential area of entrapment for children that were in that vicinity to get pinned between gate and pillar.

In the past decade, with lawsuits stemming from children getting injured in these entrapment areas, UL325 has declared those situations in violation of their safety standards.

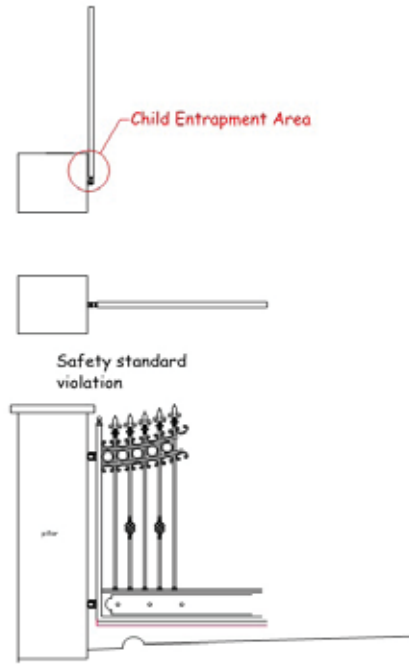
The new safety standard requires either (A) that the gate hinge center is no more than 4" from edge of pillar or (B) there is 16" between pillar and gate when in the open position.

The downside with option A is that the gate is no longer centered on large masonry pillars and is no longer symmetrical visually.

Option B can be done very creatively with either large decorative metal posts that pull from the same beautiful design elements as the gates, or short fence sections called "wings" that accentuate the gate design. Another added aspect of option B is that it provides a beautiful transition from masonry pillar to hinge post. Either way your beautiful driveway gate with automatic gate openers can fulfill UL325 codes fantastically and not be a safety hazard or menace to your friends and family.

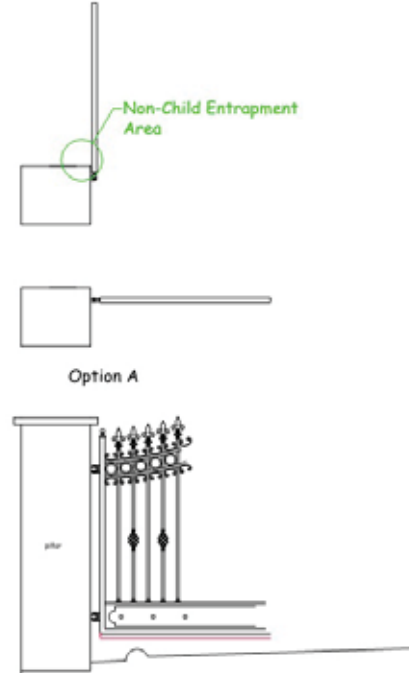
# GATE CODE COMPLIANCE

## INCORRECT GATE PLACEMENT



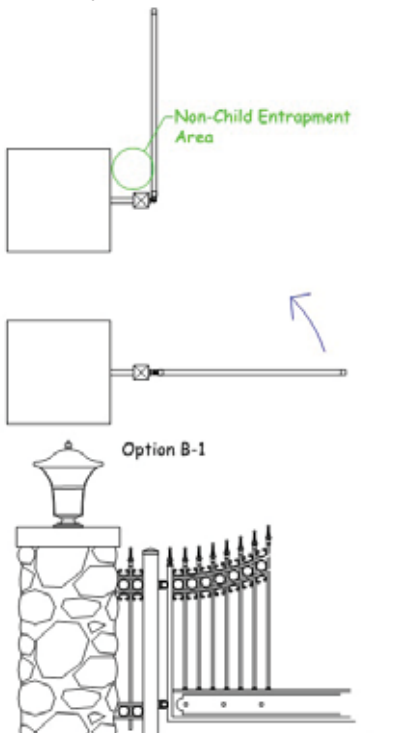
## OPTION A

Hinge center is 4" from back edge of pillar



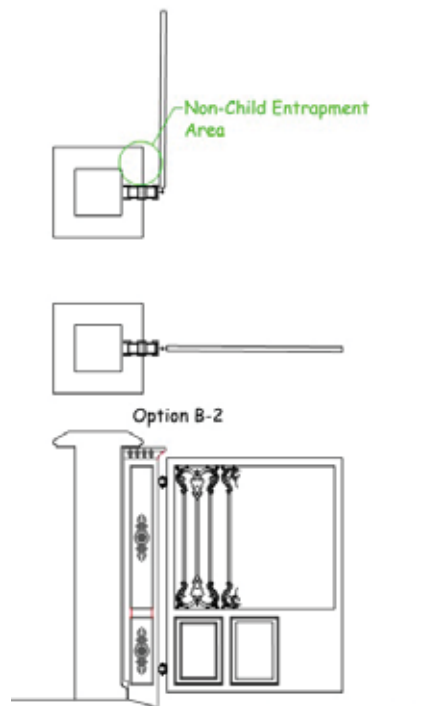
## OPTION B-1

Gates in the open position need to be 16" from pillar



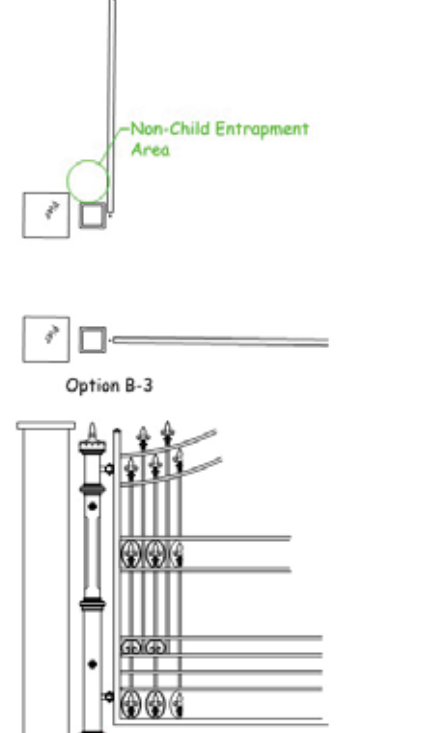
## OPTION B-2

Gates in the open position need to be 16" from pillar



## OPTION B-3

Gates in the open position need to be 16" from pillar





G-06

10" Hampton Post with Base Detail



G-07

4" sq. with Post Ball Cap



G-08

Old English Posts



G-09

Antique post top replication.



G-10

Beverly Column



G-11

Linden Post



G-12

Scarsdale Post



G-13

Acanthus





G-14

Beautiful aged bronze finish gates



G-15

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



G-16

Custom design element on estate entry gate



# DRIVEWAY GATE PROJECTS



All Items on this page have Enhanced Physical Perimeter Security.



G-17

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



G-18

Thin picket design extending through beautifully layered fleur-de-lis finials.



G-19

Chester



# DRIVEWAY GATE PROJECTS



G-20  
Rumson



G-21  
Family crest



G-22  
Hinge post with operator arm behind the frame.



# DRIVEWAY GATE PROJECTS



All Items on this spread have Enhanced Physical Perimeter Security and are Shore Environment Approved



G-23

Custom Driveway gates for a bespoke wedding venue, CO.



G-24

Custom Forged aluminum scrollwork



G-25

Custom bronze medallion



# DRIVEWAY GATE PROJECTS



G-26

Custom estate gate with automatic operation provides security with automatic access



G-27

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



G-28

Custom forged scroll detail.



# DRIVEWAY GATE PROJECTS



All Items on this spread have Enhanced Physical Perimeter Security and are Shore Environment Approved



G-29

Gate Center Crest



G-30

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



G-31

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



# DRIVEWAY GATE PROJECTS



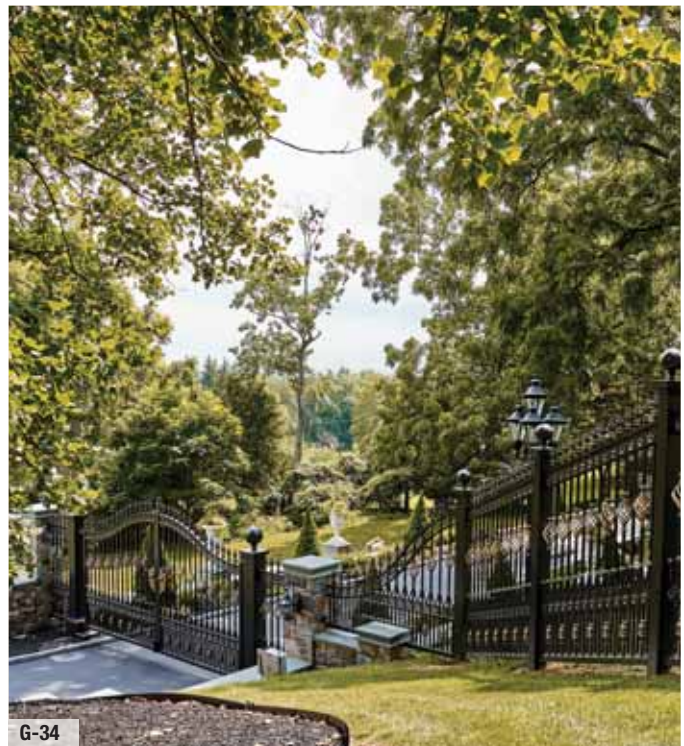
G-32

Beautiful Estate gates that were replicated from England.



G-33

Custom 8-filament large twisted baskets.



G-34

Custom gates with custom fence to follow the challenging terrain.



# DRIVEWAY GATE PROJECTS



All Items on this spread have Enhanced Physical Perimeter Security and are Shore Environment Approved



G-35

Beautiful hand forged scroll and acanthus leaf detail on driveway gate



G-36

Center scrolls with leaves along the top of the gate.



G-37

Custom scroll gate



# DRIVEWAY GATE PROJECTS



G-38

Landscape security gate with hidden automatic gate openers



G-39

Gold detail on baskets



G-40

Gilded scrolls add beauty character.



# DRIVEWAY GATE PROJECTS



All Items on this spread have Enhanced Physical Perimeter Security and are Shore Environment Approved



G-41

Twisted basket and picket detail.



G-42

Gate frame curve detail



G-43

Montauk



# DRIVEWAY GATE PROJECTS



G-44

Beautiful hinge post provides durability and detail.



G-45

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



G-46

Center finials detail.





G-47

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



# DRIVEWAY GATE PROJECTS

  All Items on this spread have Enhanced Physical Perimeter Security. G-44-G-47 are Shore Environment Approved



Forged scroll rings and finials



Antique Iron paint with silver details.



Custom aluminum Estate gates to enhance a 100 yr old Estate.



# DRIVEWAY GATE PROJECTS



G-51

Aluminum gate created custom to match the property design



G-52

Curve, finial and picket detail of the gate.



G-53

Custom casted design element.



# DRIVEWAY GATE PROJECTS



All Items on this spread have Enhanced Physical Perimeter Security. G-54-G-56 are Shore Environment Approved



G-54

Wrought Iron estate gates built in solid aluminum



G-55

Hand forged aluminum scroll work on driveway gates



G-56

Custom knuckle detail for driveway gate



# DRIVEWAY GATE PROJECTS



G-57

Center crest of initials for the gate



G-58

Marine grade fleur-de-lis finial.



G-59

Executive security gate with hidden gate openers



# DRIVEWAY GATE PROJECTS



All Items on this spread have Enhanced Physical Perimeter Security and are Shore Environment Approved



G-60

Custom front gate with hidden gate openers and wifi keypad



G-61

Forged E-scrolls and banding collar detail.



G-62

S-Scroll gate details.



# DRIVEWAY GATE PROJECTS



G-63

Custom aluminum country estate entrance gates



G-64

Custom driveway gate emblem




G-65

Pile of cannon balls for authenticity



# DRIVEWAY GATE PROJECTS

 All Items on this spread have Enhanced Physical Perimeter Security and are Shore Environment Approved



G-66

Intertwining ribbon



G-67

Forged pickets along the top of the estate gate.



G-68

Bayshore



# DRIVEWAY GATE PROJECTS



Owner's Initials





Owner's Initials



Mainline



# DRIVEWAY GATE PROJECTS

  All Items on this spread have Enhanced Physical Perimeter Security and are Shore Environment Approved



G-72

Modern Linear driveway gate design.



G-73

Close up for the Modern Center Clasp.



G-74

Hinge post installed behind masonry column.



# DRIVEWAY GATE PROJECTS



G-75

Commercial cantilever gate.



G-76

Commercial operators.



G-77

Overall view from back side of the gate.





G-78

Gate rear bumper and security photo eye.



# DRIVEWAY GATE PROJECTS

  All Items on this spread have Enhanced Physical Perimeter Security and are Shore Environment Approved



G-79

Custom aluminum estate gates to emulate wooden gates



G-80

Gate frame detail



G-81

Picket chamfer detail

# DRIVEWAY GATE PROJECTS



All Items on this spread have Enhanced Physical Perimeter Security and are Shore Environment Approved



G-82

Hidden hinge detail



G-83

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



G-84

Beautiful gate with hidden automation





G-85

Solid, cost-effective security gates.



G-86

Hand-Forged aluminum security gate.



G-87

Custom quatrefoil gate detail.



# DRIVEWAY GATE DESIGNS



G-88

Shore Property Estate Gates.




G-89

Lake front property gates with family initial.



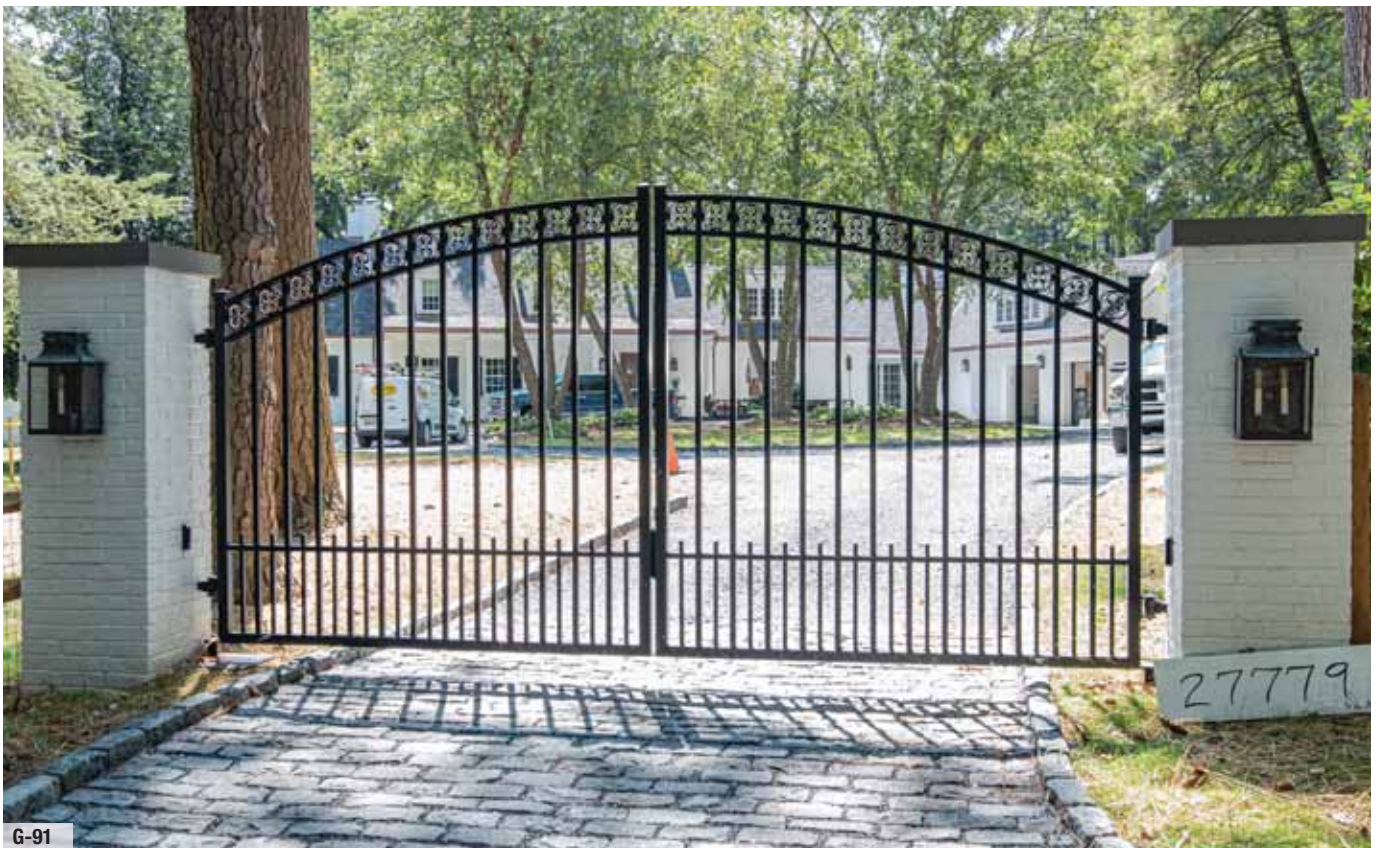
# DRIVEWAY GATE DESIGNS

 All Items on this spread have Enhanced Physical Perimeter Security and are Shore Environment Approved



G-90

Horse Farm Estate Gates



G-91

Security gates for a bay front property.



# DRIVEWAY GATE DESIGNS



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





Refurbished French Gates



Modern Driveway to meet 4" pool code requirements.



# DRIVEWAY GATE DESIGNS

  All Items on this spread have Enhanced Physical Perimeter Security. All, except G-93, are Shore Environment Approved



G-95

Custom design driveway gate to match property.




G-96

A simulated wood gate done in non-corrosive aluminum



# DRIVEWAY GATE DESIGNS

 All Items on this spread have Enhanced Physical Perimeter Security. G-97 and G-98 are Shore Environment Approved



G-97

Horse Farm Gates, MD



G-98

Galvanized Iron Gates with a Statuary bronze powder coat.





G-99

Antique Iron gate replication.



G-100

Scroll and collar detail



G-101

Ball finial detail



G-102

Scroll Panel details



# PEDESTRIAN GATE PROJECTS



G-103

Garden Gate



G-104

Exquisite Garden pedestrian gate.




G-105

Gate center piece.



# PEDESTRIAN GATE PROJECTS

 All Items on this spread have Enhanced Physical Perimeter Security and are Shore Environment Approved



Programmable Security Latch



Security mesh overlay



Forged point picket



Double leaf security pedestrian gate.



# PEDESTRIAN GATE PROJECTS



G-110

Security pedestrian gate beside driveway gate.



G-111

Locinox latch detail



G-112

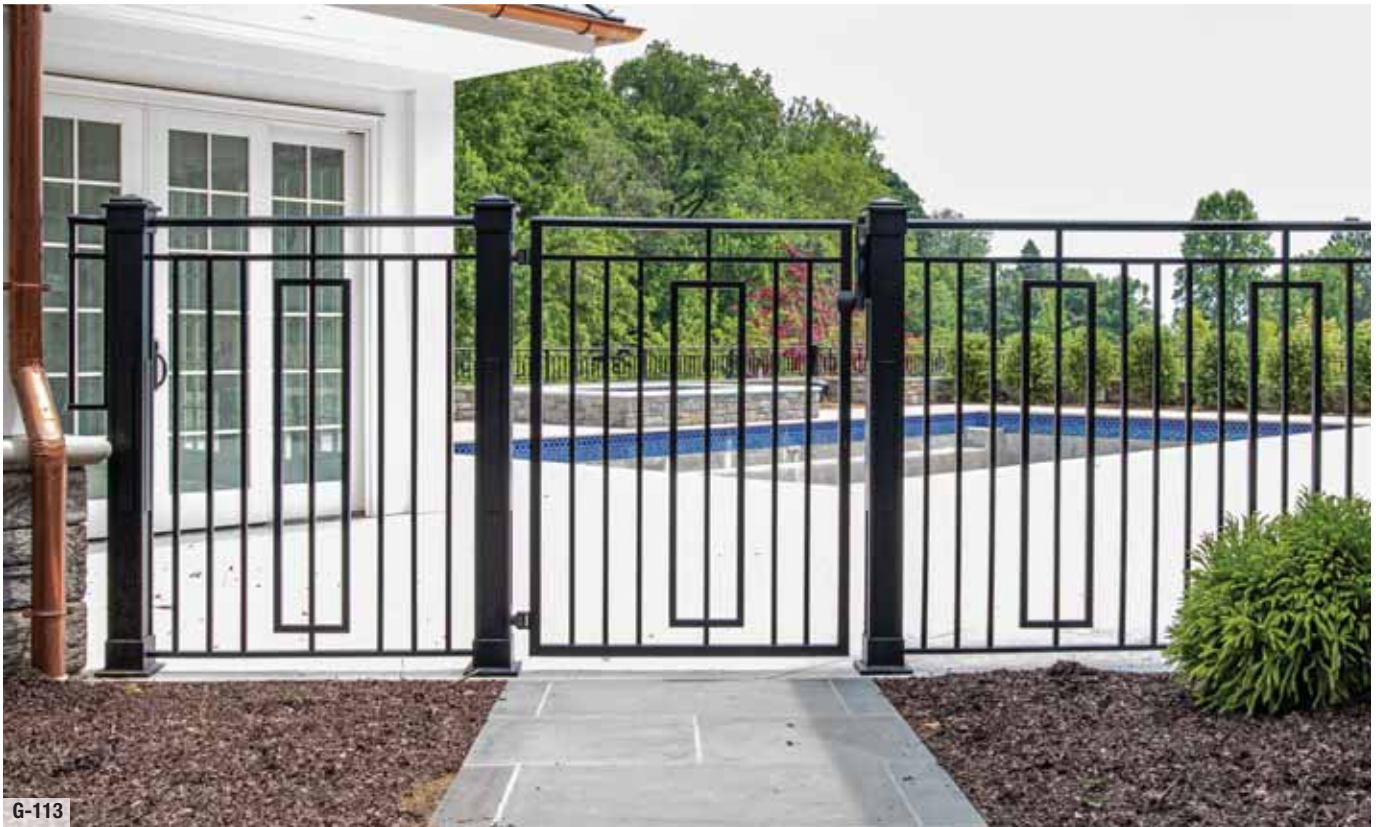
Rear pool gate.



# PEDESTRIAN GATE PROJECTS



All Items on this spread have Enhanced Physical Perimeter Security and are Shore Environment Approved



G-113

Rectilinear Pool gate and fence



G-114

Rectilinear Pool gate detail



G-115

Gate hinge detail



# PEDESTRIAN GATE PROJECTS



G-116

Moon Gate created from solid bronze



G-117

Dog gate in solid raw bronze




G-118

Small pool moon gate made of bronze.



# PEDESTRIAN GATE PROJECTS

 All Items on this spread have Enhanced Physical Perimeter Security and are Shore Environment Approved



G-119

Detail rich pedestrian gate



G-120

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



G-121

Antique strap hinge and speakeasy grill on property gate



G-122

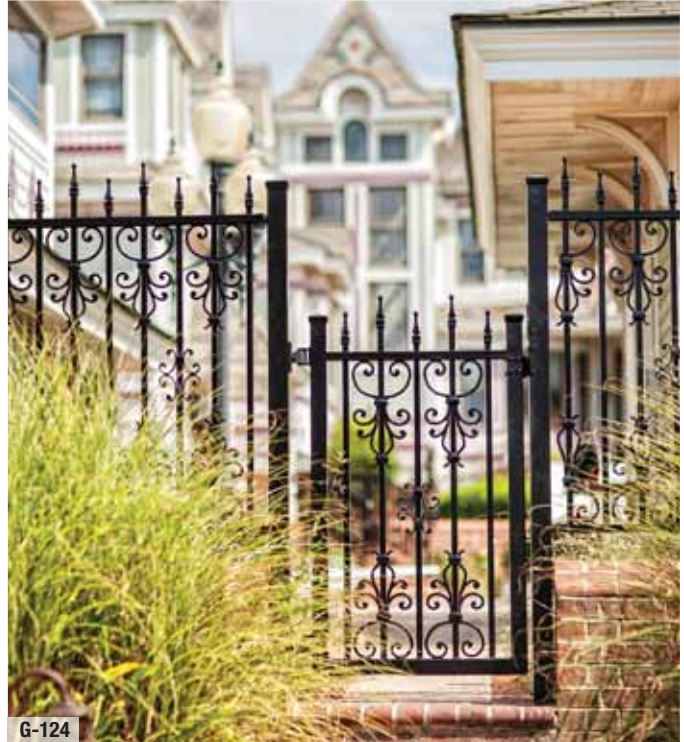
Mechanical keyless latch for security gate





G-123

Courtyard double gate



G-124

Garden sidewalk gate



G-125

Custom Pool gate



G-126

Bayside Gate



# PEDESTRIAN GATE DESIGNS



All Items on this spread have Enhanced Physical Perimeter Security. All, except G-129, are Shore Environment Approved



G-127

Forged aluminum divider gate.



G-128

Swing ornamental security gates



G-129

Forged iron pool gate



# PEDESTRIAN GATE DESIGNS



G-130

Bay front pool gates



G-131

Intricate details for code-compliant pool gate



G-132

Gate with pickets turned on a diamond.



# PEDESTRIAN GATE DESIGNS



All Items on this spread have Enhanced Physical Perimeter Security. All, except G-133, are Shore Environment Approved



G-133

Forged aluminum Gates



G-134

Slider oceanfront security gates within outdoor entertainment space.




G-135

Property perimeter pedestrian gates



# PEDESTRIAN GATE DESIGNS

 All Items on this spread have Enhanced Physical Perimeter Security. All, except G-136, are Shore Environment Approved



G-136  
Forged texture picket gates



G-137  
Modern pedestrian gates



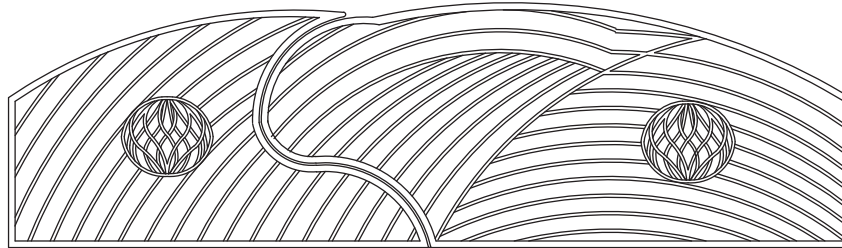
G-138  
Forged Iron scroll gates



G-139  
Arch security gates that fit between architectural columns.

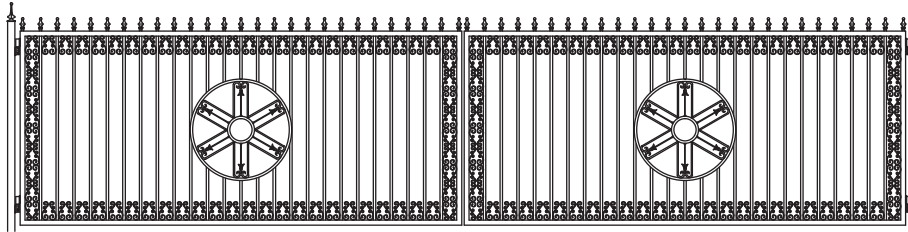


These concepts are intended to get your creative juices flowing. We can build gates exactly like these, or you can mix up any design elements to suit your taste—for instance, the Alpine style gate can have the Avalon center and the Belmar bottom panel. Design elements can also be customized to express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



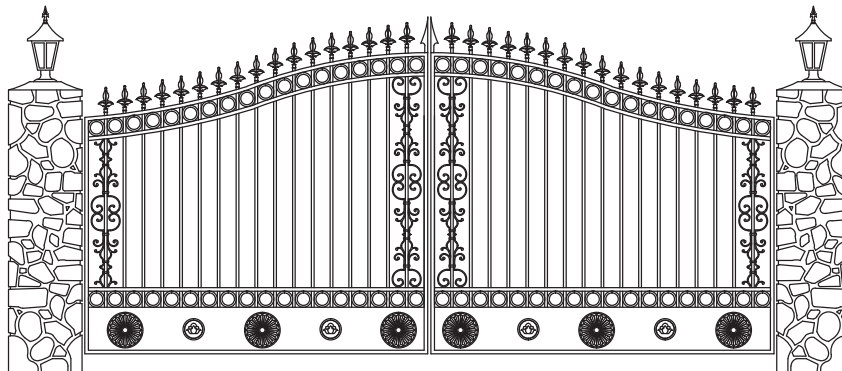
Alpine

G-140



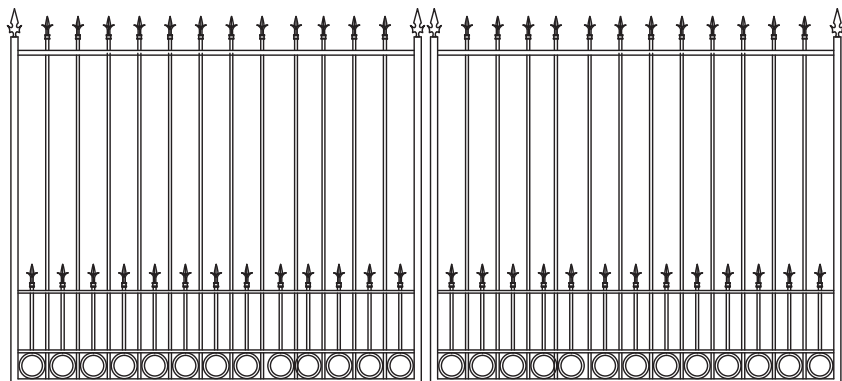
Avalon

G-141



Bellmar

G-142

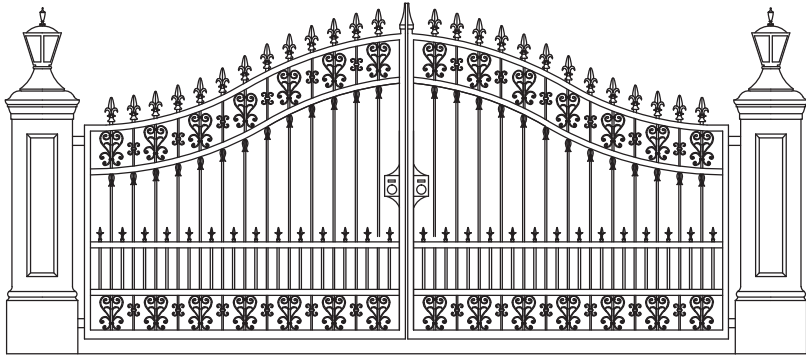


Caldwell

G-143

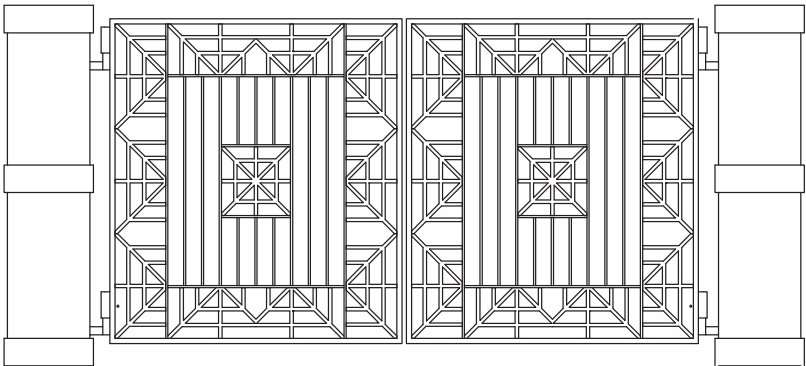


# CONCEPTUAL DRAWINGS



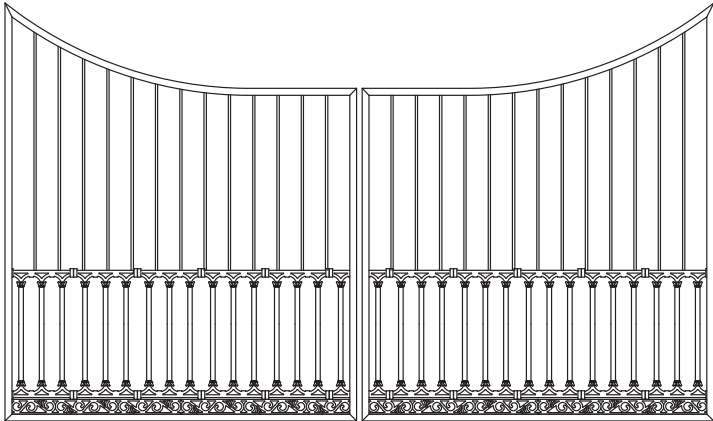
Chatham

G-144



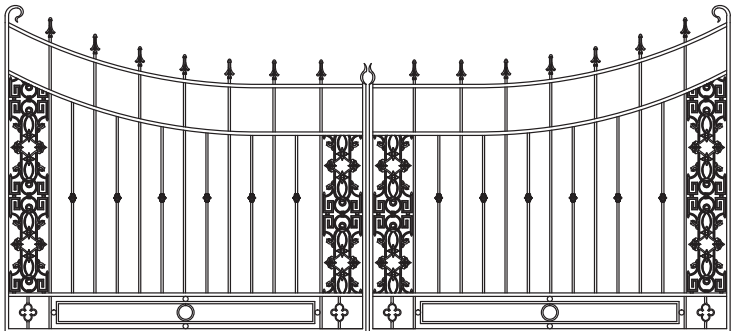
Colt's Neck

G-145



Deal

G-146

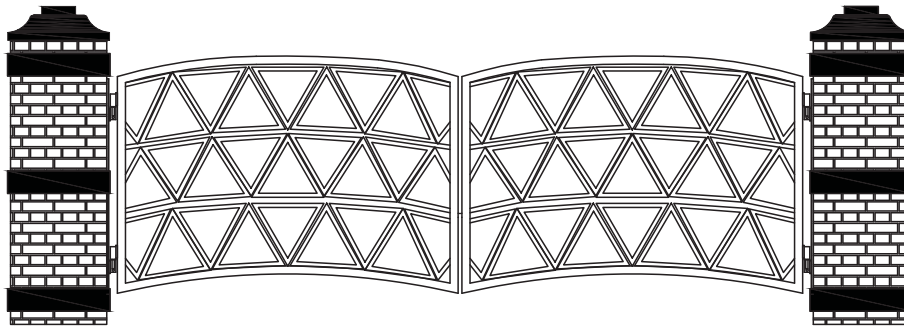


Englewood

G-147

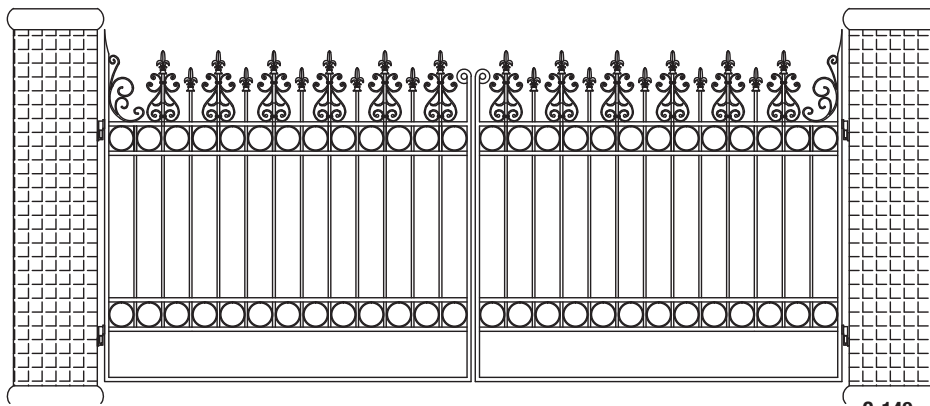


# CONCEPTUAL DRAWINGS



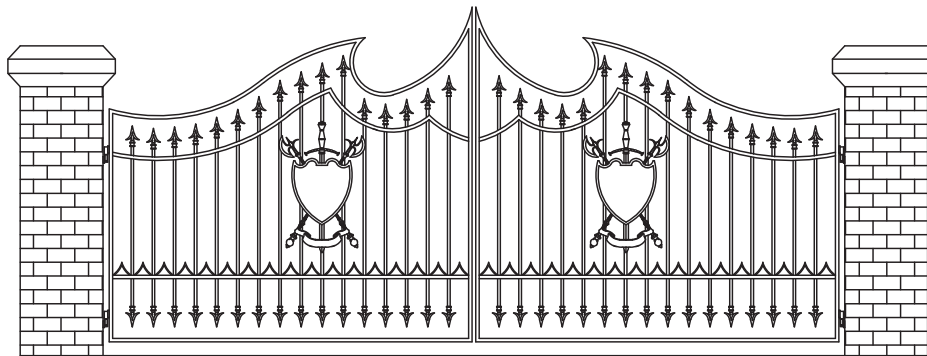
Far Hills

G-148



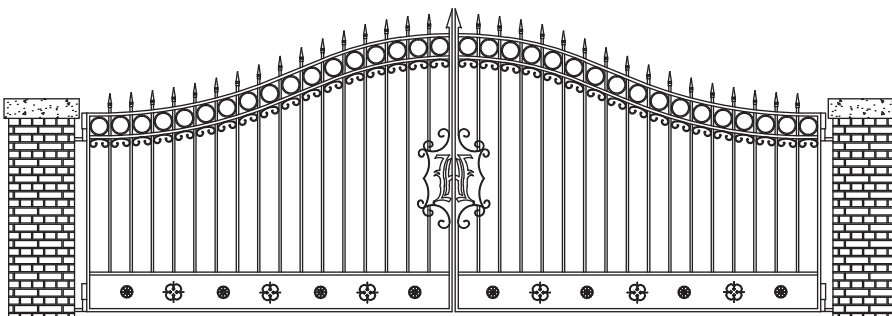
Franklin Lakes

G-149



Ho-Ho-Kus

G-150

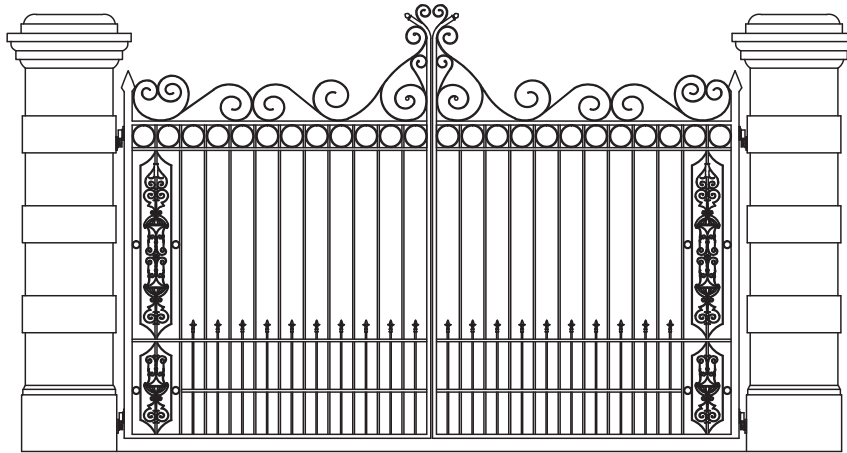


Holmdel

G-151

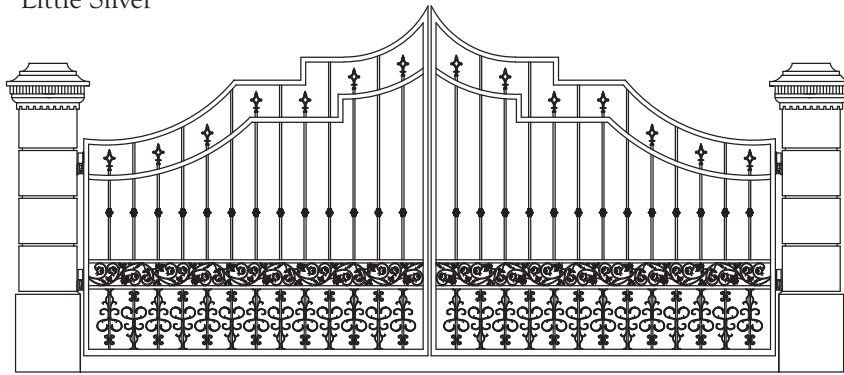


# CONCEPTUAL DRAWINGS



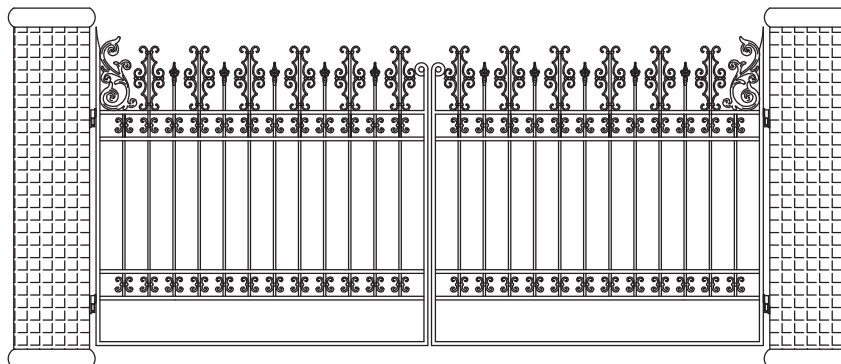
Little Silver

G-152



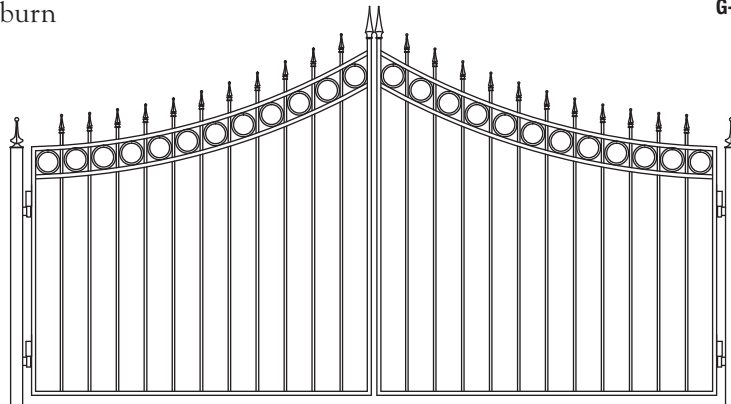
Livingston

G-153



Millburn

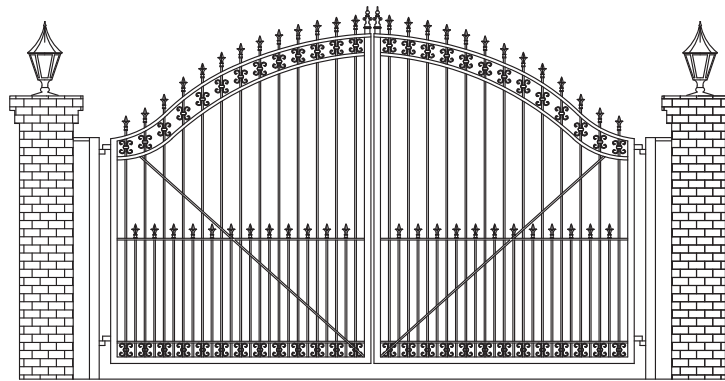
G-154



Montclair

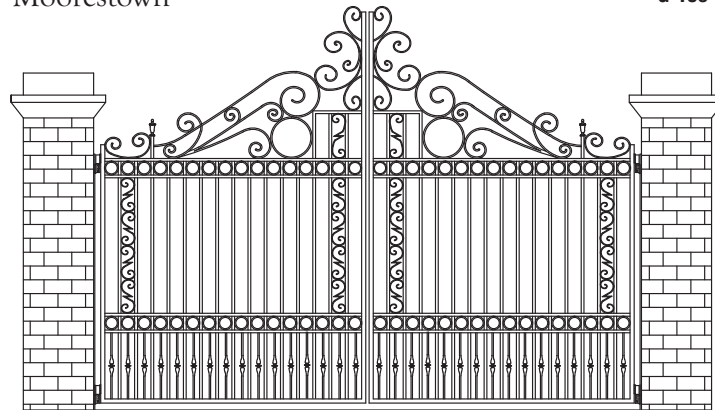
G-155

# CONCEPTUAL DRAWINGS



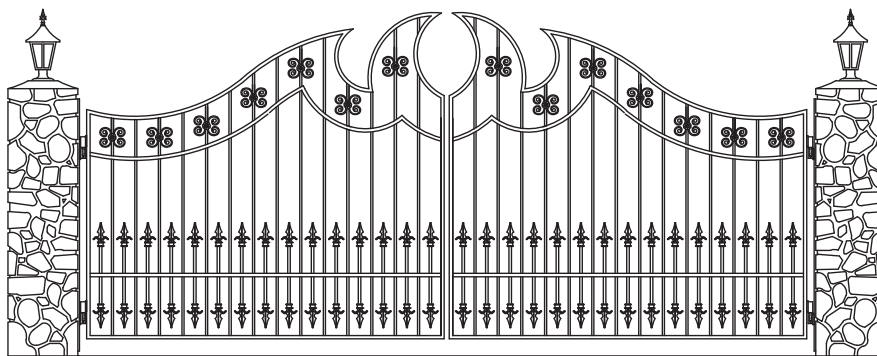
Moorestown

G-156



Navesink

G-157



Ocean

G-158

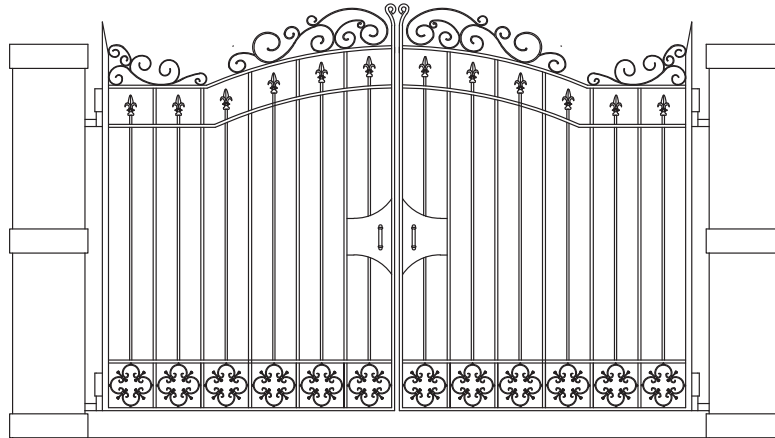


Red Bank

G-159

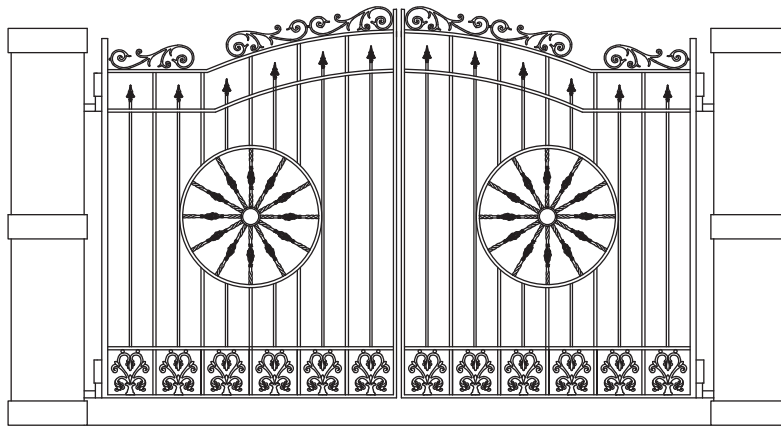


# CONCEPTUAL DRAWINGS



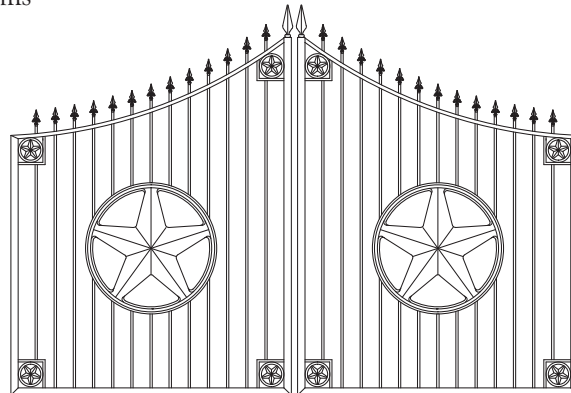
Saddle River

G-160



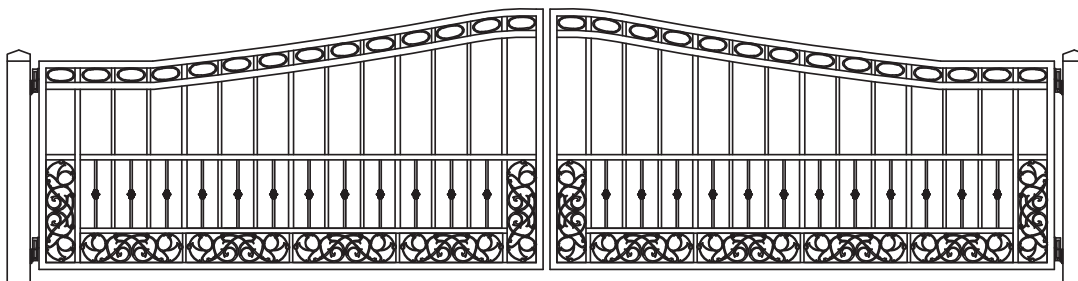
Short Hills

G-161



Summit

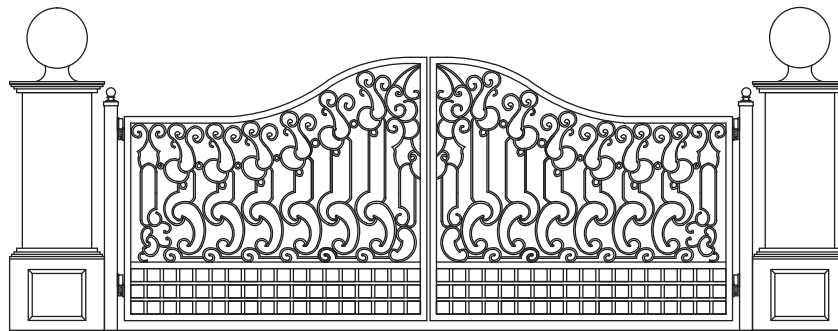
G-162



Tenafly

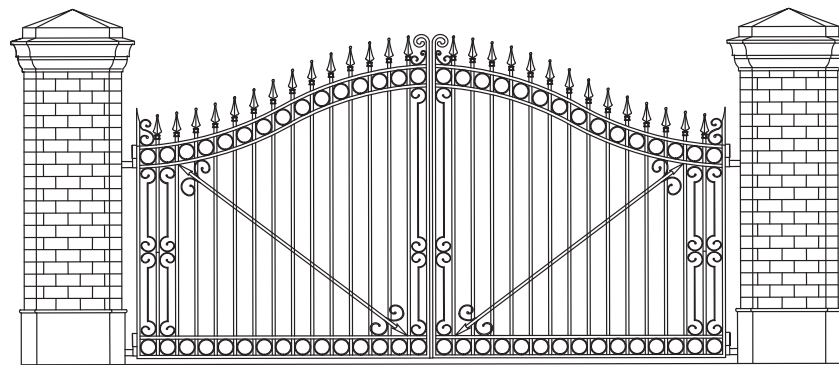
G-163

# CONCEPTUAL DRAWINGS



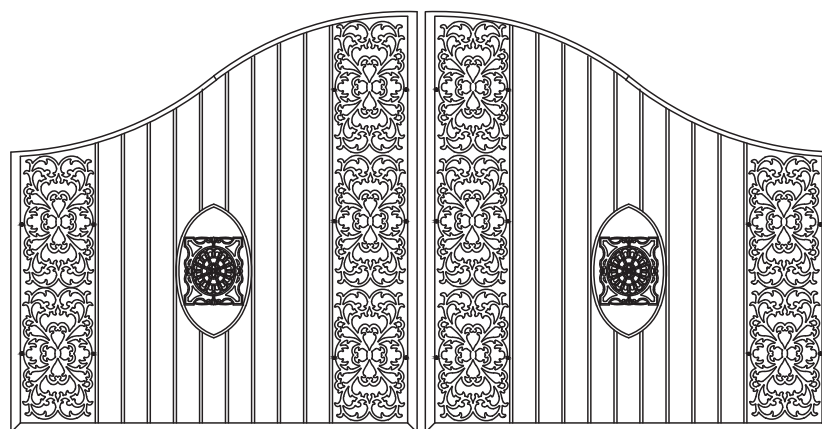
Teterboro

G-164



Wayne

G-165



Wyckoff

G-166





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