



# Commercial Ties

Cost Effective Solutions for Mainline Track Applications

# Cost Effective Solutions for Mainline Track

From the Leader in Pre-stressed Concrete Crossties

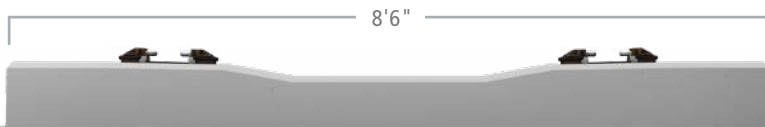
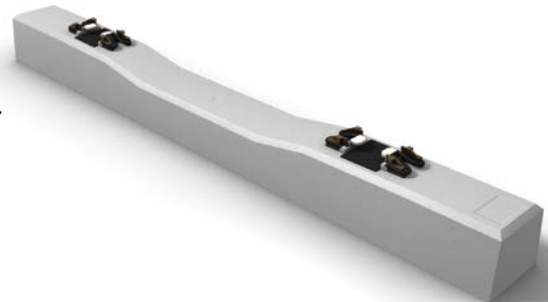


## The Rocla Concrete Tie Advantage

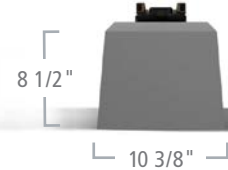
Concrete ties provide a stable track structure that is well suited for all types of mainline railroad applications in North America. From freight to transit, Rocla concrete tie products are not only the well-established solution in terms of performance and reliability, but also the most cost effective solution in the market. Over many years of continuous R&D we have developed an exacting manufacturing process that yields high quality concrete ties produced at maximum efficiency that are delivered to our customers on time.

### Commercial Tie 8'6"

Rocla Commercial Ties are designed to meet the requirements of mainline tracks of all types; Commuter Rail / Freight/ Industrial.



Weight Approx. 720 lbs



<b>Fastening Systems</b> E-clip, Fastclip	<b>Rail Section</b> 115RE, 136RE	<b>Rail Seat Slope</b> 1:40 +/- 5	<b>Gauge</b> 4' 8 3/4"
<b>Speed</b> 85 mph	<b>Tie Spacing</b> 24" - 30"	<b>Axle Load</b> 41 ton	<b>Application</b> Commuter Rail / Freight / Industrial



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# Grade Crossing Ties

Concrete Tie Solutions for Grade Crossing Panels

# Concrete Tie Solutions for Grade Crossings

From the Leading Manufacturer in North America

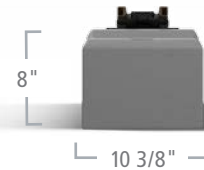
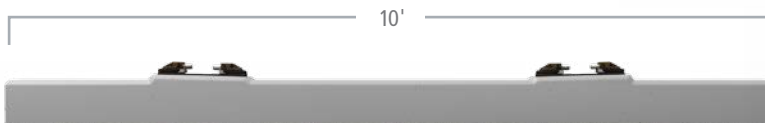


## The Rocla Concrete Tie Advantage

Grade crossings are an important part of rail infrastructure, enabling railroads to cross highways and provide the most efficient service through local towns and cities. Everyday motorists cross over the more than 40,000 grade crossings that exist throughout the North American rail network, which is why it is critical that these structures are safe for cars and trains alike. Rocla Grade Crossing Ties are the foundation of a strong track structure, providing superior track surface alignment and gage holding performance, all of which are key factors in safe rail infrastructure. And like every Rocla concrete tie product, our Grade Crossing Ties are of absolute quality and consistency, which is why North American railroads trust us in the most safety critical conditions.

## Grade Crossing Ties 10'

Rocla 10' Grade Crossing Ties are designed for applications that require the use of Grade Crossing Panels. The 10' Grade Crossing Tie is commonly used at grade crossings on roadways, station applications for light rail, and is also used as a transition tie between wood and concrete track sections.



Weight Approx. 730 lbs



<b>Fastening Systems</b> Vossloh, Fastclip, Safelok I & III, E-clip	<b>Rail Section</b> 115RE, 136RE	<b>Rail Seat Slope</b> 1:40 +/- 5	<b>Gauge</b> 4' 8 1/2"
<b>Speed</b> 70 mph	<b>Tie Spacing</b> 24" - 30"	<b>Axle Load</b> 20 - 40 ton	<b>Application</b> Transit / Freight / Industrial



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# Heavy Haul Ties

The Standard for America's Class I Railroads



# Reliable Performance on Heavy Haul Tracks

Designed for the Most Demanding Track Sections in North America

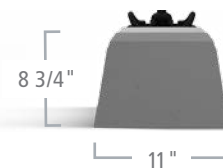


## Heavy Haul Vossloh 101L

Rocla concrete ties have a well established record of performance and quality on Class I railroads in North America, especially in demanding heavy haul track conditions. Pre-stressed concrete ties are the foundation of a strong track structure that provides stability through improved track surface alignment and gauge holding performance. Concrete ties also provide exceptional resistance to weathering and corrosion, which is critical in areas on extreme temperature fluctuations where degradation can occur.

## Heavy Haul 8'6"

Rocla Heavy Haul concrete tie products have become the standard for America's Class I railroads. The Vossloh 101L has been engineered for mainline applications for both the BNSF Railway and Union Pacific Railroad. The Heavy Haul Tie features a captive system that can be installed with fully automated equipment, or hand tools for industrial applications.



Weight Approx. 720 lbs



<b>Fastening Systems</b> Vossloh, Safelok 1, Safelok III, E-clip	<b>Rail Section</b> 136RE	<b>Rail Seat Slope</b> 1:40 +/- 5	<b>Gauge</b> 4' 8 1/2"
<b>Speed</b> 80 mph	<b>Tie Spacing</b> 24"	<b>Axle Load</b> 41 ton	<b>Application</b> Heavy Haul / Industrial



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# High Speed Rail Ties

The Perfect Solution for High Speed Rail

# Established High Speed Performance

From the Only Manufacturer in North America with Experience in High Speed

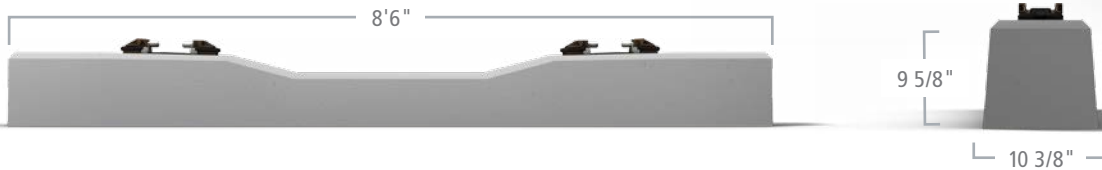
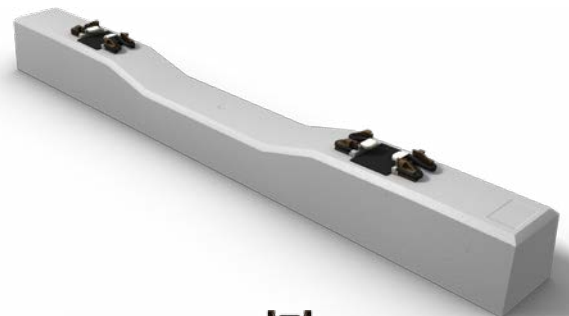


## The Rocla Concrete Tie Advantage

Concrete Ties provide the rigid, stable track structure capable of withstanding the dynamic forces of high speed trains which is why concrete is essentially the standard tie material on high speed lines throughout the world. Rocla concrete ties are trusted on passenger rail networks throughout North America and we are the only manufacturer in the region with experience in high speed. Rocla concrete tie products are designed by industry leading engineers in North America who are experts in the technology of concrete and pre-stressing forces, designing ties according to the track conditions of each individual project. Our exacting production and quality control processes ensure that every tie provides reliable, consistent performance, contributing to the safe rail infrastructure necessary for passenger transit.

## High Speed Ties 8'6"

Rocla High Speed Rail Ties have been designed to exceed the demands of the Acela train in Amtrak's Northeast Corridor. This design is the only one of its kind in North America and is the perfect solution for future high speed rail applications.



Weight Approx. 780 lbs



<b>Fastening Systems</b> Vossloh, Fastclip, Safelok I & III, E-clip	<b>Rail Section</b> 115RE	<b>Rail Seat Slope</b> 1:40 +/- 5	<b>Gauge</b> 4' 8 1/2"
<b>Speed</b> 160 mph	<b>Tie Spacing</b> 24" - 30"	<b>Axle Load</b> 41 ton	<b>Application</b> High Speed Rail



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# Restraining Rail Ties

Established Concrete Tie Products for Unique Transit Projects

# Customizable to Meet the Needs of Each Project

From the Leading Manufacturer of Concrete Tie Products in North America

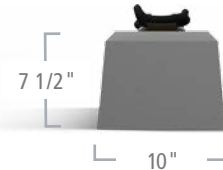


## The Rocla Concrete Tie Advantage

Restraining rails are an important component of transit rail infrastructure, especially along tight curves where it provides increased resistance to track derailment. We are the leading supplier to North American transits with a comprehensive offering of tie products that include concrete Restraining Rail Ties. Rocla concrete ties are designed for the specific requirements of each projects which makes us the ideal partner for unique transit projects. Our exacting production and quality control processes ensure that every tie provides reliable, consistent performance, contributing to the safe rail infrastructure necessary for passenger transit.

## Restraining Rail Ties 8'3"

Rocla Restraining Rail ties can be customized to meet project specifications requiring conventional restraining rail or U69 bracket applications. Gauge and flange-way requirements can be adjusted to meet customer needs.



Weight Approx. 630 lbs

10"



### Fastening Systems

Vossloh, Fastclip, Safelok I & III, E-clip

### Rail Section

115RE

### Rail Seat Slope

1:40 +/- 5

### Gauge

4' 8 3/4"

### Speed

70 mph

### Tie Spacing

24" - 30"

### Axle Load

20 ton

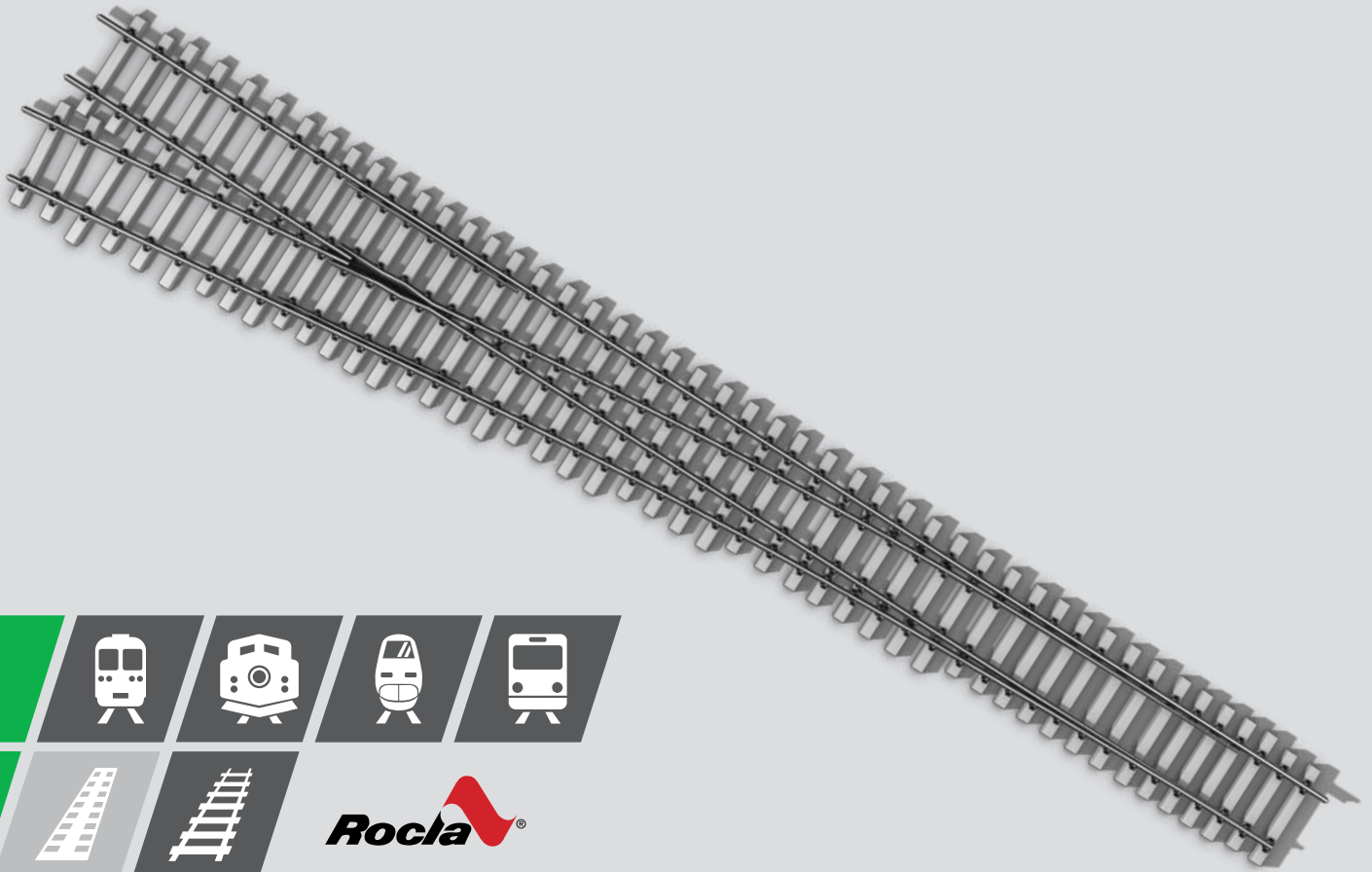
### Application

Transit



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# Special Trackwork Ties

Concrete Ties for All Types of Turnouts and Crossovers



# Special Trackwork Solutions for All Types of Rail

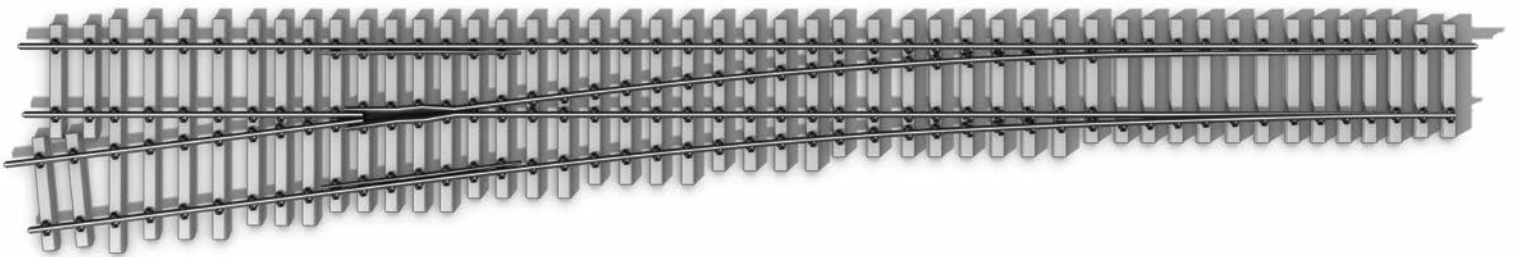
From the Global Leader in Turnouts and Crossings



## The Rocla Concrete Tie Advantage

Pre-stressed concrete ties are the foundation of a strong and stable track structure making it ideal for many types of rail infrastructure applications, especially for turnouts, crossings and other special trackwork intersections. We offer pre-stressed concrete ties for all types of special trackwork, with experience supplying turnouts as small as #6, and as large as #32. We are the only North American concrete tie manufacturer that produces switch ties with 16 strands of reinforcement. This ensures our concrete switch ties are stronger than the minimal requirement, and the strongest overall in the market. While most special trackwork projects are unique and custom in terms of engineering and production, we also offer a line of switch ties made to certain common lengths that can be mass produced, perfect for large standardized projects.

Concrete switch ties are available with pre-assembly options that make installation at the job site more efficient. Each turnout (or trackwork unit) is laid out fully assembled with plates and fastening systems and then inspected by our Quality Assurance department as well as third party inspectors. While the turnout is assembled the rail is match marked and the Rocla concrete switch ties are color coded. The turnout is then partially disassembled, leaving the plating and fasteners intact as well as a fully assembled switch panel.



<b>Fastening Systems</b> E-clip	<b>Rail Section</b> 115RE, 136RE, 141RE	<b>Rail Seat Slope</b> 1:40	<b>Gauge</b> 4' 8 1/2"
<b>Speed</b> Conventional, High Speed	<b>Tie Spacing</b> 24" - 30"	<b>Axle Load</b> Up to Heavy Haul	<b>Application</b> All Railroad Applications



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# Stacker Ties

Cost Effective Solutions for Crane Rail

# Concrete Tie Solutions for Crane Runways

From the Leading Manufacturer in North America

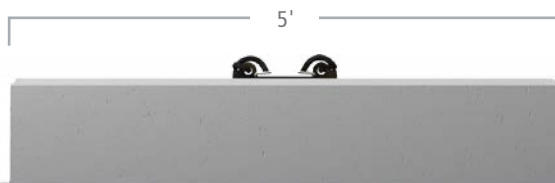


## The Rocla Concrete Tie Advantage

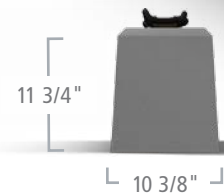
Rail is used in many types of industrial material handling applications such as Gantry cranes, which traverse over fixed track. These types of cranes are commonly used in port terminals and industrial manufacturing facilities, and move immense loads of containers and other types of freight over thick webbed crane rails. Concrete is commonly utilized in crane rail infrastructure, providing the durable stability required to withstand the stresses and strains caused by heavy loads. As in the railroad industry, Rocla concrete tie products are the trusted track foundation for all types of material handling applications. We offer Stacker Ties for crane rail applications which is a cost effective alternative to embedded rail. And like all concrete tie products, we provide custom designs to meet the needs of each and every individual project which is key when providing solutions for unique material handling applications.

## Stacker Ties 5'

The Stacker Tie is a Rocla custom solution for projects requiring concrete ties for crane rail applications. Ties are customized to project needs as a cost effective alternative to embedded crane rail.



Weight Approx. 600 lbs



Fastening Systems E-clip	Rail Section 171RE	Rail Seat Slope N/A	Gauge N/A
Speed N/A	Tie Spacing 30" - 44"	Axle Load 22.5 ton	Application Crane Rail



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# Transit Ties

Concrete Tie Solutions for All Transit Applications

# Reliable Performance for All Transit Applications

From the Leader in Pre-stressed Concrete Crossties



## The Rocla Concrete Tie Advantage

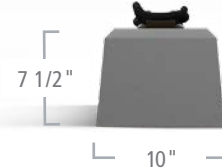
Transit networks, especially those operating at high speeds, require a stable and rigid track surface. Pre-stressed concrete ties form the foundation of a strong track structure resulting in a smoother ride, which is why they are commonly found in transit networks throughout the world. Rocla concrete tie products are the well-established solution for transit networks throughout North America. We are the leading supplier to Amtrak and the only manufacturer in North America with experience in high speed rail. Our exacting production and quality control processes ensure that every tie provides reliable, consistent performance, contributing to the safe rail infrastructure necessary for passenger transit.

### Transit Ties 8'3"

Rocla manufactures concrete tie products for all transit applications. Our ties can be designed to customers project needs and can accommodate any fastening system required. 8'3" transit ties are light weights and easy to install using hand tools or automated maintenance of way equipment.



8'3"



7 1/2"

10"

Weight Approx. 610 lbs



#### Fastening Systems

Vossloh, Fastclip, Safelok I & III, E-clip

#### Rail Section

90RE, 15RE

#### Rail Seat Slope

1:40 +/- 5

#### Gauge

4' 8 1/2"

#### Speed

70 mph

#### Tie Spacing

24" - 30"

#### Axle Load

20 ton

#### Application

Transit / Industrial



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# Yard Ties

The Standard for America's Class I Railroads

# Concrete Tie Solutions for Yards

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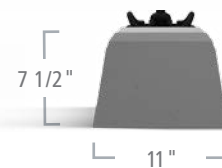
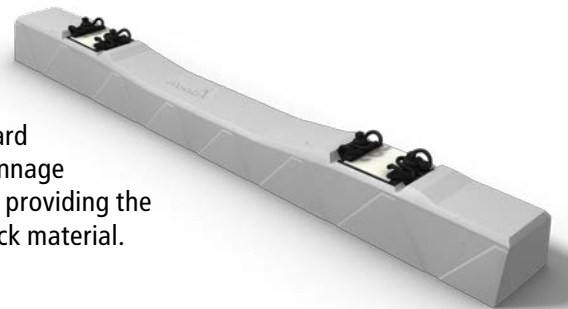


## The Rocla Concrete Tie Advantage

For Class I's, successful operation means maximizing efficiency, especially in their rail infrastructure assets. Freight railroads require rail infrastructure solutions that are cost effective while providing suitable performance. In addition to performance and reliability, Rocla concrete tie solutions are cost effective which is critical to the success of our railroad customers. We design each tie to meet the needs of the specific project, taking into consideration speed, freight tonnage, and geographic characteristics. The Rocla Yard Tie is the most cost effective solution for less demanding freight applications, providing suitable performance for yard and mainline applications characterized by lower speeds and tonnage.

### Yard Tie 10'

Rocla Yard Ties has been engineered to provide the most cost effective solution for less demanding heavy haul applications. The Yard Tie is installed in applications for Class I Railroads where mainline tonnage and speed is not required. The Yard Tie can be spaced from 24"-28" providing the lowest installed cost for less demanding conditions over all other track material.



Weight Approx. 620 lbs

<b>Fastening Systems</b> Vossloh	<b>Rail Section</b> 115RE, 136RE	<b>Rail Seat Slope</b> 1:40 +/- 5	<b>Gauge</b> 4' 8 1/2"
<b>Speed</b> 80 mph	<b>Tie Spacing</b> 24" - 28"	<b>Axle Load</b> 41 ton	<b>Application</b> Heavy Haul / Industrial



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