



Bridging Systems

Temporary | Emergency | Permanent



A 221 foot long pedestrian bridge in New Jersey being lifted into place using two cranes.

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Why Mabeey?

Engineering experience.

Backed by nearly 100 years of professional engineering, we have a long history of innovation in construction. We have built on our engineering success, investing in new product development, advanced production systems and supporting the professional development of our engineers to continue excellence in the field.

Our engineering team collects valuable knowledge of the local environment enabling them to react quickly and bring their specialized experience to your projects. All Mabeey schemes are PE stamped and our engineers receive continuing education to maintain their PE certification and adhere to our stringent engineering standards using state-of-the-art resources to ensure we deliver the level of service our clients demand.

From the development of modular bridging systems, used around the world, to the development of new shoring products used to expedite the excavation process, Mabeey continues to deliver ground-breaking solutions to accelerate construction projects in a safe and efficient manner.

Many organizations simply provide the products necessary to complete the job. But at Mabeey, our team of professionally qualified engineers work closely with our customers to develop, design and install solutions as well as provide site support for the most challenging bridging and temporary works projects.





Safety First

Health and safety are at the very heart of our business. We are dedicated to ensuring that the services and products we provide are the best available. Our pledge to our employees and customers includes that we:

- Ensure that all equipment is safety and quality checked before and after every rental
- Provide advice and guidance on using our equipment via data sheets, user and installation guides, and on-site technical advice
- Offer customers free classroom and hands-on training to learn how to use our equipment in excavation jobs
- Provide extensive hands-on and classroom training for all our employees on our products, equipment usage, installation and safety

All of Mabey's bridging line is available for sale including bridges for highway, utility, pedestrian and rapid-build bridges.

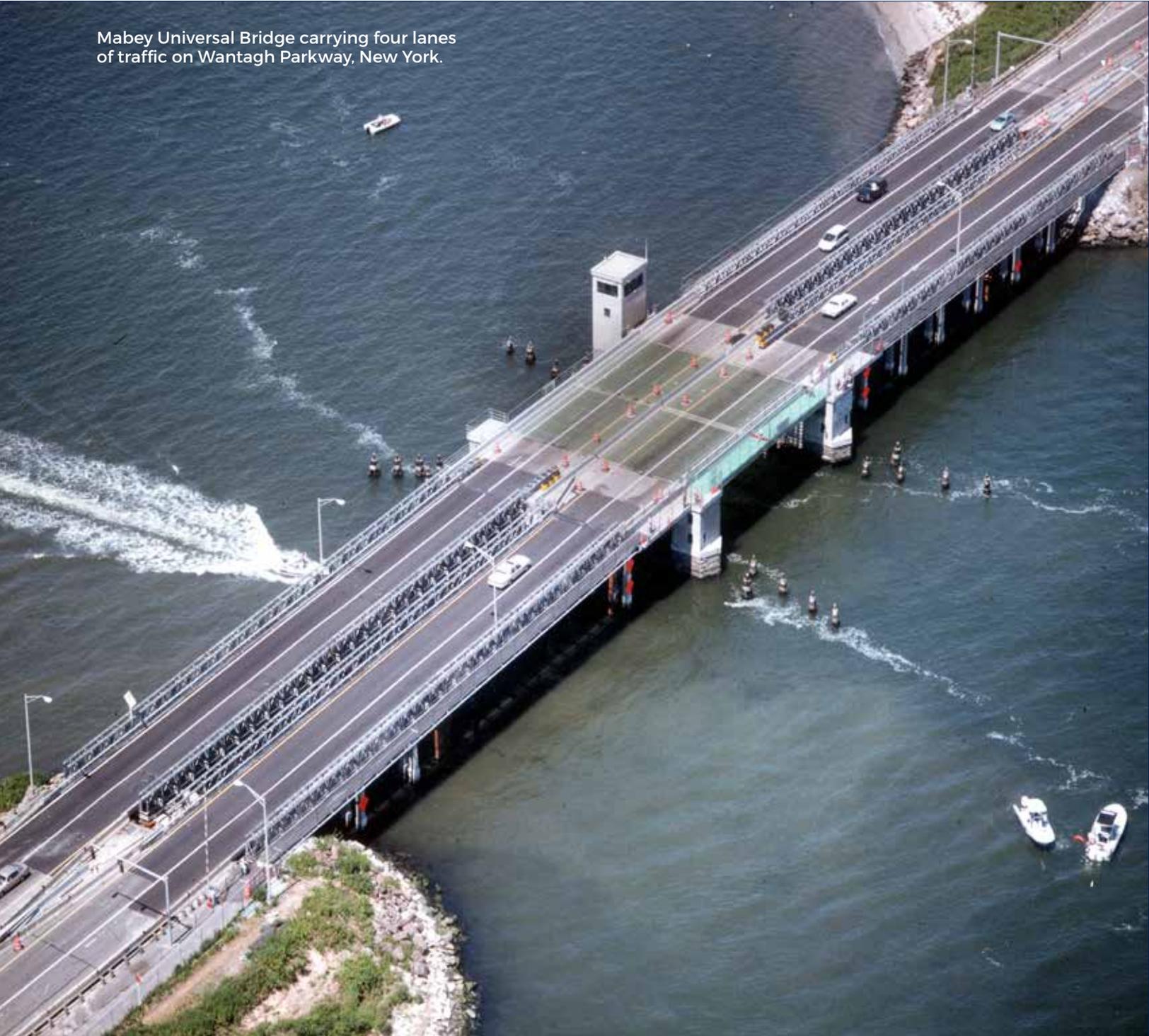
Mabey's Panel Bridge Systems

Mabey rents and sells a wide-range of prefabricated, modular bridging systems to meet most temporary or permanent needs. Across the country and around the world, engineers, contractors, and municipalities turn to Mabey for access solutions.

The panel bridge systems are manufactured to safely carry loads of HS25, HL93, or greater, and

each bridge is pre-engineered to meet contractor requirements. The bridge systems are designed by Mabey's on-staff engineers and are tested to meet rigid reliability standards. Mabey bridge systems reduce overall project costs and shorten timetables because of their modular design and quick assembly features.

Mabey Universal Bridge carrying four lanes of traffic on Wantagh Parkway, New York.



A two-span Mabey Universal Bridge carrying two lanes of traffic during the replacement of the historic bridge on Main Street in Richmond, VT. The main span is 266 ft clear between supports.



The Mabey Bridge Advantage

- **Pre-engineered:** Save time and expense of custom designs
- **Rapid build:** Can be installed with a small crew using standard equipment – no welding or custom fabrication required
- **Transport-ready:** Easily transported on standard flatbed trailers
- **Quality craftsmanship:** Manufactured to ISO9001 standards with full traceability to the component level in both manufacturing and design
- **Low maintenance:** High grade steel and hot-dip galvanizing reduces maintenance
- **Load-bearing capability:** Carries most commercial loading requirements, both light traffic and heavy construction traffic
- **Flexibility/Versatility:** Standard bridge equipment can be configured in various lengths and widths, from one to four lanes, and can be used for highway bridges, pedestrian bridges, utility supports, etc.
- **Anti-skid:** Checkerplate steel deck can be paved with asphalt or delivered with a factory-applied anti-skid coating
- **Customer support:** On-site techs will advise your crew in the safe and efficient installation of your Mabey bridge
- **Available for rent or sale**

Mabey's Panel Bridge Systems

Reliable solution to site safety and functionality

Mabey's prefabricated panel bridge systems are designed as modular structures with truss panels that support floor beams (transoms) of various lengths. These Panel Bridge systems can carry multiple lanes of traffic by increasing the length of the transom. For nearly 100 years, contractors and engineers have used panel bridge systems as a fast and reliable solution for their construction needs. They are impressed with the strength, flexibility and effectiveness of Mabey bridges and view them as a cost-effective, reliable way to keep traffic flowing and improve site safety, both for construction workers and the motoring public.

Two 3-lane bridges over the Long Island Expressway, Long Island, New York.



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Mabey's Panel Bridge Systems

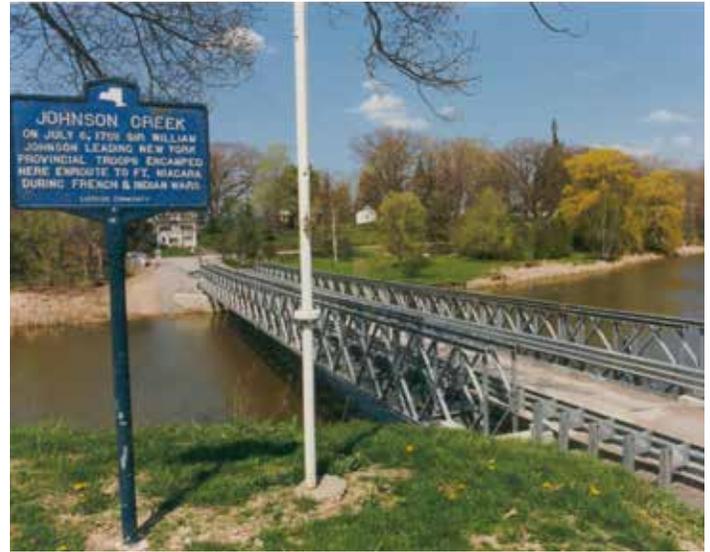
Temporary and permanent solutions

Temporary Use

Mabey Panel Bridges are used on many state, federal and local government projects, both for planned detours and emergency bridges. State and local governments around the country include Mabey Panel Bridges in their scheduled bridge repair and rehabilitation programs as they are used to carry temporary traffic diversion.

Permanent Use

According to the American Galvanizers Association, maintenance on a galvanized bridge is typically not required for up to 20-30 years after initial installation. Mabey bridges meet this criteria with hot-dip galvanized steel in every panel bridge we make.



190 ft, single-lane permanent bridge in Waterport, New York.



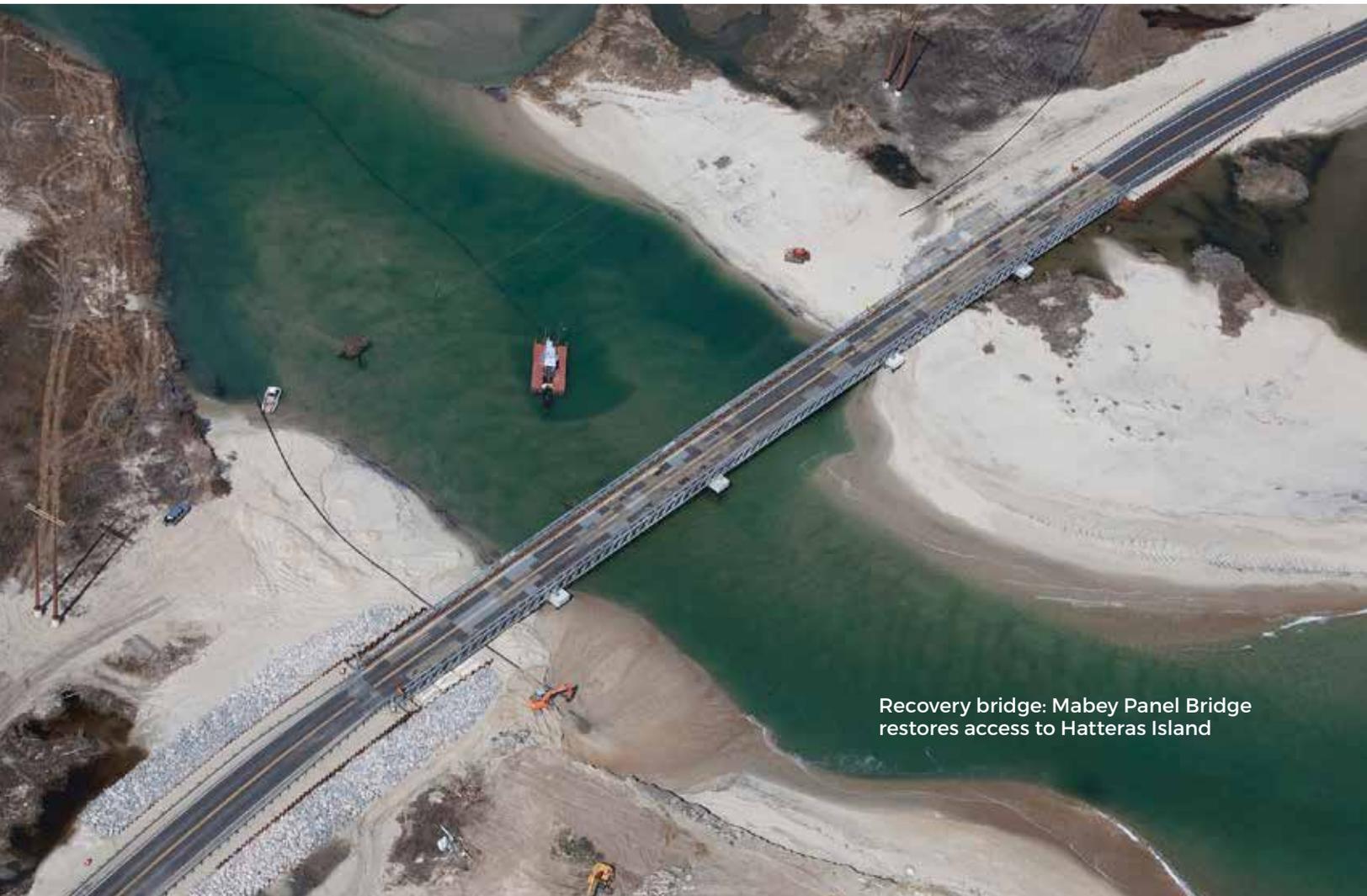
Two-Span Panel Bridge System: 250 ft long, three-lane temporary bridge in Henderson County, North Carolina.



Hurricane Irene destroys a section of Route 12 on the Outer Banks of North Carolina

Emergency Use

Mabey's Panel Bridges are frequently recognized following natural disasters. Mabey has supplied bridges after many storms and hurricanes, reconnecting communities that were isolated by washed out roads and bridges. While Mabey maintains several thousand feet of bridging stock, many DOTs also stock Mabey bridging equipment as part of their emergency response plan.



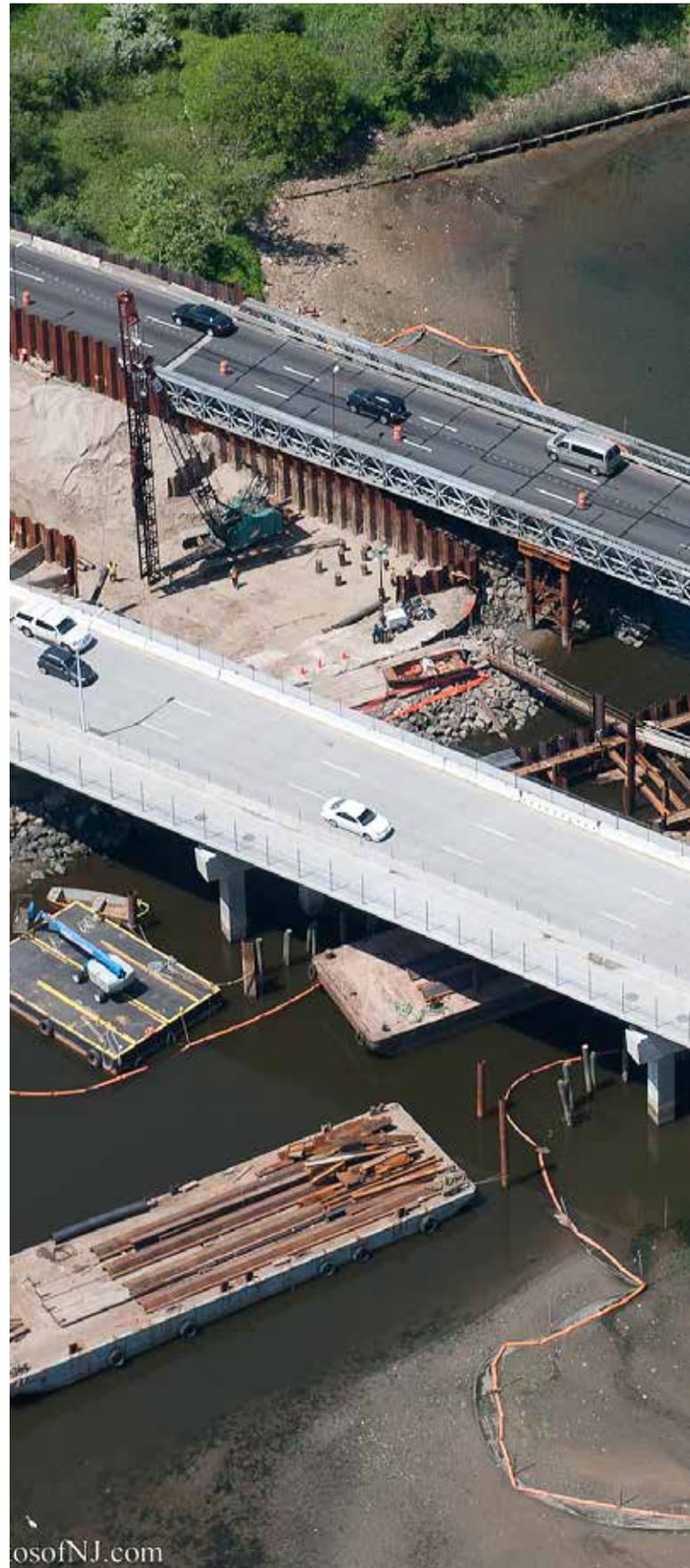
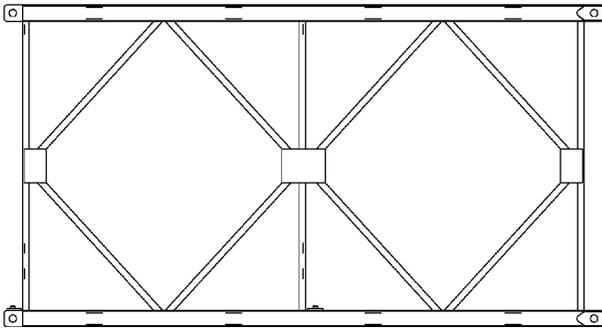
Recovery bridge: Mabey Panel Bridge restores access to Hatteras Island

Mabey Bridge Types

Mabey Universal (MU) Bridge

- At 14.76' long x 8.16' high, the Universal Panel is the strongest panel of its type
- The Universal System uses fewer components, making it quicker and easier to build
- Standard equipment accommodates up to four lanes of highway traffic and can be built to carry loads in excess of HS25 or HL93
- Clear unsupported spans up to 270'; longer structures possible utilizing bridge piers (5', 10' and 15' increments)
- Half panels available in 7.38'

Universal Panel



Mabey Universal Bridge on Belt Parkway in Queens, New York.



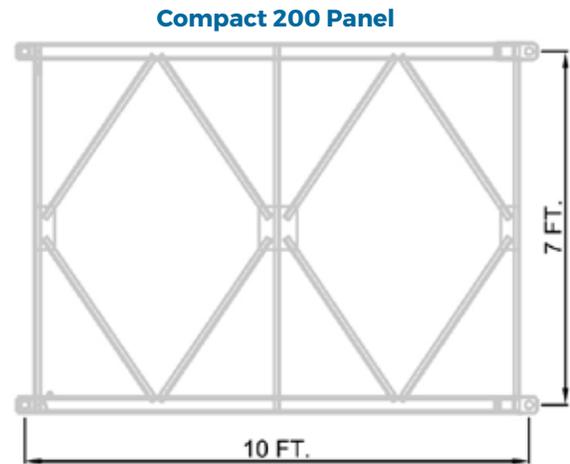
Mabey Bridge Types

Mabey Compact 200 Bridge

This modular system, based on a 10' panel, is easily transported to site and can be rapidly erected in only a few days

- Panels measure 10' x 7', and at 741 lbs each, the bridge can be built by hand if necessary
- Standard equipment accommodates up to two lanes of highway traffic
- Clear unsupported spans over 200'; longer structures possible if utilizing bridge piers

See "Mabey Compact Bridge Animation" on how this process works at www.youtube.com/user/mabeyinc



Mabey Universal Bridge being lifted into position.



Mabey Universal Bridge being used as a permanent structure.

Mabey Delta Bridge

The innovative Mabey Delta Bridge System is a highway bridge with all the benefits of a modular panel bridge system. Designed for permanent applications, Mabey Delta is ideal for clear, unsupported spans from 118' to 265' (36-81m) and road widths from one to four lanes.

The Mabey Delta is completely pre-engineered, making it a more effective solution for a complete gap-crossing project. Other bridges require significant site resources, including labor, plant materials and time to construct. With the Mabey Delta, transportation and site logistics are simple; all parts are delivered on a standard flatbed truck.

Contractors can “free-launch” the Mabey Delta Bridge by assembling the bridge on one side of the gap and then pushing it until it reaches the far side.



See "Mabey Compact Bridge Animation" on how this process works at www.youtube.com/user/mabeyinc 

By using modular Delta sections, a range of spans can be built to suit most load, span and width requirements. Overhead bracing is not required – even on long spans.

Because the Mabey Delta is made up of just a few basic components, assembly is quick and easy.



Mabey Bridge Types

Assembly and Installation

Mabey Panel Bridges are typically assembled by 5-7 person crews with minimal site equipment and bridges can be installed in a variety of ways.



Cantilever Launch Spans: 130'-270' (40m-82m)

This method employs a temporary “launch nose” built onto the front of the bridge. The bridge is then rolled across the gap so that the nose lands on the far bank’s receiving rollers before the center of gravity passes the launching rollers.

See "Mabey Compact Bridge Animation" on how this process works at www.youtube.com/user/mabeyinc 



Crane-Assisted Launch Spans: 50'-150' (15m-45m)

This method also uses rollers in the launch process but without a launch nose. Before the tipping point is reached, a crane positioned on the far bank is used to support the front end. As the bridge is rolled forward, the crane supports the free end of the bridge until it has landed on the far bank.

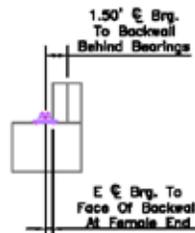
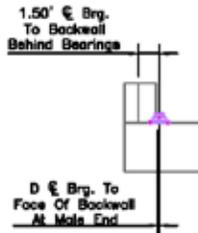
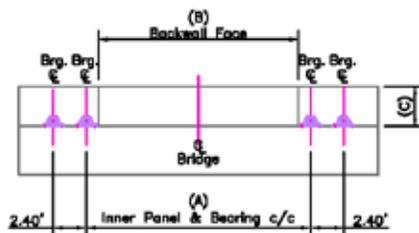
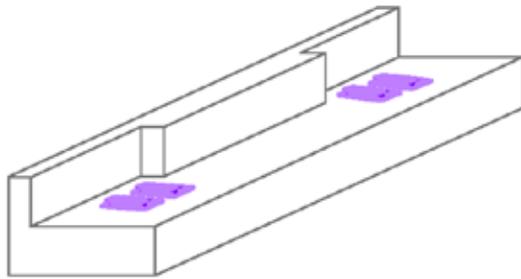


Lift-In Spans: 30'-120' (9m-36m)

For some spans, the bridge can be built alongside the gap and lifted directly into position by crane.

Bearing & Abutments

Bridge abutments should be designed so that the top of the backwall decking is level with the desired grade. If site conditions restrict the abutment design, ramps can also be used to facilitate smooth traffic flow.



Overall dimensions are not shown. Abutments must be designed to suit local conditions.

	'A'	'B'	'C'	'D'	'E'
13.8	16.25'	14.5'	2.87'	6"	10"
24'	27.00'	24.50'	3.50'	6"	10"
30'	32.27'	30.50'	3.78'	7"	11"
34'	38.07'	35.00'	3.82'	7"	11"
42'	45.00'	43.00'	3.90'	7"	11"

Custom Road-Widths Can Be Supplied

Abutments can be constructed of concrete, steel or timber for temporary or permanent use. All dimensions are nominal and may vary.

Abutment Layout Dimensions

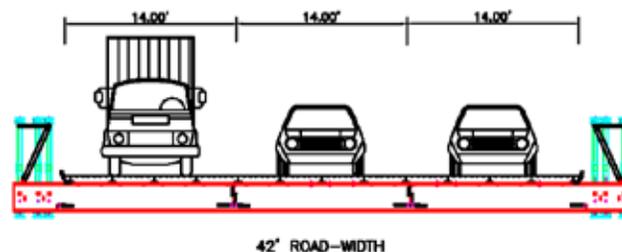
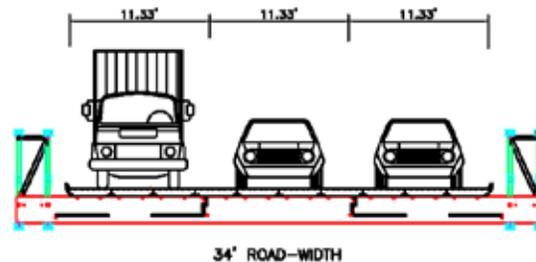
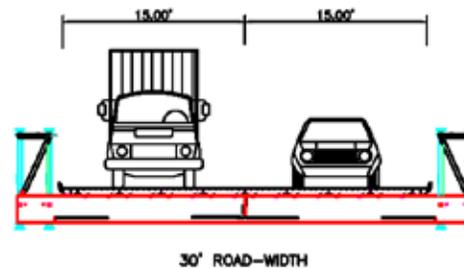
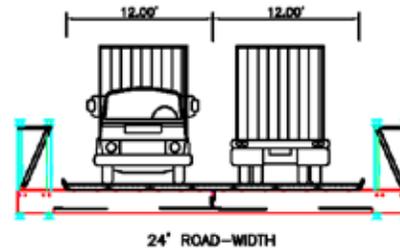
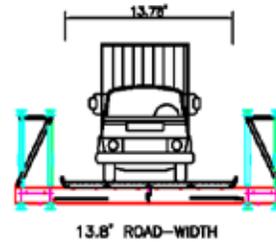
A = Inner Panel and Bearing Centers

B = Backwall Face

C = Backwall Height

D = Bearing C/L to Backwall Face at Male End

E = Bearing C/L to Backwall Face at Female End



Mabey Bridge Types

Special Load Requirement Bridges

Mabey's high grade steel and robust transom arrangement make it the ideal bridging system for carrying heavy duty construction equipment. The capacity of the bridge can be increased by adding panel lines and reinforcing chords. Demanding railway loads, logging trucks, or heavy construction equipment can be readily accommodated with heavy-duty truss arrangements.



Utility Bridges

Many pipeline contractors turn to Mabey for help in crossing rivers and ravines. Whether you are working with large diameter pipe or heavy duty cable, a Mabey Panel Bridge can make any utility crossing easier.



Timber deck system

Pedestrian Bridges

Mabey Panel Bridges are also available as pedestrian bridges. In addition to our traditional “U-frame” truss design, Mabey Universal panels can be reconfigured in a box formation when taller protective fencing is required. A simple timber deck system completes the bridge.



Temporary footbridge for the PGA Championship Tournament 2012 in South Carolina.

Mabey Bridge Types

QuickBridges®



The QuickBridge® is an “off-the-shelf” solution for both temporary and permanent applications. The fixed-length The QuickBridge® can be built rapidly; most QuickBridges are comprised of only two or three sections and can be installed with a minimal crew in under an hour. Its modular design also makes it suitable for a variety of applications, such as a footbridge or for site access.

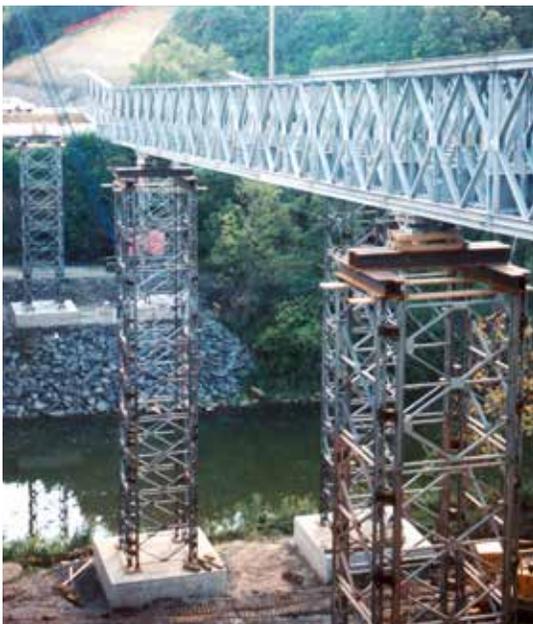
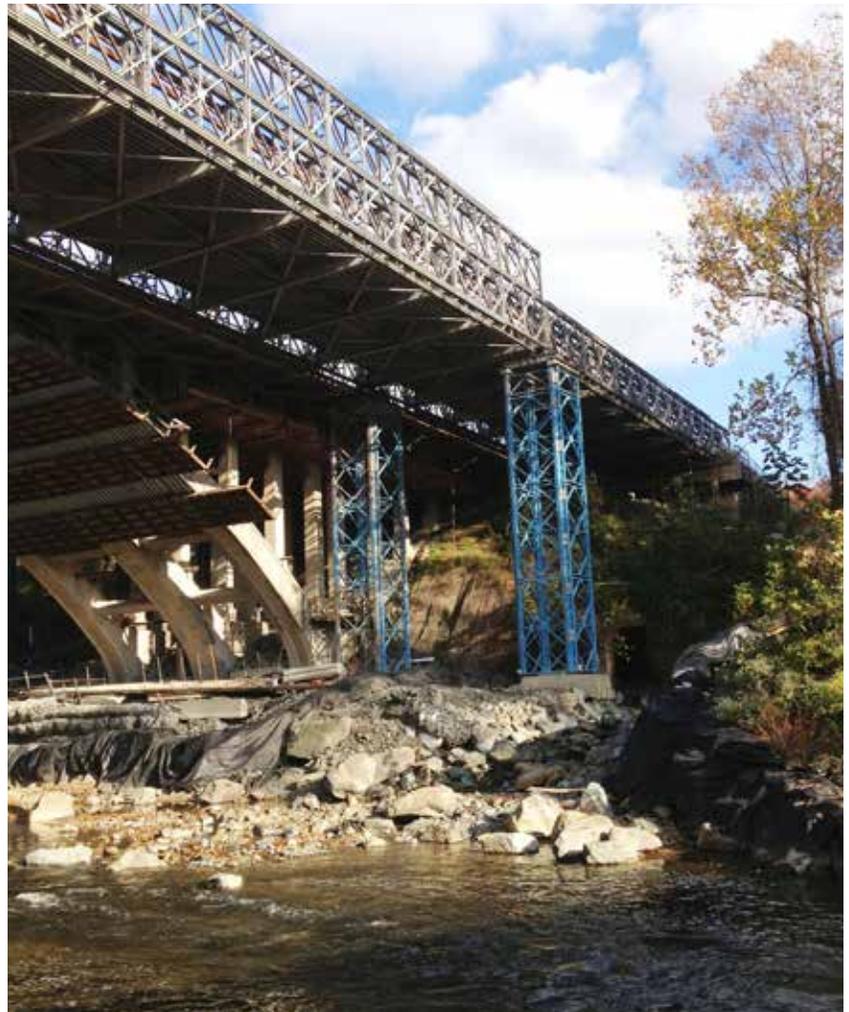
Features:

- Available in fixed lengths of 20', 30' and 40' (custom lengths also available)
- Factory-applied anti-skid surfacing
- Can be arranged side-by-side for wider crossings
- Can be installed quickly with small crews and standard equipment
- Carries single vehicle loads up to 45 tons (HS25)
- Rugged design and hot-dip galvanized, all-steel construction minimizes maintenance

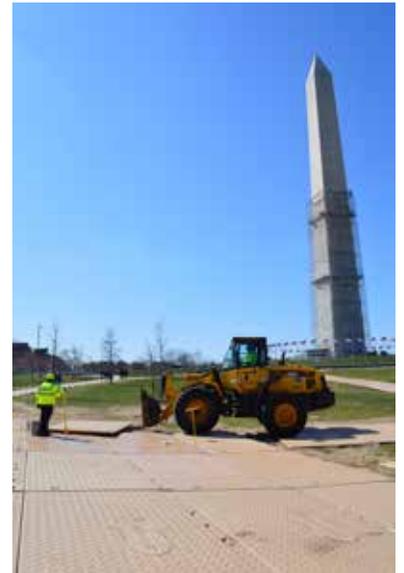
Mabey Ancillary Products

Support Towers

Mabey offers a range of tower systems, depending on needs, for load and application. These towers can be used as intermediate piers on Mabey temporary bridges or they can also be used for structural support on other parts of your bridging project. Most systems have adjustable screws for fine-tuning of tower heights, making them well suited for jacking applications. Whether you need single props or multi-leg towers, Mabey has a structural support system well suited for your needs, ranging from light duty, 45 kips per leg, up to heavy duty, 490 kips per leg.



Mabey's Shoring, Excavation Safety and Temporary Roadway Construction Solutions



Mabey is well known as an industry leader in pre-fabricated modular bridging, but we also provide the best engineered construction solutions in the industry. Our inventory includes a wide range of heavy underground shoring products and temporary roadways and we offer state-of-the-art training on all our shoring products.

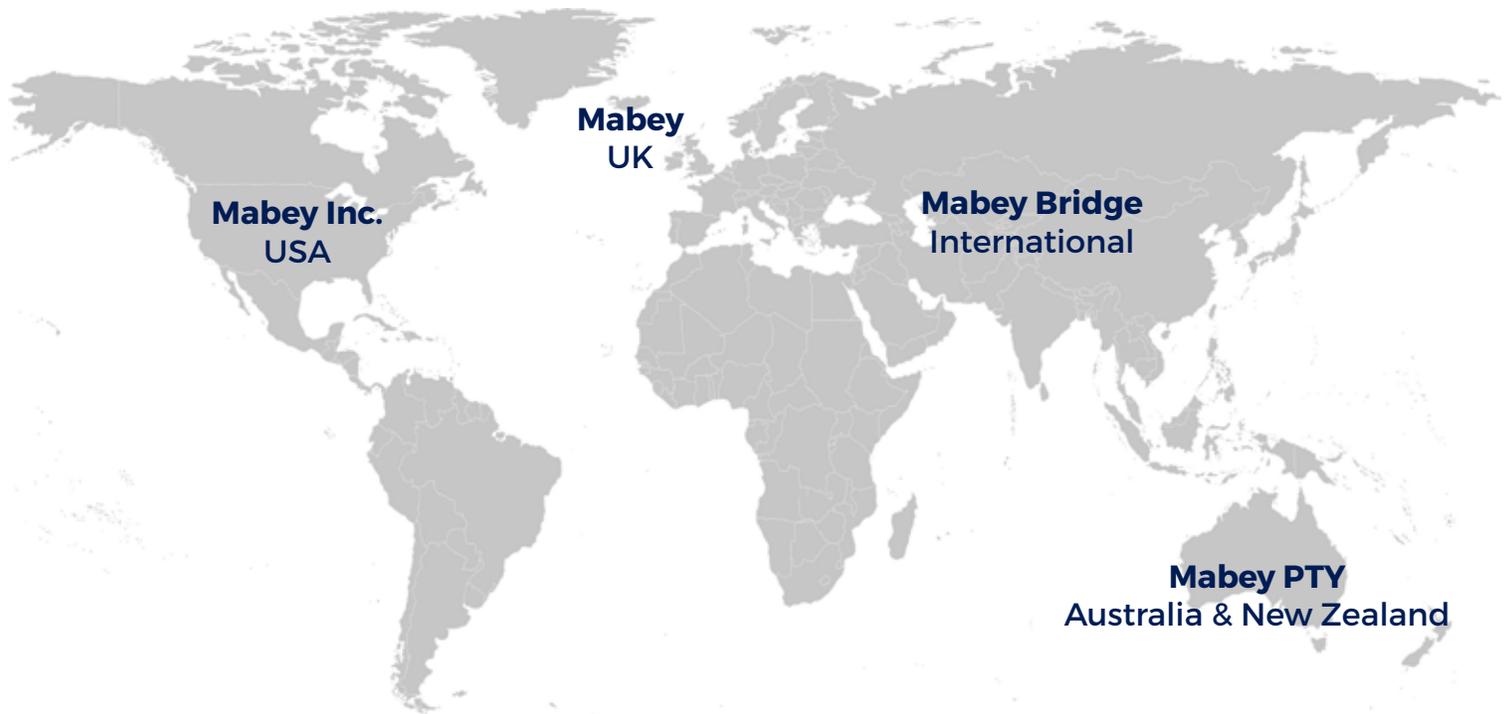
Visit us online at www.mabey.com or call 800-956-2239.

The installation of a Mabey bridge in South America. Mabey supplied the steel piers to sit atop the concrete footers, saving time and money for the customer.





enabling global infrastructure



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