



**Phase I Cultural Resources Report: History and Architecture
Rock Island Corridor Shared Use Path
Jackson County
Kansas City to Lee's Summit
MP 287.0 to 270.5**

**Prepared for:
Jackson County Missouri**



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Table of Contents

INTRODUCTION	1
The APE for the Section 106 Analysis:	2
Methodology	5
Disposition of Records	5
HISTORIC ANALYSIS	7
1884-1902: St. Louis, Kansas City & Colorado Railroad (SLKC&CRR)	7
1902: The Rock Island Acquires the SLKC&CRR	8
The Rock Island Company: 1905-1980	10
1980-2017 Ownership After Rock Island	13
STUDY AREA HISTORY: Mile Post 270.5 to 287.0	14
Building of a Railway: Excavation	14
TOWNS ALONG THE ROCK ISLAND IN THE STUDY AREA	16
South Lee (MP 272)	16
Vale (MP 276-77)	17
Raytown (MP 282)	19
Leeds Junction (MP 287)	21
Other Communities	21
STUDY AREA SPECIFIC STRUCTURES AND RESOURCES	22
Rails and Ties	22
Ballast	23
Bridges and Tunnel	23
Steel Girders	23
Concrete Bridges	24
Wooden Pile Trestle Bridge	25
Tunnel	26
Culverts and Cattle Passes	27
Overhead Bridges in the Study Area Not Associated With The Saint Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Line	29
Associated Structures	31
Signage and Signals	31
Miscellaneous Structures	33
BIOGRAPHICAL INFORMATION	35
CONCLUSION AND RECOMMENDATIONS	36
SELECTED BIBLIOGRAPHY	39

HISTORIC SIGNIFICANCE OF THE ROCK ISLAND CORRIDOR

INTRODUCTION

In November 2016, Burns & McDonnell contracted with Architectural & Historical Research, LLC, Kansas City, to prepare a Section 106 Analysis of architectural and cultural resources for the Rock Island Corridor Share Use Path Project. The Rock Island project is comprised of approximately 16.5 miles of the historic St. Louis, Kansas City & Colorado Railroad and the Chicago, Rock Island & Pacific Railroad corridor extending south of Stadium Drive, Kansas City, Missouri, southeast to the proposed terminus near Hamblen Road in Lee's Summit, Missouri (MP 287.0 at Stadium Drive, Kansas City, MO to MP 270.5 northwest of Greenwood, MO).

The first step in an analysis of historic resources within the APE was to inventory all historic resources. Any structure or other potential historic resource over 50 years old could be eligible for listing in the National Register of Historic Places. An historic context overview affiliated with the Rock Island Corridor was also prepared to help evaluate the significance of the railroad lines and all inventoried resources.

Subsequent to the inventory and development of the historic context, the next step was to evaluate the possible effects of the proposed project on any identified historic resources and/or district. Effect would be defined for each resource and could be "no effect, no adverse effect, or adverse effect". Significant focus is on any resources where there would be "adverse effects". In evaluating effects, consultation between FHWA, MoDOT, Jackson County Parks and the Missouri State Historic Preservation Officer will be necessary.

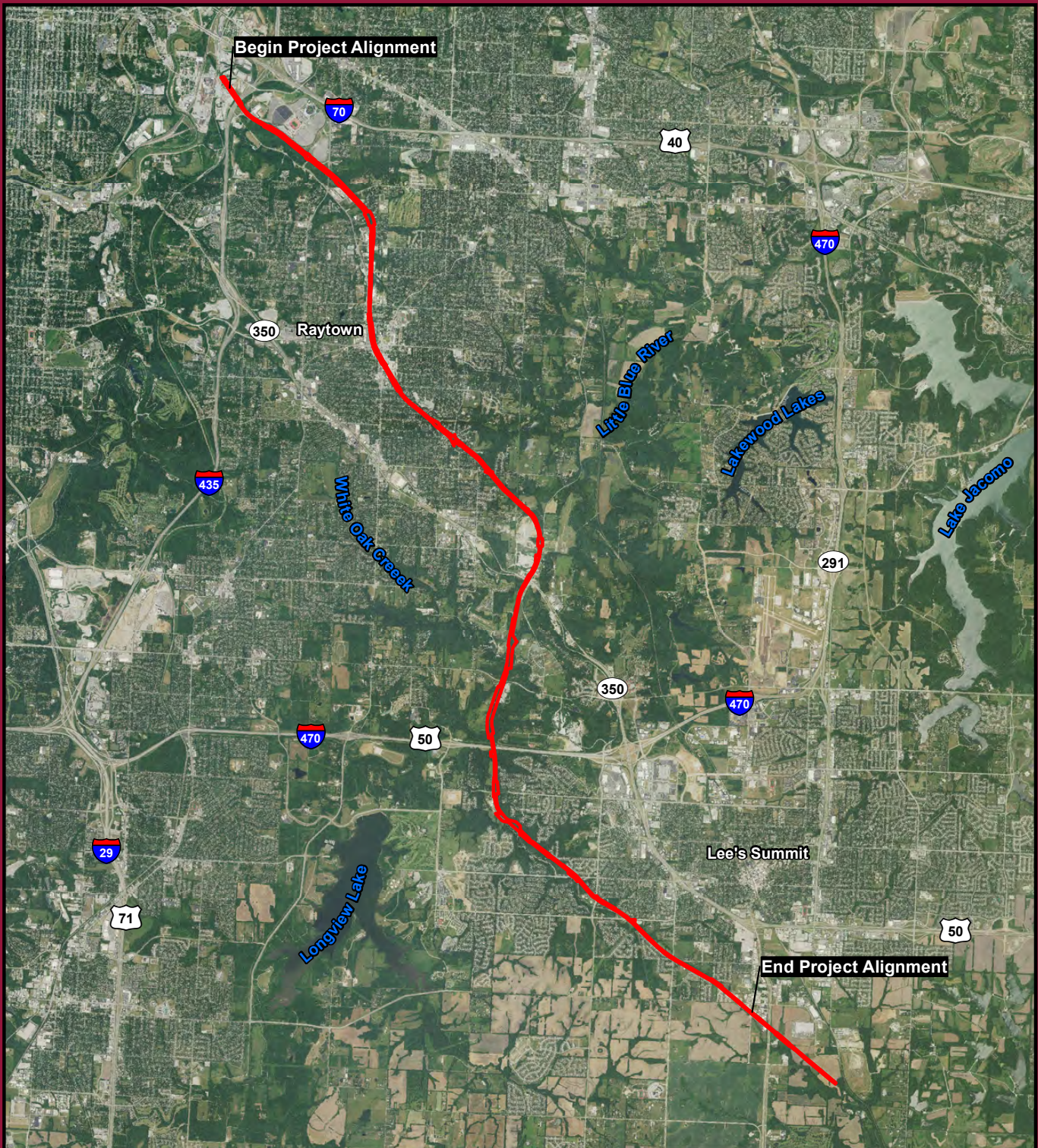
The Jackson County Legislature and the Kansas City Area Transportation Authority (KCATA) approved, in partnership, the purchase of the Rock Island Corridor from the Union Pacific Railroad. The County acquired the Rock Island Railroad Corridor with an obligation to provide freight rail service upon reasonable request. Preservation of the Railroad Corridor's integrity, most notably the Railroad Corridor's unencumbered continuity, shall be the guiding principle to protect the value and very nature of the investment being made by Jackson County and the KCATA. A federal Surface Transportation Program grant, allocated through the Mid-America Regional Council (MARC), was awarded to Jackson County to provide construction funding for a shared-use path along the corridor with Jackson County allocating a twenty-percent match to the grant.

This in-depth survey was conducted in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended. The project qualifies as an undertaking per Section 106. Therefore, the purpose of the investigation is to determine whether historic properties are located within the proposed Area of Potential Effect (APE). This report documents the research design, survey methodology and results of field work conducted in December 2016 and in February 2017 by Cydney Millstein and Kelsey Lutz, Architectural & Historical Research, LLC, Kansas City, MO. Maryann Warfield provided additional research and narrative for the historical context portion of the report.

The APE for the Section 106 Analysis:

Based on a review of the preliminary reconnaissance survey of the study area, the Missouri State Historic Preservation Office concurred with Architectural & Historical Research's recommendation that the rail grade corridor from MP 287.00 to 270.5 defines the APE and that "a formal historic and architectural survey should be conducted¹" within the APE to satisfy Section 106 requirements. The APE for the history/architecture above ground resources includes the rail line and associated structures (mainly bridges and culverts) as well as resources identified with the linear resource of the rail such as tracks, ties, etc. The following location and topographical maps illustrate the project alignment for the APE:

¹ Dr. Toni M. Prawl, Director and Deputy State Historic Preservation Officer, Jefferson City, MO. Letter to Amber Taylor, TranSystems, Columbus, Ohio, dated March 1, 2017.



Legend

Study Area

**Figure 1:
Location Map**



0 1 2 Miles

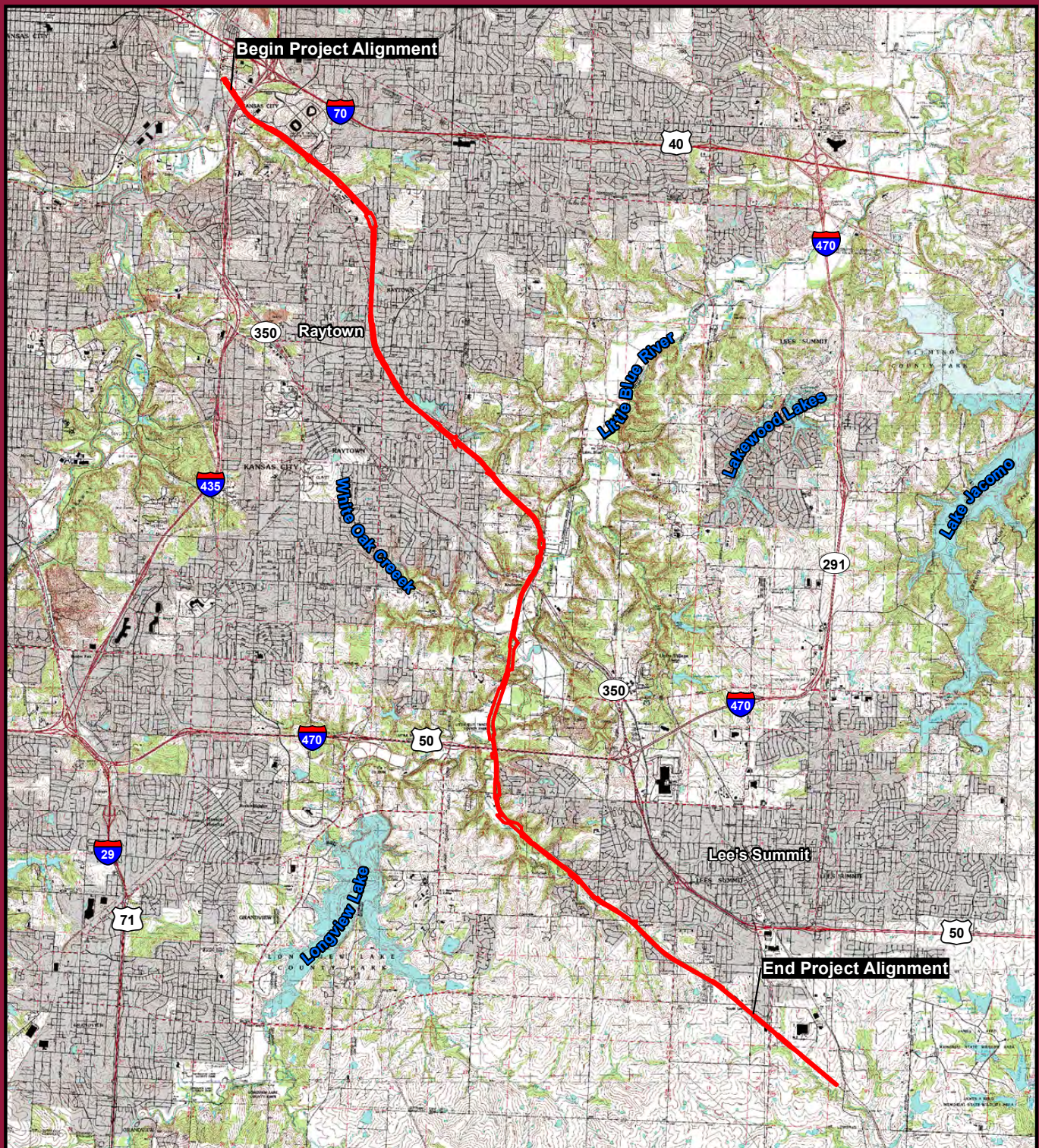
TranSystems
EXPERIENCE | Transportation

Date: March 2017

Rock Island Shared Use Path

Jackson County, Missouri

Aerial Source:
NAIP 2016 Imagery: Jackson County



Legend

Study Area

**Figure 2:
Topographic Map**



0 1 2 Miles



Date: March 2017

Rock Island Shared Use Path
Jackson County, Missouri

USGS 1:24,000 Topographic Quadrangles:
Independence, Lee's Summit, Lake Jacomo

Methodology

The following is a summary of the approach used for this intensive level survey in support of the overall Section 106 requirements:

1. Within a predetermined APE a reconnaissance survey was conducted to determine the approximate number and location of resources to be included in an intensive Section 106 Survey.
2. In consultation with Jackson County Parks, the Missouri State Historic Preservation Office, Burns & McDonnell and TranSystems, the Area of Potential Effect (APE) for the Rock Island Corridor Share Use Path Project was determined and approved.
3. Initiated the Section 106 Survey and prepared Inventory forms for resources within the APE. There are a total of 27 Missouri Inventory Forms prepared for 13 bridges, 1 tunnel, 12 concrete culverts (one culvert includes a flume and a weir), and 1 concrete arch cattle pass. Rails and ties, associated railroad structures to include signs and signals, and miscellaneous resources were not inventoried; however, they are discussed in the narrative. Bridges within the APE not affiliated with the St. Louis, Kansas City & Colorado Railroad or the Chicago, Rock Island & Pacific Railroad were not inventoried. It is important to note that due to difficult terrain and line of sight, there are additional extant culverts that could not be surveyed. A table of these culverts and their associated MP Number can be found in the narrative section, below. Measurements for each of the inventoried resources were taken from the Val Maps and Burns & McDonnell.
4. AHR, LLC, finalized the inventory of all resources (historic and non-historic) located in the APE. All properties within the APE were examined using a Missouri Historic Bridge Inventory Form, modified (for this particular project) and digitally photographed images. Cydney E. Millstein, AHR, LLC, was the photographer for all resources within the APE, except where noted on the inventory form.
5. This final report, with recommendations outlining identification and evaluation of any resources, was prepared and is included in this study. The analysis includes historic context and a recommendation whether the proposed action would have an effect and whether the effect would be adverse.
6. Based on the results of the analysis, no Memorandum of Agreement (MOA) concerning the historic properties within the APE is anticipated.

Field survey and archival research were used to obtain information regarding the resources that until this study were not previously examined.

Disposition of Records

Information and data were gathered from, but not limited to, the following repositories:

- National Archives Records Administration (NARA) II, College Park, Maryland. This vast collection of Federal records and archival data includes, but is not limited to, the Interstate Commerce Commission (ICC) Valuation Maps, special and chaining records, engineers' notes, and *Annual Reports*, for the Chicago, Rock Island & Pacific Railroad.
- Missouri Valley Room, Special Collections, Kansas City Public Library, Kansas City, Missouri. This local history room of the main branch of the public library is the repository for city directories, maps, atlases, trade journals, newspaper clippings, historic photographs and city and county histories.
- State Historical Society of Missouri-Research Center, Kansas City. This repository contains an outstanding collection of materials on Kansas City's built environment, including plans, drawings, periodicals and photographs.

- Historic Preservation Program, Department of Natural Resources, Jefferson City, Missouri. Previous Phase One Studies prepared for the Rock Island Trail (dating 2010, 2012, 2013 and 2015) were provided.
- Linda Hall Library, Kansas City, Missouri. This internationally significant engineering library includes a collection of professional engineering journals.
- Burns & McDonnell, Kansas City, Missouri. The interlibrary loan department of this engineering firm provided a select number of books relative to the Rock Island line.
- The Raytown Historical Society, Raytown, Missouri. This non-profit organization runs the Raytown Historical Society Museum in Raytown and provided historic photographs and articles from local newspapers.

In addition, the following repositories were contacted:

- Union Pacific Railroad, Omaha, NB
- Chicago History Museum, Chicago, IL
- University of Iowa, Iowa City, IA
- University of Oklahoma, Oklahoma City, OK
- American Bridge Company, Overland Park, KS and New York, NY
- The Newberry Library, Chicago, IL
- Chicago History Museum, Chicago, IL
- America Society of Civil Engineers (ASCE), Washington, DC
- National Archives Records Administration (NARA), Kansas City, MO
- The Missouri History Museum, St. Louis, MO

HISTORIC ANALYSIS

The Chicago, Rock Island & Pacific Railroad (Rock Island) managed construction of the rail corridor as well as maintained it for the longest time-period. Established in 1847 as the Rock Island and La Salle Railroad, named for the two connecting cities in Illinois along the Mississippi River, the company changed its name when their territory expanded in 1854 into Chicago. By the 1870s, Rock Island had expanded from Illinois into Iowa, as well as northwestern Missouri.² As was typical of many railroads of that era, Rock Island would procure other smaller railroads in its constant quest to cover more territory to expand their operations. While Rock Island was the major financial and administrative rail company of the line, it is important to point out the association with the Kansas City, St. Louis & Colorado Railroad with this stretch of railroad corridor.

1884-1902: St. Louis, Kansas City & Colorado Railroad (SLKC&CRR)

In 1884, after seeing the positive financial effects that the railroad brought to small, developing towns, the St. Louis, Kansas City & Colorado (SLKC&CRR) Railroad was incorporated in the State of Missouri. A specific goal of the company was connecting established towns located southwest of St. Louis.³ Additionally, the company had formed a charter in the State of Kansas for the construction of a line that would continue from Kansas City to the southwestern corner of Kansas.⁴

SLKC&CRR's beginning was a rough and controversial one. In April 1885, Francis Tiernan, president of the SLKC&CRR, initiated a hostile takeover of the Forest Park and Central Railroad of St. Louis. The line had gone unused for over two years and sat with rusting iron covered in mud and boulders.⁵

Tiernan hired sixty men who cleared the debris, an engineer and boarded the train with a fireman and a *St. Louis Globe-Democrat* reporter near Union Station in St. Louis. They headed out over tracks belonging to the Wabash Railroad pulling two coal cars that served as ballast. At Forsyth Junction, the train was switched to the Forest Park and Central where the track began to heave and sink as the train made its way to Clayton, Missouri. A representative of the Forest Park and Central line attempted to board the train but was shoved off. After the train pulled into Clayton, they remained camped overnight.⁶ With no other incidents, the line became part of the SLKC&CRR line. Financing would continue to be an issue for this small railroad company, which caused numerous delays in construction and eventually led to selling off the assets to the Rock Island in 1902.

After surveying and acquiring necessary funding, the railroad company started construction of their line from St. Louis, twelve miles west to Union, Missouri, by 1900. In 1901, the line was completed to Bland, Missouri, then continued westward on a 14.5-mile section, located between

² George H. Drury, *The Historical Guide to North American Railroads* 2nd Edition (Waukesha, WI: Kalmbach Publishing Co., 2000), 112-113.

³ Michael Dalman and Don L. Booth, SCI Engineering Inc., "Rock Island Abandonment Pleasant Hill to Highway P, Cass County, Missouri," Prepared for Missouri Central Railroad, 2012, 10.

⁴ "Across Missouri," *St. Louis Globe-Democrat*, 01 January 1885, n. p. This line would not be realized under the ownership of the SLKC&CRR Company.

⁵ "Prospectus of the St. Louis, Kansas City & Colorado Railroad," Pamphlet. c. 1895 N.P. Linda Hall Library, Kansas City, MO.

⁶ "In Possession," *St. Louis Globe-Democrat*, 08 April 1885.

the Gasconade River and Versailles, Missouri. The SLKC&CRR made it as far as Belle, due east of the proposed terminus roughly 177 miles west of St. Louis.⁷

1902: The Rock Island Acquires the SLKC&CRR

As the SLKC&CRR was completing their line to Belle, the Rock Island, looking to expand, took interest in the fledgling line and purchased their company.⁸ This afforded an opportunity for Rock Island to connect to St. Louis as they had no lines into the city.⁹ By acquiring this company, Rock Island would also continue their expansion and facilitate a means of transport for passengers to the upcoming 1904 World's Fair in St. Louis. Track had been completed to Belle, with grading as far as Eldon, when the Rock Island acquired the SLKC&CRR in 1902. They would keep the St. Louis, Kansas City & Colorado name, as well as the contractors used thus far to build the line, until its completion in 1904. After the completion of the line, the name of the line was changed to The Rock Island Kansas City-St. Louis Subdivision.¹⁰ Despite other railroads having already established a line to and from Kansas City and St. Louis, the Rock Island still found advantages for completing a separate line.

To connect Kansas City with St. Louis after the acquisition would prove a difficult task. Although grading had been completed to Eldon by the time the Rock Island acquired the line in 1902, much work was still to be done. The original SLKC&CRR surveys show the line stretching through major towns such as Independence, Blue Springs, and Warrensburg, Missouri. However, this proposed route, while potentially prosperous because of the connecting towns, was through treacherous terrain. Three large tunnels, ranging from 700 feet to 2,000 feet, had to be bored and the related track grading had to maintain a steep grade to accommodate the challenging topography primarily through the hills of Missouri's Ozark Mountains. Additionally there were a number of major streams that required the construction of several bridges. When the Rock Island reassessed terrain along the original survey, it was decided to complete a new survey to find a more practical route. Subsequently, in 1903, the new line was directed through smaller cities such as Raytown, Lee's Summit, and Pleasant Hill, thus eliminating the need for boring three tunnels and with a more favorable grading.¹¹

The new route would also result in a more direct line to sections already completed under the SLKC&CRR and a shorter commute from Kansas City to St. Louis than any other railroad at the time in Missouri.¹² With the reduced grade, freight could be shipped for forty-nine percent less than that of the competing Missouri Pacific Railroad.¹³

⁷ J. L. Campbell, "The St. Louis, Kansas City & Colorado," *The Railroad Gazette* 37 (21 October 1904): 460.

⁸ The reorganization in 1902 started a period of unprecedented growth for Rock Island. This included the acquisition of the Choctaw, Gulf & Oklahoma Railroad and considerable construction to expand this line, construction of a new line between Fort Worth and Dallas, Texas, and between Little Rock, Arkansas, and Eunice, Louisiana.

⁹ "The Rock Island Capital Plan," *The Railroad Gazette* 34 (1 August 1902): 611-612.

¹⁰ Campbell, *The Railroad Gazette* 37, 460. The construction company retained was The Gasconade Railway Construction Company; also "Rock Island Company." *The Railroad Gazette* 39 (1 December 1905): 503. After acquiring another railroad, the St. Louis-San Francisco, St. Louis would be a connection point for Rock Island's Frisco System.

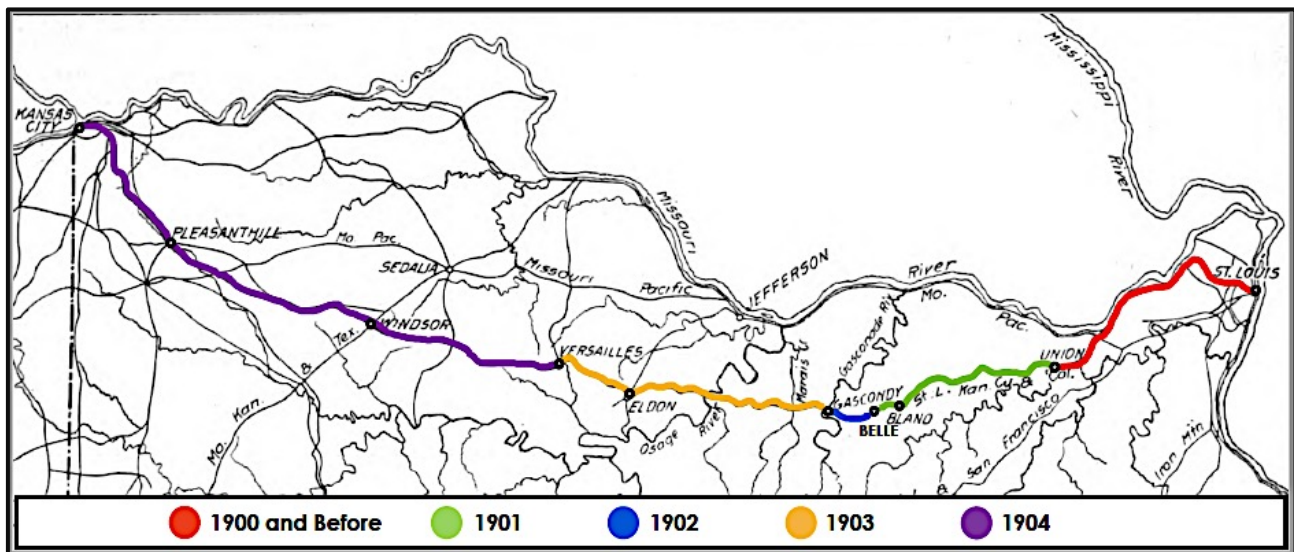
¹¹ "Leaves Out the Tunnels," *Kansas City Star* (24 November 1902): 1. Steep track grading is associated with higher fuel expenses as it takes more energy for the train to traverse these areas.

¹² *Ibid.* The second shortest route belonged to the Wabash Railroad and third shortest to the Missouri Pacific Railroad.

¹³ "Building of a Railway," *Kansas City Star* (15 November 1903): 15.

Despite the new and improved route of the Rock Island, St. Louis Subdivision line, there were still obstacles. Composed of clay, shale and limestone, the terrain was not favorable for laying rail bed and was prone to slides and settling. The Rock Island attained full service along the St. Louis Subdivision by July 1, 1904, although detail work continued along the line through 1905.¹⁴ Excavation will be discussed in further detail in the section specific to the survey area.

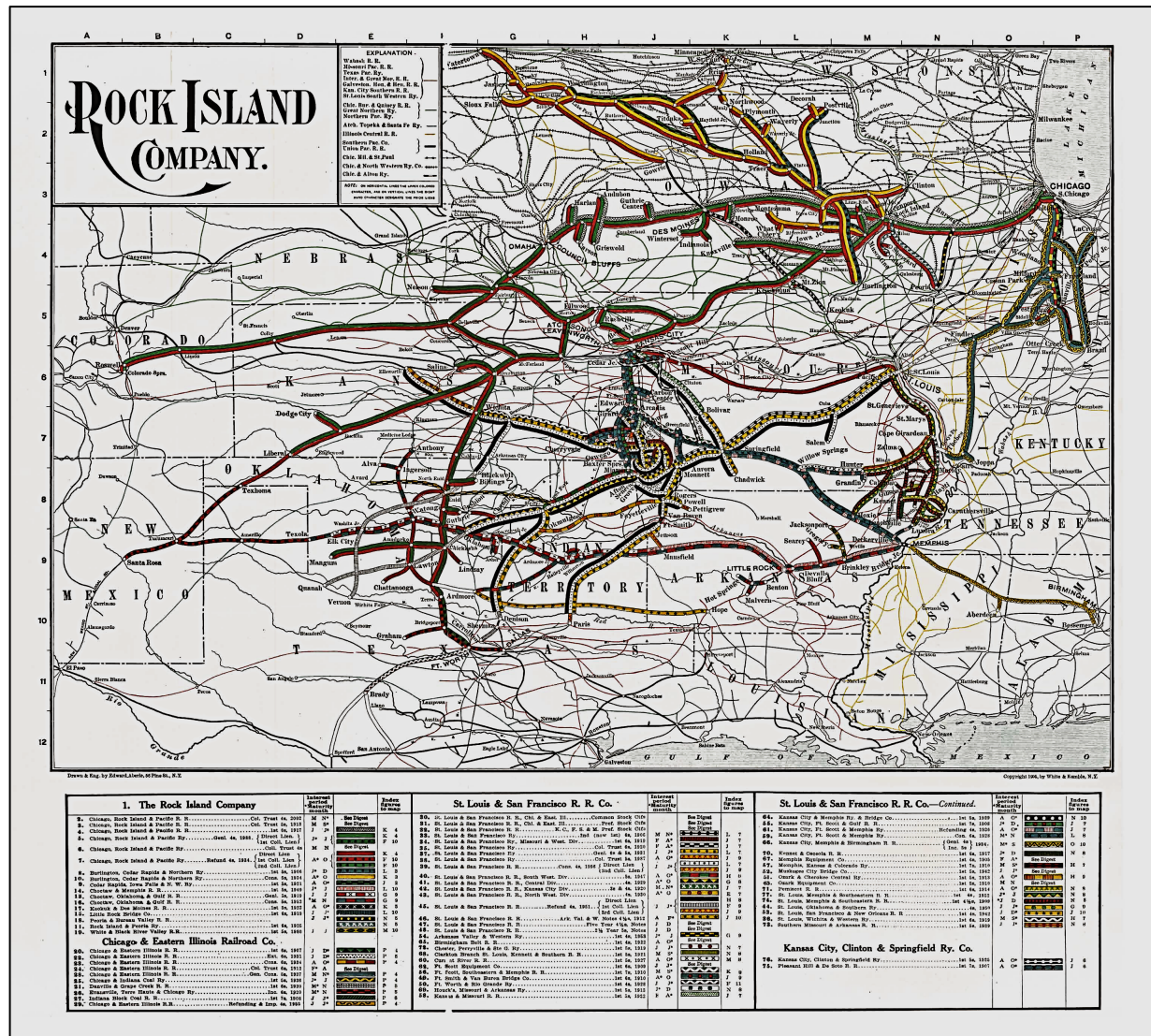
The St. Louis, Kansas City & Colorado Railroad Construction Map



Source: Original map from *Railroad Gazette* 37, (21 October 1904) color and dates added to show progress).

¹⁴ "Twenty-Fifth Annual Report of The Chicago, Rock Island & Pacific Railway Company: for the Fiscal Year Ending June 30, 1905," 12. RG 134: Records of the Interstate Commerce Commission, Box 545. National Archive Record Administration, II, College Park, Maryland. See also, *The Historical Guide to North American Railroads*, *The Engineering Record* (1904).

The Rock Island Company: 1905-1980



Map depicting the scope of rail lines owned and operated by the Chicago, Rock Island & Pacific Railway Company (1905)

Source: Rock Island Company, 1905. *White & Kemble's Atlas and Digest of Railroad Mortgages*. Accessed March 13, 2017. <http://www.railsandtrails.com/Maps/WhiteKemble/default.htm>

Known for its scenic views through the Ozarks that traversed several bridges and tunnels, passengers frequented the line during vacations, but their sporadic use could not offset the high cost of maintenance during the winter months. Other competing railroads who had previously established the route from Kansas City to St. Louis had cornered most of the commercial transport business between the two cities. Passenger service along the St. Louis Subdivision was also limited during the harsh Missouri winter months.¹⁵

¹⁵ Archeological Research Center of St. Louis Inc., “Phase I Archaeological Survey”, 22.

ST. LOUIS, KANSAS CITY & COLORADO RAILROAD CO.

(FOR MAP, SEE C., R. I. & P. RY.)

STATIONS IN MISSOURI.

Miles from St. Louis.....	Name of station.	Miles from St. Louis.....	Name of station.	Miles from St. Louis.....	Name of station.
0	St. Louis	85	Rose Bud.	205	Ionla.
4	Vandeventer.	92	Owensville.	211	Brandon.
5	Forsyth Junction.	95	Oannan.	215	Windsor.
8	Clayton.	101	Bland.	221	Bowen.
11	Olivette.	105	Belle.	227	Leeton.
13	Lackland.	111	Summerfield.	230	Post Oak.
15	Maryland Heights.	114	Gascondy.	235	Chilhowie.
18	Vigun.	118	Freeburg.	240	Denton.
22	Greve Couer Lake.	125	Acryle.	245	Medford.
24	Monn.	135	Meta.	255	Hadsell.
27	Chesterfield.	145	Hoecker.	255	Wingate.
32	Monarch.	145	Henley.	258	Pleasant Hill.
38	Centaur.	150	Eugene.	260	Greenwood.
40	St. Albans.	154	Etterville.	272	South Lee.
45	Labadie.	160	Eldon.	275	Vale.
51	Villa Ridge.	165	Barnett.	281	Raytown.
60	Union.	172	Marvin.	285	Leeds Junction.
65	Jeffreyburg.	177	Versailles.	291	Sheffield.
72	Beaufort.	185	Stover.	295	Grand Avenue.
74	Leslie.	194	Crest.	299	Kansas City.
81	Gerald.	199	Nay.		

A list of the stations in Missouri that were located along the STKC&CRR, as part of the Rock Island

Source: Railroad and Warehouse Commissioners for the State of Missouri, *Annual Report of the Railroad and Warehouse Commissioners of the State of Missouri, for the year Ending June 30, 1906*, 130-132. Google Books, Accessed March 13, 2017. See bibliography for URL

Although Rock Island made headway into the turn of the twenty-first century, they soon ran out of funding and resources. The fast-paced acquisition and assimilation of other railroads into the entire Rock Island system, as well as construction of new lines, could not be sustained. In 1915 the company passed into receivership. Even with a change in management in the 1920s, Rock Island was no match for the Great Depression, which caused revenues to drop even further. Compounded by failures of wheat crops during 1930 and a massive drought that triggered dust storms in Rock Island territory, the rail road declared bankruptcy in 1933.¹⁶

Subsequently, new leadership was brought into the company in 1935. Edward M. Durham, who was previously the vice president of the Missouri Pacific Railroad, functioned as Chief Operating Officer. John D. Farrington, who had previously worked for the Fort Worth and Denver Railroad, was appointed as Chief Operating Officer. Durham implemented several new programs that included a scrap drive to help modernize the line. With these incentives and strong leadership, Rock Island regained profits in 1941. The next year Durham retired and Farrington took over the Rock Island as CEO. Farrington was responsible for the introduction of the Rock Island Rockets, a diesel engine fleet that improved passenger traffic throughout the United States.¹⁷ Yet, the St. Louis Subdivision was not affected by this and instead had an alternate means of passenger transportation.

In the late 1930s, the Rock Island introduced the 'Doodlebug' – a motorized passenger car. The St. Louis Subdivision had two Doodlebugs that ran the line. One car would leave Kansas City

¹⁶ Drury, *The Historical Guide to North American Railroads*, 115-116.

¹⁷ Ibid.

and meet the second Doodlebug coming west from St. Louis. The two cars would meet in the middle of the route at the Eldon station. This made for a two-part trip for passengers who wanted to traverse the whole route.¹⁸

The Doodlebug was not unique in the rail industry; however, the cars that the Rock Island put into service were constructed to unique specifications as requested by the Rock Island, resulting in the rare EMC AB6 model, as described:

During the late 1930s and early 1940s the transition from steam to diesel power for main line purposes was only in its very early stages. The [General Motors] Electro-Motive Corporation (EMC) had introduced its streamlined EA model for passenger service in 1937..., and then awed the railroad industry two years later when the FT freight diesels toured the country in 1939. This four-set, A-B-B-A tandem, listed as demonstrator #103, could produce a combined horsepower of 5,400 and showed the limitations of steam while proclaiming the superiority of diesel. So, when the Rock Island requested a unique spin on an E6B model that resulted in the rare EMC AB6, railroads were still under the steam era mindset of customizing locomotives to their individual needs but also clearly recognized the importance diesels would now play. In later years, Electro-Motive mostly ended this practice by declining such customized requests.¹⁹



Left: A rare EMC-AB6 manufactured expressly for the Rock Island by the Electro-Motive Corporation (EMC) was capable of pulling additional cars. This Doodlebug ran between Eldon and St. Louis until 1959.

Right: A final picture of the Doodlebug on the last day of service as the train headed west toward Kansas City from Eldon. The metal guards over the windows protected the engineer from prairie chickens and tree limbs along the line.

Source: "Rock Island Doodlebug," American Rails.
Accessed March 2017.
<http://www.american-rails.com/emc-ab6.html>



¹⁸ Archeological Research Center of St. Louis Inc., "Phase I Archaeological Survey", 23.

¹⁹ "Rock Island Doodlebug," American Rails, Online. Accessed March 2017. <http://www.american-rails.com/emc-ab6.html>

Doodlebug passenger service was discontinued along the St. Louis Subdivision in 1959, while freight business remained adequate through the 1950s and 1960s. Other railroads, such as the Missouri Pacific and the Atchison, Topeka & Santa Fe (Santa Fe), both with a longer relationship of passenger and freight customers in Missouri, were able to undercut transport costs and often took Rock Island's business. *The Historical Guide to North American Railroads* comments on the Rock Island during this time:

Its freight traffic was largely agricultural. Its passenger trains for the most part would take you anywhere the Burlington or the Santa Fe could, but not as quickly nor with quite as much style.²⁰

In 1964, due to ongoing financial problems, a merger between Rock Island and the Union Pacific Railroad was proposed. The Interstate Commerce Commission (ICC) held hearings to assess the feasibility and fairness of the merger. These hearings would become some of the most protracted and complex that the ICC had ever heard, dragging on for years. A merger with a railroad that was so comprehensive in size would have major implications.²¹

Although the details of the merger were the main focus of the hearings, other issues of the division and structuring of the systems of railroads were also the cause of the lengthy deliberations. Other railroad companies came together to protest the merger, believing that this acquisition would lead to a Union Pacific monopoly-they were willing to fight for their share of the Rock Island's line. In 1974, after nearly ten years of hearings, the ICC approved the merger, but with many stipulations and caveats. The Rock Island line, which had grown substantially, was to be divided between the Union Pacific, the Denver & Rio Grande Western and the Santa Fe.

With ten years passed since the initial ICC hearing and much of the Rock Island line falling into disrepair and/or needing extensive maintenance, the Union Pacific pulled out of the merger negotiations. This situation sent the Rock Island into a downward spiral of debt; eventually they filed for bankruptcy, yet again, in 1975.

Determined to rise from the shadow of insolvency, new management was brought in to rehabilitate and overhaul the Rock Island system, but the efforts were no match for the event yet to come. A pay dispute led to an employee strike from which the Rock Island could not recover; on March 31, 1980, they ceased operation.²²

1980-2017 Ownership After Rock Island

The Southern Pacific Railroad (which would eventually become the Union Pacific through a merger) took advantage of Rock Island's demise to increase their holdings. In the 1980s the Southern Pacific acquired the portion of the old Rock Island line from Santa Rosa, New Mexico, to St. Louis as part of their Cotton Belt Division. The deteriorated track from Santa Rosa to Kansas City was repaired for operation; however, the tracks from Kansas City to St. Louis remained in poor condition and were not restored to service. The Southern Pacific cited a Department of Transportation recommendation that there were already sufficient railroad lines in

²⁰ Drury, *The Historical Guide to North American Railroads*, 116.

²¹ *Ibid.*

²² *Ibid.*

the area that could be used in lieu of restoring service along the Rock Island-St. Louis Subdivision.²³

In 1997, Union Pacific (previously the Southern Pacific) offered to sell the St. Louis Subdivision. The Missouri Central Railroad proposed to buy the line, but negotiations were not amicable and the terms of the sale were difficult. The Missouri Department of Natural Resources also attempted to acquire the line during this period as a rails-to-trails project to connect with the Katy Trail, but The Missouri Central Railroad ended up buying the line in 1999.

With the western portion of the line lacking rail traffic for approximately twenty years (and costing an estimated \$30 million to renovate), the Missouri Central Railroad requested to abandon part of their line in the eastern portion of Missouri. In the abandonment request, they proposed a transfer of the right-of-way for the western portion to the Missouri Department of Natural Resources for the purpose of building a trail under the National Trails System Act for rail-banking and creation of a trail.²⁴

Regarding the stretch of the corridor that comprises the APE in this study, Jackson County purchased 17.7 miles of the Rock Island Railroad Corridor running from the Truman Sports Complex to southeastern Lee's Summit. Included in the purchase was the land itself, the value of having a contiguous corridor and Union Pacific railroad rights on the corridor. The county purchased the corridor and rights in their entirety, meaning the corridor is still protected by federal laws as a railroad.²⁵

STUDY AREA HISTORY: Mile Post 270.5 to 287.0

Information in this section deals specifically with the section of line surveyed in the study area, from Mile Post 270.5 near the terminus at Hamblen Road to Mile Post 287.0 at Stadium Drive. It features historic information as well as survey findings.

Building of a Railway: Excavation

After the Rock Island's acquisition of the STLKC&CRR in 1902, changes took place to bring the line up to Rock Island standards. The road previously excavated had been narrower than Rock Island's requirements; the whole line would need to meet width specifications of 18-24 ft. for all track constructed east of Versailles.²⁶ The reconstruction, accomplished by using six steam shovels, would take two years to complete. By the end of 1902, work had been completed to the Gasconade River. By the beginning of 1903, the road was completed to Stover, near Versailles, with the rate of completion averaging around 2 miles per day.²⁷

The portion of the line west of Versailles to Kansas City was begun in early 1903. Stubbs, Flick and Johnson Construction Company, Kansas City (with offices in the New York Life Building)

²³ Mary Ann Gwin, "Ties That Bind: The Fate of the Rock Island Line," *Missouri Life Magazine*, January-February 1982, n. p.

²⁴ Archeological Research Center of St. Louis Inc., "Phase I Archeological Survey", 1.

²⁵ As stated in the Jackson County Website: <http://www.jacksongov.org/Faq.aspx?QID=275>. Accessed March 28, 2017.

²⁶ Campbell, *Railroad Gazette* 37, 460.

²⁷ "Construction," *The Railway Age* 36 (30 October 1903): 599.

was contracted to complete this section of the line.²⁸ A survey crew was sent out to find a better route for the portion of the line from Windsor to Kansas City after it was decided that the previously charted route had too many tunnels and an unacceptably steep grade. The new route would now pass through Leeton, Chilhowee, Pleasant Hill, Lee's Summit and Raytown.²⁹ Although this new route offered a more favorable grade and fewer tunnels, the terrain was still challenging. Grading was difficult with many cuts and fills; much of the work was completed with 30 steam shovels that were employed continuously from the start of construction.³⁰ Composed primarily of limestone and shale with layers of clay in between, the roadbed was prone to slides. Wet weather contributed to this problem. As the clay became saturated with water, previously stable limestone in the cuts would slide down the slopes on top of the clay, causing shifting. Thus rebuilding of affected areas was required. Settling of constructed embankments was also a problem.³¹

In order to satisfy new grade requirements, embankments (up to 110 feet high) were constructed with the assistance of timber pole trestle forms. The form was constructed in line with the roadbed to the desired height; fill would then be dumped to meet roadbed. It was not necessary to remove the form once the required height was met. Due to the instability of the material used for fill (composed of the limestone, shale and clay that had previously caused problems) as well as the embankment construction method, led to settling and shifting of these structures. When this occurred, more stabilization was needed.

On the portions of the line from the Big Blue River into Lee's Summit, it is estimated that work cost \$100,000 per mile.³² Even with the use of thirty steam shovels for heavy work, two to three thousand men worked on the line. These railroad contractors became known as "grading gangs."



***Excavation for the line near Raytown,
Missouri.***

**Source: Raytown Historical Society, Raytown,
Missouri.**

²⁸ J. L. Campbell, "Engineering and Construction of the St. Louis, Kansas City & Colorado Railroad," *Railway Age* 35 (20 March 1903): 415. The Gasconade Railway Construction Company is listed as the main contractor for the line, with J. L. Campbell as both the chief engineer of the Gasconade Railway Construction Company and the STLKC&CRR. It is possible that Stubbs, Flick and Johnson is a subcontractor; their work was undoubtedly overseen by Campbell.

²⁹ "Chicago, Rock Island & Pacific," *The Railroad Gazette* 35 (13 March 1903): 120.

³⁰ Campbell, *Railroad Gazette* 37, 461.

³¹ Campbell, *Railway Age* 35, 415.

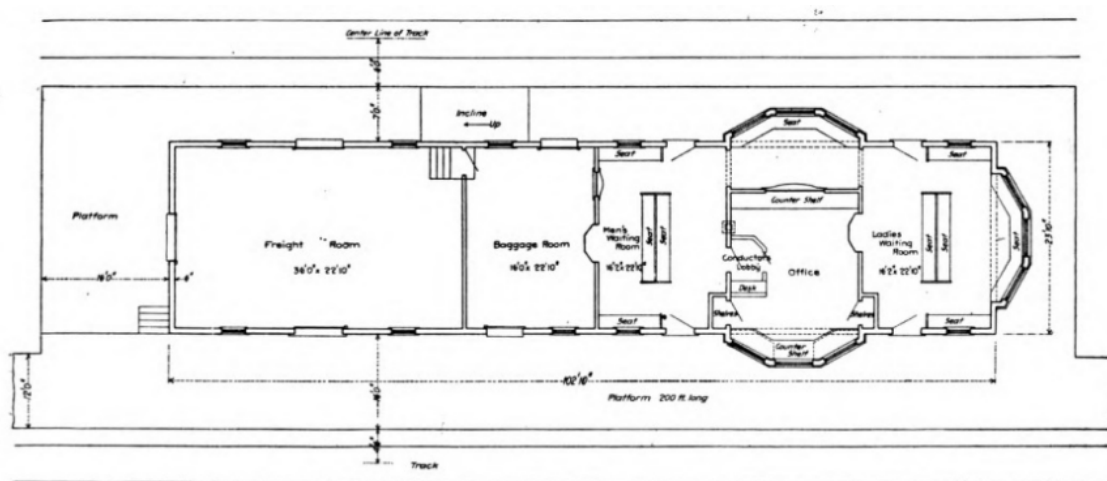
³² "Building of a Railway," *Kansas City Star* (15 November 1903) 15.

TOWNS ALONG THE ROCK ISLAND IN THE STUDY AREA

South Lee (MP 272)

On October 28, 1865, William B. Howard founded the Town of Strother that today is known as the downtown business district. When first incorporated, the population was one hundred people. In 1868, the name was changed and the area incorporated as the "Town of Lee's Summit". Most likely the town was named after a prominent early settler, Dr. Pleasant Lea. The spelling error of "Lea" has been attributed to railroad sign painters. Today, the town consists of 65.87 square miles with a population of over 95,000 residents. The first railroad to build in Lee's Summit was the Missouri Pacific which remains extant and today, serves as the Amtrak Depot. Additionally, while no longer extant, the Rock Island constructed a depot in what was called South Lee, c. 1905.

The 1915 Valuation Maps, original chaining notes and engineers' records illustrate that the depot at South Lee measured 104 feet by 24.5 feet, typical of the standard Rock Island depot design for small towns. This depot facilitated both freight and passenger service and was designed accordingly. There was an area for freight and baggage as well as a passenger waiting area, divided into areas specifically for men and women. A concrete platform accompanied this structure.



Plan of Combination Freight and Passenger Station for Small Towns.

***Plan for a standard Rock Island combination freight and passenger depot.
This plan was used for the South Lee station.***

Source: J. L. Campbell, "The St. Louis, Kansas City & Colorado," Railroad Gazette 37 (21 October 1904).

As illustrated in the 1915 Valuation Maps, semaphores, a switch track, and a scale were also at the South Lee station. Standard signage and a rail rest were also present. The area around the depot seems to have been largely agricultural. As such, cattle guards were installed near the concrete culverts and drainage areas. Stock yards, measuring 142 feet by 69 feet, were located south of the tracks.

Vale (MP 276-77)

Vale, Missouri, was a small community situated just north of Lee's Summit and south of Raytown. Archival or secondary information about the history of this town has not surfaced. The area is now part of Kansas City, Jackson County, Missouri.

The 1915 Valuation Maps, chaining and engineers' notes illustrate the existence of several structures in the Vale area. A depot measuring 61 feet by 24.5 feet was located on the west side of the tracks. A switch track and levers, as well as standard railroad signage were noted in the records. In addition, structures near the depot included the following: a scale and several cinderblock platforms; a water crane, tank, column and pump; and tool, gasoline, pump, car body and section houses. Box cars (not on the rails) are also noted along the tracks in this area. Stock pens, as illustrated, were located across the tracks, east of the depot. Wood Street, Miller Street and Gabbert Street provided access to the depot area. A switch track and levers, as well as standard railroad signage. Vale appears as a village.



The Vale depot and tunnel (1911).

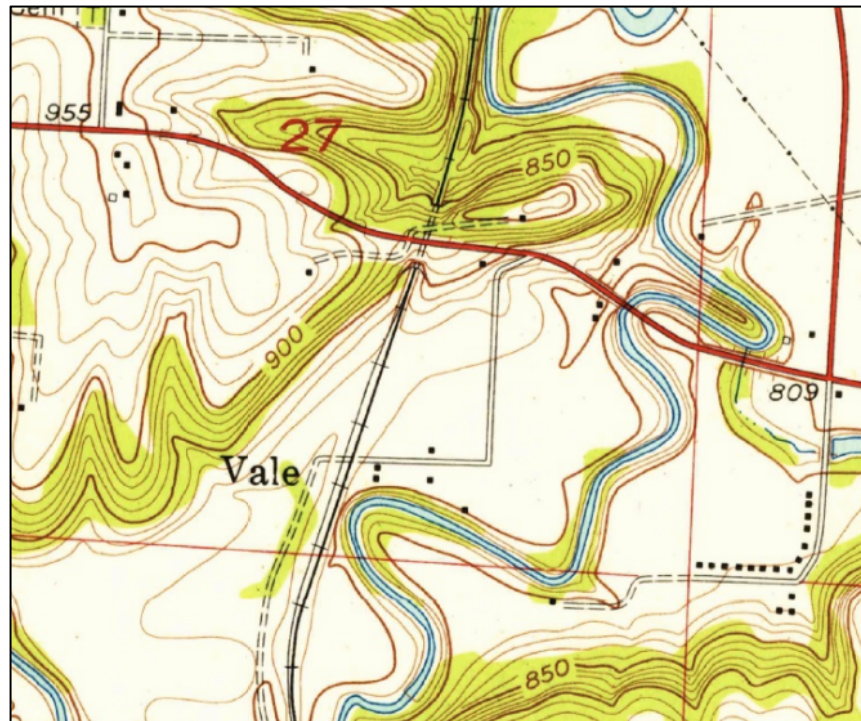
Source: Jack Forbes, "Missouri Depots Vale 1911," [Missouridepots.com](http://www.missouridepots.com/vale1911ri.htm). Accessed March 16, 2017. <http://www.missouridepots.com/vale1911ri.htm>.



Left: The Vale tunnel (c. 1914).

Source: James Baughn and contributors, "Vale Tunnel," Bridgehunter.com. Accessed March 13, 2017 <http://bridgehunter.com/mo/jackson/vale-tunnel/>.

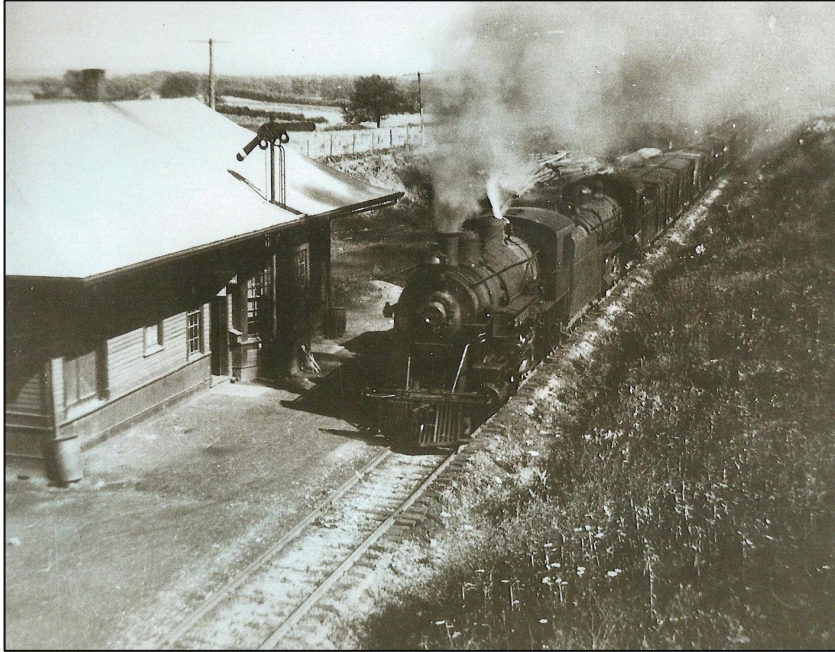
The tunnel at Vale, measuring 453 feet, was constructed from 1903 to 1904, as indicated on the entrance of the tunnel. Tell tales, a standard for railroads, were located at the north and south openings. Additionally, the Vale Brick Company was located to the north of the depot and tunnel. A spur track from the company to the railroad was constructed to facilitate easy shipping of product. Shale, an abundant resource in the area, was used in the brick manufacturing process.³³



A 1957 USGS map showing the Vale area.

Source: Ryan Niemi. "Lee's Summit, Missouri Topographic Map," Topoquest.com. Accessed March 16, 2017. https://www.topoquest.com/map-detail.php?usgs_cell_id=25324

³³ "Esthetic Aim Leads to 'Errors'," *Kansas City Star*, 16 September 1956.



Left: A train at the Raytown Depot



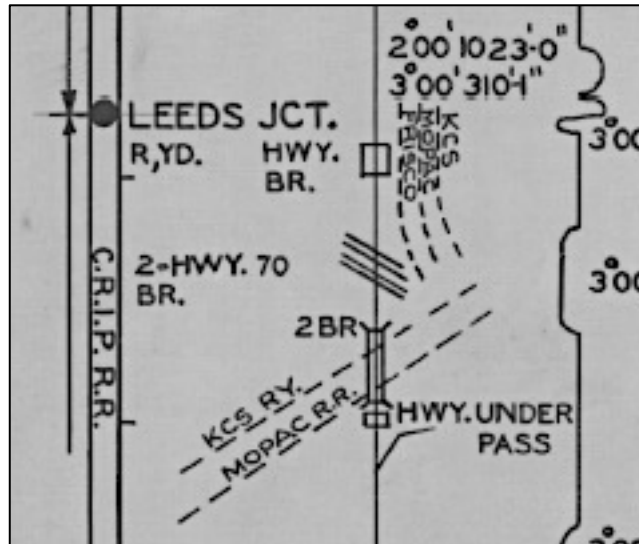
A c. 1960s photograph of the depot at Raytown.

Source: Raytown Historical Society, Raytown, Missouri.

The 1915 Valuation Maps, original chaining notes and engineers' records illustrate that the Raytown depot measured 61 feet by 24 feet. There was a section house and a tool house near the depot. Signage and signals, including a semaphore (which can be seen in the photo above) were present. A water column was also located in this area. As seen in the above photograph, the Raytown Road timber trestle was constructed c. 1904, is not associated with the historic rail lines.

Leeds Junction (MP 287)

Leeds Junction was developed as an industrial district at the turn of the 19th century. Like the Sheffield and Manchester industrial districts, both developed around this time, Leeds was named after an industrial city in England.³⁷ Although it lacked a Rock Island depot, it was still considered a major connection point for railroads. Here, Rock Island tracks intersected with Missouri Pacific (later Union Pacific), Kansas City Southern, and the Frisco. The 1915 Valuation Maps, original chaining notes and engineers' records illustrate there was a spur located at Leeds as well as a tipple, or car loader. Slusher's Addition, with plats for 30 houses, was located west of the tracks.



Selection from a 1973 Rock Island track chart showing Leeds as a major railroad junction.

Source: "Chicago, Rock Island & Pacific Railroad Track Charts," Multimodalways, Accessed March 16, 2017. See bibliography for URL.

Other Communities

There are several communities on the Rock Island line in the study area that did not have distinct station areas or stops. Wildwood Lakes (near MP 282), southeast of Raytown, was developed as a resort area in the late 1920s and early 1930s. It boasted ample picnic grounds and facilities for group outings around a chain of 5 small, spring-fed lakes. After the resort area was established, a subdivision around the resort was platted for homes.³⁸

Knobtown (near MP 279) is a community sited adjacent Missouri Highway 350 and Noland Road near the Little Blue River. A general store was first opened in 1897 just east of where MO 350 is now located. It was incorporated into Kansas City in 1961.³⁹ Today, Knobtown is a rural fringe area with several small businesses and a rock quarry.

³⁷ William S. Worley, "Development of Industrial Districts in the Kansas City Region: From the Close of the Civil War to World War II." Lecture, Midcontinent Perspectives from The Midwest Research Institute, Kansas City, MO, January 28, 1993.

³⁸ "Beautiful Wildwood Lakes," Pamphlet, 1937. From the Wildwood Lakes Vertical File. Missouri Valley Room Special Collections, Kansas City Public Library, Kansas City, Missouri.

³⁹ Connie Sokoloff, "How Did Knobtown at Noland Road and 350 Highway Get Its Name?" *Kansas City Star*, 26 July 1987.

STUDY AREA SPECIFIC STRUCTURES AND RESOURCES

Rails and Ties

Track was laid by using a track-laying machine, which hoisted the rails and ties into position for workers to connect and spike.⁴⁰ 80 lb. rail, as per American Society of Civil Engineer's (ASCE) standards, was used. Due to general wear and an increase of load, rails were periodically replaced. As examined in the field, various sections of rails in the study area are from the years 1929, 1930 and 1931, with one instance of a rail section from 1949. The rails from 1929-31 are open hearth (indicated by OH; photograph, below) steel manufactured by the Illinois Steel Company, Gary, Indiana mill.⁴¹ The condition of the rail varies; some stretches are non-existent.



Two examples of rail typical in the study area, manufactured by the Illinois Steel Co.

⁴⁰ Ibid.

⁴¹ An informative article on rail markings was used for the identification of rail in this section: Paul M. La Bach, "Rail Markings," *Railway Review* 55 (21 November 1914): 628-629.

Originally, ties were manufactured from white oak. These ties may have been surplus from previous construction. However, in 1915, ICC records indicate that original ties were replaced by creosoted ties, supplied by the Una Tie Yard, outside of Vale.⁴²

Ballast

Gravel and crushed rock was used for ballast on the line. Ballast for the eastern portion of the line was collected from nearby streams. For the western portion of the line, ballast was supplied from the newly constructed crusher plant in the Greenwood Quarry. Ballast was easily loaded from a hopper on to awaiting cars; a double transfer track specifically for railroad use allowed for faster transportation to the construction site.⁴³

In his book, *Railroad Construction Theory and Practice* (1900), Walter Loring Webb, C. E. describes ballast as such:

The object of the ballast is to transfer the applied load over a large surface; to hold the timber in place horizontally; to carry off the rain-water from the superstructure and to prevent freezing up in winter; and to give elasticity to the roadbed. The ideally perfect ballast is not necessarily the most economical ballast for all roads.⁴⁴

Bridges and Tunnel

In the study area there are a total of 13 bridges and 1 tunnel. These inventoried structures are listed in the table at the end of this section and have individual survey forms. They include the following types:

Steel Girders

In the study area there are four (4) deck plate girders and two (2) through plate girders. No bridge name plates were found on any of the steel bridges. However, ICC Engineers Records indicate that American Bridge Company manufactured the longest span, the Little Blue River bridge at MP 277.0, in 1903. Additionally, the Phase I Archaeological Survey prepared for the Missouri Central Railroad Company stated that girder bridges at MP 189.75 and 215.30 (Rock Island Bridges) are the work of the American Bridge Company, New York, 1903. Furthermore, the Elm Branch Bridge, Pettis County, Missouri, was manufactured by the American Bridge Company the same year.

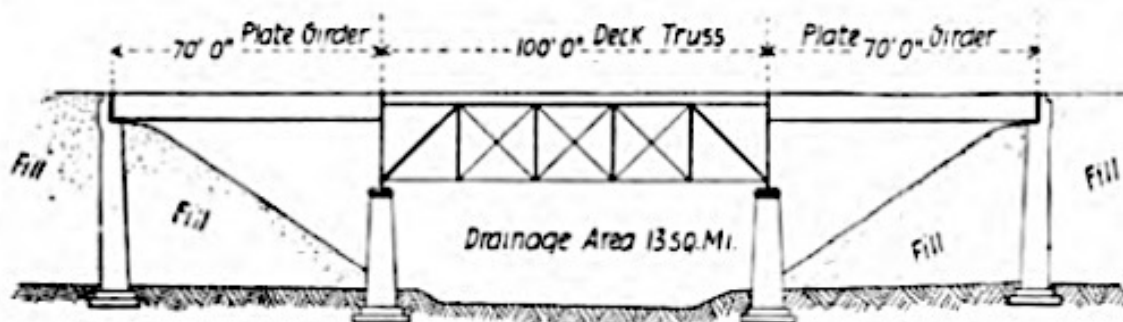
Due to similarity in design and overall features to previously identified Rock Island steel girder spans, all girder bridges in the study area appear to be manufactured by American Bridge

⁴² ICC files, C. R. I & P. RY, Val Sections. National Archives, College Park, MD. RG 134, Box 65. It is assumed that the tie yard in Una was built after the construction of the line, c. 1907, per the ICC papers.

⁴³ J. L. Campbell, "The St. Louis Kansas City & Colorado Railroad—II," *Engineering News Record* 50, no. 18 (29 October 1904): 501.

⁴⁴ Walter Loring Webb, C. E., *Railroad Construction. Theory and Practice. A Text-Book For The Use of Students In Colleges And Technical Schools.* (New York: John Wiley & Sons, 1900), 220.

Company and built at the site by Stubbs, Flick and Johnson Construction Company, Kansas City from standardized plans.⁴⁵



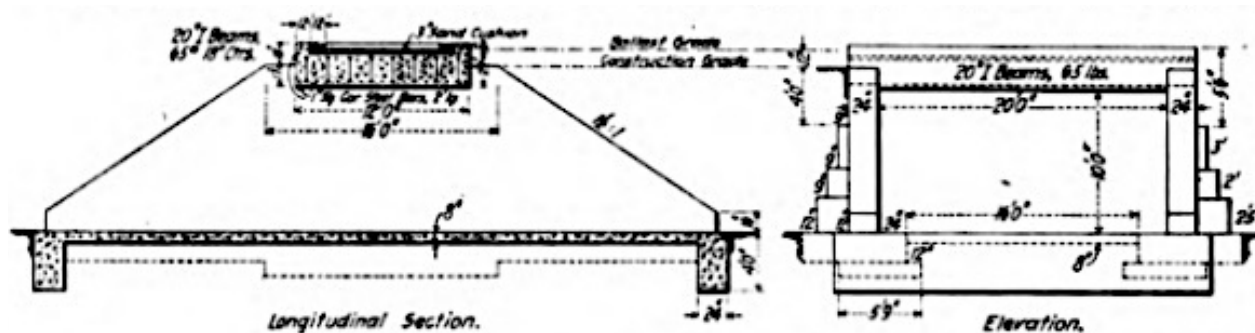
*The deck plate girder bridge over Haw Creek, similar to the crossing at the Little Blue.
This design was typical of the line.*

Source: J. L. Campbell, "Engineering and Construction of the St. Louis, Kansas City & Colorado Railroad," *Railway Age* 35 (20 March 1903).

Concrete Bridges

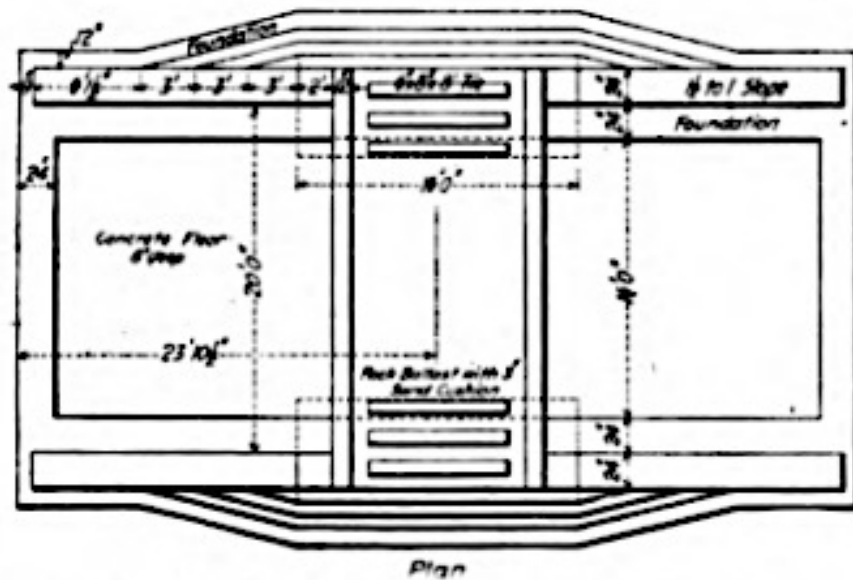
In the study area there are two (2) concrete arch bridges and three (3) concrete and I-Beam bridges. No bridge name plates were found on any of the concrete bridges.

J. L. Campbell, Chief Engineer of the Gasconade Railway Construction Company, Kansas City appears to have designed all the concrete structures including bridges, culverts and cattle pass for the St. Louis, Kansas City & Colorado Railroad in 1903. Concrete arch spans were designed as road crossings not needing the length provided by a girder. The concrete and I-beam bridge type, typically referred to as an undercrossing, was "... used for openings where the height of the sub-grade is not sufficient to allow the required depth of filling over the crown of a circular or elliptical arch."⁴⁶ Eight 20-inch, 65-lb I-beams and reinforcing bars are contained in a 22-inch deep concrete slab, which constitutes the bridge floor."



⁴⁵ Campbell, *Railroad Gazette* 37, 462.

⁴⁶ *Ibid.*, 463.



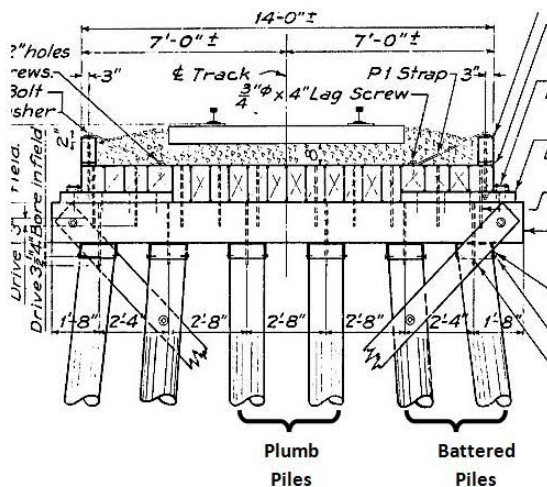
Concrete and I-Beam Solid Bridge Floor.

Longitudinal section, elevation and overhead view of the standard concrete and I-beam bridges in the study area.

Source: J. L. Campbell, "The St. Louis, Kansas City & Colorado Railroad," *The Railroad Gazette* 37 (21 October 1904).

Wooden Pile Trestle Bridge

There is one wooden pile trestle bridge in the survey area, near the Wildwood Lakes subdivision at approximately MP 281.5. It features an open deck and creosoted piles. Wooden pile trestle bridges were ubiquitous along railroads throughout the United States, but due to the life of the materials that were used in construction, this bridge type is becoming a rarity. Two principal types of trestles, pile and framed, were used throughout the United States.

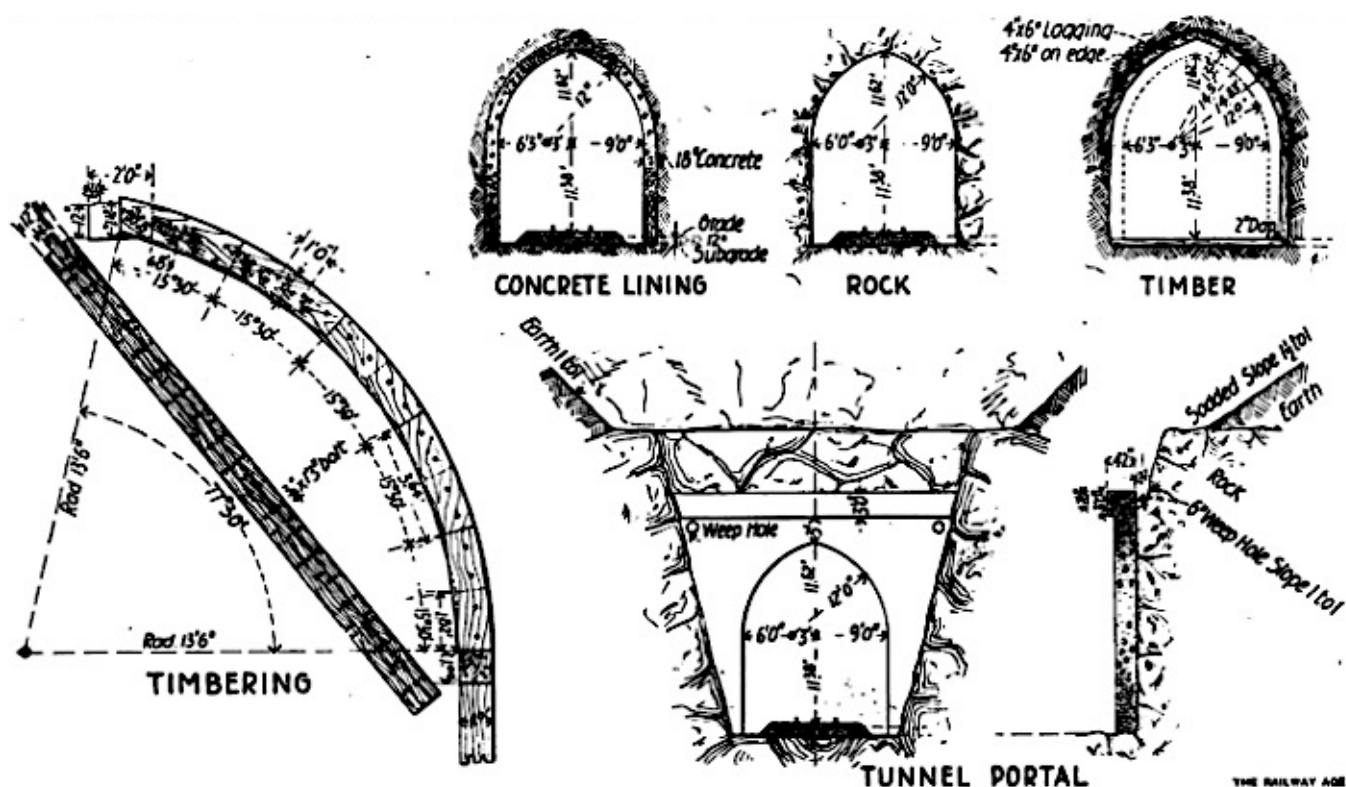


A cross-section plan of a ballasted timber trestle bridge.

Tunnel

Three tunnels had been completed prior to the 1903 Versailles to Kansas City expansion. The fourth, the tunnel at Vale, was completed in 1903-04 and is in the survey area. Tunnels were blasted with explosives, excavated, and then temporarily lined with timber to prevent sliding of material. A permanent 18-inch concrete lining was then applied over this timber armature. Where necessary, expansion joints were included in the concrete lining.⁴⁷ Previously, before the re-surveying of the route in 1902, three tunnels had been planned: a 1300-ft. tunnel at Chapel Hill, a 700-ft. tunnel at Hog's Back and a 2,000-ft. tunnel at Blue Cut near Independence.⁴⁸ The elimination of these tunnels with the realignment of the line undoubtedly saved considerable expense.

J. L. Campbell, Chief Engineer for the Gasconade Railway Construction Company, St. Louis, who wrote extensively about the structures for the St. Louis, Kansas City & Colorado Railroad in 1903 and 1904 for various professional publications, appears to have been responsible for the design of the tunnels throughout the line in Missouri.



Standard tunnel plans for tunnels on the line.

Source: J. L. Campbell, "Engineering and Construction of the St. Louis, Kansas City & Colorado Railroad,"
***The Railway Age* 35 (20 March 1903).**

⁴⁷ Ibid., 463.

⁴⁸ "Leaves Out the Tunnels," *Kansas City Star*, 24 November 1902.

Railroad tunnels, in general, were always dug from each end and “nearly all tunnels have cross sections peculiar to themselves.”⁴⁹ The width varies as greatly as the design, where single-track tunnels average a width of 15-16ft., yet can be wider if placed on a curve. The most common width for double track is 24-26ft. Overall, railroad tunnels are 19 ft. (for single track), and 20-22ft. for double track. Grade is at least 2% is needed for drainage. There are six systems, that of English, German, Belgian, French, Austrian, and American; however, “their use is not confined to the country named.” The American system, which may have been used for the Vale Tunnel, was successfully used in very soft ground, but advantages are greater in loose rock.⁵⁰

Culverts and Cattle Passes

It has been stated that approximately 500 culverts and cattle passes were constructed on the entire route from St. Louis to Kansas City.⁵¹ In the study area, eleven (12) culverts and one (1) cattle pass were examined. These inventoried structures are listed in the table at the end of this section and have individual survey forms. Due to erosion, possible collapse and limited accessibility because of difficult terrain, additional culverts could not be field verified. However, their Mile Post location is included in the table titled: “Rock Island Corridor Shared Use Path: Bridges, Tunnels, Culverts and Cattle Passes (MP 270.5—287.0)” found at the end of this section. As the majority of these structures were illustrated in the 1915 Val Maps, it is assumed that they fall within the 1903-1904 construction dates, following the standardized plans. Gasconade Railway Construction Company, St. Louis, with J. L. Campbell, Chief Engineer, constructed the culverts and cattle passes.

Culverts were used extensively throughout the line for drainage, greatly reducing the need for more bridges. For an area that averaged around 40 inches of rainfall annually, this was an effective way to manage excess storm water.⁵² Standard designs for the culverts were used, varying in span from 2 to 36 feet. Formulas for the water flow in the culverts were calculated by J. P. Frizell, a noted hydraulician.⁵³ The line east of Versailles utilized masonry and box culverts with some concrete arches because of availability of materials; the line west of Versailles used concrete arches almost exclusively.⁵⁴ The many low banks along the line necessitated the need for the arch, as it has a low center of gravity.

Cattle passes, also constructed of concrete, were used for under crossings where appropriate. Standard plans for these structures were also used. Similar in form to the small culverts, they are concrete arches, typically 4 ft. in width and 6 ft. in height.⁵⁵ A mixture of Portland cement, sand, stone and gravel was used for these structures. Concrete was an economical solution; it

⁴⁹ Webb, *Railroad Construction Theory and Practice*, 190.

⁵⁰ *Ibid.*, 190-199.

⁵¹ *Engineering News Record* 50 and *Railroad Gazette* 37 state the number is 500, *Railway Age* 45 states 460. The number of 500 is probably the best estimate, since the *Railway Age* article pre-dates the others.

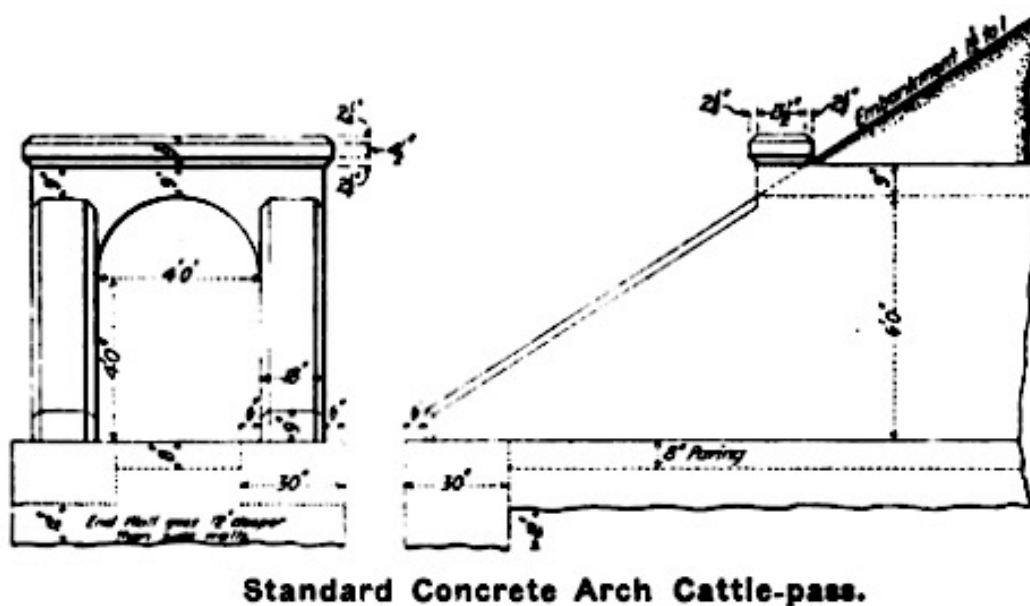
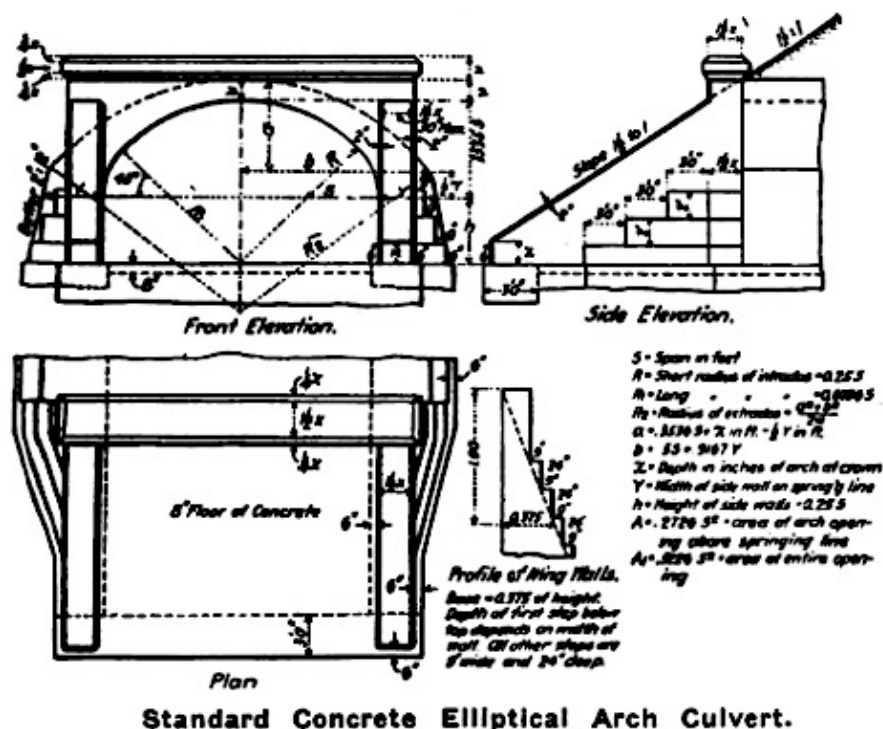
⁵² Campbell, *Railroad Gazette* 37, 460.

⁵³ Campbell, *Railroad Gazette* 37, 462. For a biography on Frizell, see Willi H. Hager, *Hydraulicians in the USA 1800-2000: A Biographical Dictionary of Leaders in Hydraulic Engineering and Fluid Mechanics* (London: Taylor & Francis Group, 2015), 2058.

⁵⁴ Campbell, *Railway Age* 35, 413, 415-16.

⁵⁵ Campbell, *Railroad Gazette* 37, 462.

provided the strength and rigidity needed for these structures at a low cost. Many of these structures are still extant today, showing the durability of the material despite infrequent maintenance.



Standard plans for concrete arch culverts and cattle passes used on the line.

Source: J. L. Campbell, "The St. Louis, Kansas City & Colorado Railroad,"
The Railroad Gazette 37 (21 October 1904)

Overhead Bridges in the Study Area Not Associated With The Saint Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Line

There are seven (7) bridges that are overhead crossings in the survey area not associated with the St. Louis, Kansas City & Colorado Railroad or the Chicago, Rock Island & Pacific Railroad. With the exception of the timber trestle Raytown Road bridge near 64th and Railroad Street, none appear to be historic. Three of these bridges are associated with highways. All of these bridges are accounted for in the following table:

Locations of Overhead Bridges Not Associated with the STLKC&CRR or the CRI&P in the Study Area	
Nearest Mile Post	Road Carried
271.8	Missouri 291 Highway
274.4	Pryor Road
276.8	Interstate 470
282.6	Raytown Road
282.8	63 rd Street
286.4	Lancer Lane
286.7	Interstate 435

The timber trestle Raytown Road bridge was built c. 1904, around the same time as the railroad was being constructed in this area. Although it has undergone various modifications for safety reasons, it still retains its essential timber trestle form.



A detail of the timber trestle Raytown Road bridge, located near Railroad Street and 64th Street.



Overhead bridge at 63rd Street near Raytown.



The I-470 overhead bridge near Vale.

Associated Structures

Extant structures associated with the operation and maintenance of the railroad are rare. However, from an examination of the 1915 Val Maps, these types of railroad-related structures once lined the rail corridor.

Signage and Signals

In compliance with the American Railway Engineering Association (AREA) standards for the time, many signs were posted along the line to inform train conductors of upcoming stations, crossings, hazards and mile posts. There are a few signs extant from the period when the line was active. A whistle sign, attached to a post, was observed at near SW Longview Road and SW Santa Fe Drive. This sign would have indicated the point where the conductor would need to sound the whistle before the train would cross a public road.

Like signs, semaphores were a way to signal messages to conductors. Parts of the line that were kept in good repair until cessation of operation had electric semaphores and crossing signals. Switch boxes house the electrical controls for these structures. One such box was found in the survey area. Electrical components are now absent from the box.

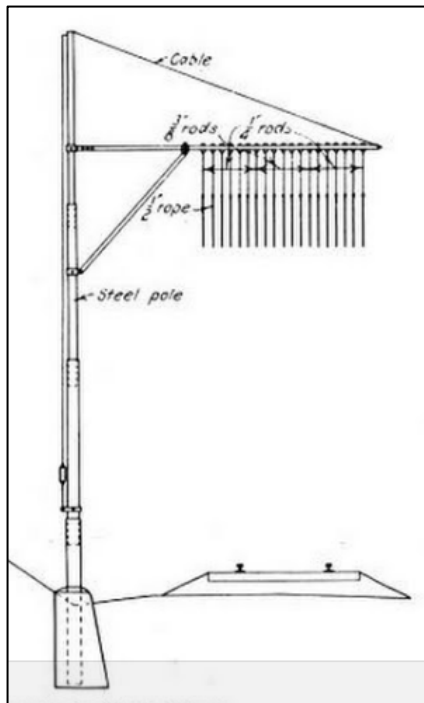
Before the invention of air brakes, brakes were set manually from a position on top of the train. To warn the brakeman of an impending low clearance situation, a device called a tell tale was used. A mast with a bracket was attached to a series of chains or cords that would hit the brakeman and top of the car to alert him in time to duck the upcoming obstacle. A tell tale was observed near Bannister Road before the tunnel at Vale. Although the mast and beam are still present, the chain or ropes are missing.



The whistle post near SW Longview Road and SW Santa Fe Drive.



Left: The switchbox observed near SW Percels and SW Ward roads. Electrical components have been removed. Right: Identification plate on this structure.



A diagram of a standard tell tale device (left) and the tell tale located near the tunnel at Vale (right).

Source for diagram: E. T. Howson et al., *Maintenance of Way Cyclopedia* (New York: Simmons-Boardman Publishing Co., 1921).

Miscellaneous Structures

In order to switch trains between secondary and main tracks, a manual switch lever was used. One of these levers is located in the study area near Highway 291 and Big Creek.

A freight bumping post, used to stop cars from rolling off the ends of a sub track, is located south of 47th Street and the corridor.

A large concrete platform is located near the South Lee station (MP 272) area. Additionally, a smaller concrete platform with posts, possibly for signs or semaphores, is sited adjacent to this location.



Switch track lever and detail of manufacturer markings on this structure.



Freight bumping post and detail of manufacturer markings.



Concrete platform near the South Lee area (MP 272).



Concrete platform with posts near the South Lee area (MP 272).

BIOGRAPHICAL INFORMATION

In-depth biographical information was challenging to obtain as conflicting information regarding specific contractors, as well as the individuals affiliated with these businesses, led to problems with authentication. From gleaning contemporary articles that appeared in publications such as *The Railroad Gazette*, *Railway Age* and *Engineering News* (1903 and 1904 editions), the Gasconade Railway Construction Company, St. Louis, and Stubbs, Flick and Johnson Construction Company, Kansas City, are named as contractors. Various iterations of the same contracting companies, often with slightly different names, added to the confusion.⁵⁶ In addition, two major engineers worked for both the railroad and for contracting companies used to construct the line.

W. L. Darling (1856-1938)

William Lafayette Darling was an engineer born in Oxford, Massachusetts. After graduating from the Worcester Polytechnic Institute, he immediately started his work with railroads, holding engineering positions with many different companies. In 1902, he accepted the office of Chief Engineer for the Chicago, Rock Island & Pacific. He held this position from 1902 until 1905, when he accepted another job offer with the Pacific Railway Company as chief engineer. Coincidentally, W. L. Darling was also vice president of the Gasconade Railway Construction Company, a firm contracted to work on a portion of the line. He was a member of the American Society of Civil Engineers. In 1916, he retired from railroad engineering to form a private practice.⁵⁷

J. L. Campbell (1863-?)

Born in 1863, John Logan Campbell began his career as a resident engineer on the Rio Grande Northern Railroad. He continued to work for several other railroad companies in various engineering positions. Upon the untimely death of H. L. Marvin, he was appointed to the position of Chief Engineer of the St. Louis, Kansas City & Colorado Railroad. He authored several articles about the construction of the line that were featured in contemporary trade publications such as *The Railroad Gazette*, *Railway Age*, and *Engineering News*. Along with W. L. Darling, Campbell was also involved in the Gasconade Railway Construction Company as its Chief Engineer. He received membership to the American Society of Civil Engineers in 1901. Later in his career, he was elected president of the American Railway Engineering Association (AREA).⁵⁸

⁵⁶ For instance, Stubbs, Flick and Johnson Construction Company was referred to as the W. R. Stubbs Company and the Flick and Johnson Construction Company in various trade publications.

⁵⁷ T. Addison Busbey, *The Biographical Directory of the Railway Officials of America, Edition of 1906* (Chicago: Railway Age Company, 1906), 147 and "W.L. Darling," *Railway Maintenance Engineer* 12 (November 1916): 361. Additionally, Winfield Scott Downs, *Encyclopedia of American Biography* (New York: American Historical Company Inc., 1940), 351-352, provides more information about Darling's career and personal endeavors.

⁵⁸ Elmer T. Howson, *The Biographical Directory of the Railway Officials of America, 1922 Edition* (New York: Simmons-Boardman Publishing Company, 1922), 97-98 and "Personal- Mr. J. L. Campbell," *Railroad Gazette* 39 (7 July 1905): 4.

CONCLUSION AND RECOMMENDATIONS

Based on the intensive-level survey, it has been found that the cultural resources (above ground) associated with the St. Louis, Kansas City & Colorado Railroad and the Chicago, Rock Island & Pacific Railroad include various bridges, tunnel, culverts, cattle passes, and miscellaneous resources (signs, switches, etc.). These resources are all located within the actual rail bed corridor.

Previously, the 245 miles associated with the Chicago Rock Island Railroad was “determined by the MO SHPO to be eligible for National Register of Historic Places as a district, eligible under Criterion A, for the railroad’s impact on the economic development of the region and Criterion C for architecture [and structures] that possess the distinctive characteristic of railroad construction.”⁵⁹ As such, this stretch of the historic Rock Island Railroad, from 270.5 to 287.0, from Lee’s Summit, west to Kansas City, in Jackson County, Missouri, follows the aforementioned recommendations. With few exceptions, all above ground historic resources that were surveyed and inventoried appear eligible for listing in the National Register of Historic Places (see attached list of historic resources, below). If any deemed eligible resource should be impacted, the Section 106 Officer at the State Historic Preservation Office, Jefferson City, will be contacted.

In addition, with regard to rail and ties, these elements do not appear to be eligible, as their overall condition has compromised integrity and therefore historic significance. Furthermore, associated resources that appear to be eligible include the tell tale (near Bannister Road and the Vale tunnel) and the freight bumping post (at 47th Street and the corridor). If either of these resources should be impacted, it is recommended that they be reviewed on a case-by-case basis. The whistle sign (near SW Longview Road and Santa Fe Drive), the switchbox (near Percels Road and SW Ward), the manual switch lever (at Highway 291 and Big Creek) and the concrete platforms (near MP 272), do not appear to be eligible due to overall loss of integrity.

The following table of bridges, tunnel, culverts and cattle pass includes the Mile Post Number, the resource type, the construction date (if known), eligibility, field verification, and comments regarding preliminary plans for Rock Island Shared Use path Disposition. For further information on field verified resources within the APE, refer to the individual inventory forms listed by Mile Post number.

⁵⁹Archeological Research Center of St. Louis, Inc. “Phase I Archaeological Survey”, 196. Judith Deel, Section 106 coordinator for the MO SHPO, provided copy of this study. See also determination by Claire Blackwell, former Deputy State Historic Preservation Officer, dated November 9, 1993. Files, MO SHPO. ARC concurred with Blackwell’s initial determination.

Rock Island Corridor Shared Use Path
Bridges, Tunnels, Culverts and Cattle Passes
Located Between MP 270.5 – 287.0

Mile Post	Resource Type	Construction Date	Eligibility	Inventory Form (Field Verified)	Preliminary Plans for Rock Island Shared Use Path Disposition
270.8	Concrete Arch Culvert	c. 1903-1904	Unknown		No change.
271.1	Concrete Arch Culvert	c. 1903-1904	Unknown		No change.
271.5	Concrete Arch Culvert	c. 1903-1904	Yes	X	No change.
272.2	Concrete Arch Culvert	c. 1903-1904	Yes	X	No change.
273.1	Concrete Arch Culvert	c. 1903-1904	Yes	X	No change.
273.5	Concrete Arch Culvert	c. 1903-1904	Yes	X	No change.
273.6	Concrete Arch Culvert	c. 1903-1904	Unknown		No change.
273.8	Concrete Arch Culvert	c. 1903-1904	Yes	X	No change.
274.3	Concrete Arch Culvert	c. 1903-1904	Yes	X	No change.
274.5	Concrete Arch Culvert	c. 1903-1904	Unknown		No change.
274.6	Concrete Arch Culvert	c. 1903-1904	Unknown		No change.
274.8	Through Plate Girder Bridge	After 1915	Yes	X	Remove rail and tie, install trail surface (concrete, aggregate, or precast panel, to be decided), install handrail. May be installing rail on top of outside of structure if there is inadequate fill to install a handrail.
275.1	Concrete Arch Culvert	c. 1903-1904	Unknown		No change.
275.2	Concrete Arch Culvert	c. 1903-1904	Unknown		No change.
275.2	Concrete Arch Culvert	c. 1903-1904	Unknown		No change.
275.7	Concrete Arch Culvert	c. 1903-1904	Unknown		No change.
276.1	Concrete Arch Culvert	c. 1903-1904	Unknown		No change.
276.3	Concrete Arch Bridge	c. 1903-1904	Yes	X	No change to arch structure. Trail and handrail to be installed on fill. May be installing rail on top of outside of structure if there is inadequate fill to install a handrail.
276.4	Concrete Cattle Pass	c. 1903-1904	Yes	X	No change.
276.7	Concrete Arch Culvert	c. 1903-1904	Yes	X	No change.
277.0	Deck Plate Girder Bridge	1903	Yes	X	Remove rail and tie, install pre-cast deck panel, install handrail.
277.7	Vale Tunnel	1903-1904	Yes	X	Minor structural repairs, to be decided. Lighting installation, to be decided.
277.9	Concrete Arch Culvert	c. 1903-1904	No	X	To be replaced.
278.3	Concrete Arch Culvert	c. 1903-1904	Yes	X	No change.
279.0	Deck Plate Girder Bridge	After 1915	Yes	X	Remove rail and tie, install trail surface (concrete, aggregate, or precast panel, to be decided), install handrail.
279.1	Concrete Arch Culvert	c. 1903-1904	Unknown		No change.

Between 279.2 - 279.8	Concrete Arch Culvert	Unknown	Unknown		No change.
279.9	Concrete Arch Culvert	c. 1903-1904	Unknown		No change.
280.0	Concrete Arch Bridge	c. 1903-1904	Yes	X	No change to arch structure. Trail and handrail to be installed on fill.
280.2	Concrete Arch Culvert	c. 1903-1904	Unknown		No change.
280.6	Concrete and I-Beam Solid Floor Bridge	1903	Yes	X	Remove rail and tie, install concrete trail surface, install handrail.
280.9	Concrete Arch Culvert	c. 1903-1904	Unknown		No change.
281.2	Concrete Arch Culvert	c. 1903-1904	Unknown		No change.
281.5	Concrete Arch Culvert (?)	c. 1903-1904	Unknown		No change.
281.5	Wood Trestle Bridge	c. 1903-1904	Yes	X	To be determined.
282.5	Deck Plate Girder Bridge	After 1915	Unknown	X	Remove rail and tie, install concrete trail surface, install handrail.
282.7	Concrete and I-Beam Solid Floor	c. 1903	Yes	X	Remove bridge deck to provide vertical clearance for SUP.
284.0	Concrete Arch Culvert	Unknown	Unknown		No change, culvert silted in.
284.4	Concrete Arch Culvert	c. 1903-1904	Yes	X	Extend.
285.0	Deck Plate Girder Bridge	After 1915	Yes	X	Construct separate, parallel, pre-fabricated pedestrian bridge.
285.1	Concrete Arch Culvert	c. 1903-1904	Unknown		No change.
285.2	Through Plate Girder Bridge	After 1915	Yes	X	Construct separate, parallel, pre-fabricated pedestrian bridge.
285.5	Steel Box Girder Bridge	c. 1980	No	X	Construct separate, parallel, pre-fabricated pedestrian bridge.
286.2	Concrete Arch Culvert (with flume and weir)	c. 1903-1904	Yes	X	Construct separate, parallel, pre-fabricated pedestrian bridge.
286.5	Concrete Arch Culvert	c. 1903-1904	Yes	X	No change.
287.0	Concrete and I-Beam Solid Floor	c. 1903-1904	Yes	X	No change. Shared use path ends south of Stadium Drive.

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