

The Future of Freight Transportation

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IT WOULD HAVE TAKEN NEARLY 23 MILLION TRUCKS TO HANDLE THE 412 MILLION TONS OF FREIGHT THAT ORIGINATED IN, TERMINATED IN, OR MOVED THROUGH TEXAS BY RAIL IN 2014 – ABOUT THE NUMBER OF TRUCKS THAT CROSSED FROM MEXICO TO TEXAS.

Source: Association of American Railroads







THE FREIGHT ADVISORY COMMITTEE PREDICTS RAIL FREIGHT GROWTH WILL DOUBLE BY 2040





WHAT WILL UNION PACIFIC DO ABOUT THAT?



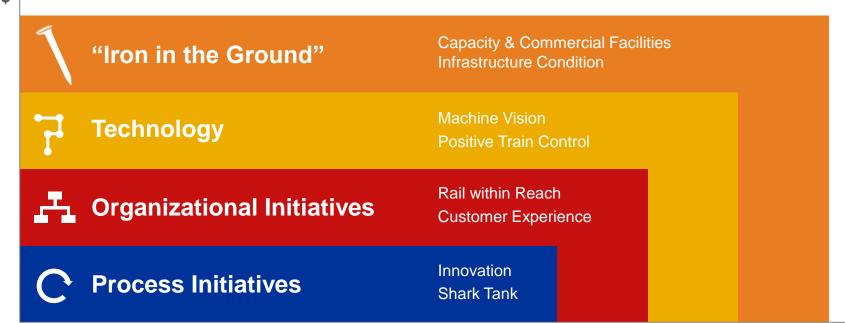


GO EVEN BIGGER!

Capacity is More than Capital



\$



Time





Supporting regional growth

Economic development
Customer experience
Technology and innovation
Capital investment





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"Rail Within Reach"

Serving customer needs

- UP provides tools, resources and materials to:
 - 1. Help a customer quickly and easily find a rail-served location
 - Assist land owners, developers, EDOs or others to attract rail-served customers
- New material released every 2-4 weeks
- https://www.up.com/customers/within -reach/index.htm
- Local contacts: Robin Ringwald, John Owens, Eric Watkins



<u>Just Launched!</u> Announcement of Site Solutions Tool

Rail Within Reach

Are you looking to build or expand your (or a client's) business to a rail-served site? Or, are you looking for rail tenants to locate on your property? Our Rail Within Reach initiative is here to make the road shead an easy one. This initiative will introduce you to new and existing resources which will help answer your questions and make connecting companies to rail served properties simpler

For starters, check out our new **Site Solutions Tool**, which provides companies on the hunt for rail-served properties an easier way to find them. The **Site Solutions Tool** lets users search a repository of rail-served buildings and industrial sites online with just a couple clicks. If you wish you could google available properties on the Union Pacific network this tool does just that

Find the Most Suitable Locations for Your Rail-Served Business

Listings on the Site Solutions Tool include

Map Views
Property Photos

> Property Contact Information

> Property Details

We're Here to Help

Our local field leads are always here to lend you their expertise in finding the best rail solutions for your company. Once you've identified your top picks from the Site Solutions Tool, share them with us — we can provide additional intel and make sure you're connected with a site that truly meets your business needs.

We also have a broad network of contacts to help you find solutions even beyond those listed in the Site Solutions Tool and are always happy to talk. Give us a call any time

Publicize Your Property

If you own a rail-served site or building and are seeking to fill it, the Site Solutions Tool lets you advertise your properties to potential tenants or buyers. Contact us to list your site

Ready to Get Started?

For more information and to access the new site solutions, visit our Site Solutions Tool now. For general questions, contact our Economic Development Director or your local field lead.

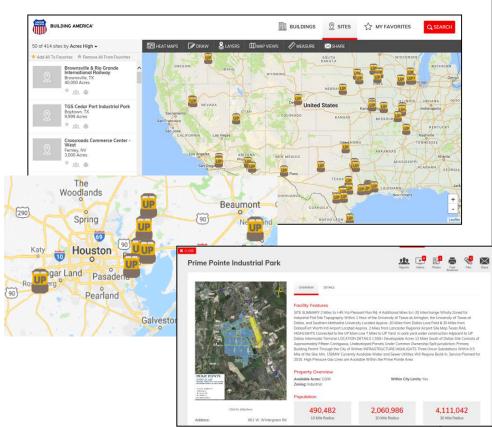


Union Pacific Site Solutions Tool

Economic Development initiatives

- Centralized listing of potential sites/facilities with reasonable ability to access to Union Pacific rail service
- EDOs, developers, brokers and land owners input and update information
- Union Pacific validates entries
- Property Owner Benefit: Becomes resource to advertise your property in customer site selection discussions
- Customer Benefit: Searchable listing of sites with vetted rail accessibility









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Transforming the Customer Experience





Rely On Us.

As your shipping needs grow, look to the men and women of Union Pacific to ensure your shipment gets delivered where you need it, when you need it. Put the power of America's premier transportation company to work for you.

CUSTOMERS

Contact a Shipping Expert



ABOUT US CAREERS En Español? Union Pacific by the Numbers Industry Leadership

Why Union Pacific?

What Can I Ship?

Where Can I Ship?

Railroading in the Age of Amazon









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Machine Vision: 50,000 images/second





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Union Pacific in the Lone Star State

2009-2017



Infrastructure Investment







UP serves 12 Texas Gulf Ports

We work directly with customers and ports to provide the services they need, when they need them.



Texas Transportation Infrastructure **Receives Boost from Union Pacific**

- \$450 million investment fully funds 2018 rail maintenance.
- Investment triggers \$4.5 billion return for U.S. economy.*
- 7,315 Employees across the Lone Star State.
- 65,835 Texas Jobs Supported.**

*Every dollar invested by privately-owned freight railroads triggers a \$10 return for the U.S. economy.

**Every American freight railroad job supports nine jobs in the U.S. economy.

Association of American Railroads







AND IN 2018....

THE LARGEST SINGLE INVESTMENT IN UP HISTORY





Coming in 2020: Brazos Yard, Robertson County

\$550 million investment

1,300 cars per day, with expansion capacity to 2,300

40 bowl tracks, with expansion capacity to 70

Showcase best practices and technologies

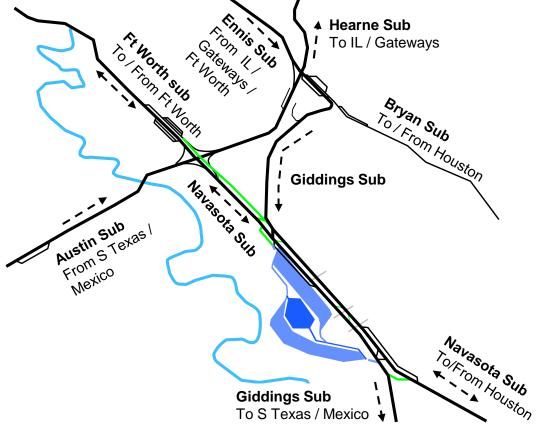
Strategic Location

Supports growth and service excellence





- "Crossroads of Texas" convergence of seven Union Pacific lines
- Strategically sited to support Texas economic growth and freight transportation demands
- Supports growth for current customers and future regional economic development







Existing

SCHEMATIC

- Connections at Valley Jct
- 2nd Main Navasota North
- Watts Xover and Giddings Grading
- Navasota South Connection





Positive Train Control (PTC)

PTC: How it Works





Using GPS, PTC evaluates train's distance from end of authority limits

Warning given if engineer doesn't slow train

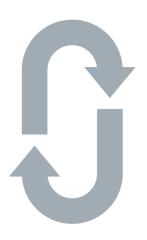
PTC triggers brakes if engineer doesn't brake to stop short of limits

PTC: Scope Challenges





Much of the technology did not exist before the government mandate



Must be interoperable across all railroads



Must relay critical operational data



Must operate across all terrain types and calculate stopping distances regardless of weather conditions.





Questions and Discussion