Investing in California Small Businesses

SMALL BUSINESS NEWSLETTER • Volume 12: Issue 03

SUMMER 2024





Investing in California Small Business

SMALL BUSINESS NEWSLETTER VOLUME 12 • ISSUE 03 SUMMER 2024

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

770 L Street, Suite 620 Sacramento, CA 95814

SMALL BUSINESS PROGRAM

Main: (916) 431-2930

Email: sbprogram@hsr.ca.gov

Catrina Blair, MBA

Chief, Process and Program Development Branch Email: catrina.blair@hsr.ca.gov

Chardená Valley

Small Business Advocate

Email: chardena.valley@hsr.ca.gov

Damon Dorn

Small Business Outreach Coordinator

Email: damon.dorn@hsr.ca.gov

Asha Grayson

Small Business Technical Associate

Email: asha.grayson@hsr.ca.gov

OFFICE OF COMMUNICATIONS

Annie Parker

Interim Managing Editor

Email: annie.parker@hsr.ca.gov

To access and download more information pertaining to the small business program, visit the Small Business Resources webpage at https://hsr.ca.gov/small_business/

The Investing in California Small Businesses newsletter is published quarterly by the Office of Communications of the California High-Speed Rail Authority.

To view past newsletters visit:

https://hsr.ca.gov/businessopportunities/small-business-program/ small-business-newsletter/

www.hsr.ca.gov

Table of Contents

- 3 How to Do Business with the State of California
- 4 Chardená Shares
- 6 Small Business Events
- 7 Did You Know?
- 7 BAC Profile: Small Business Concierge Communications & Digital Media
- 8 Stantec Moves Design Work for Merced to Madera Segment Forward
- 10 Making Sound Decisions from Planning to Final Design

- 12 Central Valley Business Contributes to Completing Two Grade Separations
- 14 Arellano Celebrates a High-Speed Rail Victory 30 Years in the Making
- 16 High-Speed Rail at the California State Fair
- 18 Speedreads
- 20 Structure Feature: Flint Avenue Overcrossing

SMALL BUSINESS PARTICIPATION

as of May 2024

Certified Small Businesses working on the high-speed rail program statewide

294 Certified Disadvantaged Business Enterprises
107 Certified Disabled Veteran Business Enterprises

NORTHERN CALIFORNIA:

305 Certified Small Businesses

CENTRAL VALLEY:

226 Certif Small Busin

SOUTHERN CALIFORNIA:

288 Certified Small Businesses

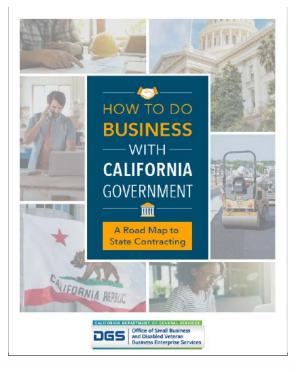
OUTSIDE OF CALIFORNIA:

29 Certified Small Businesses

How to Do Business with the State of California

Visit these resources for education, training, and support in growing a thriving business, doing business with the state of California, and connecting with the High-Speed Rail Authority.







We help entrepreneurs start, grow or successfully exit businesses through mentoring and education.

www.score.org



FOR THE LIFE OF YOUR BUSINESS



www.apexaccelerators.us/#/



Chardená Shares



Chardená Valley, Small Business Advocate

As the summer heats up, so do our efforts to continue connecting with small businesses across the state of California to make sure they have access to resources and opportunities that will allow them to grow along with our project.

Just last week, the California High-Speed Rail Authority (Authority) Board of Directors announced the appointment of Ian Choudri as the program's next Chief Executive Officer (CEO)! Choudri brings more than 30 years' experience in the transportation sector, including working on high-speed rail projects in France and Spain. This is an exciting announcement as he will be using his operational experience to lead us toward passenger service. You can read more about this announcement here. Governor Gavin Newsom also offered his support of the organization's new CEO and celebrated Caltrain's electrification, which will provide interoperability for high-speed rail in the Bay Area, with the incoming CEO.

In June, another big contract was approved at the twoday, June Board of Directors meeting, where joint venture SYSTRA | TYPSA was awarded the contract to design the track and overhead contact systems (OCS) for the initial 171-mile passenger service connecting Merced to Bakersfield. With an initial contract value of up to \$131.2 million, this contract will allow the Authority to:

- Produce high-level designs for track and OCS for the 171 miles connecting Merced to Bakersfield, including detailed designs for the 119-mile section currently under active construction within that Central Valley stretch.
- Design the track system, including the track structure, OCS, along-track cable containment, across-track ducts, access walkways, fencing, and drainage.
- Manage technical and non-technical interfaces with contractors/consultants.

You can learn more about it from <u>our news release</u> and the <u>Board materials from the meeting</u>.

With the contract to deliver California's high-speed rail trainsets anticipated to be awarded by the end of this year, Central Valley stations in the design process, and more, there's always new and exciting contracting and procurement opportunities for businesses to partner with us on.

These procurements are some of our most important and display the impressive progress the project has made in the Central Valley over the last years as we move closer toward launching initial passenger service. Check out our



Visitors at the California State Fair outside the exhibit's life-size white mock-up trainset interiors.



Upcoming Procurements Report on our <u>Procurements</u> page for more.

The June Board meeting also saw the approval of the final environmental documents for the 38-mile Palmdale to Burbank project section. With that approval, we've now environmentally cleared the alignment between downtown San Francisco and downtown Los Angeles!

In July, we also opened our <u>first ever exhibit at the</u>

<u>California State Fair</u> in Sacramento. The exhibit, which was open from July 12 to 28, received over 50,000 visitors and gave the public a great opportunity to explore our lifesize mock-up train interiors, learn about our stations and more. For more on this, check out our photo collage on pages 16 and 17 of this newsletter.

With all this progress and outreach, I also wanted to talk about our upcoming 3rd Annual Small Business
Diversity and Resources Fair. This event will be hosted at UC Merced on October 23 and offer face-to-face networking opportunities, project updates, meetings with prime contractors, and more. Small businesses are crucial to delivering high-speed rail and events like these are important to provide the knowledge and resources to the small business community that will help them grow in

partnership with this project. We'll have more information on this event soon and I hope to see many of you there!

Speaking of resources, the Small Business team recently released new resources to make sure small businesses are afforded every opportunity to participate in our contracting and procurement program. Prime contractors must make demonstrable efforts toward meetings SB, DVBE, and DBE goals. Under federal guidelines for DBE goal achievement, these efforts are known as Good Faith Efforts (GFE).

We've now established guidelines, known as Efforts
Toward Achievement (ETA), to increase SB and DVBE
participation on this project. Together, the GFE and ETA
are collectively known as Efforts to Achieve Participation
(EAP), as outlined in our <u>Small Business Program Plan</u>.
Check out the EAP on our <u>Contract Compliance page</u>. And
as always, make sure your small business is registered
with up-to-date information in our free <u>ConnectHSR</u>
<u>Vendor Registration</u>.

I can't wait to connect with you all again in-person in the fall, but in the meantime, have fun and stay cool this summer!



Small Business Events





Board of Director Meetings

September 26

Details to come.

Business Advisory Council Meeting

September 19

1 p.m. to 4 p.m.

Online

August 14

Caltrans District 11 20th Annual Procurement and Resource Fair

9 p.m. to 12 p.m. District 11 Courtyard 4050 Taylor Street San Diego

August 21 to 23

CA Hispanic Chamber of Commerce Annual Convention

Bakersfield Marriott at the Convention Center 801 Truxtun Avenue Bakersfield

August 27

CA Capital APEX Workshop 10 a.m. – 11 a.m. Online

September 12

How to get Certified with the State of CA Workshop Online Details to come.

October 10 - Tentative

Meet the Prime - Paragon Partners Consultants, Inc. Online Details to come.

October 23

3rd Annual Small Business Diversity and Resources Fair **UC Merced** Detail to come.

Did You Know?

Frequently Asked Questions from Small Businesses

Question: How can I find out about upcoming Authority contract opportunities? **Answer:** You can register with ConnectHSR Vendor Registry to receive notifications about the high-speed rail business opportunities. You can also visit the Contact Us webpage and sign up to receive notifications based on regions or specific topics. From the Contact Us webpage, you can also submit comments or questions regarding the high-speed rail project. Another option is to visit the Small Business Opportunities webpage. This webpage provides a list of current opportunities available with current prime contractors and consultants.

Business Advisory Council Profiles



Margaret Jackson, Small Business Concierge Communications & Digital Media Margaret Jackson is a sought-after Bay Area leader, small business radio personality, small business magazine and digital catalog publisher, and the Alameda County Small Business Development Center's former director. Jackson is Silicon Valley's #1 small business radio personality on AM 1220 KDOW Business & Finance radio, broadcasting to more than 7.75+ listeners covering the nine Bay Area counties, now airing on iHeart Radio. The "Business on the Edge" show broadcasts to the 4th largest radio market in the country. In 2011, she was the first female/African American personality to broadcast during the week on the Salem Media Group network. Her "Faith & Business On the Edge" spin-off radio show broadcast from 2015 to 2018. Jackson is an ordained Christian minister who brings a fresh perspective on motivating and inspiring people to live their potential and activate their power purpose. Jackson has over 30 years of experience in audio/video multimedia production as a program producer, senior producer, and director

Margaret Jackson is the CEO/President of the Small Business Concierge Communications & Digital Media corporation. She has more than 35 years of experience as a business professional. Margaret Jackson is a regional advisor for the NorCal Inclusivity Project SBDC, working with African American businesses. She publishes the Small Business Concierge Digital Magazine and catalog. Jackson won two international media industry awards, the Silver Davey Award and the Communicators Award of Distinction.

With Community and Inclusion in Mind, Stantec Moves Design Work for Merced to Madera Segment Forward



Rachelle Brinkley (left), Merced to Madera small business officer, and Tina Moschetti (right), Merced to Madera principal-in-charge at the HSR Fast-Track Networking Event 2024.

The high-speed rail project is picking up speed as it continues to advance the project while supporting small business growth and initiatives. Stantec has been instrumental in this process. The Authority awarded Stantec the design contract from Madera to Merced in August of 2022, moving the project closer to construction with the goal of electrified high-speed trains running between Merced and Bakersfield at speeds of 220 mph by 2030 to 2033.

The firm wears other hats too. In addition to serving as subconsultant for Construction Package 2-3 (CP 2-3) and providing project and construction management, Stantec also serves as environmental lead for the design-build contractor for Construction Package 4 (CP 4). In total, Stantec has been partnered with the Authority for a decade.

Stantec was formed in 1954 and now employs 31,000 professionals. Their firm reaches across six continents in 450 different locations. Stantec actively seeks to do business with companies of all sizes and backgrounds, understanding this diversity brings fresh perspectives and ideas. They have 24

California offices with a vibrant high-speed rail project office in Fresno.

Currently there are 250 employees dedicated to highspeed rail projects. "Representing the communities we do work for is fundamental," says Jose de Jesus Martinez, Stantec's Senior Principal and Merced to Madera Project/ Contract Manager. "Whether around the corner or across the globe, we provide a foundation, and a sense of belonging. With every community, we redefine what's possible."

The small business utilization goals are where Martinez feels Stantec shines brightest, as he is proud his firm is committed to inclusion and has the distinction of being the first Authority consultant to exceed Small Business Enterprise (SBE) utilization goals established in all categories with the program.

Currently, there are 847 Certified Small businesses working on the high-speed rail program statewide and 292 Disadvantaged Business Enterprises (DBEs). Stantec is at 40% of DBE utilization.





They are advancing design work for Madera to Merced and have begun progressing final design to 100% in the lead up to providing construction-ready documents. This next phase will allow the project to advance early works and right of way. This work includes construction staging plans, project risk assessments, cost estimates, environmental permits from federal and state agencies, third-party design submittals, including Caltrans project and environmental compliance reports.

Government contracts can be complex, but Martinez has advice for businesses. "First, start by identifying what the niche is by focusing on a specific target market instead of trying to market to multiple agencies," he says. "Build strong relationships across all functional groups and levels of your partner agency and make inclusion a priority."

Having worked at a DBE for seven years, Martinez understands small business partners can be great partners and make a big impact on driving a project successfully.



Rachelle Brinkley (left), Merced to Madera small business officer, and Tina Moschetti (right), Merced to Madera principal-in-charge at the HSR Fast-Track Networking Event 2024.

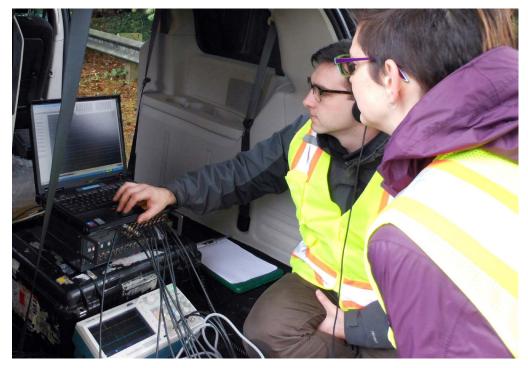
Another key strategy Martinez recommends when working with government contracts is registering on the System for Award Management or <u>SAM.gov</u>. This is critical for participating in federal contracts, he says, since it provides businesses with lists of contract opportunities, registration, contract status updates and reports.

The long-lasting relationship between Stantec and the Authority has resulted in many milestones for the project and small business goals.

Stantec is intentional about putting people and communities first and this makes them a great partner in building a rail system that will uplift future generations. "We are excited to envision what's never been done before and bring together diverse perspectives leading toward shared success in building the infrastructure of the future," says Martinez.

Melinda Poley

Making Sound Decisions from Planning to Final Design



Acoustical engineers from Wilson Ihrig analyze data in the field. Researchers study how much noise and vibration will be emitted by high-speed rail trains and work to mitigate impact.

Wilson Ihrig is a certified microbusiness that has contributed its acoustics, noise, and vibration expertise to the California High-Speed Rail Project for decades.

"Every engineer loves a challenge and seeing their work get built, and now, we're getting closer to the finish line," said Derek Watry, President of Wilson Ihrig, a certified Microbusiness (MB) that will contribute its expertise in acoustics, noise, and vibration on track and overhead contact system (OCS) final design for the Merced to Bakersfield project section under the newly approved SYSTRA|TYPSA contract.

Based in Emeryville, California the firm of 18 acoustical engineers has a long and successful history with the California High-Speed Rail Authority (Authority). Between 2010 and 2022, Wilson Ihrig performed the acoustical studies for the San Francisco to San Jose and San Jose to Merced project sections for ICF, the environmental firm that prepared the Environmental Impact Report (EIR) under contract to HNTB, the prime contractor.

Watry says the firm is looking forward to moving into final track and OCS design and closer to the California High-Speed Rail system being realized.

"It's like going in with a sharpened pencil," Watry said. "A big part of engineering is the money.

You could say 'Let's build 20 feet sound walls everywhere all the time' and you wouldn't have a noise problem, but guess what? The price would be astronomical. So, it's always balancing what works with how much it's going to cost to build."

Wilson Ihrig's approach to noise and vibration control is outlined by the Federal Railroad Administration's (FRA) guidelines, portions of which were developed by Wilson Ihrig staff in the 1970s and 1980s under contract to the U.S. Department of Transportation.

Currently, the firm is also working on station acoustics and noise design for the Merced, Fresno, Kings/Tulare, and Bakersfield stations under contract with station design joint venture team, Foster+Partners and Arup. This work



includes the evaluation of speech intelligibility of the public announcement systems within each station, as well as the evaluation of noise and vibration from the station to the neighboring environment.

Under contract to SYSTRA USA, the firm's work includes support during the design and construction of the track system as well as sound barrier design. It also includes working with the trainset supplier to ensure that the vehicle and track combination will meet the environmental obligations and mitigation requirements. Watry says it's difficult to convey how much thought and effort goes into planning major infrastructure projects, but he's proud of the firm's contributions to a high-speed rail system that will transform how Californians travel.

"High-speed rail hits the sweet spot connecting cities that are too close to fly and too far to drive," he said.

Van Tieu







Acoustical engineers measure vibration impact. Using existing buildings, ground surfaces, tracks and research on high-speed rail in Europe, Wilsonlhrig sound engineers can predict how much noise and vibration will come from high-speed rail trains when they began operations in California.

Central Valley Business Contributes to Completing Two Grade Separations this Spring



Fencing can be seen atop the Floral Avenue Grade Separation in Fresno County. The structure opened to traffic on July 15, 2024

California Commercial Fence, a small, family-owned business based in Selma, is making a notable impact in the commercial and public works sectors. Known for its commitment to quality and reliability, the company has recently played a key role in significant projects with the California High-Speed Rail project.

Their most recent contributions can be found at the Mountain View and Floral Avenue grade separations within Construction Package (CP) 2-3, which were completed and opened to traffic in July 2024.

"We've finished up the [work] we were on at Mountain View and Floral Avenue," said Chief Financial Officer and Co-Owner Hunter Price. "We handled the fencing and supplied materials for other bridges."

Working to complete two grade separations at the same time is no easy task. The Mountain View Avenue

Grade Separation is 381 feet long and 40 feet wide. The Floral Avenue Grade Separation is more than 368 feet long and more than 40 feet wide. In order to meet a commitment made to Fresno County, both structures had to be completed by July 15, 2024, in order to begin construction at another grade separation at Nebraska Avenue. Together with CP 2-3 contractor Dragados-Flatiron Joint Venture, they were able to achieve this goal.

Since its opening in 2017, California Commercial Fence has been driven by a mission to deliver quality and dependable fence contracting services to homeowners, government agencies, and general contractors. Despite the challenges of running a small business, Hunter and his brother-in-law have worked hard to establish their reputation and stay ahead of the competition.





The Mountain View Avenue Grade Separation is now open and takes traffic safely over the existing railroad and future high-speed rail tracks.

"It's been hectic. It hasn't been easy. We worked night and day, seven days a week for the first few years no matter what," Hunter reflects.

Hunter's background in fencing is rooted in his family's legacy. His grandfather runs a Fresno-based fencing company that specializes in residential projects, and the entire family was previously engaged in this work. When the time came to explore commercial opportunities, Hunter, his father, and his brother-in-law founded California Commercial Fence.

Recently, Hunter's father expanded the family's business ventures by starting a new company aimed at opportunities beyond California. Meanwhile, Hunter and his brother-in-law continue to manage and grow California Commercial Fence.

The company's size offers unique advantages, which Hunter attributes to their hands-on approach.

"There's always an owner on-site, either myself or my brother-in-law. For high-speed rail projects, we ensure quality by being present at every job," he explains.

Looking ahead, Hunter is optimistic about future opportunities.

"There's a lot more high-speed rail work coming up for bid," Hunter said. "We're definitely pursuing more guardrail projects with Caltrans and aiming to focus more on public works and roadway projects."

Carlos Castro

Arellano Celebrates a High-Speed Rail Victory 30 Years in the Making



Genoveva Arellano has worked on rail projects in Southern California for the last three decades.



Genoveva Arellano talks about the details of the plan to build an intermodal station in Palmdale with residents during a 2014 open house.

Genoveva Arellano doesn't often show a lot of emotion while on the job, but it was impossible to hide her satisfaction after the High-Speed Rail Authority's Board of Directors approved the Palmdale-to-Burbank section at its June meeting. The unanimous approval vote was the culmination of decades of work by many people, but none had a more personal stake in the outcome than Arellano.

The community outreach firm she started 30 years ago, Arellano Associates, has worked on high-speed rail since the mid-1990s, when the Authority was a newly created agency studying the possibility of building a line in California. As a small business operator in Southern California, Arellano worked on the Los Angeles to San Diego line in the aughts and moved on to the Palmdale-to-Burbank section.

Arellano remembers board meetings with hundreds of attendees, each eager to make a statement about the Palmdale-to-Burbank section. Over the years, Arellano talked to dozens of city and county officials, she briefed legislators, and she led community meetings where people had a lot to say about the project. After all those hard meetings and late nights, June's board approval felt summitting a mountain or winning an Olympic race.

"I have the body blows from this project. It feels really incredible, not only to get the project adopted, but to have good relationships with stakeholders," Arellano said. "I couldn't believe it. I was emotional when it passed because I couldn't believe the arc of going from where we started to having people applaud when the board approved this section.

"We went through a lot. Underscore we."

She's quick to dole out team credit for big wins. The Palmdale-to-Burbank win was a long time coming, but that's the norm in public transportation. Arellano started working on transportation projects in 1990, when she worked with Cordoba Corporation.



Genoveva Arellano, left, poses with Southern California regional director LaDonna DiCamillo, Arellano Associates' Laura Hernandez, Southern California deputy regional director Beverly Kenworthy and chief engineer of strategic delivery Christine Inouye after the Palmdale-Burbank section earned environmental clearance on June 27, 2024.

Arellano left Coroba in 1994, but she's quick to point out there was no master plan to start her own business. She simply had a really, really big Rolodex filled with names and phone numbers of influential people in transportation. It didn't matter that she was a Latina woman in an industry dominated by men. There was work to do and she was going to take care of it.

"I was naive enough to believe that because I was smart and organized and a hard worker, that would be enough," Arellano said. "However, I was fully aware of the feminist movement and the women who came before me, and I admired them tremendously."

She cites women like Gloria Molina, the former chair of the LA County Board of Supervisors, with paving the way for women in public transportation. And it was another woman, Valerie Martinez, who called Arellano one day in 1994 asking if she'd help a new state agency – the High-Speed Rail Authority. In the 30 years since, Arellano Associates has grown by necessity, not out of ambition, to employ dozens of people. But it's Arellano herself who shows up at all the Authority's major events in Southern California. Highspeed rail is an important project in general, and it's something of a passion for Arellano, who believes in showing up for milestone moments.

"It takes years and years and years to really move the needle," she said.

The passage of Palmdale-to-Burbank means Arellano's focus is now squarely on earning the environmental clearance Los Angeles to Anaheim, the last uncleared segment of Phase I. It will involve more meetings, more phone calls and more community events. But in the end, the needle will move again, and Arellano will be there to see it.

Jim Patrick

High-Speed Rail at the California State Fair

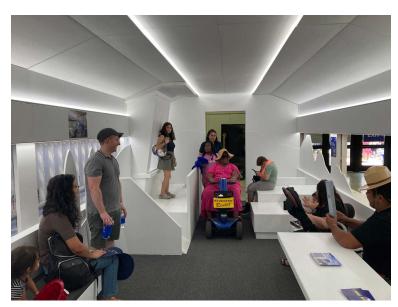
From July 12 to July 28, the Authority hosted the first ever high-speed rail interactive exhibit at the 2024 California State Fair in Sacramento! The exhibit offered visitors the opportunity to walk-through our life-size train mock-ups, learn about the planned highspeed rail stations and more. From opening day to closing night, we had more than 50,000 visitors come through our exhibit to talk about the project, marking our largest outreach effort to date on the project. Check out some of the select photos and watch the video from this huge event!





















Speedreads



CASCADIA ULTRA HIGH-SPEED RAIL PROJECT INCHES FORWARD:

The Washington State Department of Transportation is halfway through the development phase of completing the initial step of the corridor planning process for the ultra high-speed rail line connecting Vancouver, B.C. to Seattle and Portland. In 2022, the legislature allocated \$150 million from the Climate Commitment Act revenue to match federal grant opportunities. The high-speed rail line will help address population growth over the next 16 years. By 2050, 3 to 4 million new residents are expected to live in the Cascadia region.

Photo credit: Amtrak



HIGH-SPEED RAIL PLAN PROPOSED FOR CHICAGO:

Mike Quigley, a congressman from Illinois has called to have a new high-speed rail line between Chicago and St. Louis to cut the travel time between the cities down to two and a half hours. His urgency to begin construction is influenced by the number of new lines of high-speed rail sprouting up across the country. In April, Brightline started its progress on the route from Las Vegas to Southern California that will move passengers 218 miles. Quigley is looking forward to high-speed rail because it will connect people and economies in a safe, efficient and environmentally friendly way.

Photo credit: Dan Kitwood/Getty



FLORIDA REGIONAL LEADERS RALLY FOR HIGH-SPEED RAIL TO CONNECT TAMPA AND ORLANDO:

Regional Leaders in Florida are coming together to support a proposed high-speed passenger train line connecting Tampa to Orlando. This push for expedited rollout of Brightline's service expansion comes amid frustration from commuters and travelers along the I-4 highway corridor. The rail service would thread across county lines connecting bustling communities. The development of diverse transportation options is essential to support the recent spike in population and job opportunities across the Tampa Bay and Central Florida regions.

Photo credit: Unsplash/Linus Benkner



THE 5 FASTEST BULLET TRAINS IN THE WORLD:

The United States has seen a resurgence in high-speed rail projects in recent years, with several lines under construction or development.

This surge in high-speed rail projects has led to an interest in successful global practices, with Japan, China and various European countries having established advanced high-speed rail networks. Among them are Germany's Intercity Express (ICE), France's Trains à Grande Vitesse (TGV) and three of China's rail networks, one of which is the fastest public train in the world.

Photo credit: China Photos/Getty



EGYPT WILL RECEIVE ITS FIRST HIGH-SPEED TRAIN IN OCTOBER:

Egypt is just months away from receiving its first high-speed train from Germany's Siemens Mobility. The train will travel on the 1243 miles electrified railway network the Egyptian Ministry of Transport is building. The agreement with Egyptian authorities starts the second phase of the 12 billion euro mega project that will construct safe and sustainable electric railway system, including high-speed trains, regional and freight, and a new two-kilometer railway network which will extend the line via Luxor and Aswan to Abu Simbel, according to the Ministry of Transport.

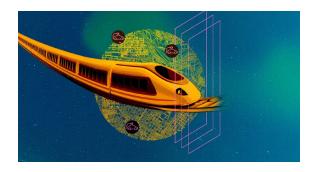
Photo credit: Agenzia Nova



UZBEKISTAN SIGNS SOUTH KOREAN HIGH-SPEED TRAIN ORDER:

Uzbekistan has ordered high-speed rail trainsets from South Korea. The plan for supplying and supporting six trainsets was first announced during an Uzbek delegation visit to South Korea last year. The trainsets will run at 155 mph, similar to the 162 mph KTX-EUM sets operated by Korail, according to Hyundai Rotem.

Photo credit: Railway Gazette International



TRANSPORTATION HAS GOTTEN GREENER, BUT THERE'S A LONG WAY TO GO

The transportation sector is the largest contributor to climate change in the US and Europe. An estimated 55% of the reductions needed to cut all greenhouse gas emission by 2050 are linked to everyday consumer choices, particularly driving, according to the International Energy Agency. Investing in public transportation such as high-speed rail can help reduce these emissions. For example, nowhere is the value of public transport more clearly show than in Japan, a leader in high-speed rail. One passenger traveling on high-speed rail between Tokyo and Osaka emits 4.2 kilograms of carbon dioxide, one-twelfth the emissions of a passenger on a Tokyo-Osaka flight.

Photo credit: Rosie Struve; Getty Images



FLINT AVENUE OVERCROSSING

LATEST VIDEOS: WWW.YOUTUBE.COM/CAHIGHSPEEDRAIL



California High-Speed Rail Authority and Dragados-Flatiron Joint Venture staff celebrate the completion and opening of Flint Avenue in Kings County.

