National Register of Historic Places Registration Form

1. Name of Property	
Historic Name: Bosque River Bridge Other name/site number: East Morgan Street Bridge, National Bridge Inspe Name of related multiple property listing: <i>Historic Road Infrastructure of Te</i>	
2. Location	
Street & number: 0.3 miles NE of JCT SH 6 City or town: Meridian State: Texas County: Bosque Not for publication: □ Vicinity: ☑	е
3. State/Federal Agency Certification	
As the designated authority under the National Historic Preservation Act, as amended, I hel nomination request for determination of eligibility meets the documentation standards Register of Historic Places and meets the procedural and professional requirements set for property meets does not meet the National Register criteria.	for registering properties in the National
I recommend that this property be considered significant at the following levels of significan ☐ national ☐ statewide ☐ local	ce:
Applicable National Register Criteria:	
State Historic Preservation Officer Signature of certifying official / Title Texas Historical Commission State or Federal agency / bureau or Tribal Government	Date
In my opinion, the property meets does not meet the National Register criteria.	Data
Signature of commenting or other official	Date
State or Federal agency / bureau or Tribal Government	
4. National Park Service Certification	
I hereby certify that the property is: entered in the National Register determined eligible for the National Register determined not eligible for the National Register removed from the National Register other, explain:	
Signature of the Keeper	Date of Action

5. Classification

Ownership of Property

	Private	
	Public - Local	
X	Public - State	
	Public - Federal	

Category of Property

	building(s)		
	district		
	site		
X	structure		
	object		

Number of Resources within Property

Contributing	Noncontributing	
0	0	buildings
0	0	sites
1	0	structures
0	0	objects
1	0	total

Number of contributing resources previously listed in the National Register: 0

6. Function or Use

Historic Functions: TRANSPORTATION/road-related

Current Functions: TRANSPORTATION/road-related

7. Description

Architectural Classification: Other: steel I-beam bridge

Principal Exterior Materials: Concrete; Asphalt; METAL/Steel

Narrative Description (see continuation sheets 7-6 through 7-)

8. Statement of Significance

Applicable National Register Criteria:

X	Α	Property is associated with events that have made a significant contribution to the broad patterns of our		
		history.		
	В	Property is associated with the lives of persons significant in our past.		
X	С	Property embodies the distinctive characteristics of a type, period, or method of construction or represents		
		the work of a master, or possesses high artistic values, or represents a significant and distinguishable		
		entity whose components lack individual distinction.		
	D	Property has yielded, or is likely to yield information important in prehistory or history.		

Criteria Considerations: NA

Areas of Significance: Transportation, Architecture (state level of significance)

Period of Significance: 1940

Significant Dates: 1940

Significant Person (only if criterion b is marked): NA

Cultural Affiliation (only if criterion d is marked): NA

Architect/Builder: Texas State Highway Department; W.E. Worrell Company, contractor

Narrative Statement of Significance (see continuation sheets 8-x through 8-x)

9. Major Bibliographic References

Bibliography (see continuation sheets 9- through 9-)

Previous documentation on file (NPS):

- _ preliminary determination of individual listing (36 CFR 67) has been requested.
- _ previously listed in the National Register
- _ previously determined eligible by the National Register
- _ designated a National Historic Landmark
- _ recorded by Historic American Buildings Survey #
- _ recorded by Historic American Engineering Record #

Primary location of additional data:

- **x** State historic preservation office (*Texas Historical Commission*, Austin)
- **x** Other state agency (*Texas Department of Transportation*, Austin)
- Federal agency
- Local government
- _ University
- _ Other -- Specify Repository:

Historic Resources Survey Number (if assigned): NA

10. Geographical Data

Acreage of Property: Less than one acre

Coordinates

Latitude/Longitude Coordinates

Datum if other than WGS84: NA

1. (North Point) Latitude: 31.920280 Longitude: -97.661389 2. (South Point) Latitude: 31.918988 Longitude: -97.662410

Verbal Boundary Description: The bridge is located on State Highway 22. The boundary encompasses the entire structure. Included within this structure are the bridge's superstructure, substructure, approaches and deck.

Boundary Justification: The boundary includes all components historically associated with the bridge.

11. Form Prepared By

Name/title: Rene Gomez (avocational historian) with assistance from Bonnie Tipton (THC Historian)

Organization: NA

Street & number: 3817 Cornish Avenue

City or Town: Fort Worth State: Texas Zip Code: 76133-1259

Email: renegomezphotography@gmail.com

Telephone: (682) 560-1451 Date: February 17, 2022

Additional Documentation

Maps (see continuation sheets 12-13)

Additional items (see continuation sheets 14-19)

Photographs (see continuation sheet 19-23)

Photographs

Bosque River Bridge Meridian, Bosque County, Texas Photographed by Rene Gomez 2020

Photo 1.

North elevation, facing south

Photo 2.

Southeast elevation, facing northwest

Photo 3.

West elevation, facing east

Photo 4.

West elevation, facing east

Photo 5.

Southwest elevation, facing northeast

Photo 6.

Southeast elevation, facing northwest

Photo 7.

North elevation, facing south

Photo 8.

South elevation, facing north

Narrative Description¹

Bosque River Bridge is in Meridian, Bosque County and spans the North Bosque River less than one mile west of the county courthouse. Bosque County is in Central Texas approximately 60 miles south of Dallas-Fort Worth. The land is characterized by its deep, well-drained soil over limestone. The Brazos River forms the eastern county line, and the Bosque River runs north-south through Meridian.

The nominated bridge is in an urban area southwest of downtown Meridian and less than one mile northeast of the junction of State Highway 6 (formerly part of SH 67). The setting is light commercial at the southwest approach and parkland at the northeast approach. The bridge has a northeast-southwest alignment and crosses the river at a right angle. The river created a ravine with a bluff on the southwest approach of the bridge and a plain on the northeast approach of the bridge. Tall brush and trees are densely concentrated on the banks of the Bosque River.

Built in 1940, the Bosque River Bridge is a steel I-beam continuous span bridge with an overall structural length of 566 feet. It was constructed using 173,076 pounds of reinforced steel and 467,724 pounds of structural steel. The bridge's superstructure consists of a 265'-long four-span continuous span over the main channel of the Bosque River. Three 50-long simple steel I-beam units are at each approach. The asphalt deck is 26'-wide with 3'-wide cantilevered pedestrian sidewalks. Balustrades are steel picket with concrete posts and are the bridge's primary ornamental feature. The superstructure rests on nine concrete supports and two abutments. There are 10-foot steel pilings under all the piers except piers 8 and 9. There is a concrete footing (or cap) placed around the top of the steel pilings.

The bridge retains all of its original components and features and retains a high degree of integrity with no sizable alterations. In 1997, the Texas Department of Transportation (predecessor the Texas Highway Department) carried out an inspection of the bridge and determined it to be in satisfactory condition with some minor deterioration. The bridge is in excellent condition and still meets the needs of the traveling public. As such, it retains a high degree of integrity of design, materials, workmanship, location, setting, feeling and association.

Bosque River Bridge, General Specs

Main Span Type	Continuous
Bridge Type	Steel I-Beam
Number of Spans	4
Deck	Concrete
Roadway Width	26 feet
Total Structure Length	566 feet
Max Span Length	75 feet
Main Roadway	Through

¹ Adapted from John Murphy, "Bridge NRHP Eligibility Report," Texas Department of Transportation, April 13 2013.

Statement of Significance

The Bosque River Bridge west of Meridian, Bosque County, Texas was constructed under a state sponsored Works Progress Administration contract in 1940. The 556-long, steel I-beam bridge replaced a c. 1885 steel truss and served the new alignment of State Highway 22 across Bosque County. The bridge is significant for its association with nationwide work-relief programs of the Depression era. It is also associated with bridge design during a period when the Texas Highway Department (THD) advanced I-beam bridge engineering using longer continuous beams that lengthened bridge spans. The Bosque River Bridge also incorporated specially designed reinforced concrete piers to support the center span. The steel I-beam was the dominant long-span bridge used during Texas' massive state highway expansion of the 1930s-1940s. The nominated bridge was constructed at the peak of use in Texas, stands as a good example of the type, and is significant in the area of Transportation under Criterion A and Engineering under Criterion C at the state level of significance. The period of significance is 1940 coinciding with the bridge's construction.

Meridian, Bosque County

Bosque County is located in Central Texas and lies approximately sixty miles south of Dallas-Fort Worth and forty miles west of Waco. It is traversed by several highways including State Highway 22, State Highway 6, and State Highway 174. The town of Meridian originated as the county seat for the newly established Bosque County in 1854. Meridian grew slowly, primarily as a regional center for trade and shipping for the surrounding farms and as a stop on an overland route between Waco and Stephenville. The area's rich soils and plentiful grassland encouraged livestock production, especially cattle. The biggest period of economic growth appears to have occurred in the 1880s, when the Santa Fe Railroad came through Bosque County in 1882-84, laying tracks about two miles east of Meridian. By the 1930s, the city's economy and population declined following droughts, soil erosion, and the nationwide economic depression that severely impacted the county's farming community. The city's population shrank to 759 in 1930 from 1,074 in 1920. New Deal programs aided Meridian and Bosque County. The Civilian Conservation Corps developed the 505-acre Meridian State Park off State Highway 22, and the Texas Highway Department oversaw WPA projects that improved local roads to connect with the new alignments of SH 22 and SH 67. After World War II, poultry processing and other manufacturing establishments improved employment opportunities and bolstered the economy. Although the rural population decreased, Meridian's population has steadily increased since the 1940s.

Bosque River Crossing at Meridian (1885-1940)

Prior to the creation of the Texas State Highway Department (THD), bridge construction and design were generally left to private sector contractors, and the cost and design of a bridge often depended more on the ability of bridge company salesman to persuade cities and counties to purchase them, rather than infrastructure needs. In 1885, the Bosque County Commissioner's Court hired the Wrought Iron Bridge Company of Canton, Ohio to construct a steel truss bridge over the Bosque River, which ran along the city's western limits.² It connected East Morgan Street and downtown to a wagon road that ran southwest to Cranfills Gap; the route later became part of State Highway 22.

In 1917, THD proposed the state's first highway system, which included State Highways 22 and 67 (now SH 6) through Meridian. SH 22, built between 1923 and 1932, became an important east-west route connecting Corsicana (Navarro County) through Bosque County to Hamilton (Hamilton County). SH 67 ran roughly north south and connected Meridian to Waco (McClennan County) and Hico (Hamilton County). Sections of both highways originally built and maintained by counties did not meet THD's professional standards of construction, safety, and engineering. For example, the Bosque River Bridge, originally built in 1885, had become narrow by modern specifications and dangerous. In the 1930s and early

² "Work on New Bridge Over Bosque River Progressing," Fort Worth Star-Telegram Morning, July 4, 1940.

1940s, federal funding and New Deal work relief programs provided the labor and money THD needed to make long overdue improvements these deficient roads and bridges.

The Bosque River Bridge was constructed under a state sponsored WPA work-relief contract in 1940. The bridge was part of a larger project that created a new alignment of SH 22 through Bosque County. In order to accommodate the anticipated traffic of the new highway into Meridian, the 1886 narrow steel truss was dismantled. To create a new crossing, the Bridge Division utilized a long continuous steel span unit over the main channel of the river, and simple steel span units as the minor spans. Special design reinforced concrete piers were used to support the center span over the river. The W.E. Worrell Company of Austin constructed the bridge and approaches, with work performed by WPA labor. Work began on the bridge in May of 1940 and finished the following December for the final cost of \$98.002.88. One-hundred men were employed to construct the bridge; 75 from the WPA and 25 from the contractor W.E. Worrell. All WPA workers were residents of Bosque County and were paid by state funds. When the bridge was finished in December 1940, the final cost was \$98.002.88. The new bridge was connected with then brand-new State Highway 67 that connected Meridian with the city of Clifton, 13 miles southeast.

Texas Highway Department and the WPA

Established in 1917, the Texas Highway Department (THD) is the agency responsible for the design, construction, and maintenance of state and federal roads across Texas. Between 1917 and 1932, the agency transformed "a disjointed collection of rural, county-maintained roads and poorly designed state routes [into] a professionally designed and constructed system of highways traversing the entire state." The agency's Bridge Division was a key component to its success. Organized in 1928, the division took on "an aggressive program to improve the state's bridges and culverts" by designing bridges with straighter roadway alignments, greater roadway widths and loading capacities. Engineers also paid special attention to architectural aesthetics and pedestrian access for bridges built in communities.

During the Great Depression, THD oversaw road infrastructure projects that employed thousands of Texans through work-relief programs and greatly expanded the state's road system. Of all the New Deal programs, the Works Progress Administration/Work Projects Administration (WPA) was the most influential in its scope, longevity, and effect on Texas road construction and improvement.⁷ The relief program ran from 1935 to 1943 and employed more than 8 million U.S. citizens.⁸ In Texas, WPA funded projects built 31,836 miles of new and improved roadways and 7,686 new and improved bridges and viaducts.⁹ As the U.S. economy improved, the Roosevelt administration re-organized the WPA in 1938, and THD assumed more control over which project proposals moved forward. THD itself also created road construction proposals for submission to the WPA. Planning for the nominated bridge reflects this shift in responsibilities. The Bosque River Bridge at Meridian was part of the larger state-sponsored project (C.W.R. 121-1-2) to improve State Highway 22 and approved by the WPA for funding. The WPA also funded other projects in Meridian such as having several blocks of residential streets covered with asphalt and a school lunch program. ¹⁰

³ "Bosque Bridge Construction Company Here," *Meridian Tribune*, May 10, 1940.

⁴ Bridge NRHP Eligibility Report.

⁵ "Historic Road Infrastructure of Texas" Multiple Property Submission Form (2013), 125.

⁶ Ibid., 34.

⁷ Ibid., 46.

⁸ "WPA Project included Alamo Stadium, streets." San Antonio Express-News, February 15, 2015.

⁹ "Historic Road Infrastructure of Texas," 46.

¹⁰ "Proposed Paving Project Would Cover Entire City," *Meridian Tribune*, September 6, 1935; "School Lunchrooms Serve 1180 Daily," *Meridian Tribune*, May 15, 1942.

Steel I-Beam Bridges in Texas¹¹

Steel I-beam bridges became one of the most common bridge types constructed in Texas during the 20th century. Its name derives from the structural girders that support the deck, which has an I-shaped cross section. The transition from timber to steel beam bridge construction was relatively slow in Texas. Steel, imported from other states, was more cost prohibitive than timber, which was an abundant resource in East Texas. Steel I-beam bridge construction increased after 1910 when structural steel fabricators and rolling mills first began operating in Texas. In the 1920s, the THD developed its first standardized steel beam bridge plans that the agency evolved over several decades as advancements in welding technology enabled the fabrication of longer steel beams (or units):

Up until the 1930s, steel I-beam bridges were usually constructed as a series of one-span units supported at each end by a bent or an abutment. With advances in welding technology in the late 1930s, continuous steel beams could be fabricated to span lengths of over 200 feet. The continuous unit was usually placed over the main channel of a stream and approached by either simple steel I-beam or reinforced concrete girder units. Because the sheer force of the continuous span is experienced at its supports, the bridge commonly had solid concrete piers placed under the main span.

Long-span steel bridges were built prolifically by the State Highway Department during the expansion of the state highway system in the 1940s. 12

In order to create a new crossing over the Bosque River in Meridian, THD's Bridge Division utilized a long continuous steel span unit over the main channel of the river, and simple steel span units as the minor spans. Special design reinforced concrete piers were used to support the center span over the river.

Conclusion

For a property to be nominated under the MPD under the subcontext "Texas Roads in the Great Depression and World War II," there must be documentation that establishes a direct association federal funds, or a work relief program administered by the state. The property must also retain sufficient historic integrity from the New Deal-era period of significance to convey its specific link to the subcontext, with primary importance on location, association, setting, and design. 13 Bridges associated with a work-relief programs are eligible at the state level of significance under Criterion A in the area of Transportation. The Bosque River Bridge is representative example of a steel I-beam bridge constructed under a WPA work-relief contract during the period of that program's existence between 1935 and 1943. The property's association is documented in engineering plans, historic photos, and newspapers. Based on an analysis of extant bridges in Texas identified through comprehensive survey efforts, bridges may also be eligible under Criterion C in the area of engineering as an important example of the engineering response to difficult site challenges. 14 The design of Bosque River Bridge represents advances in standardization of bridge design and engineering and is a good example of I-beam bridge design employed by the Texas Highway Department under WPA work relief contracts. The bridge retains a high degree of integrity with no major alterations and is nominated for listing on the National Register of Historic Places under Criterion A in the area of Transportation and Criterion C in the area of Engineering at the state level. The bridge retains its integrity of design and materials, feeling, and location. Its setting also has not been compromised by development and remains close to its original state at time of construction.

¹¹ Adapted from, "Bridge Types of the Early Twentieth Century: Steel I-beams," in *Historic Road Infrastructure of Texas*, 1866-1965, Section E, p. 108-110.

¹² Ibid., 110.

¹³ "General Bridge Registration Requirements under Criterion A," Historic Road Infrastructure MPS, Section F, p. 210; 212-214

¹⁴ "Non-truss/Non-suspension Registration Requirements under Criterion C," *Historic Road Infrastructure MPS*, Section F, p.260.

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"WPA Project included Alamo Stadium, streets." San Antonio Express-News (February 15, 2015): 6A.

"Work on New Bridge Over Bosque River Progressing." Fort Worth Star-Telegram Morning (July 4, 1940): p.4

Maps

Map 1: Bosque County, Texas



Map 2: Boundary Map Source: Google Earth 2021

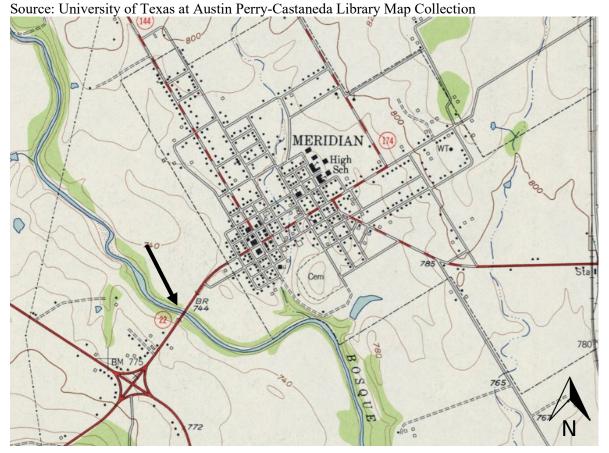
 3. (North Point)
 Latitude: 31.920280
 Longitude: -97.661389

 4. (South Point)
 Latitude: 31.918988
 Longitude: -97.662410





Map 3: Meridian Quadrangle USGS Topographical Map (1955)



Figures

Figure 1: Old Wrought Iron Bridge at the North Bosque River, circa 1914-1916. Source: Bosque County Collection



Figure 2: THD plans show the proposed realigned Highways 22/67 and nominated bridge (red arrow) built south of the original road alignment and 1890 bridge (blue arrow). Source: Texas Highway Department. "Plans of Proposed Highway Improvement: State Sponsored WPA Project." Feb. 5, 1940. Texas Department of Transportation Library, Austin, Texas.

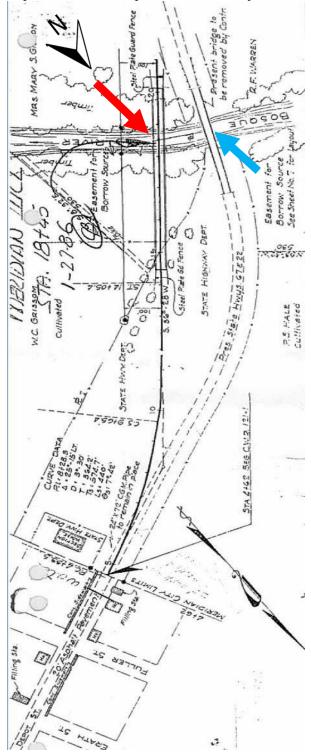


Figure 3: WPA photo of Bosque River Bridge, 12/30/1940. Source: Texas Parks and Wildlife Department, "Texas and the WPA," https://www.flickr.com/photos/141324854@N04/albums (accessed 4/25/22).



Figure 4: Bosque River Bridge, WPA Project Index Card. Source: Ibid.

TEXAS WORK PROJECTS ADMINI	STRATION FILE 6053	
District No. 8 Pi Date Taken 12-10-40 Fi	cture No. S-6596	
Official Project No. 65-1-66-451		
Work Project No. 15592		
County Bosque City 1	Meridian	
Date Reference		
Descriptive Ception: Bosque I 640 ft. long-renforced cond		
spans-structral steel spans-	rocker arm join	
4in, sidewalks on each sid	le-18 above road	
way build approcher-dimolish		
build dike on east side and s	sod-General view	

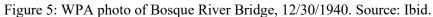




Figure 6: WPA photo of Bosque River Bridge, 12/30/1940. Source: Ibid.



Figure 7: WPA photo of Bosque River Bridge, 12/30/1940. Source: Ibid.

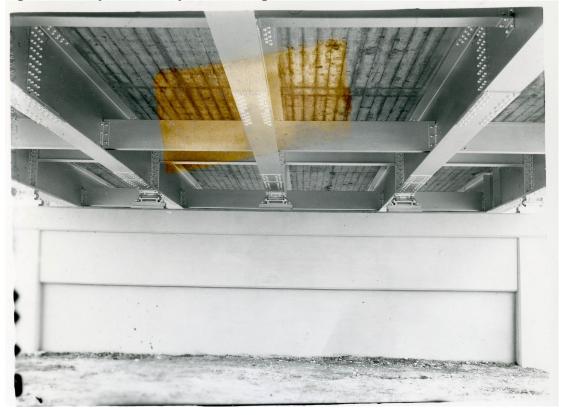
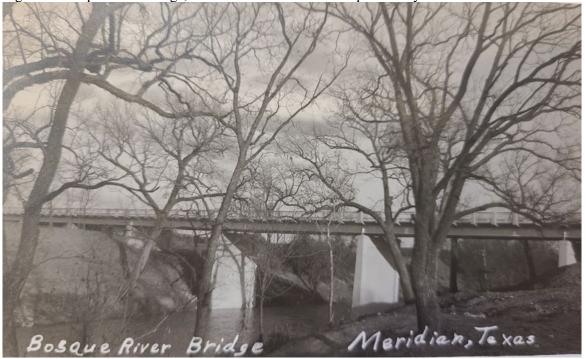


Figure 8: Bosque River Bridge, date unknown. Source: Bosque County Collection



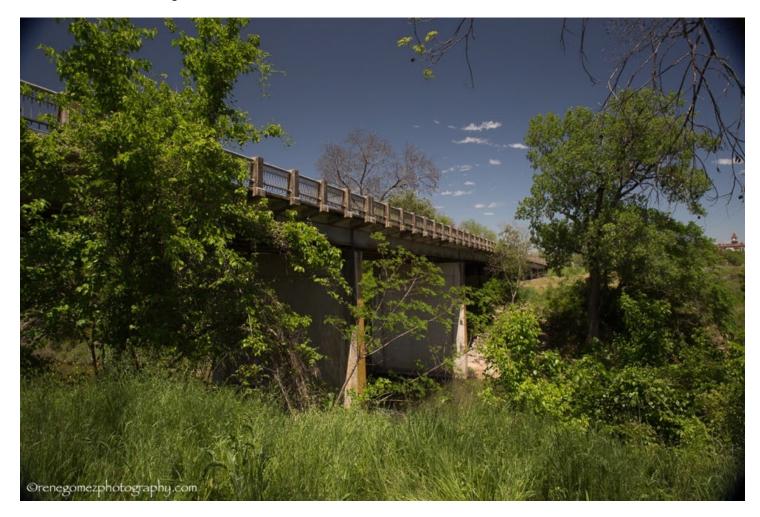
Photographs

Bosque River Bridge Meridian, Bosque County, Texas Photographed by Rene Gomez 2020

Photograph 1



Photo 2 Southeast elevation, facing northwest



Photograph 3: West elevation, facing east



Photograph 4: West elevation, facing east



Photograph 5



Photograph 6: Southeast elevation, facing northwest



Photograph 7: North elevation, facing south



Photograph 8:South elevation, facing north

