

**Weston Viaduct:
Documentation of Historic Bridge No. K0698**

Platte County, Missouri

Route 45

MODOT Project No. J4P2148



November 2009



Weston Viaduct:

Documentation of Historic Bridge No. K0698

Platte County, Missouri

Route 45

MODOT Project No. J4P2148

Report Preparers:

Jane M. Lee and Randall D. Dawdy

Submitted to:

State Historic Preservation Office
Missouri Department of Natural Resources

Prepared for:

The Federal Highway Administration
In Compliance with Section 106 of the National Historic Preservation Act

Pete K. Rahn, Director
Missouri Department of Transportation

November 2009

Introduction

The Missouri Department of Transportation proposes to improve Route 45 in Platte County approximately three miles northwest of Weston, Missouri. The project will replace Bridge K0698 over the Chicago, Burlington, and Quincy Railroad with a new viaduct, which will enable the passage of oversized load vehicles over the railroad during construction of the new Iatan 2 power plant. The “Weston Viaduct” has been determined eligible for listing on the National Register of Historic Places (NRHP), and the proposed work will have an “adverse effect” on the historic structure. It is NRHP eligible under Criterion C in the area of Engineering.

In consultation with the Missouri State Historic Preservation Office and the National Advisory Council on Historic Preservation, a Memorandum of Agreement (MOA) for mitigation of the adverse effect was developed and signed on August 6, 2009. The MOA calls for documentation of the bridge with archival photographs and a historic narrative. This documentation is submitted to fulfill the MOA requirements for the historic Weston Viaduct (Bridge No. K0698).

HISTORIC DOCUMENTATION
BRIDGE K-698
WESTON VIADUCT

I. Introduction

Location: Highway Bridge carrying Missouri State Route 45 over the Chicago, Burlington and Quincy Railroad (C.B.&Q.), approximately three miles northwest of Weston, Missouri.

Construction Dates: 1936-1937

Present Owner: Missouri Department of Transportation, Jefferson City, Missouri

Present Use: Highway bridge to be replaced or rehabilitated; project to begin in 2010

Significance: The plans for the Weston Viaduct, project #WPGH-791 (B), were drawn by engineers of the Missouri State Highway Department in March of 1936 according to standard specifications that were published by the American Association of State Highway Officials (AASHO) in 1935. Although the viaduct was constructed according to standard specifications, it was unique at the time that it was constructed due to the length of its girders. Although longer steel beam bridges had been constructed in other parts of the country, the Weston Viaduct is significant because its 115-foot span length represented one of the earliest long-span beam bridges to be constructed in the State of Missouri during the 1930s.

Historian: Jane M. Lee, Historic Preservation Section, Design Division, Missouri Department of Transportation, October 2009.

II. History of Bridge K-698

A. Introduction

The Weston Viaduct carries Route 45 over the Burlington Northern Railroad, approximately three miles northwest of the town of Weston in Platte County, Missouri. The viaduct consists of a single 115-foot long, riveted plate through girder span, which is flanked at both ends by two 50-foot steel stringer approach spans. The plans for the Weston Viaduct, project #WPGH-791(B)¹, were drawn by engineers of the Missouri State Highway Department in March of 1936 according to standard specifications that were published by the American Association of State Highway Officials (AASHO).² Although the viaduct was constructed according to standard specifications, it was unique at the time that it was constructed due to the length of its girders. Although longer steel beam bridges had been constructed in other parts of the country, the Weston Viaduct is significant because its 115-foot span length represented one of the earliest long-span beam bridges to be constructed in the State of Missouri during the 1930s.

The Weston Viaduct was constructed as a part of Route 45, which was designated by the Missouri State Highway Commission as a traffic relief (TR) highway for travel between Kansas City and St. Joseph. Route 45TR was originally described as, "...connecting Route 52A, Buchanan-Platte County Line, through or near Weston, intersecting Route 92, between Platte City and Leavenworth, and connecting with Route 59, at or near Parkville, Missouri..."³ The connection between Route 45TR, the Weston Viaduct and the town of Weston has historical roots that extend back to the early days of the Platte Purchase.

B. Weston History

Weston was one of the earliest established town sites within the Platte Purchase. The Platte Purchase, which consisted of a six-county area (Andrew, Atchison, Buchanan, Holt, Nodaway and Platte), was acquired by the state of Missouri from the Iowa, Sac, and Fox tribes in 1836.⁴ In 1837, a recently discharged Dragoon from Fort Leavenworth, Joseph Moore, reportedly bought a claim of land across the Missouri River from the Fort from an "Indian trader named McPherson's for a barrel of whiskey"⁵. Moore built a cabin

¹ Missouri State Highway Department, "Bridge Over C.B. & Q. R.R., State Road From Weston to Buchanan County Line, Project No. WPGH 791B (R45TR)," April 1936, Bridge No. K-698 [bridge construction drawings, seven sheets], Bridge Division, Missouri Department of Transportation, Jefferson City.

² American Association of State Highway Officials (AASHO), *Standard Specifications for Highway Bridges Adopted by the AASHO, Second Edition* (Washington, D.C.: AASHO, 1935).

³ Missouri State Highway Commission, "Minutes of a Special Meeting of the State Highway Commission, Held at the Mayfair Hotel, St. Louis, Missouri," 2 July 1929, Minutes of Proceedings of the Missouri State Highway Commission.

⁴ E.W. Howe, "A Bit of Weston, Missouri, History," *Missouri Historical Review* 47(1): 29-36.

on the land, hired Tom E. Weston, another Dragoon from Ft. Leavenworth, and began to survey the town site. According to a written account by Tom Weston, the town was named Weston because it represented, “the farthest town west in trade” at the time.⁶

Although Moore and Weston are credited with the establishment of the town site, it wasn't until two of Weston's most notable historical figures, cousins Bela M. Hughes and Ben Holladay, arrived at Weston during the winter of 1838-1839 that the town truly began to flourish.⁷ Hughes, a young lawyer from Kentucky, reportedly bought a half interest in Moore's claim, and was said to have single-handedly maintained order at the town. Holladay established a number of businesses in Weston, including a dram shop, a tavern, a store, and later, the International Hotel.⁸ In 1841, Holladay became the first postmaster for Weston, and he and his brother, David, established the Holladay Distillery in 1856.⁹ Holladay's business acumen was undoubtedly developed during his early years at Weston, and his work outfitting wagon-bound emigrants heading westward ultimately led to his most notable role as one of the country's transportation moguls during the mid-to-late 19th century.¹⁰ Hughes and Holladay were able to use their influence to attract settlers to Weston from their home state of Kentucky, as well as Louisiana, Tennessee and Virginia.¹¹

Weston's position opposite of Fort Leavenworth and adjacent to a natural harbor of the Missouri River was ideal for the town's early economic and commercial growth. Initially, Weston supported a small but diverse agricultural base in order to supply food and other products to the military installation at Fort Leavenworth. Because of its advantageous location, Weston became a primary point of export for the agricultural regions of northern Platte County during the steamboat era of the early-to-mid 19th

⁵ Bertha I. Bless, *Weston—Queen of the Platte Purchase: Historical data about a town that rose to fame in 13 years and was forgotten for nearly 50 years* (Weston, MO: The Weston Chronicle, 1969), 9.

⁶ *Ibid.* There are a number of accounts of the settlement of Weston, but all are in agreement that Joseph Moore was the first individual to set up residence at the town. Weston native and journalist, Bertha Bless, recounts the stories of Moore's deal with McPherson and Tom Weston's letter in her book, *Weston—Queen of the Platte Purchase*.

⁷ United States Bureau of the Census, “1840 Population Census: Platte County, Missouri,” microfilm copy available from Missouri State Archives, Jefferson City, MO; W.M. Paxton, *Annals of Platte County, Missouri* (Kansas City, MO: Hudson-Kimberly Publishing Co., 1897), 24; Platte County Historical Society, *History of Platte County, Missouri: A Proud Legacy* (Platte City, MO: Platte County Historical Society, 2006), 24.

⁸ Paxton, 23, 27; Bless, 9-10; Howe, 34.

⁹ Frederick, J.V., *Ben Holladay: The Stagecoach King* (Glendale, CA: A.H. Clark Co. 1940), 23; Stephen J. Raiche, “McCormick Distillery,” National Register of Historic Places Nomination, U.S. Department of the Interior, National Park Service, 1973, *passim*.

¹⁰ Frederick, *passim*.

¹¹ Miller, Sandra, *Memories of Weston, Volume I* (Weston, MO: The Weston Chronicle, 1993), *passim*; “1850 Population Census: Platte County, Missouri,” microfilm copy available from Missouri State Archives, Jefferson City, MO.

century.¹² Weston was a principal stop for steamboats on the Missouri, particularly those traveling downriver to Glasgow and on to the Mississippi at St. Louis. Trade and export at Weston led to the development of several early roads, which were built to transport a variety of products from locations such as Liberty, Plattsburg and Beverly to the port of Weston.¹³ The town became also a popular outfitting point for scores of Mormons and other wagon-bound settlers heading west for the Santa Fe, California and Oregon Trails.¹⁴

Although a variety of Platte County's agricultural products were exported from Weston's port, by far the most profitable agricultural product to be cultivated and shipped from Weston during the mid-nineteenth century was hemp. According to the 1850 Agricultural Census, Platte County led the state in hemp production, and was responsible for more than 25% of Missouri's overall dew-rotted hemp yield. A contemporary source also maintained that the port of Weston shipped more hemp than any other port in the state in 1850.¹⁵ Since the work associated with the cultivation, harvesting and processing of hemp were exceptionally arduous tasks, Platte County's hemp industry was supported by the use of slave labor:

From the first settlement of the county, hemp was the staple product. We became wealthy by its culture. No soil on earth, whether timber or prairie, is better adapted to hemp than Platte County. After a few years, the South looked more to Missouri than to Kentucky for a supply of hemp for bagging and rope. Platte, for several years prior to the war, was the banner country of the world. But no machinery ever invented superseded the hand-break in cleaning it; and that was such an arduous labor that the abolition of slavery put an end to the culture of hemp. Negroes were, therefore, in demand, and stout men sold readily for \$1,200 to \$1,400.¹⁶

On the eve of the Civil War, Platte County's economic dependence on slavery prompted a political schism that would play a role in Weston's eventual decline. On May 30, 1854, the United States Congress passed the Kansas-Nebraska Act, which opened the two new territories to settlement and effectively nullified the Missouri Compromise by allowing settlers to determine the issue of slavery according to "popular sovereignty."¹⁷ The

¹² Platte County Historical Society, 12-13; Stephen J. Raiche, "Weston Historic District," National Register of Historic Places Nomination, U.S. Department of the Interior, National Park Service, 1982, section 8:2; Thomas Gubbels, "Brief General History of Platte County, Missouri," 2, as held in the Historic Preservation Section, Missouri Department of Transportation, Jefferson City, MO.

¹³ Paxton, 51, 99, 118, 464.

¹⁴ Howe, 31; Raiche, "Weston Historic District," 8:2; Bless, 20.

¹⁵ Liberty Tribune, (Liberty, Missouri), February 18, 1859.

¹⁶ Paxton, 37.

¹⁷ An Act to Organize the Territories of Nebraska and Kansas. Statutes at Large. 30 May 1854. Vol. 10, 277.

majority of Platte Countians and Weston residents supported the election of slavery in Kansas Territory, and once the territory was opened, a number of Westonites immediately crossed the Missouri River in order to establish the largely pro-slavery “squatter” settlement of Leavenworth.

On June 13, 1854, the Leavenworth Company was officially formed at Weston by a group of 34 prominent citizens from the town.¹⁸ As famous newspaperman, E.W. Howe, wrote, “In the memorable excitement following the opening of Kansas, Weston was lost sight of, and Leavenworth began to attract attention¹⁹.” The establishment of Leavenworth undoubtedly distracted attention from Weston, and it also served to lessen the population of the community. Perhaps even more importantly, the establishment of “squatter settlements” such as Leavenworth and Atchison served to reinforce political divisions that were brewing between the pro-slavery majority and abolitionist minority in Platte County.

Not long after the establishment of Leavenworth by Westonites, settlers from the northeastern U.S. also began to push into the Kansas Territory, bringing abolitionist ideals along with them. Almost immediately, pro-slavery and abolitionist factions began to spring up on both sides of the Missouri River, and the border communities of Weston and Leavenworth were significantly affected by the agitation.²⁰ Conflicts broke out in the streets of each town long before the official start of the Civil War, and “Bleeding Kansas” only served to incite greater contention among the neighbors. When Kansas was finally admitted to the Union as a free state on January 29, 1861, guerilla warfare broke out on both sides of the Missouri River. By the start of the Civil War, Weston had already been set upon a path of inevitable decline.²¹

In the meantime, the residents of Weston made another decision that would ultimately spell disaster for the economic growth of the town. In 1852, proponents of a Weston to St. Louis Railroad began to promote the necessity of a rail connection for the city’s future vitality.²² However, the Weston and St. Louis Railroad would have required a substantial bond subscription by the people of Platte County, and many of Weston’s citizens could not be convinced that rail transport would soon eclipse river transport as the main means of agricultural export. Many citizens of Weston were also fearful that the railroad would provide their slaves with an efficient means of escape from bondage.²³

¹⁸ Moore, H. Miles, *Early History of Leavenworth City and County* (Leavenworth, KS: Sam’l Dodsworth Book Co., 1906), 19.

¹⁹ Howe, 31.

²⁰ Moore, 83, 89; Platte County Historical Society, 17-18.

²¹ Paxton, 178; Raiche, “Weston Historic District,” 8:3; Platte County Historical Society, 12-13.

²² “Weston and St. Louis Railroad,” *Liberty (MO) Tribune*, 17 September 1852; “Railroad from Kansas to St. Joseph,” *Liberty (MO) Tribune*, 12 November 1852.

²³ Howe, 31-32; Raiche, “Weston Historic District,” 8:3-4.

At the same time, St. Joseph was a burgeoning settlement that was beginning to attract residents and businesses from Weston and other communities in Platte County. The residents of the fledgling town of St. Joe realized the benefit that the railroad could bring to their community, and when Platte County finally attracted a railroad, it connected at St. Joe rather than Weston.²⁴

Once the Civil War ended, Weston had surpassed a point of no return. With the emancipation of slaves, Weston lost the labor base for its hemp economy. The railroad bypassed Weston in favor of a connection at St. Joseph, and even when Weston did secure its own rail line, the Weston and Atchison in 1859, it was essentially only a local connection that reduced the town to a minor stop along the way to Kansas City during the 1860s.²⁵ Many of Weston's citizens and entrepreneurs abandoned the town and relocated at Leavenworth or St. Joseph. To add insult to injury, Weston was also afflicted by a number of fires and floods during the mid to late 19th century. A flood in 1881 dealt Weston another devastating blow when the Missouri River shifted into an old channel two miles to the west of the town.²⁶

At the turn of the century, Weston was only a shadow of its former self. Between 1850 and 1900, the population of the town decreased by nearly one half.²⁷ The only industry that continued to keep Weston's remaining residents financially afloat was agriculture, particularly tobacco. Although hemp was Weston's primary cash crop during the early to mid nineteenth century, tobacco had been grown in Weston since the 1840s.²⁸ However, unlike the hemp industry, Weston's tobacco market had a much more enduring history with the town. Weston particularly profited from the cultivation and marketing of white burley tobacco, which grew in popularity in the years following the Civil War.²⁹ Weston was home to several tobacco barns, and until 2001, the town featured the only active tobacco market west of the Mississippi River. Although the tobacco industry prevented Weston from becoming a ghost town, it never again achieved its antebellum prominence.

C. Route 45TR History

After Weston's prominence was lost to cities such as St. Joseph, Leavenworth, and Kansas City near the turn of the 20th century, the old town had trouble attaining an

²⁴ Howe, 31-32; Platte County Historical Society, 18; Raiche, "Weston Historic District," 8:3.

²⁵ Howe, 31-32; Raiche, "Weston Historic District," 8:4.

²⁶ Platte County Historical Society, 18.

²⁷ United States Bureau of the Census, 1850-1900 "Population Census: Platte County, Missouri," microfilm copy available from Missouri State Archives, Jefferson City, MO

²⁸ Platte County Historical Society, 75-81; Bless, 17-19; Raiche, "Weston Historic District," 8:1.

²⁹ Platte County Historical Society, 75-81; Miller, Sandra, "Weston History," (Weston, MO: Weston Visitor Center, 1993, accessed 22 October 2009); available from http://www.westonmo.com/history/weston_history.html; Internet.

effective, reliable and direct mode of transportation. Once the Missouri River flooded and shifted west of Weston in 1881, the town was cut off from its most direct form of shipping. Furthermore, river traffic had decreased substantially in favor of rail shipping, and Weston had missed out on the opportunity to attract a railhead during the 1850s. When the prospect of good roads was presented in Platte County during the early twentieth century, Weston lost out yet again.

Although Weston was connected to surrounding towns such as Liberty, Plattsburg and Beverly via early state roads, the condition of these crude, graded earth roads was often unreliable. With Weston's economic dependence on the industries of agriculture and automobile tourism during the early 20th century, the condition of local roads was critical for the community's survival.³⁰ Even though Weston's residents largely agreed that an all-weather highway would benefit both the town's agricultural and commercial development, they could not reach consensus regarding the best location for the highway. In an article printed in the July 18, 1928 edition of the *Weston Chronicle*, one Westonite explained the dispute:

When the auto was introduced to Weston, one group fought the road because it was not being built past their farms; when another route was planned, the first group fought it because they had been thwarted. As a result, the road-building program passed Weston up—because we couldn't agree on one road, and the farmers of this locality must depend on the weather being favorable when the market is "right." The thousands of dollars lost to farmers in this community in the last ten years by being unable to truck to markets on certain days when prices were commanding would more than pay for any one stretch of road in and out of Weston.³¹

At the same time that the farmers were disputing the location of the proposed highway, local businessmen voiced concerns that the route would take business out of Weston rather than promote its growth. Ultimately, the disputes regarding the highway's location and its commercial impact for Weston prevented the town from acquiring an all-weather connection to Missouri's burgeoning highway system. The Missouri State Highway Commission became irritated with the community's inability to collaborate, and eventually refused to hear petitions regarding the Weston's highway connection until the locals could reach agreement.³²

Throughout the first two decades of the 20th century, Weston was often left almost completely stranded for days at a time when weather conditions were poor.³³ Incarcerated

³⁰ "Shall Weston Be Ignored?" *The Weston (MO) Chronicle*, 9 December 1927; "What Hundreds Would Say," *The Weston (MO) Chronicle*, 11 May 1928.

³¹ "What Will Become of Weston?" *The Weston (MO) Chronicle*, 18 July 1928.

³² *Ibid.*; "Road Commission Favorable to Weston Outlet," *The Weston (MO) Chronicle*, 15 March 1929.

crews from the Federal Penitentiary at Leavenworth, Kansas, were often put to work repairing major roads in the local area, including the heavily-trafficked “Beverly Road,” which connected Leavenworth with Weston and Beverly.³⁴ However, despite the best efforts of the locals, the road was often impassable due to mudslides and washouts. Even under the best of circumstances, the surrounding roads were dusty and rutted.

By the late 1920s, the residents of Weston had grown weary of their road predicament. Editorials began to appear in the *Weston Chronicle* detailing the need for good roads and calling for a general consensus among Weston’s residents that acquiring an all-weather route would be a benefit for the greater good of the community. The tone of the editorials ranged from outrage that Weston was being ignored or slighted by Platte County and the State Highway Commission to a sense that the citizens of Weston had brought strife upon themselves by acting selfishly and irresponsibly when opportunity was presented to the community in the past.

Most likely, Weston’s isolation from the highway system was due to a combination of factors that all stem from its economic decline during the mid-19th century. Early on, the more prosperous communities surrounding Weston—such as Parkville and Platte City—were able to form influential Special Road Districts in order to maintain their roads and raise capital to acquire matching state funds for highway connections. In addition, the larger population centers were the first areas to be connected via highways since they were the most heavily trafficked, and they provided the most revenue from gas taxes and tourism dollars. Therefore, smaller cities such as Weston were not high on the priority list for highway construction during the early years. The discord among Weston’s residents only served to put the town further down on the list of the Highway Commission’s priorities. The indifference of the Highway Commission to Weston’s plight was palpable. The minutes of the December 11, 1923 meeting of the Highway Commission recall that, “Julius Rumpel of Weston, stated that his town had been discriminated against since it was not on the highway system. He was advised by the Chairman to secure relief from the Legislature.”³⁵

Despite their discouragement, Weston’s residents pressed on in their efforts to secure a highway connection throughout the late 1920s. Finally, on July 12, 1929, promising

³³ “Oil Roads Coming!” *The Weston (MO) Chronicle*, 22 June 1928; “Road Commission Favorable to Weston Outlet,” *The Weston (MO) Chronicle*, 15 March 1929; “Unusual Rainfall,” *The Weston (MO) Chronicle*, 26 April 1929; “Blast Causes Bluff Road Cave,” *The Weston (MO) Chronicle*, 26 April 1929.

³⁴ “Improvements to the Weston to Beverly Road,” *The Weston (MO) Chronicle*, 28 November 1928; “Beverly Road Repair Work,” *The Weston (MO) Chronicle*, 31 May 1929; Platte County, Platte County Road Records, “County to consult with Leavenworth regarding repairs to Bluff Rd,” Book G, 1929-1932: 1-302, Microfilm Roll No. C21965. Missouri State Archives, Missouri State Information Center, Jefferson City.

³⁵ Missouri State Highway Commission, “Platte County,” 11 December 1923, Minutes of Proceedings of the Missouri State Highway Commission, Missouri State Highway Commission Secretary’s Office, Jefferson City.

news was printed in the *Weston Chronicle*: “Weston Designated as Road Center.”³⁶ Weston was one of the many communities that would be affected by the passage of Missouri’s 1928 constitutional amendment, known as Proposition No. 3. Proposition No. 3, a \$75,000,000 bond amendment, provided for 300 miles of additional state roads, including traffic relief routes in the St. Louis and Kansas City metropolitan areas, new connection roads for state parks, and the construction of approximately 7,000 miles of supplementary farm-to-market roads.³⁷ The designation of the 300-mile system of state roads provided for by Proposition No. 3 was carried out during a special meeting of the State Highway Commission on July 2, 1929. Weston’s connection to the highway system was described as follows:

Upon motion of Mr. McGrew, seconded by Mr. Brownlee, a road was added to the system connection Route 52-A, Buchanan—Platte County line, through or near Weston, intersecting Route 92, between Platte City and Leavenworth, and connecting with Route 59, at or near Parkville. The above was approved by Mr. Buehler.³⁸

The *Weston Chronicle* reported that the highway would follow a portion of the old Beverly Road along the bluff to Parkville, which had been consistently problematic for travelers given the propensity of the bluff to wash over the road during periods of rainy weather. As recently as the spring before the Weston outlet had been announced by the Highway Commission, the Beverly Road was rendered completely impassable after a crew from the Leavenworth Penitentiary accidentally undermined the road as they were blasting the bluff for riprap work near Leavenworth. The blast, combined with heavy rainfall, caused the road to be completely washed out from April until the end of July 1929. Although Weston’s residents were rightfully anxious about the location of the highway along the Beverly Road alignment, they were reassured that the bluff would pose no real obstacle for the engineers of the Highway Department.³⁹

With a renewed sense of optimism, Weston’s residents began to look toward the future of their town, and news articles from the late 1920s demonstrate that the town was united behind the need for the local highway connection. Officials from Weston and Platte County knew that they could not afford to deal with any dissension among the residents regarding the location of the route if the highway was going to be given early consideration by the Commission. Once the route had been chosen, right of way would need to be secured as effortlessly as possible. Therefore, many of Platte County’s most prominent figures began to boost for Weston’s highway connection in order to try to

³⁶ “Weston Designated as Road Center,” *The Weston (MO) Chronicle*, 12 July 1929.

³⁷ Lloyd C. Stark, “The \$75,000,000 State Road Bond Issue,” *Missouri* (October 1928), 12, 27.

³⁸ Missouri State Highway Commission, “Minutes of a Special Meeting of the State Highway Commission, Held at the Mayfair Hotel, St. Louis, Missouri,” 2 July 1929, Minutes of Proceedings of the Missouri State Highway Commission.

³⁹ “Unusual Rainfall,” *The Weston (MO) Chronicle*, 26 April 1929; “Blast Causes Bluff Road Cave,” *The Weston (MO) Chronicle*, 26 April 1929; “Weston Designated as Road Center,” *The Weston (MO) Chronicle*, 12 July 1929.

influence the Highway Commission to fund the Kansas City system of traffic relief routes ahead of the St. Louis system. For instance, a special publication of the *Weston Chronicle*, which was produced in honor of the town's 1929 Corn Husking Contest, describes the efforts of Representative Elbert Randolph McCormick of Platte County:

Weston in particular owes a debt of gratitude to Representative McCormick, for early in his career in the House of Representatives, he espoused what seemed the lost cause of Weston...He favored justly and honestly a state road up the bluff—the logically short line between St. Joseph and Kansas City, and recently secured assurance that the first lap of the designated relief road between those two points would be begun at Weston and be worked south to connect with Highway 92. The route will be known as No. 45 under the traffic relief system of hard surfaced roads. To expedite the work on this road it is essential that there be no dissension as to which route shall be used.⁴⁰

Despite all efforts to secure early consideration for Weston's highway connection by the Highway Commission, only one million dollars would be distributed for traffic relief routes per annum between 1930 and 1934 for both the St. Louis and Kansas City areas.⁴¹ That meant that there was no guarantee that Weston's highway connection would be constructed quickly, especially since only a portion of the newly proposed highway followed existing roads and construction of the route would require miles of new right of way acquisitions. Although the segment of Highway 45 that stretched from Weston to Highway 92—roughly following the old Beverly Road alignment—was graded as early as 1931, the vast majority of the route would require years of design work and right of way acquisitions before completion.⁴²

In order to expedite the construction of Route 45 from Weston to the Buchanan County line, the Platte County court agreed to pay fifty percent of the right of way cost.⁴³ The court requested that the Highway Commission pay the cost of acquiring necessary right of way from refund money that was owed to Platte County from the construction of

⁴⁰ "Special Edition of the *Weston Chronicle*, Platte County, Missouri, Published in Honor of the National Corn Husking Contest in the Interest of Platte County's Resources, Advantages and Development," *Weston (MO) Chronicle*, 15 November 1929.

⁴¹ "Weston's Road Predicament to Have Early Consideration," *Weston (MO) Chronicle*, 16 August 1929.

⁴² Missouri State Highway Commission, "Plan and Profile of Proposed State Road, Federal Aid Project, Platte County, 45TR" 1931, Microfiche copy available from Design Division, Missouri Department of Transportation General Headquarters, Jefferson City, MO.

⁴³ Platte County Road Records, "County to pay 1/2 cost of 45TR, not to exceed \$3000," Book G, 1929-1932: 1-302, Microfilm Roll No. C21965. Missouri State Archives, Missouri State Information Center, Jefferson City.

previous highway projects, and the Highway Commission agreed.⁴⁴ In addition to the county court's contribution, subscriptions were collected from interested Platte County residents in order to pay damages resulting from the condemnation of right of way parcels. All of the money collected for the purpose of acquiring right of way was eventually set aside into a special fund by the Platte County Treasurer, and withdrawals were prohibited from the fund without authorization of the County Court.⁴⁵ Finally, funding was secured, right of way was acquired, and detail plans for Route 45 from Weston to the Buchanan County line were finalized during the summer of 1936.⁴⁶

The call for bids on the construction work for Route 45TR from Weston to the Buchanan County line was printed in the June 19, 1936 edition of the *Weston Chronicle*.⁴⁷ The contract for the highway work was awarded to the Mike Haase Construction Company of Kansas City, and the Oscar Schmidt Company of St. Joseph was contracted to do all culvert and bridge work for the project.⁴⁸ On August 21, 1936, the *Weston Chronicle* reported that work had finally been started on the project, and that once the work was well under way, nearly one hundred men would be employed for the work. The completion date for the project was set for June 1, 1937.⁴⁹

Interestingly, the first stretch of Route 45 to be constructed also became something of a proving ground for a variety of experimental paving technologies that were being tested by the Materials Division of the Highway Department. The December 12, 1935, *Jefferson City Post-Tribune* reported that, "Experimental sections have been built on ten miles of state highway 45 near Weston in Platte County, where more than 30 combinations of materials and two construction methods have been tested..."⁵⁰ The most notable method that was tested on Weston's stretch of Route 45 was referred to as an "up side down" method of road building in which the road bed was graded, the soil was

⁴⁴ Missouri State Highway Commission, "Matter of Purchase of Right-of-Way, Route 45TR, Platte County, Out of Refund Credit," 12 November 1935, Minutes of Proceedings of the Missouri State Highway Commission.

⁴⁵ Platte County Road Records, "Special fund for 45TR R/W established by County Treasurer," Book G, 1929-1936: 302-End, Microfilm Roll No. C21966. Missouri State Archives, Missouri State Information Center, Jefferson City.

⁴⁶ Missouri State Highway Commission, "Approval of 45TR Detail Plans," 12 May 1936, Minutes of Proceedings of the Missouri State Highway Commission.

⁴⁷ "State Road Work, Notice to Contractors," *The Weston (MO) Chronicle*, 19 June 1936.

⁴⁸ "Kansas City Man Low Bidder on Highway Contract," *The Weston (MO) Chronicle*, 3 July 1936; "Work Started on Extension of 45TR," *The Weston (MO) Chronicle*, 21 August 1936; Missouri State Highway Department, "Tabulation of Bids Received, 45TR, Platte County, Project No. F.A. 791-A," 25 June 1936, Microfiche copy available from Design Division, Missouri Department of Transportation General Headquarters, Jefferson City, MO.

⁴⁹ "Work Started on Extension of 45TR," *The Weston (MO) Chronicle*, 21 August 1936.

⁵⁰ "New Method of Road Building Under Scrutiny," *Jefferson City (MO) Post-Tribune*, 12 December 1935.

loosened to a depth of six inches, and oil was simultaneously injected at the bottom of the loosened soil. After the oil has been injected into the soil, traffic packs the surface, forcing the oil to the surface where it forms a five or six inch thick watertight foundation within approximately three weeks. The process was said to lend stability to the subsoil, and serve as a stable foundation for the placement of a “bound surface.”⁵¹

Experimental construction materials and techniques were not the only innovative technologies that were put to use in the construction of Route 45TR. Two of the bridges that were built on the stretch of Route 45 from Weston to the Buchanan County line are historically significant due to the unprecedented length of their spans for the time and location at which they were constructed. Although the Route 45 alignment through the Weston area followed segments of old state roads, the Missouri State Highway Department employed a variety of new road-building solutions to improve the travelway.

D. Weston Viaduct Construction

The Weston Chronicle reported that three bridges were to be built as part of the construction of 45TR:

The first is a triple-span on the Baker farm.⁵² The next will be over Bear Creek, three hundred feet south of the present bridge and the third is an overhead where the Platte Valley Road crosses the railroad.⁵³

Of the three bridges that were constructed on Route 45TR between Weston and the Buchanan County line, the Weston Viaduct was unique. The Weston Viaduct was designed to carry Route 45 over the tracks of the Chicago, Burlington and Quincy Railroad (C.B.&Q.), and it was the only bridge on Route 45 between Weston and the Buchanan County line that did not cross a waterway. As a grade separation project, the Weston Viaduct was eligible for Federal grants that were provided under the newly instated 1935 Emergency Relief Appropriations Act of President Franklin D. Roosevelt’s New Deal Program. The Emergency Relief Appropriations Act provided \$200 million in

⁵¹ *Ibid.*

⁵² According to project history maps for Route 45TR in Platte County, it appears that the crossing that is referred to as the, “triple span on the Baker Farm,” is a triple-span box culvert (J-559) that was built over Pedee Creek near Weston. Although the Bear Creek Bridge and the Weston Viaduct were both determined to be eligible for listing on the National Register of Historic Places by the Missouri Historic Bridge Inventory, the Pedee Creek culvert was not considered to be historic. Missouri State Highway Department, 1936. “Plan and Profile of Proposed State Road, Federal Aid Project, Platte County, 45TR (Proj. No. 791A-2)”, Microfiche copy available from Design Division, Missouri Department of Transportation General Headquarters, Jefferson City, MO; Clayton B. Fraser, “HAER Inventory Data Sheet, Weston Viaduct” and “HAER Inventory Data Sheet, “Bear Creek Bridge,” Missouri Historic Bridge Inventory, 5 Vols., Missouri Department of Transportation, Project No. NBIH (6) (Loveland, Colorado: Fraserdesign, Inc., 1996).

⁵³ “Work Started on Extension of 45TR,” *The Weston (MO) Chronicle*, 21 August 1936.

grant money for the elimination of railroad grade crossings, with no matching state funds necessary for construction.⁵⁴

In addition to providing funds for the elimination of a dangerous grade crossing, the Emergency Relief grant that was provided for the construction of the Weston Viaduct was also intended to put men to work on a valuable public project. The timing for the construction of Route 45 coincided with the height of the Great Depression. Although the construction of Highway 45 was long-awaited by Platte County residents, the project couldn't have come at a better time for men in the area that were seeking employment. The May 14, 1937 edition of the *Weston Chronicle* reported that there were twenty-five men from the National Reemployment Service of Platte County that had found work with the Oscar Schmidt Construction Company, and were working on the bridges and culverts of Route 45, which included the Weston Viaduct project.⁵⁵ Workers on the Route 45 project were paid 65 cents per hour for skilled labor positions, 45 cents per hour for intermediate labor positions, and 35 cents per hour for unskilled labor positions.⁵⁶

The plans for the construction of the Weston Viaduct were derived from standard specifications for highway bridges that were published by the American Association of State Highway Officials (AASHO) in 1935.⁵⁷ The Weston Viaduct represented a variation on the standard specs for steel plate through girder bridges, which were adapted by the Missouri Highway Department Bureau of Bridges in 1936 in order to span the length of the proposed grade separation. Despite being based upon standard specs, the construction of the viaduct still represented a technological innovation for the time that it was built. Its 115' long main span was one of the longest steel plate through girder spans to be built by the Missouri State Highway Department to date. Clayton Fraser explains:

Through the 1930s and 1940s, the Missouri State Highway Department designed and Built progressively longer steel beam bridges, using both rolled and plate girders in through and deck configurations. This culminated at the end of the decade with spans around 150 feet. Other long girders had been built elsewhere in the country, but for Missouri, this represented a noteworthy technological feat. With its 115-foot through girder span and 1936 construction date, the Weston Viaduct is noteworthy as one of the earliest of these long-span beam bridges.⁵⁸

⁵⁴ Ickes, Harold L., *Back to Work: The Story of PWA* (New York: The Macmillan Company, 1936); Betters, Paul V., *Cities and the 1936 Congress* (New York: Arno Press, 1978).

⁵⁵ "Re-Employment Service puts men to work on 45TR," *The Weston (MO) Chronicle*, 14 May 1937.

⁵⁶ "State Road Work, Notice to Contractors," *The Weston (MO) Chronicle*, 19 June 1936.

⁵⁷ AASHO, 1935.

⁵⁸ Clayton B. Fraser, "HAER Inventory Data Sheet, Weston Viaduct," Missouri Historic Bridge Inventory, 5 Vols., Missouri Department of Transportation, Project No. NBIH (6) (Loveland, Colorado: Fraserdesign, Inc., 1996).

The construction of the Weston Viaduct was not completed without incident. According to an audit of projects completed prior to September 1937, it was determined that the final cost of the Weston Viaduct project had overrun the original contract estimate by nearly \$5,000.00.⁵⁹ A special note attached to the audit explained that the project had overrun the contract estimate since there had been no provisions in the original contract for special concrete protection during the construction of the bridge. Furthermore, the viaduct excavation was overrun, “as the fills had to be constructed wider than originally designed due to slides, which had to be removed and replaced with additional material”.⁶⁰ It is likely that the difficulties that were encountered during the construction of the viaduct were in part due to the unprecedented length of the bridge’s spans. Once the Weston Viaduct was finally complete in the fall of 1937, slightly later than the anticipated completion date of June 1937, the construction cost totaled \$60,653.03.⁶¹

Since 1937, the Weston Viaduct has functioned in place with only minor repairs. Today, the bridge carries more than 6900 vehicles a day over the tracks of the Burlington Northern Railroad, and the stresses of high traffic volume and heavy loads have taken a toll on the 70-plus year old bridge. Due to the poor condition of the bridge, the Missouri Department of Transportation will replace the Weston Viaduct with a new bridge and approach as part of Project No. J4P2148. The new viaduct will also enable the passage of oversized load vehicles over the BNSF during the construction of the new “Iatan 2,” coal-fired power plant, which is to be located approximately 5 miles north of Weston. The new bridge is scheduled for completion in late 2010.

III. Construction Contractors: Mike Haase Company and Oscar H. Schmidt Inc.

The excavation and grading work for the 45TR project between Weston and the Buchanan County line was awarded to the Mike Haase Company of Kansas City, Missouri. Oscar Schmidt Inc. of St. Joseph, Missouri, was the company contracted to construct three proposed crossings along the route: the Weston Viaduct (K-698), the Bear Creek Bridge (K-491) and the Baker Farm triple-span box culvert (J-559). Both Mike Haase and Oscar Schmidt had been previously contracted by the Missouri State Highway Department for a variety of other construction projects throughout northern Missouri.

Historical records indicate that Mike Haase was an Illinois native, who married and moved to northern Missouri sometime during the first decade of the 20th century. By 1910, 30 year old Mike Haase, his wife and their infant son are living in their own home on Locust Street in Kansas City.⁶² In the 1910 census for Platte County, Haase’s occupation is listed as a teamster, but by 1924, Haase had apparently made the transition from teaming to construction, as the Missouri State Highway Commission awarded him

⁵⁹ Missouri State Highway Commission, “Final Audits of Completed Projects Prior to September, 1937, Meeting,” 14 September 1937, Minutes of Proceedings of the Missouri State Highway Commission.

⁶⁰ *Ibid.*

⁶¹ *Ibid.*

⁶² United States Bureau of the Census, “1910 Population Census: Jackson County, Missouri,”

contracts for grading and excavation work in Grundy, Henry, Mercer and Worth Counties.⁶³ Unfortunately, archival research yielded only limited information regarding the operation of the Mike Haase Company. It appears as though Haase's company remained relatively small in scale despite steadily securing contracts for excavation and grading work by the Highway Department throughout the twenties and thirties. The company never officially incorporated within the State of Missouri, and its contracts remained limited to grading and excavation work, mainly focused within the northeastern most region of the state.

In contrast, the business of Oscar H. Schmidt, Inc. appears to have been larger and more diversified construction enterprise than Mike Haase's company. Schmidt was a first-generation Missouri native, who was trained in the area of civil engineering.⁶⁴ By 1920, Schmidt had established his career as a construction contractor, and his company had been awarded its first contract by the MSHC in 1923.⁶⁵ Although Oscar Schmidt's business ventures included his general contracting company and a concrete products company, the Oscar Schmidt Company's specialty appears to have been bridge building.⁶⁶ In the 1940 St. Joseph City Directory, Oscar Schmidt, Inc. was listed under the heading, "bridge builders."⁶⁷

Oscar Schmidt's construction contracting company was officially incorporated in the State of Missouri in 1930 with three shareholders: Oscar Schmidt, Isabelle Schmidt, and Verna Hanks.⁶⁸ Oscar served as the company's president, his wife, Isabelle, served as the vice-president, and Ms. Verna Hanks was the company's bookkeeper.⁶⁹ In later years, Ms. Hanks was replaced by Oscar and Isabelle's son, Richard, who joined the board of directors as the company's secretary. Oscar Schmidt, Inc. continued in operation until January of 1952, less than one year after Oscar passed away.⁷⁰

⁶³ Missouri State Highway Commission, 8 April 1924, 10 June 1924, 10 July 1924, 14 October 1924, 4 December 1924, 23 January 1925, 10 February 1925, 13 October 1925, Minutes of Proceedings of the Missouri State Highway Commission.

⁶⁴ United States Bureau of the Census, "1910 Population Census: Buchanan County, Missouri,"

⁶⁵ United States Bureau of the Census, "1920 Population Census: Buchanan County, Missouri,"

⁶⁶ R.L. Polk and Company, 1936-1940 "*City Directory of Kansas City, Missouri*," R.L. Polk and Company: Kansas City, MO.

⁶⁷ *Ibid.*

⁶⁸ Oscar Schmidt, Inc., "Articles of Agreement," 1930, as held by the Corporations Office, Missouri Secretary of State, Jefferson City, MO.

⁶⁹ *Ibid.*; R.L. Polk and Company, 1936-1940 "*City Directory of Saint Joseph, Missouri*," R.L. Polk and Company: Kansas City, MO; United States Bureau of the Census, "1930 Population Census: Buchanan County, Missouri."

⁷⁰ Oscar Schmidt, Inc., "Articles of Voluntary Dissolution," 1952, as held by the Corporations Office, Missouri Secretary of State, Jefferson City, MO.

Prior to their collaboration on the Weston Viaduct, Mike Haase and Oscar Schmidt had worked together on at least one other contract for the Missouri Highway Department. In January of 1934, Haase and Schmidt were awarded a contract for construction work on Route 13 in Daviess County.⁷¹ Given the smaller size of both Haase and Schmidt's companies, it was likely a profitable venture to collaborate on larger projects that might otherwise have been beyond the individual capabilities of their firms. In the case of Route 45TR, the companies of Mike Haase and Oscar Schmidt were put to work doing what they each did best: Haase handled the road grading and excavation, while Schmidt built the culverts and bridges.

IV. Physical Description of Bridge K-698

Bridge No. K0698 spanning the BNSF Railroad on Route 45 consists of a 115'-4" steel plate through girder main span with a 52'-6" and a 53'-3" steel I-beam approach span at each end, comprising five spans in all. The total length of the bridge is 327' with a vertical clearance over the railroad of 22'-7". The superstructure is carried on two reinforced concrete end bents (1 and 6), two intermediate bents (2 and 5) and two main piers (3 and 4). The grade elevation at Piers 3 and 4 is 805.18' above mean sea level, and 803.31' above mean sea level at the end bents, producing a 1.87' rise at bridge center. The roadway width is 23'-11" curb-to-curb and the deck width is 26'-10" outside-to-outside. The steel reinforced concrete bridge deck is 10" thick with expansion joints located at Bents No. 1, 3, 4, and 6.

Buried end Bents 1 and 6 at the abutments are identical, each consisting of three rectangular battered columns supporting a concrete back wall, and a bent cap comprising the bridge seat for the end span. The north and south outer columns are 22'-7" high from the bottom of the bent cap to the footings, and measure 3' x 12' at the footings. The inner face of each bent is battered at a 4^{1/4}" per 12" batter ratio. The two rectangular footings each measure 5'-8" x 15' x 2'-6" and are supported on ten vertical 40' creosoted timber piles. The center column is also 22'-7" high but measures 3' x 15' at the footing. The inner face is battered at a 4^{1/4}" per 12" batter ratio, and the outer face extending into the filled abutment is battered at a 2^{1/8}" x 12" batter ratio. The rectangular footing measures 6' x 18' x 2'-6" and is supported on twelve vertical 40' creosoted timber piles. The concrete bent cap is 6'-2" high and 2'-6" thick supporting expansion bearings on an 18" bridge seat for the end span. The concrete back wall is 33'-4" wide with wing walls extending outward 9'-6" on the north and south sides.

Spill-through Bents 2 and 5 are nearly identical. Bent 2 supporting fixed bearings for the western approach spans consists of two 25' columns with a 24'-6" bent cap. Bent 5 supporting fixed bearings for the eastern approach spans has two 23' columns. Identical concrete footings supporting columns for both bents measure 6' x 9' x 2'-6" and are each mounted on four vertical 35' creosoted timber piles. Both bents display an "H" configuration.

⁷¹ "Low Bidders on Roadways Made Public," 21 January 1931, *The Sunday News and Tribune* (Jefferson City, MO).

Piers 3 and 4 support the main steel through girder span on fixed bearings at the eastern end and on expansion bearings at the western end. Concrete Pier 3 supports a 30'-2" concrete pier cap on two 18' columns mounted on 9' x 9' x 5' concrete footings poured on nine vertical 35' creosoted timber piles. Pier 4 supports a 30'-2" concrete pier cap on two 16' columns mounted on 9' x 12' x 7'-3" concrete footings poured on twelve vertical 35' creosoted timber piles. Both bents display an "H" configuration with the top half filled in to form a solid concrete web wall.

The main span consists of two 115'-4" steel plate girders measuring 7' high with 16" flanges. Each girder is constructed in two 57' sections that have been field spliced into a single unit. They are built up 84" web plates with two 8" x 6" angles comprising the flanges, and are overlapped with 18" cover plates along both the top and bottom. The ends are six 6" x 4" angles with fillers, and the intermediate stiffeners are single 5" x 3^{1/2}" angles. The field splice is two angles with two 18" splice plates. The two plate girders are connected by twelve perpendicular 27" wide-flange floor beams with two 7" x 4" angles at each end. The entire span is cambered upward from the ends toward the center by more than 5".

Each approach span consist of four courses of 33" wide-flange I-beam stringers. Sway bracing between the stringers consists of two runs of crisscrossed 3" x 2^{1/2}" angles. Railings on the approach spans are reinforced concrete open balustrades with pedestaled end posts. The ends of the railings and end posts are skewed 30 degrees to the centerline of the bridge.

Bibliography

American Association of State Highway Officials. 1935. *Standard Specifications for Highway Bridges Adopted by the American Association of State Highway Officials*, Second Edition. Washington, D.C.: American Association of State Highway Officials.

Bettors, Paul V. 1978. *Cities and the 1936 Congress*. New York: Arno Press.

Bless, Bertha I. 1969. *Weston—Queen of the Platte Purchase: Historical data about a town that rose to fame in 13 years and was forgotten for nearly 50 years*. Weston, MO: The Weston Chronicle.

Fraser, Clayton. 1996. *Missouri Historic Bridge Inventory: Draft Inventory Report*. Loveland, Colorado: Fraserdesign Inc.

Frederick, J.V. 1940. *Ben Holladay: The Stagecoach King*. Glendale, CA: A.H. Clark Company.

Gubbels, Thomas. 2008. "A Brief General History of Platte County, Missouri." Paper on file with the Historic Preservation Section, Missouri Department of Transportation, Jefferson City, MO.

Howe, E.W. 1952. "A Bit of Weston, Missouri, History," *Missouri Historical Review* 47 (1): 29-36.

Ickes, Harold L. 1936. *Back to Work: The Story of PWA*. New York: The Macmillan Company.

Miller, Sandra. 1993. *Memories of Weston*, vol. 1. Weston, MO: The Weston Chronicle.

Missouri State Highway Commission. 1937. "Final Audits of Completed Projects Prior to September, 1937, Meeting," 14 September 1937, Minutes of Proceedings of the Missouri State Highway Commission, on file at the Missouri State Highway Commission Secretary's Office, Jefferson City.

_____. 1936. "Approval of 45TR Detail Plans," 12 May 1936, Minutes of Proceedings of the Missouri State Highway Commission, on file at the Missouri State Highway Commission Secretary's Office, Jefferson City.

_____. 1935. "Matter of Purchase of Right-of-Way, Route 45TR, Platte County, Out of Refund Credit," 12 November 1935, Minutes of Proceedings of the Missouri State Highway Commission on file at the Missouri State Highway Commission Secretary's Office, Jefferson City.

_____. 1931. "Plan and Profile of Proposed State Road, Federal Aid Project, Platte County, 45TR", Microfiche copy available from Design Division, Missouri Department of Transportation General Headquarters, Jefferson City, MO.

_____. 1929. "Minutes of a Special Meeting of the State Highway Commission, Held at the Mayfair Hotel, St. Louis, Missouri," 2 July 1929, Minutes of Proceedings of the Missouri State Highway Commission, on file at the Missouri State Highway Commission Secretary's Office, Jefferson City.

_____. 8 April 1924, 10 June 1924, 10 July 1924, 14 October 1924, 4 December 1924, 23 January 1925, 10 February 1925, 13 October 1925, Minutes of Proceedings of the Missouri State Highway Commission, on file at the Missouri State Highway Commission Secretary's Office, Jefferson City.

_____. 1923. "Platte County," 11 December 1923, Minutes of Proceedings of the Missouri State Highway Commission, on file at the Missouri State Highway Commission Secretary's Office, Jefferson City.

Missouri State Highway Department. 1936. "Bridge Over C.B. & Q. R.R., State Road From Weston to Buchanan County Line, Project No. WPGH 791B (R45TR)," April 1936, Bridge No. K-698 [bridge construction drawings, seven sheets], on microfiche at the Bridge Division, Missouri Department of Transportation, Jefferson City.

Moore, H. Miles. 1906. *Early History of Leavenworth City and County*. Leavenworth, KS: Sam'l Dodsworth Book Company.

Paxton, W.M. 1897. *Annals of Platte County, Missouri*. Kansas City, MO: Hudson-Kimberly Publishing Company.

Platte County Clerk. Platte County Road Records, Book G, 1929-1932: 1-302, 302-End. Microfilm Rolls C21965-C21966. Missouri State Archives, Missouri State Information Center, Jefferson City.

Platte County Historical Society. 2006. *History of Platte County, Missouri: A Proud Legacy*. Platte City, MO: Platte County Historical Society.

Polk, R.L., and Company. 1936-1940. *City Directory of Kansas City, Missouri*. Kansas City, MO: R.L. Polk and Company.

Raiche, Stephen J. 1973. "McCormick Distillery." National Register of Historic Places Nomination, U.S. Department of the Interior, National Park Service.

_____. 1973. "Weston Historic District." National Register of Historic Places Nomination, U.S. Department of the Interior, National Park Service.

Schmidt, Oscar. 1930. "Articles of Agreement." Held by the Corporations Office, Missouri Secretary of State, Jefferson City, MO.

_____. 1952. "Articles of Voluntary Dissolution," 1952, as held by the Corporations

Office, Missouri Secretary of State, Jefferson City, MO.

Stark, Lloyd C. 1928. "The \$75,000,000 State Road Bond Issue." *Missouri* 12: 27.

United States Bureau of the Census. 1840. "Population Census: Platte County, Missouri." Copy available from Missouri State Archives, Jefferson City, Missouri.

_____. 1850. "Agricultural Abstract: Platte County." Copy available from Missouri State Archives, Jefferson City, Missouri.

_____. 1850. "Population Census: Platte County, Missouri." Copy available from Missouri State Archives, Jefferson City, Missouri.

_____. 1860. "Population Census: Platte County, Missouri." Copy available from Missouri State Archives, Jefferson City, Missouri.

_____. 1870. "Population Census: Platte County, Missouri." Copy available from Missouri State Archives, Jefferson City, Missouri. Copy available from Missouri State Archives, Jefferson City, Missouri.

_____. 1880. "Population Census: Platte County, Missouri." Copy available from Missouri State Archives, Jefferson City, Missouri. Copy available from Missouri State Archives, Jefferson City, Missouri.

_____. 1880. "Agricultural Abstract: Platte County, Missouri." Copy available from Missouri State Archives, Jefferson City, Missouri.

_____. 1890. "Population Census: Platte County, Missouri." Copy available from Missouri State Archives, Jefferson City, Missouri.

_____. 1900. "Population Census: Platte County, Missouri." Copy available from Missouri State Archives, Jefferson City, Missouri. Copy available from Missouri State Archives, Jefferson City, Missouri.

_____. 1910. "Population Census: Buchanan County, Missouri." Copy available from Missouri State Archives, Jefferson City, Missouri. Copy available from Missouri State Archives, Jefferson City, Missouri.

_____. 1910. "Population Census: Jackson County, Missouri." Copy available from Missouri State Archives, Jefferson City, Missouri. Copy available from Missouri State Archives, Jefferson City, Missouri.

_____. 1920. "Population Census: Buchanan County, Missouri." Copy available from Missouri State Archives, Jefferson City, Missouri. Copy available from Missouri State Archives, Jefferson City, Missouri.

United States Congress. Senate. An Act to Organize the Territories of Nebraska and Kansas, 1854. United States Statutes at Large: Treaties of the United States of America, Vol. 10, 277.

**Weston Viaduct (Bridge No. K0698)
Route 45, Platte County, Missouri**

Photographer: Shaun Schmitz, Missouri Department of Transportation
Date: July 28, 2009
Location of Digital Images: Missouri State Historic Preservation Office

Photo Index:

- #1 of 19. Bridge K0698. East end. View to northeast.
- #2 of 19. Bridge K0698. North side. View to southeast.
- #3 of 19. Bridge K0698. East approach Span 5-6 . View to southeast.
- #4 of 19. Bridge K0698. Detail at Bent 5. View to south.
- #5 of 19. Bridge K0698. East approach Span 4-5. View to south.
- #6 of 19. Bridge K0698. Bent 5 and subdeck. View to east.
- #7 of 19. Bridge K0698. Detail at Bent 4. View to south.
- #8 of 19. Bridge K0698. Main Span 3-4. View to southeast.
- #9 of 19. Bridge K0698. Bent 4 and main span subdeck. View to east.
- #10 of 19. Bridge K0698. Main Span 3-4. View to southeast.
- #11 of 19. Bridge K0698. Bent 3. View to south.
- #12 of 19. Bridge K0698. West approach Span 2-3. View to south.
- #13 of 19. Bridge K0698. West approach Span 1-2. View to south.
- #14 of 19. Bridge K0698. East approach. View to west.
- #15 of 19. Bridge K0698. East approach. View to southwest.
- #16 of 19. Bridge K0698. Southeast balustrade. View to south.
- #17 of 19. Bridge K0698. Northeast endpost. View to west.
- #18 of 19. Bridge K0698. South balustrade. View to southwest.
- #19 of 19. Bridge K0698. South through girder. View to southwest.

Photographic Methods and Processing:

The archival photographs accompanying this documentation were taken and processed according to the standards for photographs accompanying NRHP documentation. (NPS 2008) Shaun Schmitz, a MoDOT photographer, took the photographs on July 28, 2009 using a digital single lens reflex camera. Images were captured in a raw (nef) format, which was manipulated for light contrast before being converted to a tagged image file format (.tiff) and printed. Images were numbered according to the NRHP Photographic Imaging Policy (NPS 2008) and burned onto a compact disc, which was provided to the SHPO along with this report.

Prints were made on Epson Premium Glossy Photo Paper and used Epson Matte Black UltraChrome K3 Ink, both identified as “best” practices by the NRHP photo policy, and which Epson identifies as having an 85-year permanence under glass. (NHRP 2009, Epson 2009). Kept in archival conditions the materials will exceed the 75 year permanence standard for the NRHP, which is the standard being used for this project. A copy of the Epson rating is attached.

The .tiff images were burned onto a Delkin Archival Gold compact disc, and provided to the SHPO in that format as well. In addition, a copy of the .tiff file will be maintained by MoDOT in the historic preservation section.

Permanence rating for Epson prints framed under glass

MEDIA	6-Color Photo Dye Inks		DURABrite® Ink	PictureMate™ Ink	UltraChrome™ Ink	UltraChrome Hi-Gloss™ Inks
	Epson Stylus Photo 825/925/960/1280	Epson Stylus Photo R200/R300/R320/RX500/RX600	Epson Stylus C64/C66/C84/C86/CX4600/CX6400/CX6600	PictureMate Personal Photo Lab	Epson Stylus Photo 2200	Epson Stylus Photo R1800/R800
EPSON PREMIUM PHOTO PAPERS						
Premium Glossy Photo Paper		23 years			85 years	104 years
Premium Luster Photo Paper – Cut Sheet		22 years			71 years	64 years
Premium Semigloss Photo Paper		22 years			77 years	In progress
EPSON MATTE PAPERS						
Double-Sided Matte Paper	15 years					
Enhanced Matte Paper			71 years		76 years	110 years
Matte Paper Heavyweight	18 years	30 years	105 years			Over 150 years
Photo Quality Ink Jet Paper		8 years				In progress
PremierArt™ Matte Scrapbook Photo Paper for Epson			94 years		108 years	In progress
Premium Bright White Paper		5 years	74 years			In progress
EPSON FINE ART PAPERS						
UltraSmooth Fine Art Paper					108 years	
Epson Velvet Fine Art Paper					61 years	
Watercolor Paper Radiant White					92 years	
PremierArt Water-Resistant Canvas for Epson					75 years	
EPSON GLOSSY PAPERS						
ColorLife™ Photo Paper	27 years	36 years				
DURABrite Ink Glossy Photo Paper			55 years			
PictureMate Photo Paper				104 years		
Semigloss Scrapbook Photo Paper	27 years	36 years				

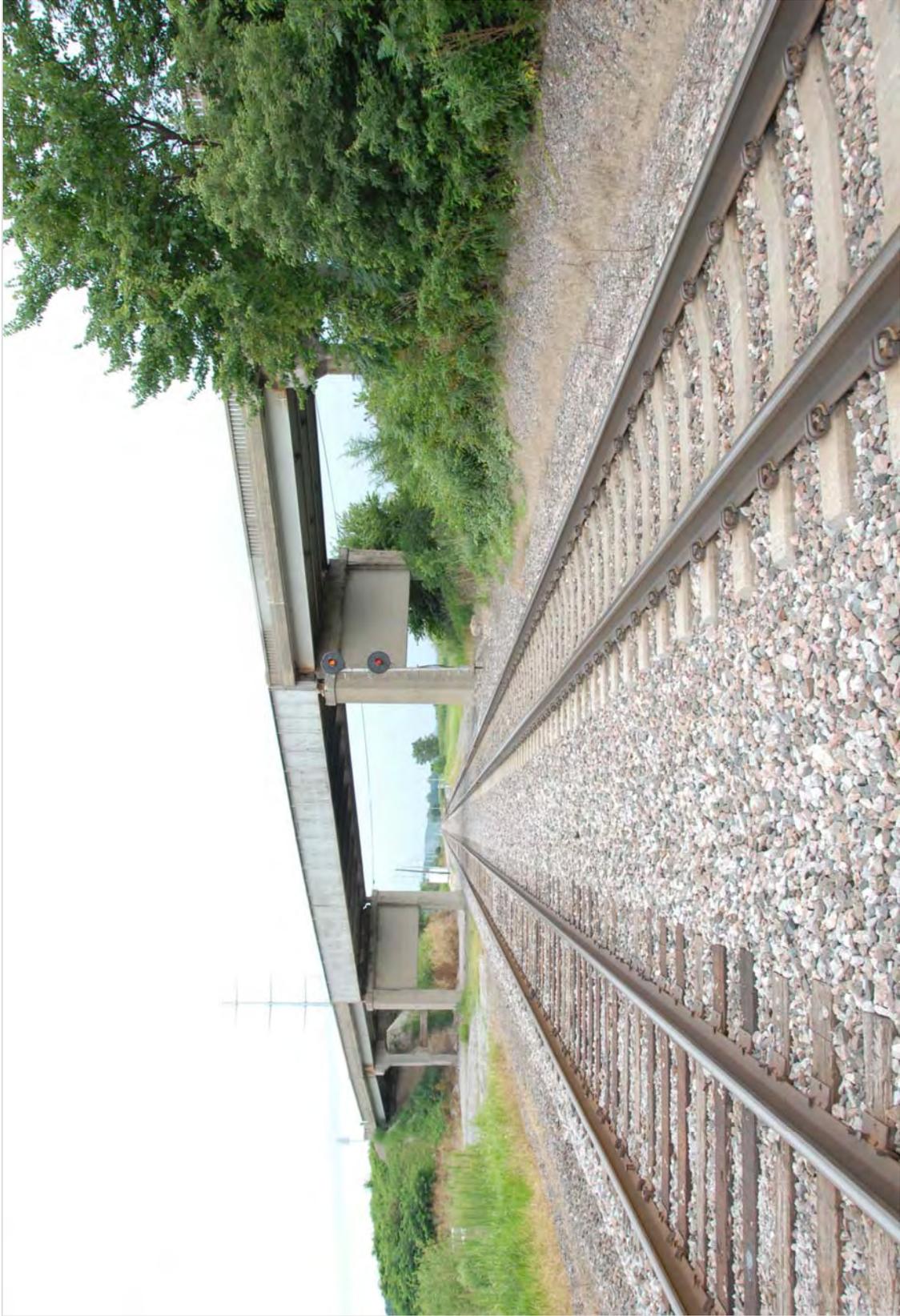
* Lightfastness ratings are based on accelerated testing of prints on specialty media displayed indoors, under glass. Actual print stability will vary according to media, printed image, display conditions, light intensity and atmospheric conditions. Lightfastness ratings do not measure paper deterioration, such as yellowing. Epson does not guarantee the longevity of prints. For maximum print life display all prints under glass or lamination or properly store them. Ratings based on testing conducted by Epson and Wilhelm Imaging Research www.wilhelm-research.com

**Testing currently in progress. Projected time estimated on current progress of test.

As with traditional photos, proper care will maximize display life. For indoor display, Epson recommends that prints be framed under glass or in a protective plastic sleeve to protect the prints from atmospheric contaminants like humidity, cigarette smoke, and high levels of ozone. And, as with all photographs, the prints should be kept out of direct sunlight. For proper storage, Epson recommends that your prints be stored in a photo album (or plastic photo storage box or museum storage box) in acid free, archival sleeves commonly available from most camera shops and other retailers. By taking these steps to protect prints from direct sunlight and contaminants, you can preserve your photos for many years.



#1 of 19. Bridge K0698. East end. View to northeast.



#2 of 19. Bridge K0698. North side. View to southeast.



#3 of 19. Bridge K0698. East approach Span 5-6 . View to southeast.



#4 of 19. Bridge K0698. Detail at Bent 5. View to south.



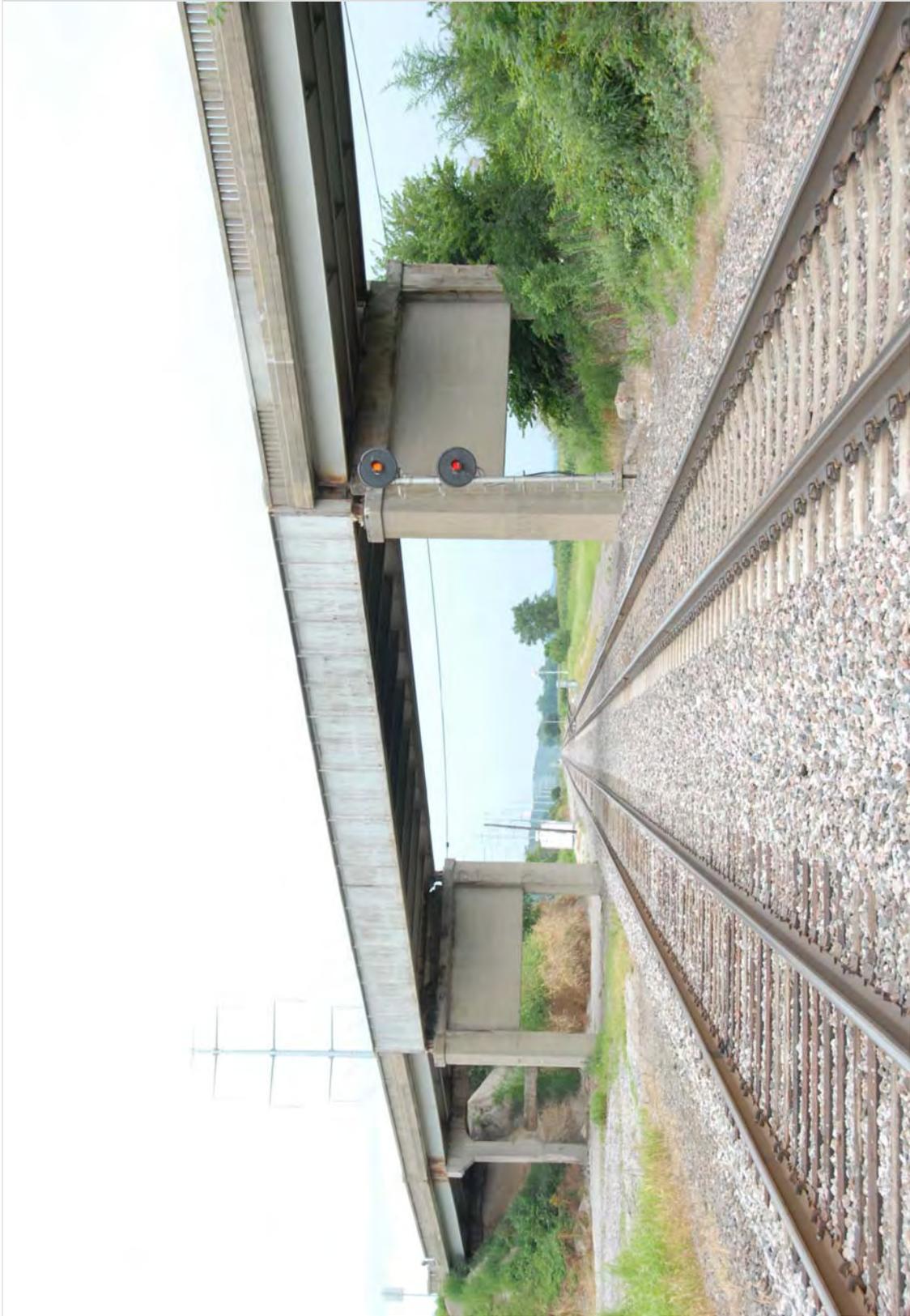
#5 of 19. Bridge K0698. East approach Span 4-5. View to south.



#6 of 19. Bridge K0698. Bent 5 and subdeck. View to east.



#7 of 19. Bridge K0698. Detail at Bent 4. View to south.



#8 of 19. Bridge K0698. Main Span 3-4. View to southeast.



#9 of 19. Bridge K0698. Bent 4 and main span subdeck. View to east.



#10 of 19. Bridge K0698. Main Span 3-4. View to southeast.



#11 of 19. Bridge K0698. Bent 3. View to south.



#12 of 19. Bridge K0698. West approach Span 2-3. View to south.



#13 of 19. Bridge K0698. West approach Span 1-2. View to south.



#14 of 19. Bridge K0698. East approach. View to west.



#15 of 19. Bridge K0698. East approach. View to southwest.



#16 of 19. Bridge K0698. Southeast balustrade. View to south.



#17 of 19. Bridge K0698. Northeast endpost. View to west.



#18 of 19. Bridge K0698. South balustrade. View to southwest.

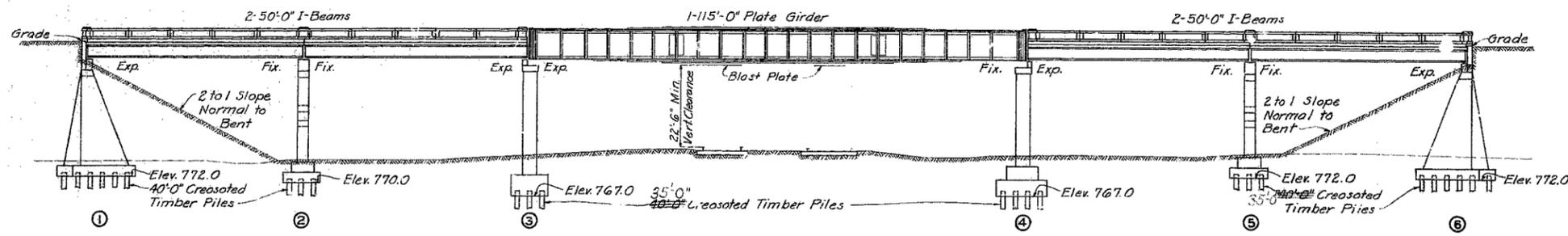


#19 of 19. Bridge K0698. South through girder. View to southwest.

MISSOURI STATE HIGHWAY DEPARTMENT

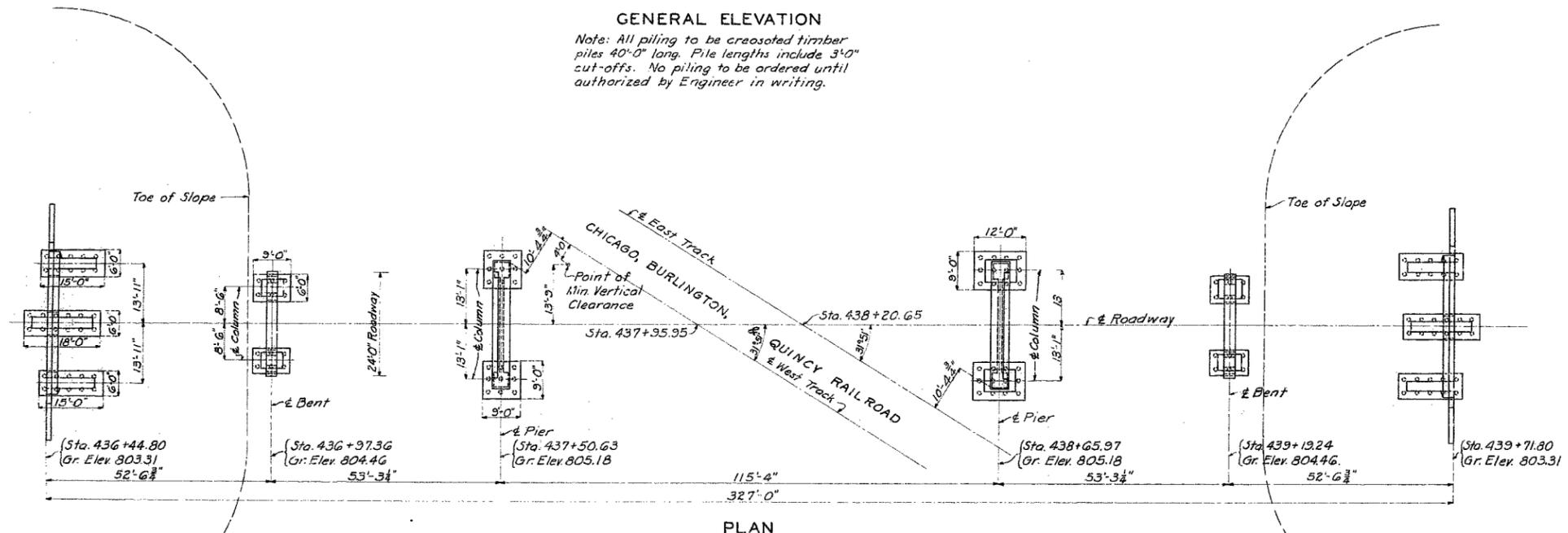
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	WPGH 791-B (EAST)	1936	19	

Note: For details of hand rail see "50A" and "50C" on Std. C-6502 R2 and modify as shown on Sheet No. 7 of 7.



GENERAL ELEVATION

Note: All piling to be creosoted timber piles 40'-0" long. Pile lengths include 3'-0" cut-offs. No piling to be ordered until authorized by Engineer in writing.



PLAN

GENERAL NOTES

Design Specifications A.A.S.H.O. 1935
 Loading H-15 A.A.S.H.O. Two Lanes
 Structural Steel Stress 18,000#/sq in
 Reinforcing Steel Stress 18,000#/sq in
 Concrete Class "B" 3000#/sq in
 All concrete shall be Class "B"
 Exposed edges shall be beveled 3/8" where no other bevel is noted.
 Bar supports and spacers will be required for reinforcing steel in superstructure. See Std. C-110R.
 All concrete shall be proportioned by the weight proportioning method.
 Floor slab for each span shall be constructed full width and length at one operation. No longitudinal or transverse construction joints will be permitted.
 Where rubber compound is specified on plans for use in partition or expansion joints, the pre-moulded compound shall be securely stitched to one face of concrete with copper wire.
 Two name plates Type "A" as shown on Std. S-813 shall be furnished and placed by Contractor. Cost of name plates will be included in price bid for other items.
 Detail shop drawings for all structural steel, wrought iron, cast steel, and cast iron shall be submitted to the State Highway Department in duplicate and shall be approved before material is ordered or work started.
 Rivets 3/4", holes 13/16" except in girder details where sizes shall be as noted on Sheet No. 6 of 7. Field connections riveted.
 Paint: Shop, none; Field, surfaces inaccessible after erection three coats of red lead. No other paint to be applied by Contractor. Red lead required shall be furnished by the Contractor. Payment for cleaning and painting such surfaces will be included in unit price bid for structural steel.
 All piles shall be driven to sustain a load of at least 20 tons per pile.
 Excavation for structure shall be in accordance with Specification 1 of Standard Specifications issued November 12, 1935.
 Falsework for span over existing railroad tracks shall be constructed with a minimum vertical clearance of 20'-0" from top of rails and minimum lateral clearance of 8'-6" from centerline of tracks.

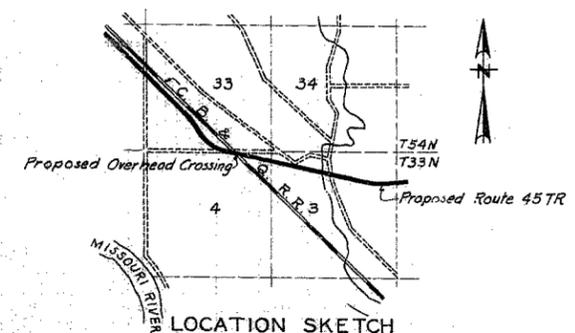
Item	ESTIMATED QUANTITIES			Quantity
	Superstr.	Substr.	Total	
Class I Excavation for Structures	Cu. Yds.	490	490	477.5
Class "B" Concrete (Handrail)	Cu. Yds.	20.9	20.9	20.9
Class "B" Concrete	Cu. Yds.	275.1	401.1	676.2
Fabricated Structural Steel (Girder Spans)	Lbs.	156,000	156,000	157,180
Fabricated Structural Steel (I-Beam Spans)	Lbs.	121,000	121,000	121,450
Steel Castings (Girder Spans)	Lbs.	2130	2130	2150
Gray Iron Alloy Castings (I-Beam Spans)	Lbs.	2070	2070	2100
Reinforcing Steel	Lbs.	64,600	23,930	88,530
Creosoted Timber Piles In Place	Lin. Ft.	4810	4810	3810
Creosoted Timber Pile Cut-offs	Lin. Ft.	390	390	1021
Timber Test Piles	Lin. Ft.	100	100	101
Wrought Iron Blast Plates	Lbs.	7700	7700	7910

B.M. Elev. 775.64 - Spike and Washer in E. root 30" Twin Hackberry 21/2 Rts. Sta. 437+33
BRIDGE OVER C.B. & Q. R.R.
 STATE ROAD FROM WESTON TO BUCHANAN CO. LINE
 ABOUT 3.0 MILES N. W. OF WESTON
 PROJECT NO. WPGH 791-B (R45TR) STA. 436+44.80

PLATTE COUNTY

SUBMITTED BY: *N.R. Beck* DATE: 5/7/36
 APPROVED BY: *T.H. Cutler* DATE: 5/7/36

STD. C6502R2
STD. S-919
STD. C101R
K-698



Drawn March 1936 by J.W.M.
 Traced March 1936 by W.A.P.
 Checked April 1936 by G.P.C.

Note: This drawing is not to scale. Follow dimensions.

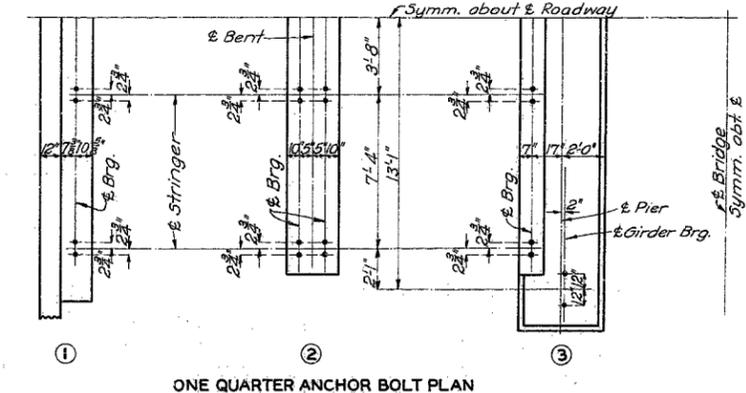
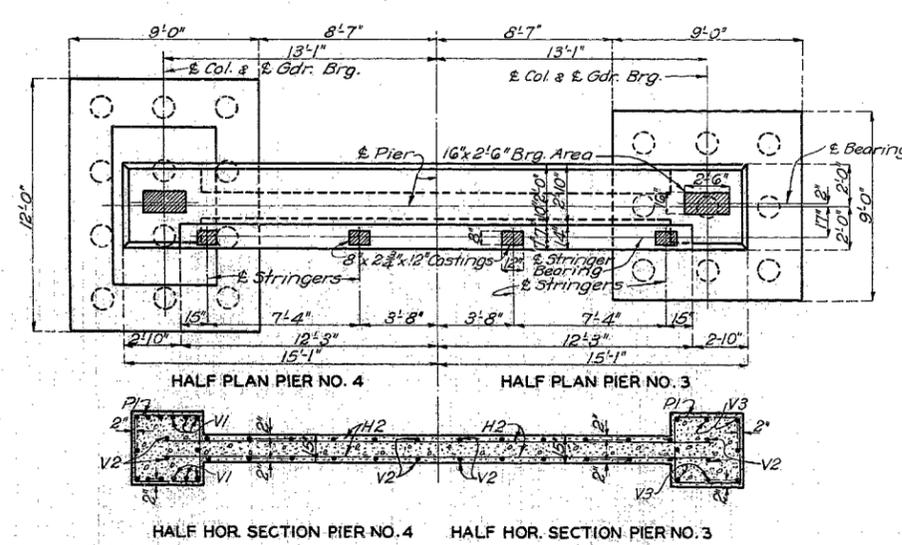
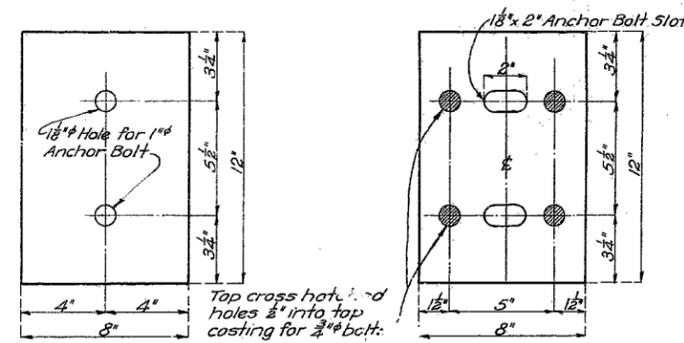
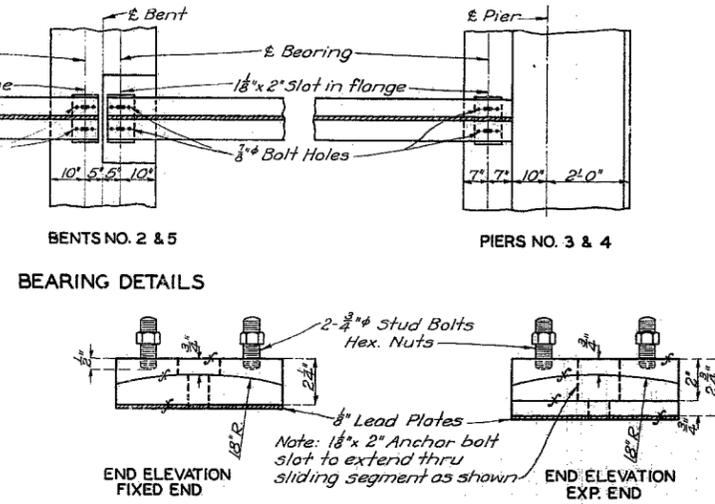
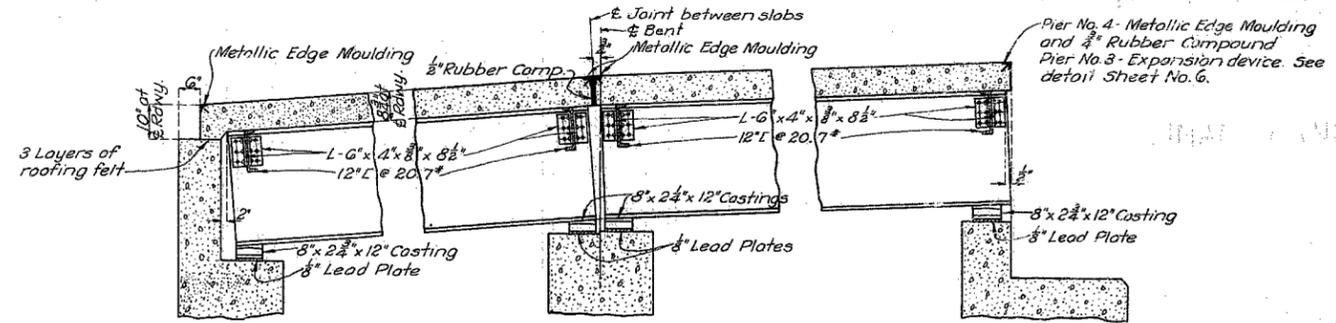
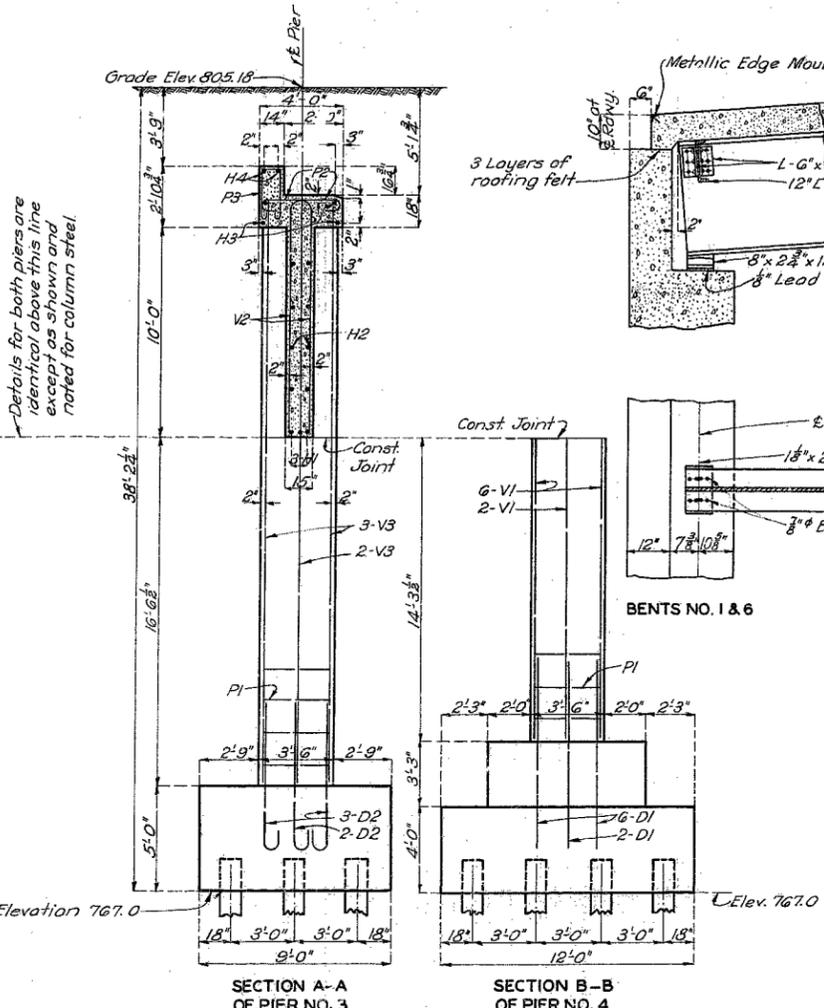
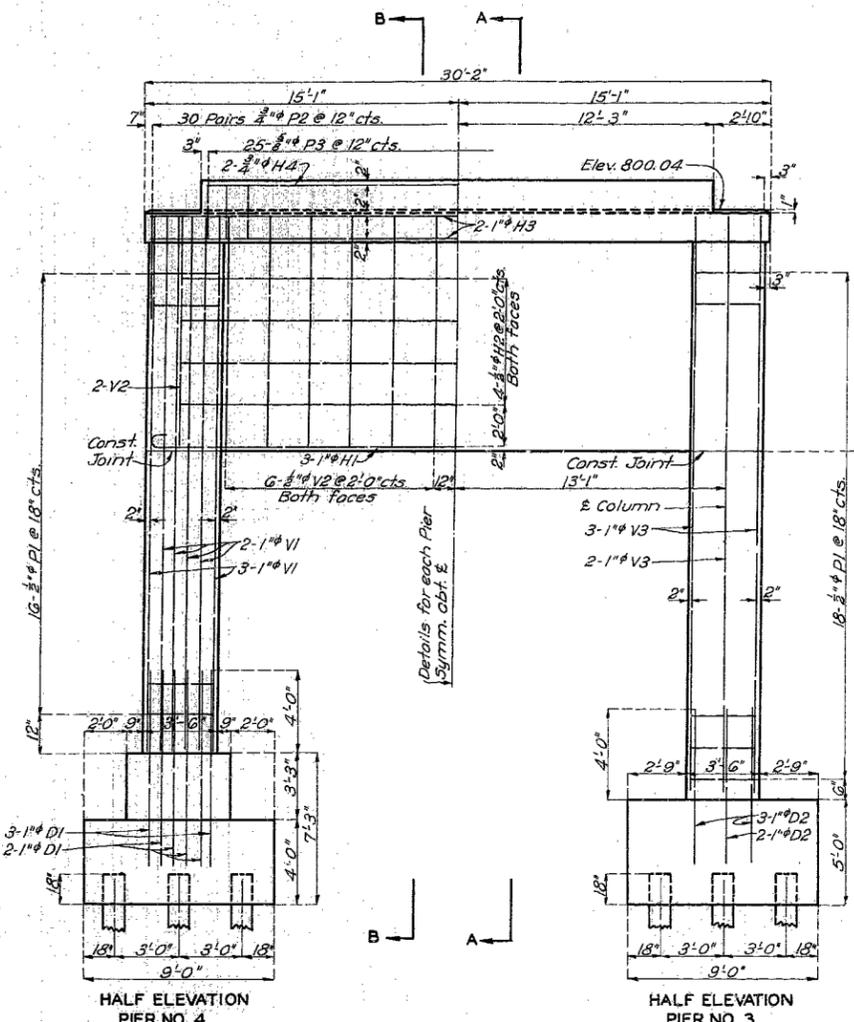
Sheet No. 1 of 7 Changes noted here on

FA

362

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	WPGH 791B (R45TR)	15	15	15



Note: Areas on top of Piers and Bents under and extending 2" beyond edges of I-Beam and Plate Girder bearings shall be built monolithic with pier or bent & above plan elevation. These areas shall be ground with carborundum brick to a horizontal plane surface of plan elevation and shall be adequately protected until bearings are in place. Cost of lead plates is to be included in price bid for structural steel.

DETAILS OF GRAY IRON ALLOY CASTINGS

Note: A mixture of graphite and oil to be applied to surfaces in contact before placing castings in structure. Bearings shall be either gray iron alloy or cast steel. Anchor bolts to be 1", no heads, hex nuts and to extend 10" into concrete. Stud bolts, anchor bolts, and nuts to be paid for as structural steel.

BRIDGE OVER C. B. & Q. R. R.
STATE ROAD FROM WESTON TO BUCHANAN CO. LINE
ABOUT 3.0 MILES N.W. OF WESTON
PROJECT NO. WPGH 791B (R45TR) STA. 436+44.80
PLATTE COUNTY

Drawn March 1936 by S.C.D.
Traced March 1936 by G.W.
Checked April 1936 by P.O.

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 4 of 7. No construction changes
F.A.

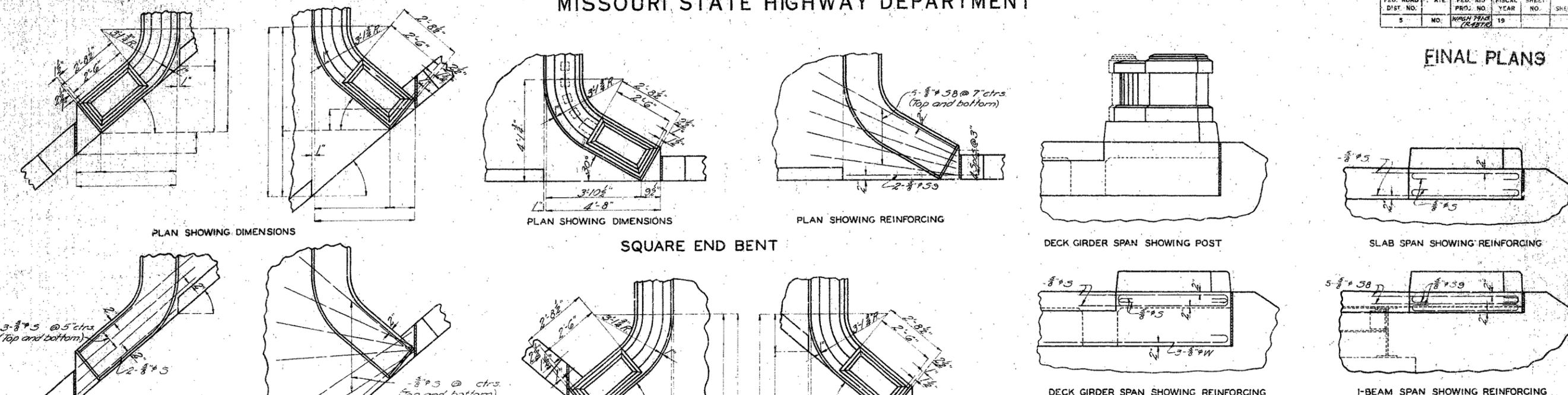
K-698

365

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	SHEETS
5	MO.	WPGH 7918 (R-4271)	19		

FINAL PLANS



PLAN SHOWING DIMENSIONS
 PLAN SHOWING REINFORCING
 DECK GIRDER SPAN SHOWING POST
 SLAB SPAN SHOWING REINFORCING
 DECK GIRDER SPAN SHOWING REINFORCING
 I-BEAM SPAN SHOWING REINFORCING

SQUARE END BENT

RIGHT ADVANCE SKEW 30° AND OVER

LEFT ADVANCE SKEW 30° AND OVER

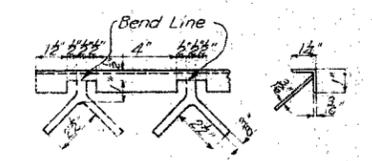
PLAN SHOWING DIMENSIONS

PLAN SHOWING REINFORCING

RIGHT ADVANCE SKEW LESS THAN 30°

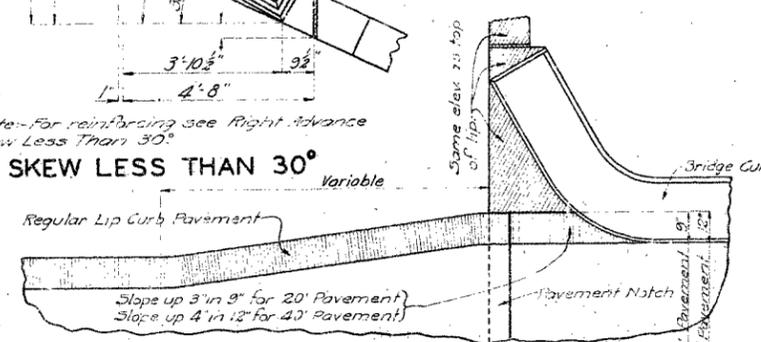
LEFT ADVANCE SKEW LESS THAN 30°

GENERAL NOTES:-
 For details of handrail see "50A" and "50C" on Std. C-6502 R2. Handrail, curb, and slab to be modified at end bents as shown on this sheet.
 Length of panels between supports of both rails on "50A" to be 8'-7 1/2" instead of 8'-5" and 8'-6". Use 13 balusters in each panel.
 Omit curb outlets as shown on Std. C-6502 R2.



METALLIC EDGE Moulding

Note: Cost of metallic edge moulding will be included in unit bid price for concrete.



TYPICAL DETAIL FOR PAVED ROADS ONLY

Note: Modify detail for skewed bridges in same manner.

TYPICAL DETAILS OF CONCRETE RAIL AT END BENT

Note: This drawing is not to scale. w dimensions. Sheet No. 7 of 7. No construction changes.

FINAL PLANS K-698

BRIDGE OVER C. B. & Q. R. R.
 STATE ROAD FROM WESTON TO BUCHANAN CO. LINE
 ABOUT 3.0 MILES N.W. OF WESTON
 PROJECT NO. WPGH 7918 (R-4271) 436+44.80
 PLATTE COUNTY

368

Assembled May 1936 by J.W.M. W.A.P.
 Checked April 1936 by R.C.
 Drawn April 1936 by C.A.F.
 Checked April 1936 by R.C.