BNSF RAILWAY'S TEXAS HUB

Temple, Texas

STEVE SCHMOLLINGER/PHOTOS BY THE AUTHOR

Deep in the heart of Texas lies a town that grew up around the railroad. In Texas, that isn't unique. About 123 miles south of Fort Worth and 168 miles northwest of Houston, Temple — the "Wildflower Capital of Texas" — is situated in the approximate center of the Lone Star State based on population. In the spiderweb that is the Texas railroad network, where rail lines cross rail lines all over the state, Temple is a true hub. It sits at a point where three BNSF Railway subdivisions come together and a locomotive shop services road power. That's definitely noteworthy for a Texas country town. The Fort Worth Subdivision from the north, the Lampasas Subdivision from the northwest, and the Galveston Subdivision from the southeast join at a large wye in the center of town. In addition, UP's former Missouri-Kansas-Texas (MKT or Katy) Waco Subdivision passes north-south through Temple and crosses BNSF at CP Opal (formerly Opal Junction), south of downtown.

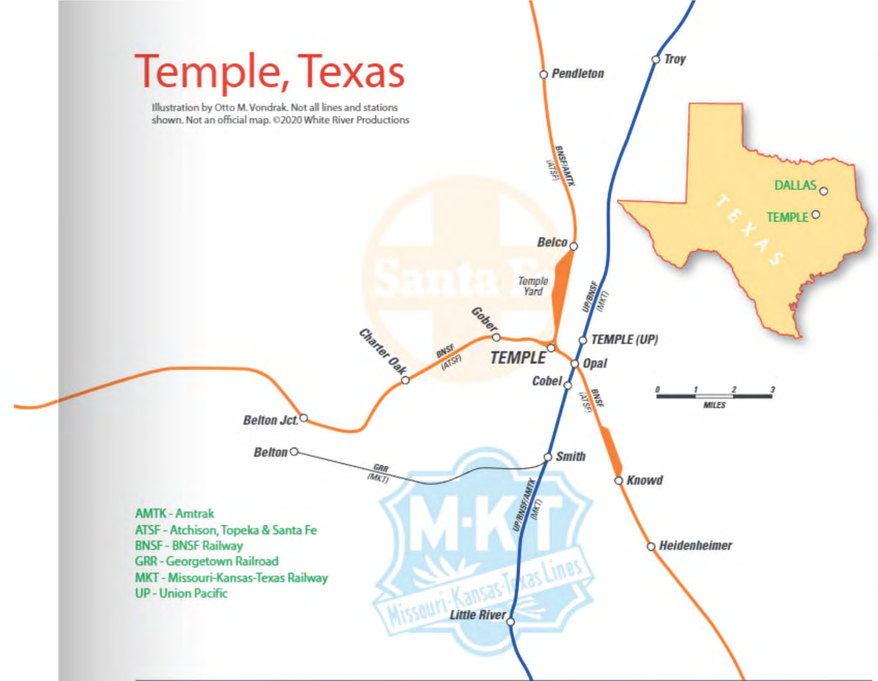
As Gulf, Colorado & Santa Fe built north through Texas in June 1881, it established a local headquarters in Bell County at a place it called Temple Junction. Shortened over time to just Temple, it was named for the railroad's Chief Engineer, Bernard M. Temple. The town was also called things like "Mud Town" and "Tanglefoot," ostensibly because of the abundance of rain-soaked earth that plagued its byways. A year later, Katy built through the county and crossed GC&SF at Temple. On September 1, 1903, a tower was commissioned at this crossing, being situated in the eastern quadrant of the diamonds. On a statewide basis, it was the 24th railroad tower commissioned, and thus was denominated Tower 24. At the wye, the railroad built a roundhouse inside its lower, west-facing leg, and expanded it to a full semi-circle over the years, adding other structures to maintain and repair locomotives and rolling stock. That's where today's shops stand.

Temple lies in the historical Brazos Trail Region, a part of Texas once known as one of the leading cotton-producing regions in the U.S. The region includes the fertile, north-south Blackland Prairie, whose rich soil helped Texas become a major producer. The advent of the railroad allowed cotton farmers to more efficiently get their product to market and expanded their reach. The railroads helped transform towns in the area like Waco, 35 miles north of Temple, into thriving centers of commercial activity. Bell County, where Temple sits, is located at the eastern edge of the Texas Hill Country, another famous Lone Star region — which has a big impact on the grade profile in and around this important railroad center.

One of the gems of Temple is the large passenger depot Santa Fe built in 1911. The structure is a classic example of the Prairie-Beaux Arts style, with stylized versions of Santa Fe's circle-and-cross emblem embedded in its brick and stucco walls. It has a distinctively Spanish flavor with its red-tiled roof and multiple large arches. After Santa Fe moved out of the building in 1985, and Amtrak left five years later, the classic structure was slated for demolition. Not wanting to see this huge piece of its history destroyed, the city of Temple bought the building and its surrounding land. With $2.4 million in TXDOT funds, the city's renovation of the structure was completed in mid-2000. Now the depot is part of the Temple Railroad and Heritage Museum, which is also one of two locations that house the official archives of the Santa Fe Railway Historical & Modeling Society. The other location is at the old AT&SF depot in San Bernardino, Calif.

Operations

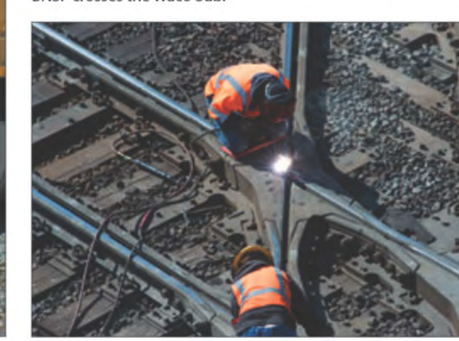
The Fort Worth Sub runs north through



OPPOSITE: On the afternoon of February 21, 2020, BNSF 4167 South, a freight off the Fort Worth Sub, passes in front of the former Santa Fe passenger station near downtown Temple. The beautiful depot is now part of the Temple Railroad and Heritage Museum.

LEFT: A little less than a mile east of the old Santa Fe station stands the former Katy passenger depot on UP's Waco Sub. GP38-2 798 has come south from Waco to interchange cars with BNSF on a track just north of the depot on February 21, 2020.

BELOW: Earlier on the same day, UP track workers repair their part of the diamonds at CP Opal, where BNSF crosses the Waco Sub.



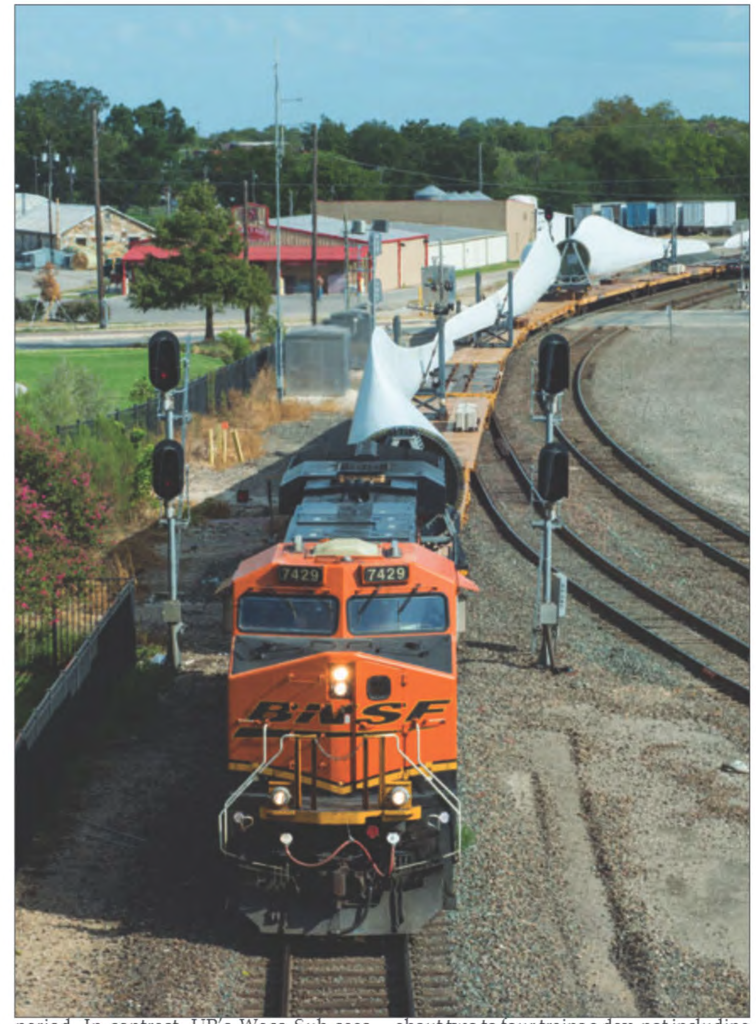
its namesake city to Gainesville, Texas, just south of the Texas-Oklahoma border. From there the line runs all the way to Wellington, Kan., a crew change point on BNSF's Transcon. The Lampasas Sub runs northwest to Sweetwater, Texas, where it crosses UP's Baird Subdivision — a key part of UP's southern route — and from there the railroad runs all the way to Farwell, Texas, just east of Clovis, N.M., on the Transcon. Last but not least is the Galveston Sub, which runs southeast to the Gulf Coast, passing through the traffic-rich Houston metroplex on the way.

The Temple-Silsbee Dispatcher, DS-112 on AAR Channel 87 (161.415), controls the territory between Belco just north of Temple, to Somerville, 74 miles south of town on the Galveston Sub. This dispatcher has authority over all main line movements through town. DS-112 also controls the UP crossing at Opal and the connecting track between the two railroads. The Lampasas Sub Dispatcher uses Channel 55 (160.935), Fort Worth Channel 36 (160.650), and Galveston Channel 72 (161.190). All three BNSF subdivisions that converge at Temple are single-track affairs. However, once they hit Temple, multi-track railroading is the order of the day.

Southbound traffic through Temple includes a fair number of loaded coal and rock trains off the Fort Worth and Lampasas subdivisions, as well as a good amount of manifest traffic and vehicle trains both loaded and empty. Ethanol and "shuttle" grain trains come down the Fort Worth line, while the lion's share of intermodal on the two lines comes down the Lampasas. In addition, southbound military extras can run on both lines. Northbound trains of wind turbine blades head up both the Fort Worth and Lampasas lines, as well as intermodal, autorack, and empty rock and coal trains, along with manifests sporting a hefty number of chemical-laden tank cars. Empty ethanol trains head north on the Fort Worth Sub back to the Midwest for reloading. In all, about 45–60 trains pass through Temple in an average 24-hour period. In contrast, UP's Waco Sub sees about two to four trains a day, not including Amtrak.

RIGHT: About 5:00 on a February 2020 afternoon, Amtrak Train 21, the Texas Eagle, has just switched from BNSF to UP as it approaches Martin Luther King Jr. Drive. The train, which originated in Chicago, is headed for San Antonio.

BELOW: Late on September 21, 2019, a pair of BNSF Geeps runs full-out to pull a long Waco Local up the steep grade between CP Opal and the yard. The local bends southward behind the Jupe grain elevator, one of the main landmarks in this part of town.



From its inception, Temple has been a locomotive maintenance point. Given its location at the junction of three major subdivisions, this is not only logical, but also necessary. As an originator of trains, as well as a somewhat remote location through which many trains pass, the ability to maintain and repair locomotives is critical. The Temple Shops can do just about anything outside of very heavy work like changing out prime movers. According to a foreman who works there, the shops can swap out a locomotive's main generator, but that would be about the heaviest work it would do. On any given day looking across the main line from the museum, one can see a goodly number of GEVOs, Dash 9s, and other power on the shop and engine facility tracks.

Temple is also home to a yard of approximately 25 tracks, where cars are re-blocked for different destinations on one of the three subdivisions, or in the wider Temple area. For instance, chemical traffic coming north from the ports of Houston, Galveston, and Port Arthur, is switched into different blocks in Temple, routed for destinations on and beyond the Fort Worth and Lampasas subdivisions. Likewise, some merchandise traffic coming south on the two lines just mentioned is combined into re-blocked manifests before heading farther south. The author, for instance, observed a manifest come off the Lampasas line and, instead of heading south toward Houston, take the northern leg of the wye and head for the yard.

BNSF Railway runs a "Waco Local" out of Temple Yard, symboled L-RDV3011-XXF ("XX" is the day of the month). It normally operates at night on the following weekly routine: Tuesday and Friday to Austin & Western at McNeil via trackage rights on UP's Waco and Austin subs, Wednesday via the same UP lines to Georgetown Railroad at the old station of Kerr, and Thursday and Saturday to the interchange track across from the old Katy passenger station on UP's Waco Sub in Temple. The classic brick depot was built in 1913 and, like the Santa Fe depot, is owned by TR&HM. Although the Waco Local is scheduled to run at night, it sometimes gets bumped to daylight

TOP LEFT: GEVO 7429 leads a northbound BNSF train of long wind turbine blades onto Track 3 just south of the restored Santa Fe depot on September 21, 2019.

LEFT: Around midmorning on April 8, 2019, two four-axle units head south at Martin Luther King Jr. Drive. It's likely they'll pick up cars south of Temple on BNSF because they've already passed the crossover to Track 1 at mile 217.9, and thus are unable to get onto UP's Waco Sub and head for the interchange track. BNSF has assigned several B40-8Ws to Temple.

ABOVE: Two big GEs slowly chug up the 1.3 percent grade at CP Opal, where BNSF crosses UP's Waco Sub, on April 8, 2019. The connecting track between the two railroads is visible to the right of BNSF C44-9W 719.

RIGHT: On February 15, 2019, BNSF 5425 South, a unit ethanol train, comes down one of the fueling tracks next to another ethanol move already at the southbound fuel pad.

duties, either because of schedule changes or traffic on the UP Waco Sub forcing it to go dead on the hours of service law. Late on a September afternoon, the author observed the local northbound in downtown Temple with a couple of Geeps doing all they could to drag a long string of cars up the stiff grade toward the yard.

Temple Yard

Looking at a satellite image of Temple, you can see that the yard — which is canted to the north-northwest — is a busy place. The Fort Worth Sub main line, which includes a long siding that effectively acts as a second main track, does not run through the yard, but heads north-northeast on an arrow-straight alignment. A few miles north of the yard, just south of Highway 363 ("Dodgen Loop"), the track coming out of the yard curves to the northeast and rejoins the main line. This bypass allows through trains to avoid the congestion of the yard, and yard operations to continue unabated. Not surprisingly, Amtrak uses the bypass.

As the rails coming from the north approach the south end of the yard and downtown Temple, Track 1 from the yard and Tracks 2 and 3 from the bypass trace a sweeping, north-to-east curve past the passenger station. Track 1 is on the outside of the curve, and this is the main track the Lampasas Sub joins from the west just shy of the Third Street overpass. Track 3 is the main Amtrak uses since it abuts the passenger platform, but it's also the track most BNSF through freights use. As the rails continue through downtown, they curve southward. Track 3 joins Track 2, and the main line passes the oft-used double crossovers at mile 217.9 in front of the Jupe grain elevator.

Because Temple lies at the nexus of three subdivisions, it's a natural location for refueling of locomotives and railcar inspections. To meet the need, Santa Fe installed six 10,000-foot fueling tracks (also called "fuel racks" or "fuel pads") in a valley south of downtown between 1981 and 1984. There are north and south fuel racks, or "northbound" and "southbound," with the south pads in the timetable as Knowd. There are fueling, sanding, and other necessary facilities at both ends of each of the six tracks. The tracks also give carmen a chance to look over rolling stock before trains depart, including 1,000-mile inspections (i.e., a Class 1A brake test) of coal and other unit trains. The tracks are long enough to fit virtually any train BNSF cares to run through them. All main line tracks through Temple are equipped with Centralized Traffic Control, including each of the fuel tracks. An overpass takes 24th Street over the north fuel racks just off Martin Luther King Jr. Drive.

As trains depart the north fuel pads, they quickly hit a 1.3 percent grade. If you're standing within earshot of this stretch of the BNSF main line, you'll hear any heavy train making lots of noise as it fights this significant incline. In fact, most heavy trains coming north will struggle against the grade until they reach the south end of the yard past the passenger station. The curves in this part of the alignment, which help manage the gradient, add further resistance to northbounds. In the opposite direction, unit and other heavy trains coming down the hill must use their dynamic brakes to maintain track speed or slower. That said, they often make relatively little noise as they glide downhill on immaculately maintained rail and roadbed. If you're not vigilant, they'll be on top of you before you know it.

About a mile northwest of the fueling racks is CP Opal, where the BNSF two-track main crosses UP at what is called a "manual" interlocker, since the BNSF dispatcher, who controls the crossing, has to manually set up the signals. East Avenue H passes over the tracks just north of the crossing. In the western quadrant of the interlocker is a track that connects the two railroads, complete with heavy rail and concrete ties. Amtrak's *Texas Eagle* uses this track to switch from UP to BNSF on its run to Chicago and vice-versa headed for San Antonio. BNSF uses the connection to run trackage rights rock trains southward on the Waco Sub, which then jump onto UP's Austin Sub at Taylor. BNSF gets rock loads off Georgetown Railroad at Kerr and a lesser number off Austin & Western at McNeil. Farther south at Caldwell on BNSF's Galveston Sub, empty autoracks and other traffic gets onto UP's Flatonia Subdivision for the run to BNSF's Cadet Yard in San Antonio and the U.S.-Mexico border at Eagle Pass. Among other things, BNSF receives finished vehicles from Ferromex at the Eagle Pass gateway.

Y'all Come Visit

Except for BNSF's Transcon and UP's Sunset Route before the Golden State and Texas & Pacific lines split off in the western corner of the state, there aren't many long stretches of heavily trafficked railroad in the Lone Star State. That may be surprising, but it stems from Texas' web-like rail network where traffic movements are spread out. There are, on the other hand, a number of bustling traffic centers, of which Temple is one.

Unlike most other busy Texas rail hubs, however, Temple is quite compact. Compressing the traffic from three BNSF subdivisions onto a single, three-mile stretch of railroad makes for interesting and intense operations. Throwing UP's Waco Sub and Amtrak's *Texas Eagle* into the mix — including trackage rights, routes, and interchange — adds to the local dynamics. Add in the Temple Railroad and Heritage Museum and you have a town that's definitely worth a visit.

For the visiting railroad enthusiast, Temple has plenty of food and lodging options. Located less than two hours from Fort Worth and about three hours from Houston, the town of Temple is a great place to take in some of the Lone Star State's exciting contemporary railroad action.

The author would like to thank Ken Fitzgerald for his help with this article.

TOP LEFT: As the sun wanes at the northbound fuel racks, two BNSF workers hustle to refuel and inspect a couple of all-GE consists on September 20, 2019. The two trains will depart shortly with fresh crews headed either to Sweetwater, Texas, on the Lampasas Sub, or Alliance, Texas, on the Fort Worth Sub.

LEFT: Amtrak's northbound Texas Eagle boards passengers at the Temple station platform on February 16, 2019. In the foreground is AT&SF GP7u 1680, one of the vintage locomotives in the Temple Railroad and Heritage Museum.