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NEW AERIAL PHOTOS OF CONSTRUCTION

FEATURED PROJECT:
SAN JOAQUIN RIVER VIADUCT
At the northern end of the San Joaquin River Viaduct (above), girders have been set and construction of a cast-in-place concrete arch is underway for the section that crosses over the river. Further south, crews continue constructing barrier and intrusion protection walls along the sides of the pergola section of the viaduct. On the north bank of the San Joaquin River (below), workers are building four box girder spans that will bring northbound trains back to ground level. The completed viaduct, nearly a mile in length, will be one of the largest structures on this first phase of the high-speed rail project.
From above, you can see all the girders recently set over the northern section of the trench. Meanwhile, workers continue excavating the crossing under State Route 180 (SR 180) outside of downtown Fresno. As they dig down five feet, they add to the retaining wall with a rebar mesh and sprayed concrete (also known as shotcrete). Once they reach the bottom of the trench, they’ll construct a concrete box that will carry the trains under SR 180, a rail spur and the Dry Creek Canal.
At the Cedar Viaduct, construction crews continue extending the structure across State Route 99 (SR 99) south of Fresno. Columns for several support piers can be seen rising on both sides of the highway, while crews have also completed temporary shoring and excavation of the pile caps within the SR 99 median. The viaduct will eventually be connected to the smaller Muscat Viaduct a little further to the south. One of the largest structures on Construction Package 1, the Cedar Viaduct will be about three-quarters of a mile long when it’s complete.
At the northern end of Construction Package 1, a crane sets the remaining concrete girders for the overcrossing at Road 27 in Madera County. In late August and September, four massive girders were placed across the railroad tracks during night time closures coordinated with the BNSF railroad. These concrete beams, each one more than eight feet tall, 150 feet in length, and weighing more than 250,000 pounds, are some of the largest ever used in California. A total of 28 girders will create the foundation for the crossing superstructure, with the deck tentatively scheduled to be poured early next year. After some additional utility relocation, embankment work can also begin.
Wing walls extending off the high-speed rail overpass at Avenue 12 in Madera County have been poured. Next, steel rebar will be placed and tied in preparation for a concrete deck pour. The realignment of the busy roadway with two separate bridges will take traffic over the future high-speed rail line and the BNSF freight tracks a little further east.

At the Avenue 11 Grade Crossing, embankment and conduits for future utilities are being completed off the bridge. On the bridge, crews are currently constructing traffic barriers along the sides of the deck. Next, paving and guardrail subcontractors will mobilize to complete the overpass. This crossing, east of Road 30½, will take traffic over the high-speed train alignment in Madera County.
The bridge deck and the wing walls extending off the Avenue 8 overcrossing in Madera County have been poured and crews will next pour the traffic barrier along the sides of the structure. The block retaining walls have been completed on either side of the abutments and fill dirt placed to finish the slope leading up to the bridge. Utility conduit is also being installed for future utilities.

At the southern end of Construction Package 1, girders have been set across the BNSF freight line to continue construction of the American Avenue overcrossing. Design-builder Tutor-Perini/Zachry/Parsons and the Authority are coordinating with BNSF on progressing design that will allow further construction to proceed.
At the overcrossing for a realigned Kansas Avenue, west of State Route 43 in Kings County, crews are excavating what will be the passageway for high-speed trains. Abutments for the bridge have already been constructed and next concrete and rebar piers will be built that will support the bridge deck.

Meanwhile, a mile to the north at the overcrossing for Kent Avenue, excavation for the high-speed train passageway has been completed. Ironworkers are now tying rebar for the bridge deck’s support piers.
Alexander Nelms has steadily grown more and more fascinated with high-speed rail and transportation issues, an interest dating back to his time as a student at Antelope Valley College in Lancaster. It was there, some four years ago, where an instructor encouraged students to explore different approaches to studying transportation projects and how they interfaced with the political process, creating unforeseen challenges in building mega-projects like the California high-speed rail.

“High-speed rail was an example to show how every layer of government engaged in the project,” Nelms recalled. “It’s difficult to align them all.”

Visit buildhsr.com/facesofhsr to learn more about when Nelms interesting in HSR really intensified.

**Faces of HSR**

**LATEST VIDEOS**  [YOUTUBE.COM/CAHIGHSPEEDRAIL](https://www.youtube.com/c/highspeedrail)

As part of a recent event for #Iwillride college groups, the Authority took students out on a tour of high-speed rail construction sites at the San Joaquin River Viaduct and Cedar Viaduct. Hear from some of the students about how they see high-speed rail making an impact on the future of the state and their impressions on seeing the construction up close for the first time.

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**JOB NUMBERS AS OF AUGUST 2018**

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