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248466

September 12, 2019

ENTERED
Office of Proceedings
September 13, 2019
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Public Record

By Electronic Filing

Cynthia T. Brown
Chief, Section of Administration
Office of Proceedings
Surface Transportation Board
395 E Street, SW
Washington, DC 20423

Re: Union Pacific Railroad Company and Jackson County, Missouri — Abandonment
Exemption — In Jackson County, Missouri; STB Docket No. 33 (Sub No. 342X)

Dear Ms. Brown:

Enclosed for filing in the above-referenced docket is the Environmental/Historic Report prepared in anticipation of Union Pacific Railroad Company and Jackson County, Missouri jointly filing a petition for exemption to abandon Union Pacific's lines of track in Jackson County, Missouri.

If you have any questions, please contact me.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "C. Kraska".

Carolyn Kraska

Associate
Carolyn.Kraska@hoganlovells.com
D +1 202 637 4649

Before the
SURFACE TRANSPORTATION BOARD

STB Docket No. AB 33 (Sub No. 342X)

**UNION PACIFIC RAILROAD COMPANY AND JACKSON COUNTY, MISSOURI –
ABANDONMENT EXEMPTION – IN JACKSON COUNTY, MISSOURI**

ENVIRONMENTAL/HISTORIC REPORT

Counsel for Jackson County, Missouri

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555 Thirteenth Street N.W.
Washington, DC 20004
(202) 637-5600

Bryan O. Covinsky
County Counselor
Jackson County Courthouse, 2nd Floor
415 East 12th Street
Kansas City, MO 64106
(816) 881-3355

Dated: September 12, 2019

Before the
SURFACE TRANSPORTATION BOARD

STB Docket No. AB 33 (Sub No. 342X)

**UNION PACIFIC RAILROAD COMPANY AND JACKSON COUNTY, MISSOURI –
ABANDONMENT EXEMPTION – IN JACKSON COUNTY, MISSOURI**

ENVIRONMENTAL/HISTORIC REPORT

Union Pacific Railroad Company (“UP”) and Jackson County, Missouri (“Jackson County”) (together, “Petitioners”) will jointly seek exemption authority for the abandonment of the line of railroad extending between Milepost 288.3 and Milepost 270.6 in Jackson County, Missouri (the “Subject Line”). There are no stations on the Subject Line. The Subject Line traverses through United States Postal Service ZIP Codes 64063, 64081, 64082, 64086, 64129, 64133, 64138 and 64139. Maps of the Subject Line are attached as Exhibit A.

UP and Jackson County plan to seek Surface Transportation Board (“STB” or the “Board”) authorization for the abandonment through a petition for exempt abandonment pursuant to the provisions of 49 C.F.R. § 1152.50 on or about October 7, 2019. This Report is being filed in connection therewith, and in accordance with the requirements of 49 C.F.R. § 1105.7 and § 1105.8. To prepare this Report, Petitioners consulted with various state and federal agencies as required by the Board’s regulations. See the letters attached as Exhibit B. Based on the written responses received by Petitioners to-date attached as Exhibit C, Petitioners state as follows:

ENVIRONMENTAL REPORT (49 C.F.R. § 1105.7)

1. PROPOSED ACTION AND ALTERNATIVES

(i) UP originally acquired the Subject Line, together with other lines, through UP's predecessor railroads. The Subject Line was sold to St. Louis Southwestern Railway Company ("SSW") out of the Chicago, Rock Island and Pacific Railroad Company bankruptcy in 1980.¹ 363 I.C.C. 323. As part of its merger with Southern Pacific, UP received authority from the Board to acquire SSW and SSW was merged into UP.² Jackson County acquired the line from UP through a notice of exemption on December 23, 2015, but that exemption authority was revoked by the Board on July 31, 2019.

(ii) The Subject Line has not had any local or overhead service since before UP acquired the lines in 1996. If the Board authorizes abandonment of the Subject Line, Jackson County will seek issuance of a Certificate of Interim Trail Use ("CITU") based on the filing of a Statement of Willingness to Assume Financial Responsibility for the Subject Line and then UP and Jackson County intend to enter into a trail use/rail banking agreement that complies with the Board's Trails Act regulations. If a CITU is issued, Jackson County anticipates salvaging track and track materials. Jackson County believes that this is a reasonable alternative public purpose for the right of way.

2. EFFECTS ON THE TRANSPORTATION SYSTEM

Because there has been no local or overhead service on the Subject Line for at least twenty (20) years, no traffic will be diverted, and Petitioners believes that the abandonment

¹ St. Louis Southwestern Railway Company—Purchase (Portion)—William M. Gibbons, Trustee Of The Property Of Chicago, Rock Island And Pacific Railroad Company, Debtor, 363 I.C.C. 323 (June 6, 1980).

² Union Pacific Corporation, Union Pacific Railroad Company, and Missouri Pacific Railroad Company—Control and Merger—Southern Pacific Rail Corporation, Southern Pacific Transportation Company, St. Louis Southwestern Railway Company, SPCSL Corp., and The Denver and Rio Grande Western Railroad Company, 1 S.T.B. 233 (August 6, 1996).

would have no effect on the transportation system. Petitioners sent a consultation letter regarding the proposed abandonment to the Missouri Department of Transportation, Kansas City Division (“Missouri DOT”). See letters attached as part of Exhibit B. No response has been received from Missouri DOT.

3. LAND USE

(i) Petitioners are unaware of any regional or local land use patterns with which the proposed abandonment would be inconsistent. Petitioners consulted with the following agencies regarding the proposed abandonment that may be concerned with land use issues: Missouri Department of Natural Resources, Division of Environmental Quality (“Missouri DEQ”); Missouri Department of Conservation, Kansas City Regional Office (“Missouri DC”); United States Environmental Protection Agency, Region 7 (“EPA”); United States Fish and Wildlife Service, Midwest Region (“FWS”); United States Army Corps of Engineers, Kansas City District “U.S. Army Corps of Engineers”; United States Department of Agriculture, Natural Resources Conservation Service (national) (“NRCS”); United States Department of Agriculture, Natural Resources Conservation Service (Missouri) (“NRCS – Missouri”); and the National Oceanic and Atmospheric Administration (“NOAA”), National Geodetic Survey (“NGS”). Copies of these letters are attached as part of Exhibit B. To date, Petitioners have received a response only from NGS. This letter is attached in Exhibit C. In its letter, NGS describes a possibility that NGS marks may be disturbed by the proposed abandonment. NGS also provides direction for how to handle NGS marks and report any disturbances to NOAA, which Jackson County will follow if a CITU is issued and NGS marks are encountered during track salvage and trail construction. NGS’s letter does not express a need to halt or delay the proposed abandonment.

(ii) Petitioners do not believe that the proposed abandonment will have any adverse effect on any prime agricultural land. Consultation notices were sent to the potentially concerned agencies listed in paragraph 3(i) above, and as indicated, no responses have been received regarding agricultural land.

(iii) Petitioners do not believe that the abandonment is inconsistent with any coastal zone plans. Missouri is not a coastal state and is not one of the thirty-five coastal states with NOAA Coastal Zone Management Programs. Petitioners sent a consultation letter regarding the abandonment to the Missouri DEQ, a copy of which is attached as part of Exhibit B. No response has been received.

(iv) As described above, Jackson County believes that the right of way is suitable for use as a trail and if the Board authorizes abandonment of the Subject Line, Jackson County will seek issuance of a CITU and intends to enter into a trail use/rail banking agreement with UP.

4. ENERGY

Since there has not been any local or overhead service on the Subject Line for at least twenty (20) years,

- (i) the proposed abandonment will have no effect on the transportation of energy sources;
- (ii) the proposed abandonment will have no effect on recyclable commodities;
- (iii) there will be no effect on overall energy efficiency; and
- (iv) the proposed abandonment will not divert any traffic from rail to motor carriage.

The effects of the proposed abandonment will not exceed the thresholds set forth in 49 C.F.R. § 1105.7(e)(4)(iv).

5. AIR

Since there has not been any local or overhead service on the Subject Line for at least twenty (20) years, the proposed abandonment will not result in any increases in rail or truck traffic or rail yard activity. The effects of the proposed abandonment will not exceed the thresholds set forth in 49 C.F.R. § 1105.7(e)(4)(v).

6. NOISE

Petitioners do not believe that the proposed abandonment will result in any increase in noise levels.

7. SAFETY

Petitioners do not believe that the proposed abandonment will have any adverse effect on public health or safety.

8. BIOLOGICAL RESOURCES

(i) Petitioners has consulted with FWS, as well as to the following agencies that are potentially concerned with biological resources: Missouri DEQ, Missouri DC, EPA, NRCS, NRCS – Missouri, United States National Park Service (“NPS”) and U.S. Army Corps of Engineers. Copies of these consultation letters are attached as part of Exhibit B. Petitioners have received no responses from the consulted agencies to-date.

(ii) Petitioners do not believe that there are any wildlife sanctuaries or refuges, National or State parks or forests in the vicinity of the proposed abandonment. Consultation letters were sent to the agencies identified in paragraph 8(i), and Petitioners have received no responses from the consulted agencies to-date.

9. WATER

(i) The proposed abandonment and any salvage will be handled in a manner that is consistent with the applicable local, State and Federal water quality standards. Petitioners consulted with the agencies identified in paragraph 8(i), and Petitioners have received no responses from the consulted agencies to-date.

(ii) Petitioners sent a consultation letter regarding the proposed abandonment to the U.S. Army Corps of Engineers. A copy of this letter is attached as part of Exhibit B. Petitioners have received no responses from the consulted agencies to-date.

(iii) Petitioners do not believe that any Clean Water Act permits will be required. Consultation letters were sent to Missouri DEQ, Missouri DC and EPA. Copies of these letters are attached as part of Exhibit B. Petitioners have received no responses from the consulted agencies to-date.

10. PROPOSED MITIGATION

Since no adverse environmental impacts are expected, no mitigation is proposed.

11. ADDITIONAL INFORMATION FOR RAIL CONSTRUCTION

Not applicable.

12. CONSULTATION

As shown by the copies of letters attached as Exhibit B, Petitioners have consulted with the following agencies: Missouri DOT, Missouri DEQ, Missouri DC, EPA, FWS, U.S. Army Corps of Engineers, NPS, NRDC, NRDC – Missouri, NOAA/NGS and NPS. Written responses received to-date are attached as Exhibit C.

13. CERTIFICATIONS

Petitioners certify that:

- (a) Petitioners consulted with the agencies listed in 49 C.F.R. § 1105.7, as described in paragraph 12 above.
- (b) On this date, Petitioners sent copies of this report to each of the agencies consulted as shown on the attached certificate of service.
- (c) Petitioners will not file its petition for exemption until at least twenty (20) days after the consulted agencies have been served with a copy of this report.

HISTORIC REPORT (49 C.F.R. § 1105.8)

1. MAPS

Maps showing the location of the proposed abandonment, including a U.S.G.S. topographical map, are included in Exhibit A.

2. DESCRIPTION OF RIGHT OF WAY

The Subject Line extends between Milepost 288.3 and Milepost 270.6 all in Jackson County, Missouri. The line begins in St. Louis and runs through smaller cities such as Raytown, Missouri and Lee's Summit, Missouri. The Subject Line traverses a hilly landscape that includes rural, residential, and commercial uses. The right of way is generally 100 feet wide. The right of way is crossed by several local roadways.

3. PHOTOGRAPHS OF HISTORIC STRUCTURE(S)

The Subject Line contains bridges, tunnels, and culverts that are more than fifty (50) years old. In the winter of 2016-2017, Jackson County surveyed the structures and described the location, architecture, age, purpose, construction, and potential historical significance of each structure, and provided corresponding photographs, in a Missouri Bridge/Culvert Inventory Form, included in Exhibit D.

4. DATES OF CONSTRUCTION OF HISTORIC STRUCTURE(S)

The approximate dates of construction for each structure are specified in the Missouri Bridge/Culvert Inventory Form included in Exhibit D.

5. HISTORY OF CARRIER OPERATIONS IN THE AREA

In January 2017, Jackson County filed a National Historic Preservation Act Section 106 Project Report about the history of the Subject Line. According to Jackson County's report, the Subject Line was built in approximately 1903-1904 and was originally part of the St. Louis

Subdivision of the Chicago, Rock Island & Pacific Railroad (“Rock Island”). The Subject Line primarily served passengers from its inception through the 1950s. Freight was transported on the Subject Line until 1980. Operations ceased on the Subject Line on March 31, 1980 due to a labor strike and never recommenced.

UP began negotiations to merge with Rock Island, and thereby acquire the Subject Line, in 1964 according to Jackson County’s report, but UP would not own the Subject Line until 1996. In the intervening years, Rock Island declared its third bankruptcy (1975) and the Subject Line was acquired by SSW which was later merged into UP.

6. SUMMARY OF STRUCTURE DOCUMENTATION

This report draws from the documents commissioned by Jackson County in 2017 that analyze the historical and environmental significance of the Subject Line. These documents were prepared by architectural and historical research consultants who performed literature reviews, historical research, and in-person surveys of the Subject Line. These documents are attached as Exhibit D.

7. OPINION REGARDING CRITERIA FOR LISTING

Based on the analysis performed by Jackson County in 2017, Petitioners acknowledge that the Subject Line contains structures and miscellaneous resources such as signs and switches that may be eligible for listing in the National Register of Historic Places (“NRHP”). Nothing on the Subject Line is currently listed on the NRHP. Jackson County’s historical analysis of each structure is provided in the Missouri Bridge/Culvert Inventory Form, provided as Exhibit D. If a CITU is granted, Jackson County has identified any changes that could occur on or near potentially historic structures to accommodate a trail. See PHASE 1 CULTURAL RESOURCES REPORT: HISTORY AND ARCHITECTURE (2017) at 37–38. Full historical analysis of the Subject Line structures and resources can be found at *Id.*, 22–35.

Petitioners have given notice of the proposed abandonment to the Missouri Department of Natural Resources, State Historic Preservation Office (“SHPO”), a copy of which is included as part of Exhibit B. In its letter response, a copy of which is included in Exhibit C, SHPO stated that according to its records, all stipulations for mitigation in the area of the Subject Line have been fulfilled under a 2014 memorandum of agreement for mitigation. Petitioners were advised that the SHPO does not believe that there are any cultural resources present on the subject line at this time.

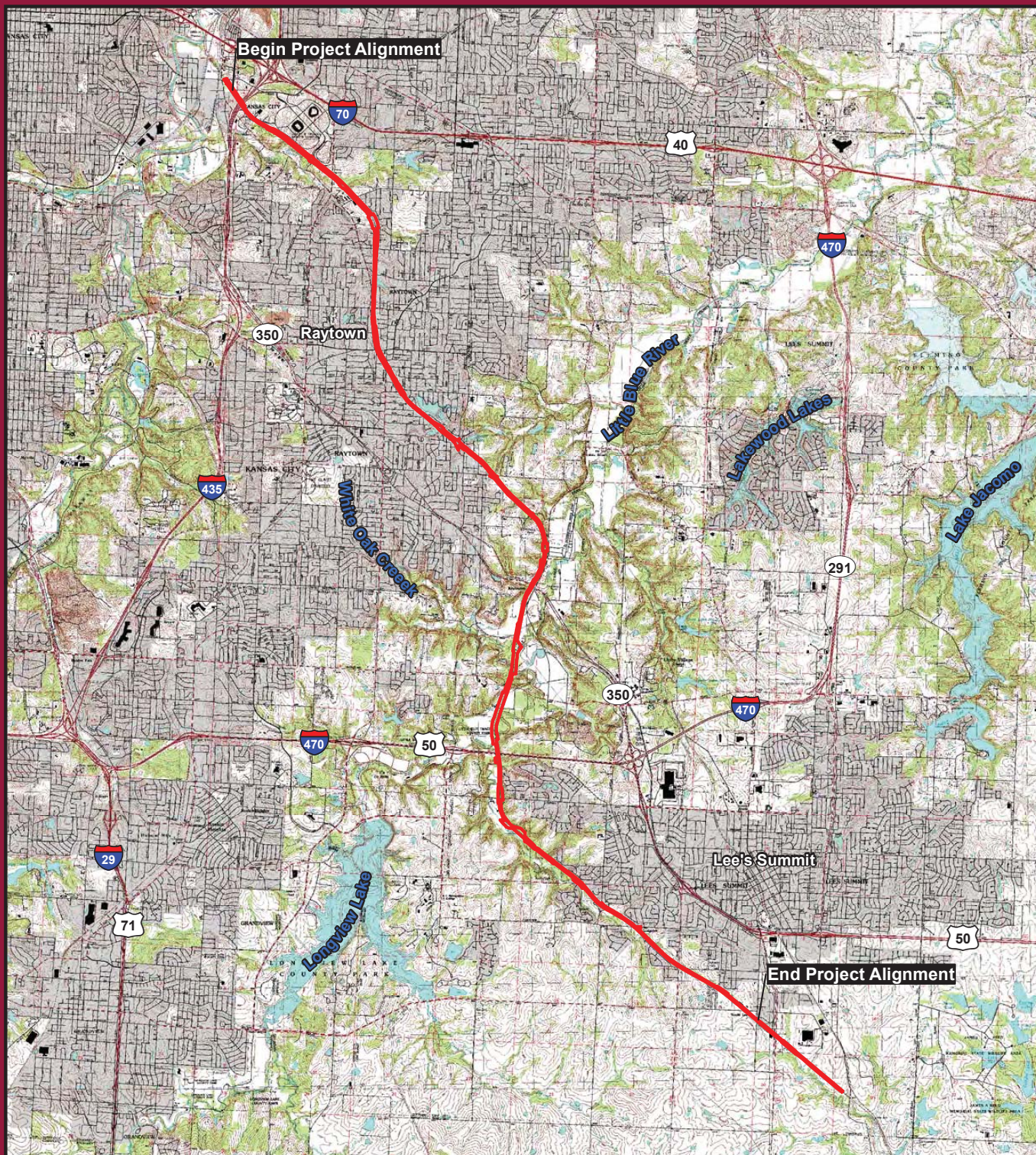
8. PRIOR DISTURBANCES OR ENVIRONMENTAL CONDITIONS

According to soil analysis conducted as part of Jackson County’s 2017 historical assessment of the Subject Line, included in Exhibit D, the entire project corridor was disturbed when the rail line was built and when maintenance occurred or improvements were made. Modern encroachments such as utilities have also disturbed the soil adjacent to the Subject Line. Given that the soil has been disturbed, the report concluded that it is “highly unlikely that further investigations would yield any intact sub-surface cultural resources including and prehistoric or historic sites.” See ROCK ISLAND SHARED USE PATH PROJECT SECTION 106 PROJECT REPORT (2017) at 11.

Exhibits

Exhibit A	Maps of Subject Line
Exhibit B	Consultation Letters
Exhibit C	Response Letters
Exhibit D	Jackson County Historical Reports

Exhibit A



Legend

Study Area

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

Exhibit B

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555 Thirteenth Street, NW
Washington, DC 20004
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July 23, 2019

ALL AGENCIES SHOWN ON THE
ATTACHED SERVICE LIST

Re: Jackson County, Missouri – Abandonment Exemption
Surface Transportation Board Docket No. AB-1278X

To Whom It May Concern:

This letter is to advise you that Jackson County, Missouri ("Jackson County"), doing business as Rock Island Rail Corridor Authority, intends to file for the abandonment of the segment of its lines of railroad formerly operated by Union Pacific Railroad extending between Milepost 288.3 and Milepost 270.6 in Jackson County, Missouri (the "Subject Line"). The Subject Line is in United States Postal Service ZIP Codes 64063, 64081, 64082, 64086, 64129, 64133, 64138, and 64139. A map of the Subject Line is attached as Exhibit A.

Jackson County plans to seek Surface Transportation Board ("STB") authorization for its abandonment through a notice of exempt abandonment pursuant to the provisions of 49 CFR § 1152.50 on or about September 30, 2019 in Surface Transportation Board Docket No. AB-1278X.

Based upon information in Jackson County's possession, the Subject Line does not contain federally granted rights of way. Any documentation in Jackson County's possession will be made available promptly to those requesting it. Jackson County intends to preserve the right of way through rail banking and interim trail use. Jackson County believes that rail banking and interim trail use is in the public interest.

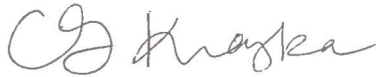
No local service has been provided on the Subject Line since well before Jackson County acquired the lines in 2015. Jackson County does not believe that there are any alternatives to the proposed action. Although the line is unusable condition, Jackson County intends to remove and sell or dispose of the remaining track and track material. Jackson County believes removal of such remaining material, and rail banking and interim trail use will not have a significant effect upon the environment or any historic preservation effects. Even if Jackson County were to consummate the abandonment, it believes that the abandonment would not have a significant effect upon the environment or historic preservation effects.

In advance of preparing an environmental and historic report as required by applicable STB regulations, we are consulting with appropriate agencies such as yours regarding any concerns which they may have as to environmental and historic preservation effects of the proposed abandonment.

We would appreciate an expression from you by August 23, 2019 that, within the area of your authority, you do not perceive that the abandonment would have a significant effect upon the environment or historical preservation of the area (or expressing any concerns that you have). If you have any questions about the railroad's proposal or if you need assistance in this matter, please call me at (202) 637-4649.

Thank you for your cooperation.

Best regards,

A handwritten signature in cursive script, appearing to read "CG Kraska".

Carolyn Gaut Kraska

Associate
carolyn.kraska@hoganlovells.com
D +1 202 637 8568

AGENCY SERVICE LIST

Missouri Dept. of Transportation
Kansas City District
600 NE Colbern Rd.
Lee's Summit, MO 64086

Missouri Dept. of Natural Resources
Division of Environmental Quality
P.O. Box 176
Jefferson City, MO 65102

Missouri Department of Conservation
Kansas City Regional Office
12405 SE Ranson Rd.
Lees Summit, MO 64082

U.S. Environmental Protection Agency
Region 7
11201 Renner Boulevard
Lenexa, KS 66219

U.S. Fish and Wildlife Service
Midwest Region
5600 American Blvd. West, Suite 990
Bloomington, MN 55437-1458

Missouri Dept. of Natural Resources
State Historic Preservation Office
1659 East Elm Street
Jefferson City, MO 65101

US Army Corps of Engineers
Kansas City District
601 E. 12th St.
Kansas City, MO 64106

National Park Service
1849 C Street NW
Washington, DC 20240

National Park Service, Midwest Region
601 Riverfront Drive
Omaha, NE 68102-4226

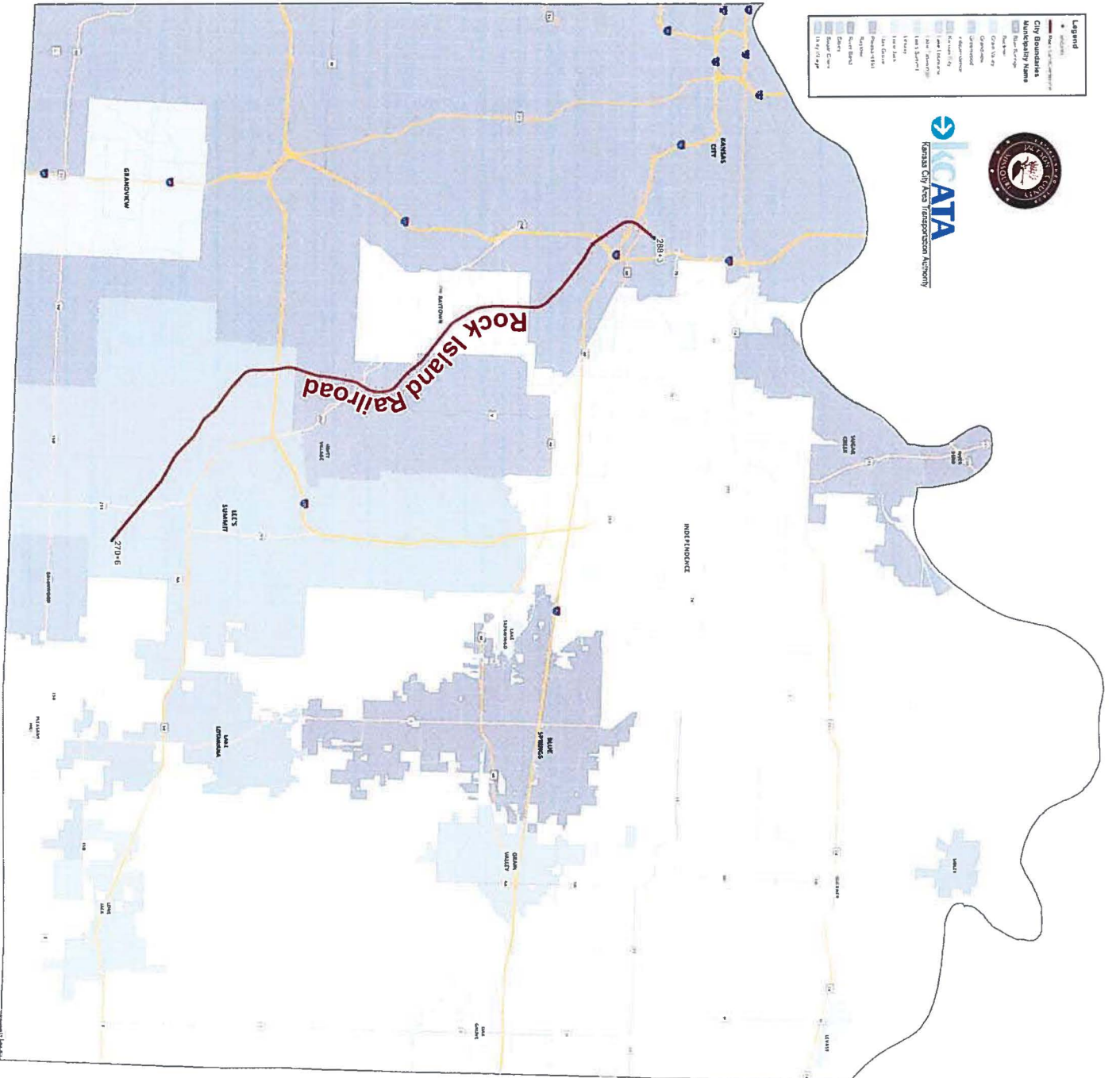
U.S. Dept. of Agriculture
Natural Resources Conservation Service
1400 Independence Ave., S.W.
Washington, DC 20250

U.S. Dept. of Agriculture
Natural Resources Conservation Service
Blue Springs Service Center
1972 NW Copper Oaks Cir.
Blue Springs, MO 64015-8300

National Geodetic Survey/NOAA
Communications and Outreach Branch
NOAA, N/NGS12
National Geodetic Survey, SSMC3 #9340
1315 East-West Highway
Silver Spring, MD 20910-3282

EXHIBIT A

Map



August 29, 2019

ALL AGENCIES SHOWN ON THE
ATTACHED SERVICE LIST

Re: Union Pacific Railroad Company – Abandonment Exemption
Surface Transportation Board Docket No. AB 33 (Sub-No 342X)

Jackson County, Missouri – Abandonment Exemption
Surface Transportation Board Docket No. AB-1278X

To Whom It May Concern:

We wrote to you on July 23, 2019 to advise you that Jackson County, Missouri ("Jackson County"), doing business as Rock Island Rail Corridor Authority, intended to file for the abandonment of the segment of its lines of railroad extending between Milepost 288.3 and Milepost 270.6 in Jackson County, Missouri (the "Subject Line"). The Subject Line is in United States Postal Service ZIP Codes 64063, 64081, 64082, 64086, 64129, 64133, 64138, and 64139. A map of the Subject Line is attached as Exhibit A.

This letter is to inform you of two procedural changes unrelated to whether the abandonment would have a significant effect upon the environment or historical preservation.

First, Union Pacific Railroad Company and Jackson County will jointly seek abandonment authorization. Second, the abandonment authorization will be sought pursuant to a petition for exemption pursuant to 49 U.S.C. § 10502 and 49 CFR Part 1121.

If you have any questions about the railroad's proposal or if you need assistance in this matter, please call or email Carolyn Kraska at (202) 637-4649 / carolyn.kraska@hoganlovells.com

Thank you for your cooperation.

Best regards,

A handwritten signature in blue ink that reads "Jessica Bartlett".

Jessica Bartlett
Transportation Specialist
D +1 202 637 6812

AGENCY SERVICE LIST

Missouri Dept. of Transportation
Kansas City District
600 NE Colbern Rd.
Lee's Summit, MO 64086

Missouri Dept. of Natural Resources
Division of Environmental Quality
P.O. Box 176
Jefferson City, MO 65102

Missouri Department of Conservation
Kansas City Regional Office
12405 SE Ranson Rd.
Lees Summit, MO 64082

U.S. Environmental Protection Agency
Region 7
11201 Renner Boulevard
Lenexa, KS 66219

U.S. Fish and Wildlife Service
Midwest Region
5600 American Blvd. West, Suite 990
Bloomington, MN 55437-1458

Missouri Dept. of Natural Resources
State Historic Preservation Office
1659 East Elm Street
Jefferson City, MO 65101

US Army Corps of Engineers
Kansas City District
601 E. 12th St.
Kansas City, MO 64106

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1849 C Street NW
Washington, DC 20240

National Park Service, Midwest Region
601 Riverfront Drive
Omaha, NE 68102-4226

U.S. Dept. of Agriculture
Natural Resources Conservation Service
1400 Independence Ave., S.W.
Washington, DC 20250

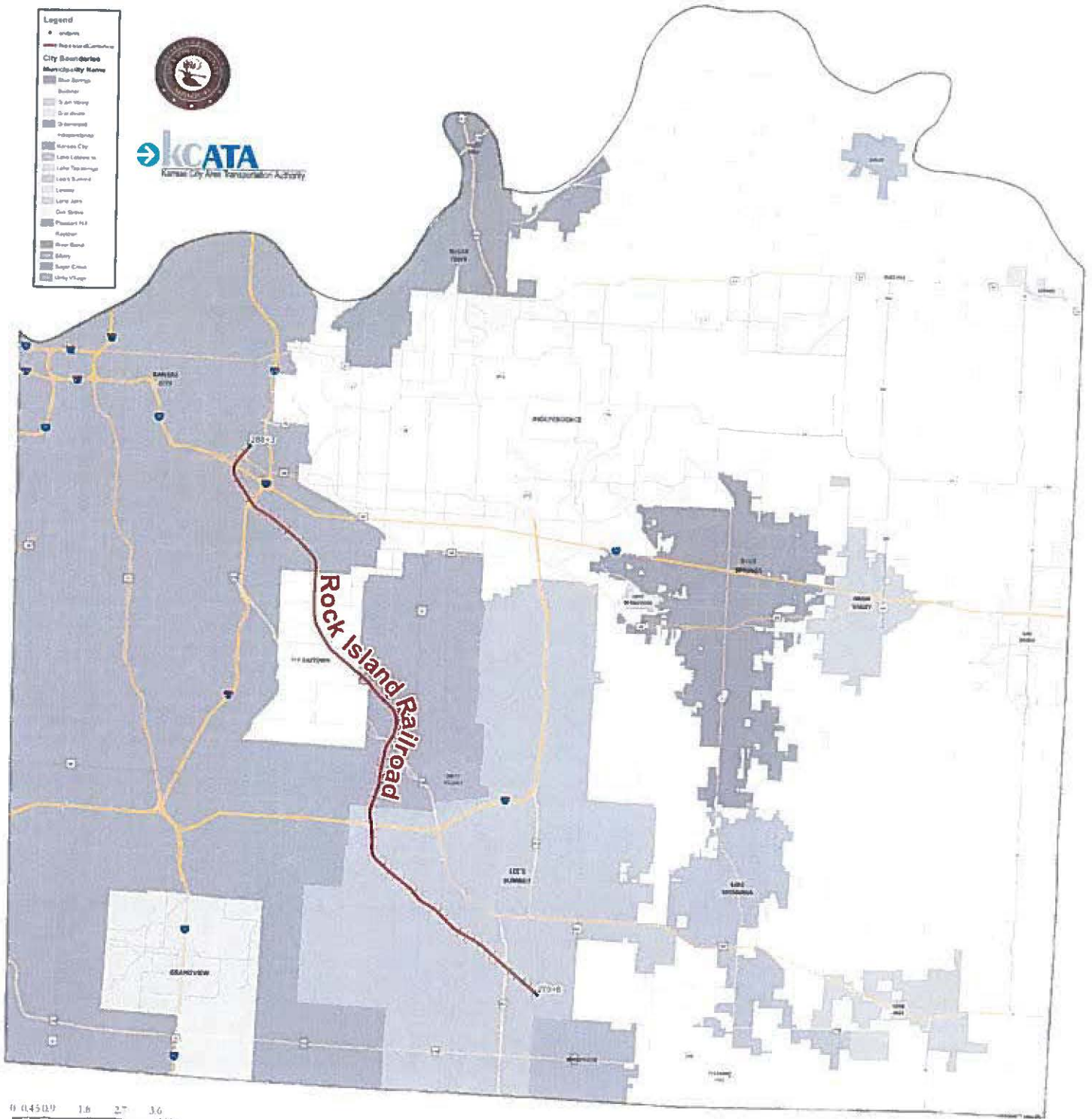
U.S. Dept. of Agriculture
Natural Resources Conservation Service
Blue Springs Service Center
1972 NW Copper Oaks Cir.
Blue Springs, MO 64015-8300

National Geodetic Survey/NOAA
Communications and Outreach Branch
NOAA, N/NGS12
National Geodetic Survey, SSMC3 #9340
1315 East-West Highway
Silver Spring, MD

EXHIBIT A

Map

- Legend**
- endpoints
 - Rock Island Railroad
- City Boundaries**
- Municipality Name**
- Blue Springs
 - Overland Park
 - Lee's Summit
 - Independence
 - Kansas City
 - Lane Lakeview
 - Lake Topanga
 - Lake Summit
 - Lansing
 - Lane Lake
 - Overland Park
 - Plummer Hill
 - Raytown
 - River Bend
 - Shawnee
 - Sugar Creek
 - Union Village



0 0.45 0.9 1.8 2.7 3.6
Miles
1 inch equals 5.16 feet

Jackson County, Missouri
GIS Department

301 W. Walnut Independence, MO 64050 916-881-4561 gis@jacksoncounty.org

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Exhibit C

Kraska, Carolyn G.

From: deborah.brooks <ngs.infocenter@noaa.gov>
Sent: Wednesday, August 14, 2019 6:04 PM
To: Kraska, Carolyn G.
Subject: [JIRA] (IMOV-5985) Re: STB Docket No. AB-1278X

Follow Up Flag: Follow up
Flag Status: Flagged

A comment is added on your issue:

Re: Re: STB Docket No. AB-1278X

Thank you for informing the National Geodetic Survey (NGS) of the Rock Island Rail Corridor Authority's decision to abandon a segment of rail line between Milepost 288.3 and Milepost 270.6 in Jackson County, Missouri.

There could be geodetic survey marks located in the area described, and any marks still present could be disturbed by the abandonment. Geodetic survey markers can often be preserved or reset with advanced planning, and disturbances to marks should be reported to NGS. Online tools are available to locate survey marks and submit recovery notes, and NGS continually updates this database. See the NGS Data Explorer: <https://geodesy.noaa.gov/NGSDataExplorer/>.

If a mark will be disturbed by the abandonment, the Rock Island Rail Corridor Authority should consult with NGS at least 90 days prior to beginning salvage activities that will disturb, or destroy any geodetic markers identified nearby. Additional advice is provided at <https://www.ngs.noaa.gov/marks/railroads/>.

This notice is also being shared with Brian Ward (brian.ward@noaa.gov, 240 - 997-1283) the Regional Geodetic Advisor, so he may work with interested local agencies or stakeholders.

If you have additional questions, email NGS.infocenter@noaa.gov.

Sincerely,
Deborah M. Brooks
Geodesist
deborah.brooks@noaa.gov

National Geodetic Survey



Missouri Department of dnr.mo.gov
NATURAL RESOURCES
Michael L. Parson, Governor Carol S. Comer, Director

August 27, 2019

Hogan Lovells US LLP
Attn: Carolyn Gaut Kraska
Columbia Square
555 Thirteenth Street, NW
Washington, DC 20004

RE: **SHPO Number: 003-MLT-15** – Abandonment Exemption, Surface Transportation
Board Docket No. AB-1278X, Jackson County, Missouri

Dear Ms. Gaut Kraska:

Thank you for submitting the additional monitoring report requested by my office, regarding the above-referenced project, for our records pursuant to Section 106 of the National Historic Preservation Act (P.L. 89-665, as amended) and the Advisory Council on Historic Preservation's regulation 36 CFR Part 800, which require identification and evaluation of cultural resources.

Based on the information in our file, all stipulations under the 2014 memorandum of agreement for mitigation of this project have been previously fulfilled; therefore, the Missouri State Historic Preservation Office's concerns have been fully addressed.

Please be advised that, if the project area is increased, cultural materials are encountered during construction or adjacent areas that may contain significant cultural resources may be adversely impacted, appropriate information must be provided to this office for further review and comment.



Ms. Gaut Kraska

Page 2

If you have any questions please write Missouri Department of Natural Resources, State Historic Preservation Office, Attn: Review and Compliance, P.O. Box 176, Jefferson City, Missouri 65102, or call Amy Rubingh (573) 751-4589. Please be sure to include the SHPO Project Number **(003-MLT-15)** on all future correspondence relating to this project.

Sincerely,

STATE HISTORIC PRESERVATION OFFICE

Toni M. Prawl

Toni M. Prawl, PhD
Director and Deputy
State Historic Preservation Officer



TMP:ar

Exhibit D



Missouri Bridge/Culvert Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 271.5

Common Name: Culvert at MP 271.5

Other Name(s): Union Pacific Railroad culvert

Section 2: Bridge Location

County: Jackson

City or Town (vicinity): Lee's Summit

Legal Location:

Township: 47N

Range: 31W

Section: 17

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad; Chicago, Rock Island & Pacific Railroad

Feature Crossed: Big Creek

Latitude: 38.882705

Longitude: -94.37085

Coordinates:

UTM Zone: 15S

Northing: 4304653.35

Easting: 381097.53

Section 3: Bridge History

Is the bridge listed in the National Register of Historic Places (NRHP)?

☐ Yes

☒ No

Is the bridge part of a listed historic district?

☐ Yes

☒ No

Has the bridge been determined eligible for the NRHP?

☐ Yes

☒ No

Is preservation underway?

☐ Yes

☒ No

Is the bridge endangered?

☐ Yes

☒ No

By what? N/A

Has the bridge been relocated?

☐ Yes

☒ No

When? N/A

Where from? N/A

Construction Date: c. 1903-04

Modification Date(s): N/A

Builder: The Gasconade Railway Construction Company, St. Louis

Fabricator: N/A

Section 4: Bridge Design			
Overall length of bridge:	70 ft.	Overall type of bridge:	Concrete Arch Culvert
Number of tracks:	1	Manufacturer of track:	
Skew:	0		
Legal Load Condition:	Cooper E 40		
SUBSTRUCTURE			
Number of Abutments:	N/A	Abutment Material:	N/A
Abutment Configuration:	N/A		
Number of Piers/Bents:	N/A	Pier Material:	N/A
Pier Configuration:	N/A		
SUPERSTRUCTURE			
Bridge Type:	Concrete Arch Culvert		
# of Spans:	1		
Main Span(s)			
Main Span Material:	Concrete		
# of Main Spans:	1	Width of Main Spans:	12 ft.
Length of each Main Span:	70 ft.	Total length of all Main Spans:	70 ft.
Height over deck (<i>*for through truss & through arches</i>):	N/A		
Deck material:	Ballast	Deck construction method:	For Rail
Wearing Surface:	Ballast		
Approach Span(s)			
Approach Span Material:	None		
# of Approach Spans:	0	Width of Approach Spans:	N/A
Length of each Approach Span:	N/A	Total length of all Approach Spans:	N/A

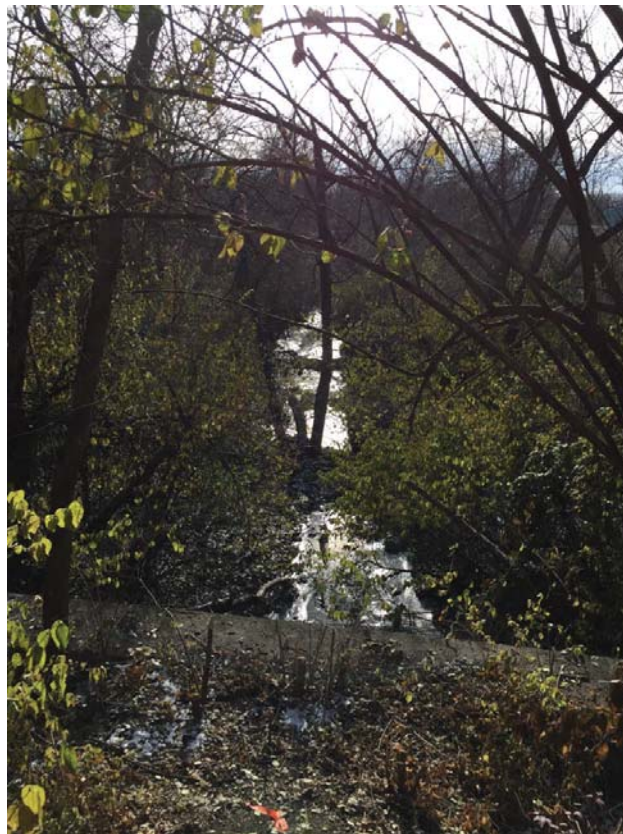
Section 5: Other Surveys	
What other surveys has this bridge been a part of?	
None	

Section 6: Narrative)
Brief Description of the Bridge:
This reinforced concrete arch culvert is 70' in length, 10 ' in height and 12' feet wide.
History of the Bridge:
Using J. P. Frizell's actual measurements for drainage areas, the design for this 12' wide concrete culvert was taken from standardized plans for the St. Louis, Kansas City & Colorado Railroad. Along the entire line, approximately 500 culverts and cattle passes were constructed varying from 2 to 36 feet in width.
Significance of the Bridge:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this concrete arch culvert appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility. It retains historic integrity in order to convey significance.
Sources of Information:
See historic context for bibliography

Section 7: Contact Information			
Legal Owner:	Calvin Williford, Executive Director, Rock Island Rail Corridor Authority		
Street Address 1:	22501 Woods Chapel Road		
City:	Blue Springs	State:	MO
		Zip Code:	64051
Prepared By:	Cydne Millstein and Kelsey Lutz	Date:	3/1/2017
Title of Preparer:	Principal and Assistant	Organization:	Architectural & Historical Research, LLC
Street Address 1:	1537 Belleview Avenue		
City:	Kansas City	State:	MO
		Zip Code:	64108
Email:	cydney@ahr-kc.com		
		Phone:	(816) 472-4154



Culvert at MP 271.5. Detail of the west façade, looking north, northeast (above);
View from top of structure facing west (below). Date: December 9, 2016





Missouri Bridge/Culvert Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 272.2

Common Name: Culvert at MP 272.2

Other Name(s): Union Pacific Railroad culvert

Section 2: Bridge Location

County: Jackson

City or Town (vicinity): Lee's Summit

Legal Location: Township: 47N

Range: 31W

Section: 18

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad; Chicago, Rock Island & Pacific Railroad

Feature Crossed: Drainage on SW Scherer Road

Latitude: 38.889075

Longitude: -94.38040333

Coordinates: UTM Zone: 15S

Northing: 4305372.76

Easting: 380279.57

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)? ☐ Yes ☒ No

Is the Bridge part of a listed historic district? ☐ Yes ☒ No

Has the Bridge been determined eligible for the NRHP? ☐ Yes ☒ No

Is preservation underway? ☐ Yes ☒ No

Is the bridge endangered? ☐ Yes ☒ No

By what? N/A

Has the Bridge been relocated? ☐ Yes ☒ No When? N/A

Where from? N/A

Construction Date: c. 1903-1904

Modification Date(s): N/A

Builder: The Gasconade Railway Construction Company, St. Louis

Fabricator: N/A

Section 4: Bridge Design			
Overall length of bridge:	35 ft.	Overall type of bridge:	Concrete Arch Culvert
Number of tracks:	N/A	Manufacturer of track:	N/A
Skew:	0		
Legal Load Condition:	Cooper E 40		
<u>SUBSTRUCTURE</u>			
Number of Abutments:	0	Abutment Material:	N/A
Abutment Configuration:	N/A		
Number of Piers/Bents:	0	Pier Material:	N/A
Pier Configuration:	N/A		
<u>SUPERSTRUCTURE</u>			
Bridge Type:	Concrete Arch Culvert		
# of Spans:	1		
Main Span(s)			
Main Span Material:	Concrete		
# of Main Spans:	1	Width of Main Spans:	7 ft.
Length of each Main Span:	35 ft.	Total length of all Main Spans:	35 ft.
Height over deck (<i>*for through truss & through arches</i>): N/A			
Deck material:	Ballast	Deck construction method:	N/A
Wearing Surface: Ballast			
Approach Span(s)			
Approach Span Material:	None		
# of Approach Spans:	0	Width of Approach Spans:	N/A
Length of each Approach Span:	N/A	Total length of all Approach Spans:	N/A

Section 5: Other Surveys	
What other surveys has this bridge been a part of?	
None	

Section 6: Narratives
Brief Description of the Bridge (include any rehabilitation or alterations):
This concrete culvert measures 35' in length and 7' wide.
History of the Bridge:
Using J. P. Frizell's actual measurements for drainage areas, the design for this 7' wide concrete culvert was taken from standardized plans for the St. Louis, Kansas City & Colorado Railroad. Along the entire line, approximately 500 culverts and cattle passes were constructed varying from 2 to 36 feet in width.
Significance of the Bridge with Justification:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this concrete arch culvert appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility. It retains historic integrity in order to convey significance.
Sources of Information:
See historic context for bibliography.

Section 7: Contact Information			
Legal Owner:	Calvin Williford, Executive Director, Rock Island Rail Corridor Authority		
Street Address 1:	22501 Woods Chapel Road		
City:	Blue Springs	State:	MO
		Zip Code:	64051
Prepared By:	Cydne Millstein and Kelsey Lutz	Date:	3/1/2017
Title of Preparer:	Principal and Assistant	Organization:	Architectural & Historical Research, LLC
Street Address 1:	1537 Belleview Ave.		
City:	Kansas City	State:	MO
		Zip Code:	64108
Email:	cydney@ahr-kc.com	Phone:	(816) 472-4154



Culvert at MP 272.2, Lee's Summit. General view of the east façade looking northwest.
Date: December 9, 2016.



Missouri Bridge Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 273.1

Common Name: Culvert at MP 273.1

Other Name(s): Union Pacific Railroad culvert

Section 2: Bridge Location

County: Jackson

City or Town (vicinity): Lee's Summit

Legal Location:

Township: 47N

Range: 31W

Section: 18

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad; Chicago, Rock Island & Pacific Railroad

Feature Crossed: Drainage near SW Persels Road

Latitude: 38.89644167

Longitude: -94.39441667

Coordinates:

UTM Zone: 15S

Northing: 4306208.76

Easting: 379076.65

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)?

☐ Yes

☒ No

Is the Bridge part of a listed historic district?

☐ Yes

☒ No

Has the Bridge been determined eligible for the NRHP?

☐ Yes

☒ No

Is preservation underway?

☐ Yes

☒ No

Is the bridge endangered?

☐ Yes

☒ No

By what? N/A

Has the Bridge been relocated?

☐ Yes

☒ No

When? N/A

Where from? N/A

Construction Date: c. 1903-1904

Modification Date: N/A

Builder: The Gasconade Railway Construction Company, St. Louis

Fabricator: N/A

Section 4: Bridge Design			
Overall length of bridge:	50 ft.	Overall type of bridge:	Concrete Arch Culvert
Number of tracks:	1	Manufacturer of track:	Illinois Steel Company
Skew:	0		
Legal Load Condition:	Cooper E 40		
SUBSTRUCTURE			
Number of Abutments:	0	Abutment Material:	N/A
Abutment Configuration:	N/A		
Number of Piers/Bents:	0	Pier Material:	N/A
Pier Configuration:	N/A		
SUPERSTRUCTURE			
Bridge Type:	Concrete Arch Culvert		
# of Spans:	1		
Main Span(s)			
Main Span Material:	Concrete		
# of Main Spans:	1	Width of Main Spans:	6 ft.
Length of each Main Span:	50 ft.	Total length of all Main Spans:	50 ft.
Height over deck (<i>*for through truss & through arches</i>): N/A			
Deck material:	Ballast	Deck construction method:	For rail
Wearing Surface:	Ballast		
Approach Span(s)			
Approach Span Material:	None		
# of Approach Spans:	0	Width of Approach Spans:	N/A
Length of each Approach Span:	N/A	Total length of all Approach Spans:	N/A

Section 5: Other Surveys
What other surveys has this bridge been a part of?
None

Section 6: Narratives
Brief Description of the Bridge:
This concrete culvert measures 50' in length and 6' wide.
History of the Bridge:
Using J. P. Frizell's actual measurements for drainage areas, the design for this 6' wide concrete culvert was taken from standardized plans for the St. Louis, Kansas City & Colorado Railroad. Along the entire line, approximately 500 culverts and cattle passes were constructed varying from 2 to 36 feet in width.
Significance of the Bridge:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this concrete arch culvert appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility. It retains historic integrity in order to convey significance.
Sources of Information:
See historic context for bibliography.

Section 7: Contact Information			
Legal Owner:	Calvin Williford, Executive Director, Rock Island Rail Corridor Authority		
Street Address 1:	22501 Woods Chapel Road		
City:	Blue Springs	State:	MO
		Zip Code:	64015
Prepared By:	Cydne Millstein and Kelsey Lutz	Date:	3/1/2017
Title of Preparer:	Principal and assistant	Organization:	Architectural and Historical Research, LLC
Street Address 1:	1537 Belleview Ave.		
City:	Kansas City	State:	MO
		Zip Code:	64108
Email:	cydney@ahr-kc.com	Phone:	(816) 472-4154



Culvert at MP 273.1, Lee's Summit. General view of the west façade looking northeast.
Date: December 9, 2016



Missouri Bridge/Culvert Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 273.5

Common Name: Culvert at MP 273.5

Other Name(s): Union Pacific Railroad culvert

Section 2: Bridge Location

County: Jackson

City or Town (vicinity): Lee's Summit

Legal Location: Township: 47N

Range: 32W

Section: 12

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad; Chicago, Rock Island & Pacific Railroad

Feature Crossed: Drainage near SW Crossing Drive

Latitude: 38.899995

Longitude: -94.39997167

Coordinates: UTM Zone: 15S

Northing: 4306610.48

Easting: 378600.95

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)? ☐ Yes ☒ No

Is the Bridge part of a listed historic district? ☐ Yes ☒ No

Has the Bridge been determined eligible for the NRHP? ☐ Yes ☒ No

Is preservation underway? ☐ Yes ☒ No

Is the bridge endangered? ☐ Yes ☒ No

By what? N/A

Has the Bridge been relocated? ☐ Yes ☒ No When? N/A

Where from? N/A

Construction Date: c. 1903-1904

Modification Date: N/A

Builder: The Gasconade Railway Construction Company, St. Louis

Fabricator: N/A

Section 4: Bridge Design			
Overall length of bridge:	44 ft.	Overall type of bridge:	Concrete Arch Culvert
Number of tracks:	1	Manufacturer of track:	Illinois Steel Company
Skew:	0		
Legal Load Condition:	Cooper E 40		
SUBSTRUCTURE			
Number of Abutments:	0	Abutment Material:	N/A
Abutment Configuration:	N/A		
Number of Piers/Bents:	0	Pier Material:	N/A
Pier Configuration:	N/A		
SUPERSTRUCTURE			
Bridge Type:	Concrete Arch Culvert		
# of Spans:	1		
Main Span(s)			
Main Span Material:	Concrete		
# of Main Spans:	1	Width of Main Spans:	2 ft.
Length of each Main Span:	44 ft.	Total length of all Main Spans:	44 ft.
Height over deck (<i>*for through truss & through arches</i>): N/A			
Deck material:	Ballast	Deck construction method:	For Rail
Wearing Surface:	Ballast		
Approach Span(s)			
Approach Span Material:	None		
# of Approach Spans:	0	Width of Approach Spans:	N/A
Length of each Approach Span:	N/A	Total length of all Approach Spans:	N/A

Section 5: Other Surveys
What other surveys has this bridge been a part of?
None

Section 6: Narratives:
Brief Description of the Bridge:
This concrete culvert measures 44' in length and 2' wide.
History of the Bridge:
Using J. P. Frizzel's actual measurements for drainage areas, the design for this 2'wide concrete culvert was taken from standardized plans for the St. Louis, Kansas City & Colorado Railroad. Along the entire line, approximately 500 culverts and cattle passes were constructed varying from 2 to 36 feet in width.
Significance of the Bridge:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this concrete arch culvert appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility It retains historic integrity in order to convey significance.
Sources of Information:
See historic context for bibliography.

Section 7: Contact Information			
Legal Owner:	Calvin Williford, Executive Director, Rock Island Rail Corridor Authority		
Street Address 1:	22501 Woods Chapel Road		
City:	Blue Springs	State:	MO
		Zip Code:	64051
Prepared By:	Cydney Millstein and Kelsey Lutz	Date:	March 2017
Title of Preparer:	Principal and assistant	Organization:	Architectural & Historical Research, LLC
Street Address 1:	1537 Belleview Ave.		
City:	Kansas City	State:	MO
		Zip Code:	64108
Email:	cydney@ahr-kc.com	Phone:	(816) 472-4154



Culvert at MP 273.5, Lee's Summit. View of the west façade looking northeast.
Date: December 9, 2016



Missouri Bridge/Culvert Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 273.8

Common Name: Culvert at MP 273.8

Other Name(s): Union Pacific Railroad culvert

Section 2: Bridge Location

County(ies): Jackson

City or Town (vicinity): Lee's Summit

Legal Location: Township: 47N

Range: 32W

Section: 12

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad; Chicago, Rock Island & Pacific Railroad

Feature Crossed: Drainage from Cedar Creek

Latitude: 38.90275833

Longitude: -94.40425

Coordinates: UTM Zone: 15S

Northing: 4306922.84

Easting: 378234.66

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)? ☐ Yes ☒ No

Is the Bridge part of a listed historic district? ☐ Yes ☒ No

Has the Bridge been determined eligible for the NRHP? ☐ Yes ☒ No

Is preservation underway? ☐ Yes ☒ No

Is the bridge endangered? ☐ Yes ☒ No

By what? N/A

Has the Bridge been relocated? ☐ Yes ☒ No When? N/A

Where from? N/A

Construction Date: c. 1903-04

Modification Date: N/A

Builder: The Gasconade Railway Construction Company, St. Louis

Fabricator: N/A

Section 4: Bridge Design			
Overall length of bridge:	60 ft.	Overall type of bridge:	Concrete Arch Culvert
Number of tracks:	1	Manufacturer of track:	Illinois Steel Company
Skew:	0		
Legal Load Condition:	Cooper E 40		
SUBSTRUCTURE			
Number of Abutments:	0	Abutment Material:	N/A
Abutment Configuration:	N/A		
Number of Piers/Bents:	0	Pier Material:	N/A
Pier Configuration:	N/A		
SUPERSTRUCTURE			
Bridge Type:	Concrete Arch Culvert		
# of Spans:	1		
Main Span(s)			
Main Span Material:	Concrete		
# of Main Spans:	1	Width of Main Spans:	20 ft.
Length of each Main Span:	60 ft.	Total length of all Main Spans:	60 ft.
Height over deck (<i>*for through truss & through arches</i>): N/A			
Deck material:	Ballast	Deck construction method:	For Rail
Wearing Surface:	Ballast		
Approach Span(s)			
Approach Span Material:	None		
# of Approach Spans:	0	Width of Approach Spans:	N/A
Length of each Approach Span:	N/A	Total length of all Approach Spans:	N/A

Section 5: Other Surveys
What other surveys has this bridge been a part of?
None

Section 6: Narratives
Brief Description of the Bridge:
This concrete culvert measures 60' in length and 20' wide.
History of the Bridge:
Using J. P. Frizzel's actual measurements for drainage areas, the design for this 20' wide concrete culvert was taken from standardized plans for the St. Louis, Kansas City & Colorado Railroad. Along the entire line, approximately 500 culverts and cattle passes were constructed varying from 2 to 36 feet in width.
Significance of the Bridge with Justification:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this concrete arch culvert appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility. It retains historic integrity in order to convey significance.
Sources of Information:
See historic context for bibliography.

Section 7: Contact Information			
Legal Owner: Calvin Williford, Executive Director, Rock Island Rail Corridor Authority			
Street Address 1: 22501 Woods Chapel Road			
City: Blue Springs	State: MO	Zip Code: 64051	
Prepared By: Cydney Millstein and Kelsey Lutz		Date: 3/1/2017	
Title of Preparer: Principal and assistant		Organization: Architectural & Historical Research, LLC	
Street Address 1: 1537 Belleview Ave.			
City: Kansas City	State: MO	Zip Code: 64108	
Email: cydney@ahr-kc.com	Phone: (816) 472-4154		



Culvert at MP 273.5, Lee's Summit. General view of the west façade, looking southeast (above);
General view of the west façade, looking east (below). Date: December 9, 2016





Missouri Bridge/Culvert Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 274.5

Common Name: Culvert at MP 274.5

Other Name(s): Union Pacific Railroad culvert

Section 2: Bridge Location

County(ies): Jackson

City or Town (vicinity): Lee's Summit

Legal Location:

Township: 47N

Range: 32W

Section: 11

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad; Chicago, Rock Island & Pacific Railroad

Feature Crossed: Drainage from Cedar Creek

Latitude: 38.91140833

Longitude: -94.41761167

Coordinates:

UTM Zone: 15S

Northing: 4307900.71

Easting: 377090.92

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)?

☐ Yes

☒ No

Is the Bridge part of a listed historic district?

☐ Yes

☒ No

Has the Bridge been determined eligible for the NRHP?

☐ Yes

☒ No

Is preservation underway?

☐ Yes

☒ No

Is the bridge endangered?

☐ Yes

☒ No

By what? N/A

Has the Bridge been relocated?

☐ Yes

☒ No

When? N/A

Where from? N/A

Construction Date: c. 1903-1904

Modification Date: N/A

Builder: The Gasconade Railway Construction Company, St. Louis

Fabricator: N/A

Section 4: Bridge Design			
Overall length of bridge:	40 ft.	Overall type of bridge:	Concrete Arch Culvert
Number of tracks:	1	Manufacturer of track:	Illinois Steel Company
Skew:	0		
Legal Load Condition:	Cooper E 40		
SUBSTRUCTURE			
Number of Abutments:	0	Abutment Material:	N/A
Abutment Configuration:	N/A		
Number of Piers/Bents:	0	Pier Material:	N/A
Pier Configuration:	N/A	<i>Ex. Solid Shaft, Column, Column with web wall, Cantilever</i>	
SUPERSTRUCTURE			
Bridge Type:	Concrete Arch Culvert		
# of Spans:	1		
Main Span(s)			
Main Span Material:	Concrete		
# of Main Spans:	1	Width of Main Spans:	16 ft.
Length of each Main Span:	40 ft.	Total length of all Main Spans:	40 ft.
Height over deck (*for through truss & through arches):	N/A		
Deck material:	Ballast	Deck construction method:	For Rail
Wearing Surface:	Ballast		
Approach Span(s)			
Approach Span Material:	None		
# of Approach Spans:	0	Width of Approach Spans:	N/A
Length of each Approach Span:	N/A	Total length of all Approach Spans:	N/A

Section 5: Other Surveys
What other surveys has this bridge been a part of?
None

Section 6: Narratives
Brief Description of the Bridge:
This concrete culvert measures 60' in length and 16' wide.
History of the Bridge:
Using J. P. Frizzel's actual measurements for drainage areas, the design for this 16' wide concrete culvert was taken from standardized plans for the St. Louis, Kansas City & Colorado Railroad. Along the entire line, approximately 500 culverts and cattle passes were constructed varying from 2 to 36 feet in width.
Significance of the Bridge with Justification:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this concrete arch culvert appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility. It retains historic integrity in order to convey significance.
Sources of Information:
See historic context for bibliography.

Section 7: Contact Information			
Legal Owner:	Calvin Williford, Executive Director, Rock Island Rail Corridor Authority		
Street Address 1:	22501 Woods Chapel Road		
City:	Blue Springs	State:	MO
		Zip Code:	64051
Prepared By:	Cydne Millstein and Kelsey Lutz	Date:	3/1/2017
Title of Preparer:	Principal and assistant	Organization:	Architectural & Historical Research, LLC
Street Address 1:	1537 Belleview Ave.		
City:	Kansas City	State:	MO
		Zip Code:	64108
Email:	cydney@ahr-kc.com	Phone:	(816) 472-4154



Culvert at MP 274.5, Lee's Summit. General view of the west façade, looking northeast.
Date: December 6, 2016



Missouri Bridge Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 274.8

Common Name: Bridge over SW 3rd Street

Other Name(s): Union Pacific Railroad bridge

Section 2: Bridge Location

County: Jackson

City or Town (vicinity): Lee's Summit

Legal Location:

Township: 47 N

Range: 32 W

Section: 2 & 11

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad; Chicago, Rock Island & Pacific Railroad

Feature Crossed: Roadway (SW 3rd Street)

Latitude: 38.91205

Longitude: -94.41840

Coordinates:

UTM Zone: 15S

Northing: 4307972.99

Easting: 377023.67

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)? ☐ Yes ☒ No

Is the Bridge part of a listed historic district? ☐ Yes ☒ No

Has the Bridge been determined eligible for the NRHP? ☐ Yes ☒ No

Is preservation underway? ☐ Yes ☒ No

Is the bridge endangered? ☐ Yes ☒ No

By what? N/A

Has the Bridge been relocated? ☐ Yes ☒ No

When? N/A

Where from? N/A

Construction Date: After 1915

Modification Date: N/A

Builder: unknown Stubbs, Flick and Johnson Construction Company, Kansas City, MO (attribution)

Fabricator: American Bridge Company, New York (attribution)

Section 4: Bridge Design			
Overall length of bridge:	105 ft.	Overall type of bridge:	Through Plate Girder
Number of tracks:	1	Manufacturer of tracks:	Illinois Steel Company
Skew:			
Legal Load Condition:	Cooper E 80		
SUBSTRUCTURE			
Number of Abutments:	2	Abutment Material:	Concrete
Abutment Configuration: T			
Number of Piers/Bents:	0	Pier Material:	N/A
Pier Configuration: N/A			
SUPERSTRUCTURE			
Bridge Type:	Through Plate Girder		
# of Spans:	1		
Main Span(s)			
Main Span Material:	Metal		
# of Main Spans:	1	Width of Main Spans:	21 ft.
Length of each Main Span:	105 ft.	Total length of all Main Spans:	105 ft.
Height over deck (<i>*for through truss & through arches</i>):			
Deck material:	Ballast	Deck construction method:	For Rail
Wearing Surface: Ballast			
Approach Span(s)			
Approach Span Material:	N/A		
# of Approach Spans:	0	Width of Approach Spans:	N/A
Length of each Approach Span:	N/A	Total length of all Approach Spans:	N/A

Section 5: Other Surveys
What other surveys has this bridge been a part of?
Bridgehunter.com BH 64364

Section 6: Narratives
Brief Description of the Bridge:
This 105 ft. through plate girder is a single span with concrete abutments, gusset plates with solid webs connected to the floor-beams; upper corners of the plate girders are rounded.
History of the Bridge:
The original bridge at MP No. 274.8 was a 16' x 16' reinforced concrete arch. When 3 rd Street was cut in, the current bridge replaced the concrete arch sometime after 1915. Constructed for the Chicago, Rock Island & Pacific Railroad Company, the through plate girder was more than likely from a standard design for the railroad line.
Significance of the Bridge with Justification:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago Rock Island & Pacific Railroad and the MOA, this through plate girder appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility. It retains historic integrity in order to convey significance.
Sources of Information:
See historic context report for bibliography

Section 7: Contact Information			
Legal Owner:	Calvin Williford, Executive Director, Rock Island Rail Corridor Authority		
Street Address 1:	22501 Woods Chapel Rd.		
City:	Blue Springs	State:	MO
		Zip Code:	64015
Prepared By:	Cydney Millstein and Kelsey Lutz	Date:	3/12/2017
Title of Preparer:	Principal and assistant	Organization:	Architectural & Historical Research, LLC
Street Address 1:	1537 Belleview Avenue		
City:	Kansas City	State:	MO
		Zip Code:	64108
Email:	cydney@ahr-kc.com		
		Phone:	(816) 472-4154



Bridge at MP 274.8, SW 3rd Street near SW Longview Road and SW Pyror Road, Lee's Summit, MO. General view facing east (above); View of deck facing southeast (below). Dates: March 7, 2017 and December 6, 2016.





Missouri Bridge Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 276.3

Common Name: Bridge over Chipman Road

Other Name(s): Union Pacific Railroad bridge

Section 2: Bridge Location

County(ies): Jackson

City or Town (vicinity): Lee's Summit

Legal Location: Township: 47 N

Range: 32 W Section: 3

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad; Chicago, Rock Island & Pacific Railroad

Feature Crossed: Roadway (Chipman Road)

Latitude: 38.92739

Longitude: -94.43769

Coordinates: UTM Zone: 15S

Northing: 4309701.56

Easting: 375377.98

Section 3: Bridge History – Please explain the details from this section further in the Section 6 narrative.

Is the Bridge listed in the National Register of Historic Places (NRHP)? ☐ Yes ☒ No

Is the Bridge part of a listed historic district? ☐ Yes ☒ No

Has the Bridge been determined eligible for the NRHP? ☐ Yes ☒ No

Is preservation underway? ☐ Yes ☒ No

Is the bridge endangered? ☐ Yes ☒ No

By what? N/A

Has the Bridge been relocated?

☐ Yes ☒ No

When? N/A

Where from? N/A

Construction Date: c. 1903

Modification Date: N/A

Builder: Gasconade Railway Construction Company, St. Louis

Fabricator: St. Louis, Kansas City & Colorado Railroad

Section 4: Bridge Design			
Overall length of bridge:	32 ft.	Overall type of bridge:	Reinforced Concrete Arch
Number of tracks:	1	Manufacturer of tracks:	Illinois Steel Company
Skew: Unknown			
Legal Load Condition:	Cooper E 40		
SUBSTRUCTURE			
Number of Abutments:	2	Abutment Material:	Concrete
Abutment Configuration: Wing wall			
Number of Piers/Bents:	0	Pier Material:	N/A
Pier Configuration: N/A			
SUPERSTRUCTURE			
Bridge Type:	Reinforced Concrete Arch		
# of Spans:	1		
Main Span(s)			
Main Span Material:	Reinforced Concrete		
# of Main Spans:	1	Width of Main Spans:	22 ft.
Length of each Main Span:	32 ft.	Total length of all Main Spans:	32 ft.
Height over deck (<i>*for through truss & through arches</i>): N/A			
Deck material:	Ballast	Deck construction method:	For Rail
Wearing Surface: Ballast			
Approach Span(s)			
Approach Span Material:	N/A		
# of Approach Spans:	0	Width of Approach Spans:	N/A
Length of each Approach Span:	N/A	Total length of all Approach Spans:	N/A

Section 5: Other Surveys
What other surveys has this bridge been a part of?
Bridgehunter.com BH 48880

Section 6: Narrative)
Brief Description of the Bridge:
This reinforced semi-circular concrete arch bridge measuring 32 ft. x 22 ft., features concrete wing walls.
History of the Bridge:
This reinforced concrete arch bridge was designed as one of the standard semi-circular arch bridges for road crossings by the St. Louis, Kansas City & Colorado Railroad
Significance of the Bridge with Justification:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this reinforced concrete arch bridge appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50 year age recommendation for eligibility. It retains historic integrity in order to convey significance.
Sources of Information:
See historic context for bibliography.

Section 7: Contact Information			
Legal Owner:	Calvin Williford, Executive Director, Rock Island Rail Corridor Authority		
Street Address 1:	22501 Woods Chapel Rd.		
City:	Blue Springs	State:	MO
		Zip Code:	64015
Prepared By:	Cydne y Millstein and Kelsey Lutz	Date:	3/12/2017
Title of Preparer:	Principal and assistant	Organization:	Architectural & Historical Research, LLC
Street Address 1:	1537 Belleview Ave.		
City:	Kansas City	State:	MO
		Zip Code:	64108
Email:	cydney@ahr-kc.com	Phone:	(816) 472-4154



Bridge at MP 276.3, Chipman Road, Lee's Summit. View of west façade, looking east.
Date: December 6, 2016



Missouri Bridge/Culvert Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 276.4

Common Name: Cattle Pass at MP 276.4

Other Name(s): Union Pacific Railroad cattle pass

Section 2: Bridge Location

County: Jackson

City or Town (vicinity): Lee's Summit

Legal Location: Township: 48N

Range: 32W Section: 34

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad; Chicago, Rock Island & Pacific Railroad

Feature Crossed: Embankment

Latitude: 38.92881167

Longitude: -94.437645

Coordinates: UTM Zone: 15S

Northing: 4309859.27

Easting: 375384.37

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)? ☐ Yes ☒ No

Is the Bridge part of a listed historic district? ☐ Yes ☒ No

Has the Bridge been determined eligible for the NRHP? ☐ Yes ☒ No

Is preservation underway? ☐ Yes ☒ No

Is the bridge endangered? ☐ Yes ☒ No

By what? N/A

Has the Bridge been relocated? ☐ Yes ☒ No

When? N/A

Where from? N/A

Construction Date: c. 1903-1904

Modification Date: N/A

Builder: The Gasconade Railway Construction Company, St. Louis

Fabricator: N/A

Section 4: Bridge Design			
Overall length of bridge:	78 ft.	Overall type of bridge:	Concrete Cattle Pass
Number of tracks:	1	Manufacturer of track:	Illinois Steel Company
Skew:	0		
Legal Load Condition:	Cooper E 40		
SUBSTRUCTURE			
Number of Abutments:	0	Abutment Material:	N/A
Abutment Configuration:	N/A		
Number of Piers/Bents:	0	Pier Material:	N/A
Pier Configuration:	N/A		
SUPERSTRUCTURE			
Bridge Type:	Concrete Cattle Pass		
# of Spans:	1		
Main Span(s)			
Main Span Material:	Concrete		
# of Main Spans:	1	Width of Main Spans:	4 ft.
Length of each Main Span:	78 ft.	Total length of all Main Spans:	78 ft.
Height over deck (<i>*for through truss & through arches</i>): N/A			
Deck material:	Ballast	Deck construction method:	For Rail
Wearing Surface: Ballast			
Approach Span(s)			
Approach Span Material:	None		
# of Approach Spans:	0	Width of Approach Spans:	N/A
Length of each Approach Span:	N/A	Total length of all Approach Spans:	N/A

Section 5: Other Surveys
What other surveys has this bridge been a part of?
None

Section 6: Narratives
Brief Description of the Bridge:
This concrete cattle pass measures 78' in length, 6' in height and 4' wide.
History of the Bridge:
The St. Louis, Kansas City & St. Louis line constructed concrete cattle passes, based on standardized plans, throughout the line. This example fits the standard design with a circular arch of 4' span and a height of 6' from floor to crown These structures are paved with 8" of concrete and similar in design to the small culverts used throughout the line.
Significance of the Bridge:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this concrete cattle pass appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility It retains historic integrity in order to convey significance.
Sources of Information:
See historic context for bibliography.

Section 7: Contact Information			
Legal Owner:	Calvin Williford, Executive Director, Rock Island Rail Corridor Authority		
Street Address 1:	22501 Woods Chapel Road		
City:	Blue Springs	State:	MO
		Zip Code:	64051
Prepared By:	Cydne Millstein and Kelsey Lutz	Date:	3/1/2017
Title of Preparer:	Principal and assistant	Organization:	Architectural & Historical Research, LLC
Street Address 1:	1537 Belleview Ave.		
City:	Kansas City	State:	MO
		Zip Code:	64108
Email:	cydney@ahr-kc.com	Phone:	(816) 472-4154



Cattle Pass at MP 276.4, Lee's Summit. General view of west façade, looking east
Date: December 6, 2016.





Missouri Bridge/Culvert Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 276.7

Common Name: Culvert at MP 276.7

Other Name(s): Union Pacific Railroad culvert

Section 2: Bridge Location

County: Jackson

City or Town (vicinity): Lee's Summit

Legal Location:

Township: 48N

Range: 32W

Section: 34

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad; Chicago, Rock Island & Pacific Railroad

Feature Crossed: Drainage from Cedar Creek

Latitude: 38.93348

Longitude: -94.437875

Coordinates:

UTM Zone: 15S

Northing: 4310377.67

Easting: 375372.60

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)?

☐ Yes

☒ No

Is the Bridge part of a listed historic district?

☐ Yes

☒ No

Has the Bridge been determined eligible for the NRHP?

☐ Yes

☒ No

Is preservation underway?

☐ Yes

☒ No

Is the bridge endangered?

☐ Yes

☒ No

By what? N/A

Has the Bridge been relocated?

☐ Yes

☒ No

When? N/A

Where from? N/A

Construction Date: c. 1903-1904

Modification Date: N/A

Builder: The Gasconade Railway Construction Company, St. Louis

Fabricator: N/A

Section 4: Bridge Design			
Overall length of bridge:	78 ft.	Overall type of bridge:	Concrete Culvert
Number of tracks:	1	Manufacturer of track:	
Skew:	0		
Legal Load Condition:	Cooper E 40		
SUBSTRUCTURE			
Number of Abutments:	0	Abutment Material:	N/A
Abutment Configuration:	N/A		
Number of Piers/Bents:	0	Pier Material:	N/A
Pier Configuration:	N/A		
SUPERSTRUCTURE			
Bridge Type:	Concrete Culvert		
# of Spans:	1		
Main Span(s)			
Main Span Material:	Concrete		
# of Main Spans:	1	Width of Main Spans:	11 ft.
Length of each Main Span:	78 ft.	Total length of all Main Spans:	78 ft.
Height over deck (<i>*for through truss & through arches</i>):	N/A		
Deck material:	Ballast	Deck construction method:	For Rail
Wearing Surface:	Ballast		
Approach Span(s)			
Approach Span Material:	None		
# of Approach Spans:	0	Width of Approach Spans:	N/A
Length of each Approach Span:	N/A	Total length of all Approach Spans:	N/A

Section 5: Other Surveys	
What other surveys has this bridge been a part of?	
None	

Section 6: Narratives
Brief Description of the Bridge:
This concrete culvert measures 78' in length and 11' wide.
History of the Bridge:
Using J. P. Frizzel's actual measurements for drainage areas, the design for this 11' wide concrete culvert was taken from standardized plans for the St. Louis, Kansas City & Colorado Railroad. Along the entire line, approximately 500 culverts and cattle passes were constructed varying from 2 to 36 feet in width.
Significance of the Bridge:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this concrete arch culvert appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility. It retains historic integrity in order to convey significance.
Sources of Information:
See historic context for bibliography.

Section 7: Contact Information			
Legal Owner: Calvin Williford, Executive Director, Rock Island Rail Corridor Authority			
Street Address 1: 22501 Woods Chapel Road			
City: Blue Springs	State: MO	Zip Code: 64051	
Prepared By: Cydney Millstein and Kelsey Lutz		Date: 3/1/2017	
Title of Preparer: Principal and assistant		Organization: Architectural & Historical Research, LLC	
Street Address 1: 1537 Belleview Ave.			
City: Kansas City	State: MO	Zip Code: 64108	
Email: cydney@ahr-kc.com	Phone: (816) 472-4154		



Culvert at MP 276.7, Lee's Summit. General view of the west façade, looking east.
Date: December 6, 2017



Missouri Bridge Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 277.0

Common Name: Little Blue River Bridge

Other Name(s): Union Pacific Railroad bridge

Section 2: Bridge Location

County: Jackson

City or Town (vicinity): Lee's Summit

Legal Location: Township: 48N

Range: 32W

Section: 34

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad; Chicago, Rock Island & Pacific Railroad

Feature Crossed: Water (Little Blue River)

Latitude: 38.93814

Longitude: -94.43819

Coordinates: UTM Zone: 15S

Northing: 4310895.25

Easting: 375353.46

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)? ☐ Yes ☒ No

Is the Bridge part of a listed historic district? ☐ Yes ☒ No

Has the Bridge been determined eligible for the NRHP? ☐ Yes ☒ No

Is preservation underway? ☐ Yes ☒ No

Is the bridge endangered? ☐ Yes ☒ No

By what? N/A

Has the Bridge been relocated? ☐ Yes ☒ No When? N/A

Where from? N/A

Construction Date: 1903

Modification Date: N/A

Builder: Stubbs, Flick & Johnson Construction Company, Kansas City, MO

Fabricator: American Bridge Company, New York

Section 4: Bridge Design			
Overall length of bridge:	182 ft.	Overall type of bridge:	Deck Plate Girder
Number of tracks:	1	Manufacturer of track:	
Skew:			
Legal Load Condition:	Cooper E 80		
SUBSTRUCTURE			
Number of Abutments:	2	Abutment Material:	Concrete
Abutment Configuration:			
Number of Piers/Bents:	2	Pier Material:	Concrete
Pier Configuration: Solid Shaft			
SUPERSTRUCTURE			
Bridge Type:	Deck Plate Girder		
# of Spans:	3		
Main Span(s)			
Main Span Material:	Metal		
# of Main Spans:	1	Width of Main Spans:	12 ft.
Length of each Main Span:	80 ft.	Total length of all Main Spans:	80 ft.
Height over deck (<i>*for through truss & through arches</i>): N/A			
Deck material:	Ballast	Deck construction method:	For Rail
Wearing Surface: Ballast			
Approach Span(s)			
Approach Span Material:	Metal		
# of Approach Spans:	2	Width of Approach Spans:	12 ft.
Length of each Approach Span:	50 ft.	Total length of all Approach Spans:	100 ft.

Section 5: Other Surveys
What other surveys has this bridge been a part of?
Bridgehunter.com BH 43569

Section 6: Narratives
Brief Description of the Bridge (include any rehabilitation or alterations):
This deck plate girder bridge features a main span measuring 80 feet and two approach spans measuring 50 feet each.
History of the Bridge:
Very similar in design to the Elm Branch Bridge in Pettis County, MO, this deck plate girder was built 1903 for the St. Louis, Kansas City & Colorado Railroad by Stubbs-Flick-Johnson Construction Company, Kansas City, MO. American Bridge Company, New York, manufactured the deck plate girders.
Significance of the Bridge with Justification:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this deck plate girder bridge appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility. It retains historic integrity in order to convey significance.
Sources of Information:
See historic context for bibliography

Section 7: Contact Information			
Legal Owner:	Calvin Williford, Executive Director, Rock Island Rail Corridor Authority		
Street Address 1:	22501 Woods Chapel Rd.		
City:	Blue Springs	State:	MO
		Zip Code:	64015
Prepared By:	Cydney Millstein and Kelsey Lutz	Date:	3/12/2017
Title of Preparer:	Principal and Assistant	Organization:	Architectural & Historical Research, LLC
Street Address 1:	1537 Belleview Ave.		
Street Address 2:			
City:	Kansas City	State:	MO
		Zip Code:	64108
Email:	cydney@ahr-kc.com		
		Phone:	(816) 472-4154



Bridge at MP 277.0 over the Little Blue River. Panorama of the west facade facing southeast (above); Detail of the west façade, looking east (below). Date: December 6, 2016.



D. V. FORM NO. 62
DATE 10-15-15 INTERSTATE COMMERCE COMMISSION
DIVISION OF VALUATION
CARRIER Rock Island
VALUATION SECTION 15-7mo
13-717
H. M. Oline
FOR CARRIER
A. H. Worley
FOR I. C. C.
PAGE 4

Steel (80) Amer Bridge Co 1903
1- D.P. Girder span 30'0"
1 ply
web. 36 x 3/8 } Sm. = 780 = E50
ICC Est Wt = 17000 #
Carriers Record actual 18848 #
Flange
2 L 6 x 4 x 3/4 }
1 cov. 12 x 9/16 } full length out top
1 " 12 x 1/2 }

2.9 shoes 6" hgh
4 Cross frames
Top Lats 1 L dbl system
Gr. 64 hght 6 x 8 dap
Bridge Board # 2580 1
Hardware
Wall Plate 30 hght 8 x 16

J 256 187
J 1 180 #
(320) 187

Original engineering notes from the ICC files, C. R. I. & P. RY, Val Sections. National Archives, College Park, MD, describing the deck plate girder span at MP 277.0. RG No. 134, 570, Box 683.



Missouri Bridge Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 277.7

Common Name: Vale Tunnel

Other Name(s): Union Pacific Railroad Tunnel No. 4,
Vale, MO

Section 2: Bridge Location

County(ies): Jackson

City or Town (vicinity): Kansas City

Legal Location: Township: 48N

Range: 32W

Section: 27

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado
Railroad; Chicago, Rock Island &
Pacific Railroad

Feature Crossed: Embankment

Latitude: 38.94770

Longitude: -94.43537

Coordinates: UTM Zone: 15S

Northing: 4311952.34

Easting: 375614.59

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)? ☐ Yes ☒ No

Is the Bridge part of a listed historic district? ☐ Yes ☒ No

Has the Bridge been determined eligible for the NRHP? ☐ Yes ☒ No

Is preservation underway? ☐ Yes ☒ No

Is the bridge endangered? ☐ Yes ☒ No

By what? N/A

Has the Bridge been relocated? ☐ Yes ☒ No When? N/A

Where from? N/A

Construction Date: 1903

Rehabilitation Date(s): N/A

Builder: The Gasconade Railway
Construction Company with
the St. Louis, Kansas City &
Colorado Railroad

Fabricator: N/A

Section 4: Bridge Design			
Overall length of bridge:	453 ft.	Overall type of bridge:	Arch Tunnel
Number of tracks:	1	Manufacturer of track:	Illinois Steel Company
Skew:			
Legal Load Condition:	Unknown		
SUBSTRUCTURE			
Number of Abutments:	0	Abutment Material:	N/A
Abutment Configuration: N/A			
Number of Piers/Bents:	0	Pier Material:	N/A
Pier Configuration: N/A			
SUPERSTRUCTURE			
Bridge Type:	Arch Tunnel		
# of Spans:	1		
Main Span(s)			
Main Span Material:	Concrete		
# of Main Spans:	1	Width of Main Spans:	18 ft.
Length of each Main Span:	453 ft.	Total length of all Main Spans:	453 ft.
Height over deck (*for through truss & through arches): N/A			
Deck material:	Ballast	Deck construction method:	For Rail
Wearing Surface: Ballast			
Approach Span(s)			
Approach Span Material:	N/A	and/or Choose an item.	If "other" please specify.
# of Approach Spans:	0	Width of Approach Spans:	N/A
Length of each Approach Span:	N/A	Total length of all Approach Spans:	N/A

Section 5: Other Surveys
What other surveys has this bridge been a part of?
Bridgehunter.com BH 21722

Section 6: Narratives

Brief Description of the Bridge:

The Vale Tunnel measures 453 feet in length, 18 feet wide and 28.6 feet in height. The tunnel is lined with concrete. Spaces between the lining (timber and concrete) and the tunnel section were designed to be filled with crushed stone. See drawing, below. The impression of the timber placed behind the concrete can be seen on the interior of the tunnel.

History of the Bridge:

Vale Tunnel, or Tunnel No. 4 built for the St. Louis, Kansas City & Colorado Railroad, is one of four tunnels constructed along the line. The Vale Tunnel, like the other structures, was excavated in rock. It appears that J. L. Campbell, the Chief Engineer for the Gasconade Railway Construction Company, was responsible for the design of the tunnels.

Significance of the Bridge:

Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, the Vale Tunnel appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility. It retains historic integrity in order to convey significance.

Sources of Information:

See historic context for bibliography.

Section 7: Contact Information

Legal Owner:	Calvin Williford, Executive Director, Rock Island Rail Corridor Authority
--------------	---

Street Address 1:	22501 Woods Chapel Rd.
-------------------	------------------------

City:	Blue Springs	State:	MO	Zip Code:	64015
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Prepared By:	Cydney Millstein and Kelsey Lutz	Date:	3/12/2017
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Title of Preparer:	Principal and Assistant	Organization:	Architectural & Historical Research, LLC
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Street Address 1:	1537 Belleview Ave.
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City:	Kansas City	State:	MO	Zip Code:	64108
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Email:	cydney@ahr-kc.com	Phone:	(816) 472-4154
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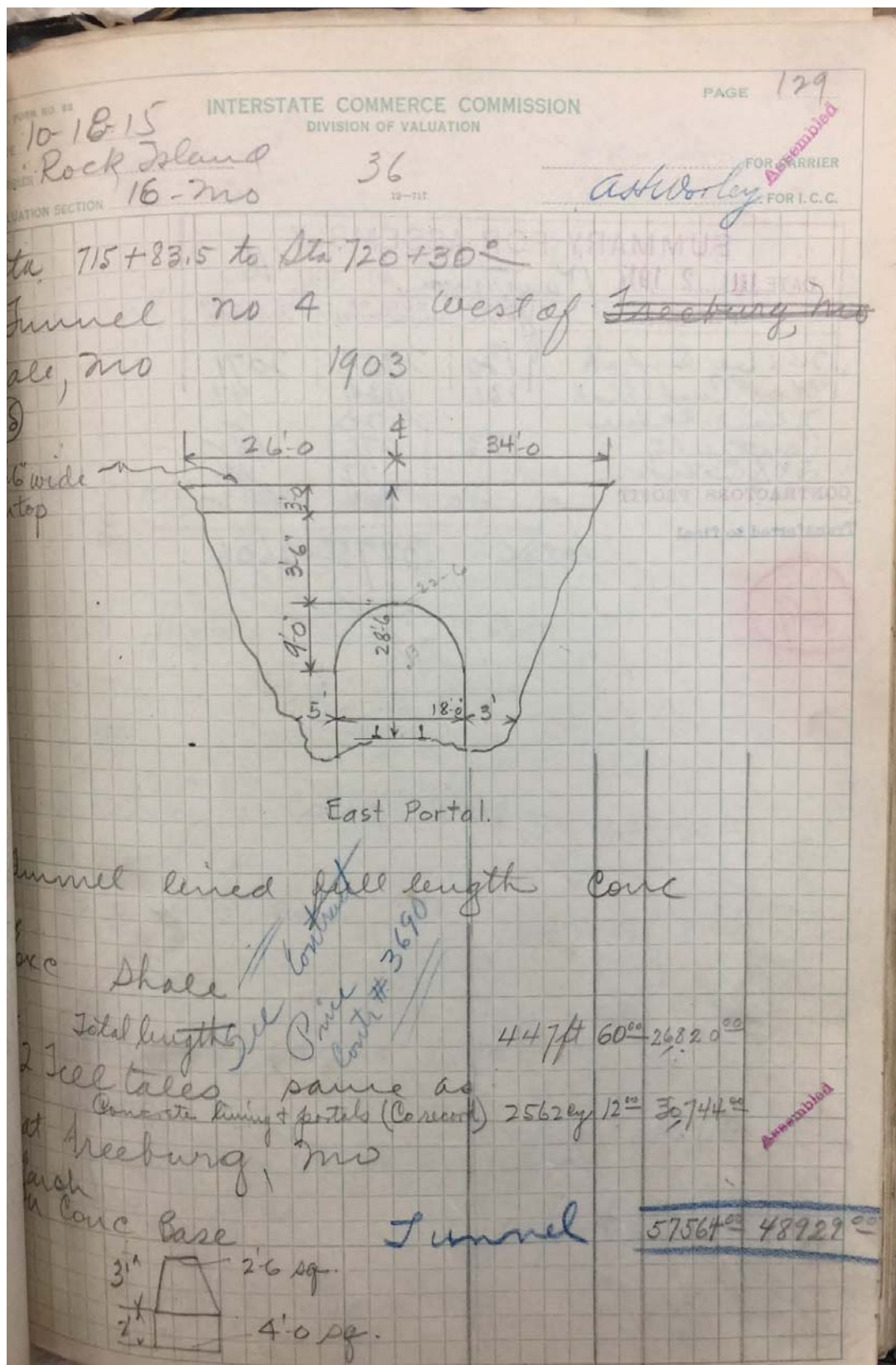


Vale Tunnel at MP 277.7. View of the north entrance, facing east (above); view of the south entrance, facing north (below). Date: December 6, 2016.





Vale Tunnel at MP No. 277.7. View of the interior, facing south. Date: December 6, 2016



Original engineering notes from the ICC files, C. R. I. & P. RY, Val Sections. National Archives, College Park, MD. Vale Tunnel. RG No. 134, 570, Box 683.



Missouri Bridge Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 279.0

Common Name: Bridge over MO-350

Other Name(s): Union Pacific Railroad bridge

Section 2: Bridge Location

County(ies): Jackson

City or Town (vicinity): Kansas City

Legal Location: Township: 48 N

Range: 32 W Section: 22

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad; Chicago, Rock Island & Pacific Railroad

Feature Crossed: Roadway (MO Highway 350)

Latitude: 39.05841

Longitude: -94.50177

Coordinates: UTM Zone: 15S

Northing: 4324331.58

Easting: 370062.99

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)? ☐ Yes ☒ No

Is the Bridge part of a listed historic district? ☐ Yes ☒ No

Has the Bridge been determined eligible for the NRHP? ☐ Yes ☒ No

Is preservation underway? ☐ Yes ☒ No

Is the bridge endangered? ☐ Yes ☒ No

By what? N/A

Has the Bridge been relocated? ☐ Yes ☒ No When? N/A

Where from? N/A

Construction Date: After 1915

Modification Date: N/A

Builder: Stubbs, Flick, and Johnson Construction Company, Kansas City (attribution)

Fabricator: American Bridge Company, New York (attribution)

Section 4: Bridge Design			
Overall length of bridge: 50 ft.		Overall type of bridge: Deck Plate Girder	
Number of tracks: 1		Manufacturer of track: Illinois Steel Company	
Skew:			
Legal Load Condition: Cooper E 80			
SUBSTRUCTURE			
Number of Abutments: 2		Abutment Material: Concrete	
Abutment Configuration: T			
Number of Piers/Bents: N/A		Pier Material: N/A	
Pier Configuration: N/A			
SUPERSTRUCTURE			
Bridge Type: Deck Plate Girder			
# of Spans: 1			
Main Span(s)			
Main Span Material: Metal			
# of Main Spans: 1		Width of Main Spans: 14 ft.	
Length of each Main Span: 46 ft.		Total length of all Main Spans: 46 ft.	
Height over deck (*for through truss & through arches): N/A			
Deck material: Ballast		Deck construction method: For Rail	
Wearing Surface: Ballast			
Approach Span(s)			
Approach Span Material: N/A			
# of Approach Spans: 0		Width of Approach Spans: N/A	
Length of each Approach Span: N/A		Total length of all Approach Spans: N/A	

Section 5: Other Surveys	
What other surveys has this bridge been a part of?	<i>This could include the Missouri Historic Bridge Inventory, local resource surveys, Bridgehunter.com, and more.</i>
Bridgehunter.com BH 36480	

Section 6: Narratives
Brief Description of the Bridge (include any rehabilitation or alterations).
This deck plate girder measures 46' in length and 14' wide, with concrete abutments.
History of the Bridge (including citations):
A concrete arch bridge measuring 20' x 16' was originally located at this MP. Sometime after 1915 when the roadway was modified, this deck plate girder was constructed.
Significance of the Bridge with Justification:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this deck plate girder appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility. It retains historic integrity in order to convey significance.
Sources of Information:
See historic context for bibliography

Section 7: Contact Information			
Legal Owner:	Calvin Williford, Executive Director, Rock Island Rail Corridor Authority		
Street Address 1:	22501 Woods Chapel Road		
City:	Blue Springs	State:	MO
		Zip Code:	64015
Prepared By:	Cydne Millstein and Kelsey Lutz	Date:	3/12/2017
Title of Preparer:	Principal and assistant	Organization:	Architectural & Historical Research, LLC
Street Address 1:	1537 Belleview Ave.		
City:	Kansas City	State:	MO
		Zip Code:	64108
Email:	cydney@ahr-kc.com	Phone:	(816) 472-4154



Bridge at MP 279.0 at MO Highway 350. View of the south façade, facing northeast. Date: March 7, 2017.



Bridge at MP 279.0 at MO Highway 350. View of the tracks on the deck of the bridge, facing east.
Date: December 6, 2016.



Missouri Bridge Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 280.0

Common Name: Bridge over Frost Road

Other Name(s): Union Pacific Railroad bridge

Section 2: Bridge Location

County(ies): Jackson

City or Town (vicinity): Raytown

Legal Location: Township: 48 N

Range: 32 W

Section: 15

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad; Chicago, Rock Island & Pacific Railroad

Feature Crossed: Roadway (Frost Road)

Latitude: 38.97882

Longitude: -94.42996

Coordinates: UTM Zone: 15S

Northing: 4315398.60

Easting: 376137.64

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)?

☐ Yes

☒ No

Is the Bridge part of a listed historic district?

☐ Yes

☒ No

Has the Bridge been determined eligible for the NRHP?

☐ Yes

☒ No

Is preservation underway?

☐ Yes

☒ No

Is the bridge endangered?

☐ Yes

☒ No

By what? N/A

Has the Bridge been relocated?

☐ Yes

☒ No

When? N/A

Where from? N/A

Construction Date: 1903

Rehabilitation Date(s): N/A

Builder: Gasconade Railway Construction Company, St. Louis

Fabricator: N/A

Section 4: Bridge Design			
Overall length of bridge: 42 ft.		Overall type of bridge: Concrete Arch	
Number of tracks: 1		Manufacturer of tracks: Illinois Steel Company	
Skew: Unknown			
Legal Load Condition: Cooper E 40			
SUBSTRUCTURE			
Number of Abutments: 2		Abutment Material: Concrete	
Abutment Configuration: Wing Wall			
Number of Piers/Bents: 0		Pier Material: N/A	
Pier Configuration: N/A			
SUPERSTRUCTURE			
Bridge Type: Reinforced Concrete Arch			
# of Spans: 1			
Main Span(s)			
Main Span Material: Concrete			
# of Main Spans: 1		Width of Main Spans: 18 ft.	
Length of each Main Span: 42 ft.		Total length of all Main Spans: 42 ft.	
Height over deck (*for through truss & through arches): N/A			
Deck material: Ballast		Deck construction method: For Rail	
Wearing Surface: Ballast			
Approach Span(s)			
Approach Span Material: N/A			
# of Approach Spans: 0		Width of Approach Spans: N/A	
Length of each Approach Span: N/A		Total length of all Approach Spans: N/A	

Section 5: Other Surveys
What other surveys has this bridge been a part of?
Bridgehunter.com BH 51803

Section 6: Narratives
Brief Description of the Bridge:
Located at Frost Road, this reinforced concrete arch subway measures 42' in length, 18' wide and 16' in height.
History of the Bridge:
J. L. Campbell, Chief Engineer for the Gasconade Railway Construction Company, may have designed the bridge for the St. Louis, Kansas City & Colorado Railroad. Campbell wrote extensively about structures for the line, specifically reinforced concrete arch bridges and culverts and included drawings for standardized structures in various publications including <i>The Engineering Record</i> that covered the construction of this railroad line.
Significance of the Bridge with Justification:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this reinforced concrete arch bridge appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility. It retains historic integrity in order to convey significance.
Sources of Information:
See historic context for bibliography

Section 7: Contact Information			
Legal Owner: Calvin Williford, Executive Director, Rock Island Rail Corridor Authority			
Street Address 1: 22501 Woods Chapel Road			
City: Blue Springs	State: MO	Zip Code: 64051	
Prepared By: Cydney Millstein and Kelsey Lutz		Date: 3/1/2017	
Title of Preparer: Principal and assistant		Organization: Architectural & Historical Research, LLC	
Street Address 1: 1537 Belleview Ave.			
City: Kansas City	State: MO	Zip Code: 64108	
Email: cydney@ahr-kc.com	Phone: (816) 472-4154		



Bridge at MP 280.00 over Frost Road, Raytown, MO. General view of the west façade (above) and east façade (below). Date: December 6, 2016



Bridge at MP No. 280.00 over Frost Road, Raytown, MO. View from the deck of the bridge toward Frost Road.
Date: December 6, 2016



Missouri Bridge Inventory Form

Section 1: Bridge Identification

Bridge Number: MP: 280.6

Common Name: Bridge over 75th Street

Other Name(s): Union Pacific Railroad bridge

Section 2: Bridge Location

County(ies): Jackson

City or Town (vicinity): Raytown

Legal Location: Township: 48 N

Range: 32 W Section: 15

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad

Feature Crossed: Roadway

Latitude: 38.98566

Longitude: -94.43849

Coordinates: UTM Zone: 15S

Northing: 4316169.32 Easting: 375410.73

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)? ☐ Yes ☒ No

Is the Bridge part of a listed historic district? ☐ Yes ☒ No

Has the Bridge been determined eligible for the NRHP? ☐ Yes ☒ No

Is preservation underway? ☐ Yes ☒ No

Is the bridge endangered? ☐ Yes ☒ No

By what? N/A

Has the Bridge been relocated? ☐ Yes ☒ No When? N/A

Where from? N/A

Construction Date: 1903

Rehabilitation Date(s): N/A

Builder: Gasconade Railway Construction Company, St. Louis

Fabricator: N/A

Section 4: Bridge Design			
Overall length of bridge: 20 ft.		Overall type of bridge: Concrete and I-Beam Road Crossing	
Number of tracks 1		Manufacturer of tracks: Illinois Steel Company	
Skew:			
Legal Load Condition:			
SUBSTRUCTURE			
Number of Abutments: 2		Abutment Material: Concrete	
Abutment Configuration: Wing Wall			
Number of Piers/Bents: 0		Pier Material: N/A	
Pier Configuration: N/A			
SUPERSTRUCTURE			
Bridge Type:		Concrete and I-Beam Road Crossing	
# of Spans: 1			
Main Span(s)			
Main Span Material:		Concrete	
# of Main Spans: 1		Width of Main Spans: 12 ft.	
Length of each Main Span: 20 ft.		Total length of all Main Spans: 20 ft.	
Height over deck (<i>*for through truss & through arches</i>): N/A			
Deck material: Ballast		Deck construction method: For Rail	
Wearing Surface: Ballast			
Approach Span(s)			
Approach Span Material:		N/A	
# of Approach Spans: 0		Width of Approach Spans: N/A	
Length of each Approach Span: N/A		Total length of all Approach Spans: N/A	

Section 5: Other Surveys
What other surveys has this bridge been a part of?
Bridgehunter.com BH 51804

Section 6: Narratives
Brief Description of the Bridge:
This Concrete and I-Beam Solid Floor Road Crossing (bridge) measures 20' long, 12' wide and 16' in height.
History of the Bridge:
J. L. Campbell, Chief Engineer for the Gasconade Railway Construction Company, may have designed the bridge for the St. Louis, Kansas City & Colorado Railroad. Campbell wrote extensively about structures for the line, specifically reinforced concrete arch bridges and culverts and included drawings for standardized structures in various publications including <i>The Engineering Record</i> that covered the construction of this railroad line.
Significance of the Bridge:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this concrete and I-Beam solid floor road crossing appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility. It retains historic integrity in order to convey significance.
Sources of Information:
See historic context for bibliography.

Section 7: Contact Information			
Legal Owner:	Calvin Williford, Executive Director, Rock Island Rail Corridor Authority		
Street Address 1:	22501 Woods Chapel Road		
City:	Blue Springs	State:	MO
		Zip Code:	64015
Prepared By:	Cydne Millstein and Kelsey Lutz	Date:	3/1/2017
Title of Preparer:	Principal and assistant	Organization:	Architectural & Historical Research, LLC
Street Address 1:	1537 Belleview Ave.		
City:	Kansas City	State:	MO
		Zip Code:	64108
Email:	cydney@ahr-kc.com	Phone:	(816) 472-4154



Bridge at MP 280.6. View of west façade, looking east. Date: December 5, 2016

V. FORM NO. 68
 DATE 10-19-15 INTERSTATE COMMERCE COMMISSION
 DIVISION OF VALUATION
 CARRIER Rock Island 13
 VALUATION SECTION 167mo 13-717
 FOR CARRIER Asst Worley
 FOR I.C.C.

ta 553+30
 1-0 x 1-0 16'-0
 "pine solid
 Exc 2 x 1 1/2 x 18 Earth dry

200 ftm 120 ftm
 2 cy 1 cy

ta 563+
 Roadway Crossing Subway

concrete Slab
 I-Beams at 8x65x20
 masonry
 Exc-solid rock

1940
 460
 500
 215
 54

Original engineering notes from the ICC files, C. R. I. & P. RY, Val Sections. National Archives, College Park, MD. Concrete Slab with I-Beam, RG No. 134, 570, Box 683.



Missouri Bridge Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 281.5

Common Name: Wildwood Bridge

Other Name(s): Union Pacific Railroad bridge

Section 2: Bridge Location

County(ies): Jackson

City or Town (vicinity): Raytown

Legal Location:

Township: 48N

Range: 32W

Section: 9

Route (current): No active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad

Feature Crossed: Terrain

Latitude: 38.994328

Longitude: -94.450944

Coordinates:

UTM Zone: 15S

Northing: 4317148.40

Easting: 374347.36

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)?

☐ Yes

☒ No

Is the Bridge part of a listed historic district?

☐ Yes

☒ No

Has the Bridge been determined eligible for the NRHP?

☐ Yes

☒ No

Is preservation underway?

☐ Yes

☒ No

Is the bridge endangered?

☐ Yes

☒ No

By what? N/A

Has the Bridge been relocated?

☐ Yes

☒ No

When? N/A

Where from? N/A

Construction Date: c. 1903

Rehabilitation Date(s): N/A

Builder: St. Louis, Kansas City & Colorado Railroad

Fabricator: N/A

Section 4: Bridge Design			
Overall length of bridge:	145 ft.	Overall type of bridge:	Timber Trestle
Number of tracks:	1	Manufacturer of track:	Illinois Steel Company
Skew:			
Legal Load Condition:	Unknown		
SUBSTRUCTURE			
Number of Abutments:	2	Abutment Material:	Unknown
Abutment Configuration: Unknown			
Number of Piers/Bents:	8	Pier Material:	Timber
Pier Configuration:	Battered and plumb piles		
SUPERSTRUCTURE			
Bridge Type:	Timber Trestle		
# of Spans:	1		
Main Span(s)			
Main Span Material:	Timber		
# of Main Spans:	1	Width of Main Spans:	Unknown
Length of each Main Span:	145 ft.	Total length of all Main Spans:	145 ft.
Height over deck (<i>*for through truss & through arches</i>): N/A			
Deck material:	Wood	Deck construction method:	For Rail
Wearing Surface: Ballast			
Approach Span(s)			
Approach Span Material:	N/A		
# of Approach Spans:	0	Width of Approach Spans:	N/A
Length of each Approach Span:	N/A	Total length of all Approach Spans:	N/A

Section 5: Other Surveys
What other surveys has this bridge been a part of?
Bridgehunter.com BH 48932

Section 6: Narratives
Brief Description of the Bridge:
This is one of the few remaining timber trestle spans on the entire rail line. Measuring 145 ft. in length, this bridge was difficult to examine due to overgrowth and precarious site conditions.
History of the Bridge:
Constructed for the St. Louis, Kansas City and Colorado Railroad, this 145' timber trestle appears to be one of the earliest extant bridges in the project study area.
Significance of the Bridge:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this timber trestle bridge appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility. It retains historic integrity in order to convey significance.
Sources of Information:
See historic context for bibliography

Section 7: Contact Information			
Legal Owner:	Calvin Williford, Executive Director, Rock Island Rail Corridor Authority		
Street Address 1:	22501 Wood Chapel Road		
City:	Blue Springs	State:	MO
		Zip Code:	64015
Prepared By:	Cydney Millstein and Kelsey Lutz	Date:	3/1/2017
Title of Preparer:	Principal and assistant	Organization:	Architectural and Historical Research, LLC
Street Address 1:	1537 Belleview Ave.	Street Address 2:	1537 Belleview Ave.
City:	Kansas City	State:	MO
		Zip Code:	64108
Email:	cydney@ahr-kc.com	Phone:	(816) 472-4154



Bridge at MP 281.5. General view of the east façade, looking northwest (above) and a detail of the substructure, looking northwest (below). Date: December 5, 2016



Bridge at MP 281.5. View from deck looking southeast. Date: December 5, 2016

DATE 10-20-15 INTERSTATE COMMERCE COMMISSION
DIVISION OF VALUATION

PAGE 75

CARRIER Rock Island

VALUATION SECTION 16-mo

12-717

H. M. Stone

FOR CARRIER

A. W. Worley

FOR I.C.C.

tu 2/8+

restle over K.C.S. Ry Tracks

ent No	No	Height	Kind
1	5	1'-0	Ind pine
2	{	5'-0	{
3		12'-0	
4		14'-0	
5		21'-0	
6	3	23'-0	oak
7	12	20'-0	Frame 12x12 Ind 8
8			(up 4 1920 7Rm 1632 7Rm 960 " 816 ")
8	12	20'-0	" 12x12 Ind. 2880 " 2448 "
9	3	20'-0	oak
10	5	19'-0	Ind Pine
11	{	17'-0 17'-0	{
12		15'-0	
13		8'-0	
14		1'-0	

total length of Piles abv. Grd

Oaks 129'
Treated pine 565'

estimation.

20'-0 (est) Oaks 20x6x12 120
Ind. pine 20x6x12 1000

Total Oaks Piling 129 + 120 =
" Treated Pine " 565 + 1000 =

els Bent 74 8

249 length 212 length
1565 " 1330 "

20 length 8x16 SH
" " 12x12

3413 7Rm 2901 7Rm
1344 " 1142 "



Missouri Bridge Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 282.5

Common Name: Bridge over 67th Street

Other Name(s): Union Pacific Railroad bridge

Section 2: Bridge Location

County(ies): Jackson

City or Town (vicinity): Raytown

Legal Location: Township: 48 N

Range: 32 W

Section: 9

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad; Chicago, Rock Island & Pacific Railroad

Feature Crossed: Roadway

Latitude: 39.00139

Longitude: -94.46035

Coordinates: UTM Zone: 15S

Northing: 4317945.16

Easting: 373545.33

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)?

☐ Yes

☒ No

Is the Bridge part of a listed historic district?

☐ Yes

☒ No

Has the Bridge been determined eligible for the NRHP?

☐ Yes

☒ No

Is preservation underway?

☐ Yes

☒ No

Is the bridge endangered?

☐ Yes

☒ No

By what? N/A

Has the Bridge been relocated?

☐ Yes

☒ No

When? N/A

Where from? N/A

Construction Date: Unknown

Rehabilitation Date(s): Unknown

Builder: Unknown

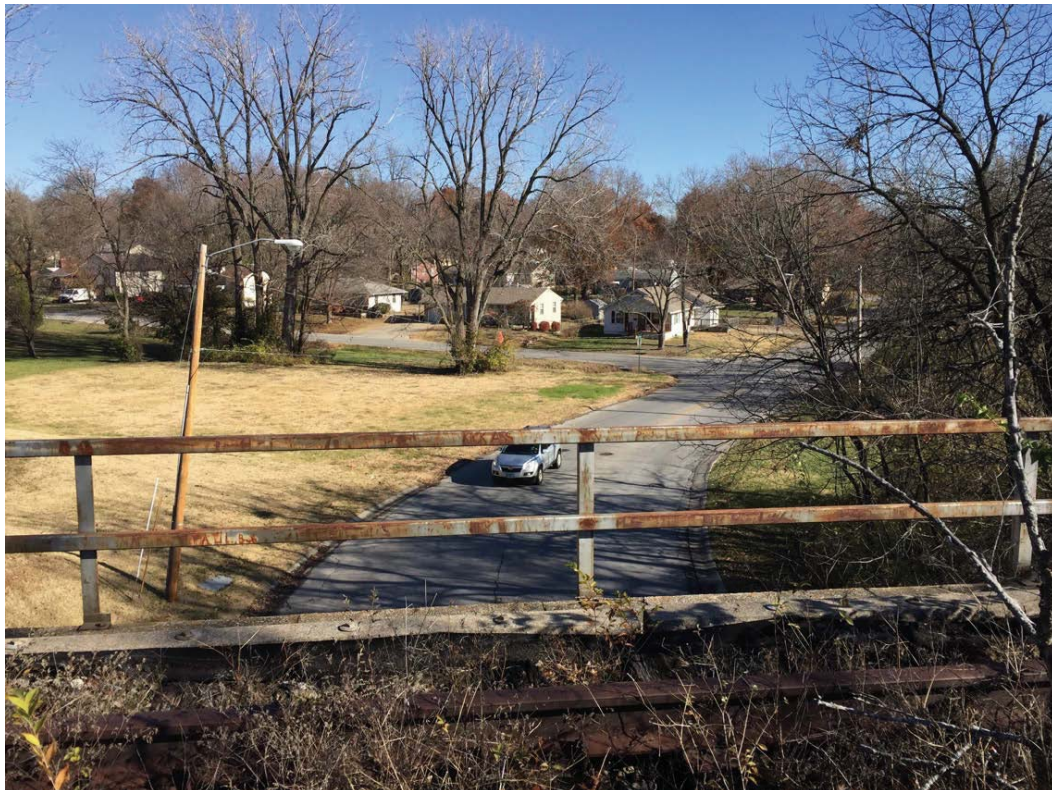
Fabricator: Unknown

Section 4: Bridge Design			
Overall length of bridge:	100 ft.	Overall type of bridge:	Deck Plate Girder with I-Beams
Number of tracks::	1	Manufacturer of track:	
Skew:			
Legal Load Condition:	Cooper E 80		
SUBSTRUCTURE			
Number of Abutments:	2	Abutment Material:	Concrete
Abutment Configuration:			
Number of Piers/Bents:	2	Pier Material:	Concrete
Pier Configuration: Columns			
SUPERSTRUCTURE			
Bridge Type:	Deck Plate Girder		
# of Spans:	1		
Main Span(s)			
Main Span Material:	Metal		
# of Main Spans:	1	Width of Main Spans:	31 ft.
Length of each Main Span:	100 ft.	Total length of all Main Spans:	100 ft
Height over deck (<i>*for through truss & through arches</i>): N/A			
Deck material:	Ballasted	Deck construction method:	For Rail
Wearing Surface: Ballast			
Approach Span(s)			
Approach Span Material:	Metal		
# of Approach Spans:	0	Width of Approach Spans:	N/A
Length of each Approach Span:		Total length of all Approach Spans:	

Section 5: Other Surveys
What other surveys has this bridge been a part of?
Bridgehunter.com BH 53266

Section 6: Narratives
Brief Description of the Bridge:
This deck plate girder measures 100' in length and 31' wide.
History of the Bridge:
As 67 th street was extended between 1964 and 1970, this bridge may have replaced an earlier deck plate girder to accommodate for the increase in clearance that was required.
Significance of the Bridge:
Because this bridge may date outside the period of significance, it is more than likely a non-contributing resource to the line.
Sources of Information:
See historic context for bibliography

Section 7: Contact Information			
Legal Owner:	Calvin Williford, Executive Director, Rock Island Rail Corridor Authority		
Street Address 1:	22501 Woods Chapel Road		
City:	Blue Springs	State:	MO
		Zip Code:	64015
Prepared By:	Cydne Millstein and Kelsey Lutz	Date:	March 2017
Title of Preparer:	Principal and assistant	Organization:	Architectural and Historical Research, LLC
Street Address 1:	1537 Belleview Ave.		
City:	Kansas City	State:	MO
		Zip Code:	64108
Email:	cydney@ahr-kc.com	Phone:	(816) 472-4154



Bridge at MP 282.5. General view of the west façade (above) and a detail of the deck and rail (below). Dates: March 6, 2017 and December 5, 2016.



Missouri Bridge Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 282.4

Common Name: Bridge over Raytown Road

Other Name(s): Union Pacific Railroad bridge

Section 2: Bridge Location

County: Jackson

City or Town (vicinity): Raytown

Legal Location: Township: 49 N

Range: 32 W

Section: 32

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad

Feature Crossed: Original designed for a roadway

Latitude: 39.01654

Longitude: -94.46650

Coordinates: UTM Zone: 15S

Northing: 4319635.05

Easting: 373039.86

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)? ☐ Yes ☒ No

Is the Bridge part of a listed historic district? ☐ Yes ☒ No

Has the Bridge been determined eligible for the NRHP? ☐ Yes ☒ No

Is preservation underway? ☐ Yes ☒ No

Is the bridge endangered? ☐ Yes ☒ No

By what? N/A

Has the Bridge been relocated? ☐ Yes ☒ No

When? N/A

Where from? N/A

Construction Date: c. 1903

Rehabilitation Date(s): N/A

Builder: Gasconade Railway Construction Company, St. Louis; St. Louis, Kansas City & Colorado Railroad

Fabricator: Unknown

Section 4: Bridge Design			
Overall length of bridge: 20 ft.		Overall type of bridge: I-Beam encased in concrete	
Number of tracks: 1		Manufacturer of track: Illinois Steel Company	
Skew:			
Legal Load Condition:			
SUBSTRUCTURE			
Number of Abutments: 2		Abutment Material: Concrete	
Abutment Configuration: slab			
Number of Piers/Bents: 0		Pier Material: N/A	
Pier Configuration: N/A			
SUPERSTRUCTURE			
Bridge Type: I-Beam encased in concrete			
# of Spans: 1			
Main Span(s)			
Main Span Material: Concrete			
# of Main Spans: 1		Width of Main Spans: 10 ft.	
Length of each Main Span: 20 ft.		Total length of all Main Spans: 20 ft.	
Height over deck (<i>*for through truss & through arches</i>): N/A			
Deck material: Ballast		Deck construction method:	
Wearing Surface: Ballast			
Approach Span(s)			
Approach Span Material: N/A			
# of Approach Spans: 0		Width of Approach Spans: N/A	
Length of each Approach Span: N/A		Total length of all Approach Spans: N/A	

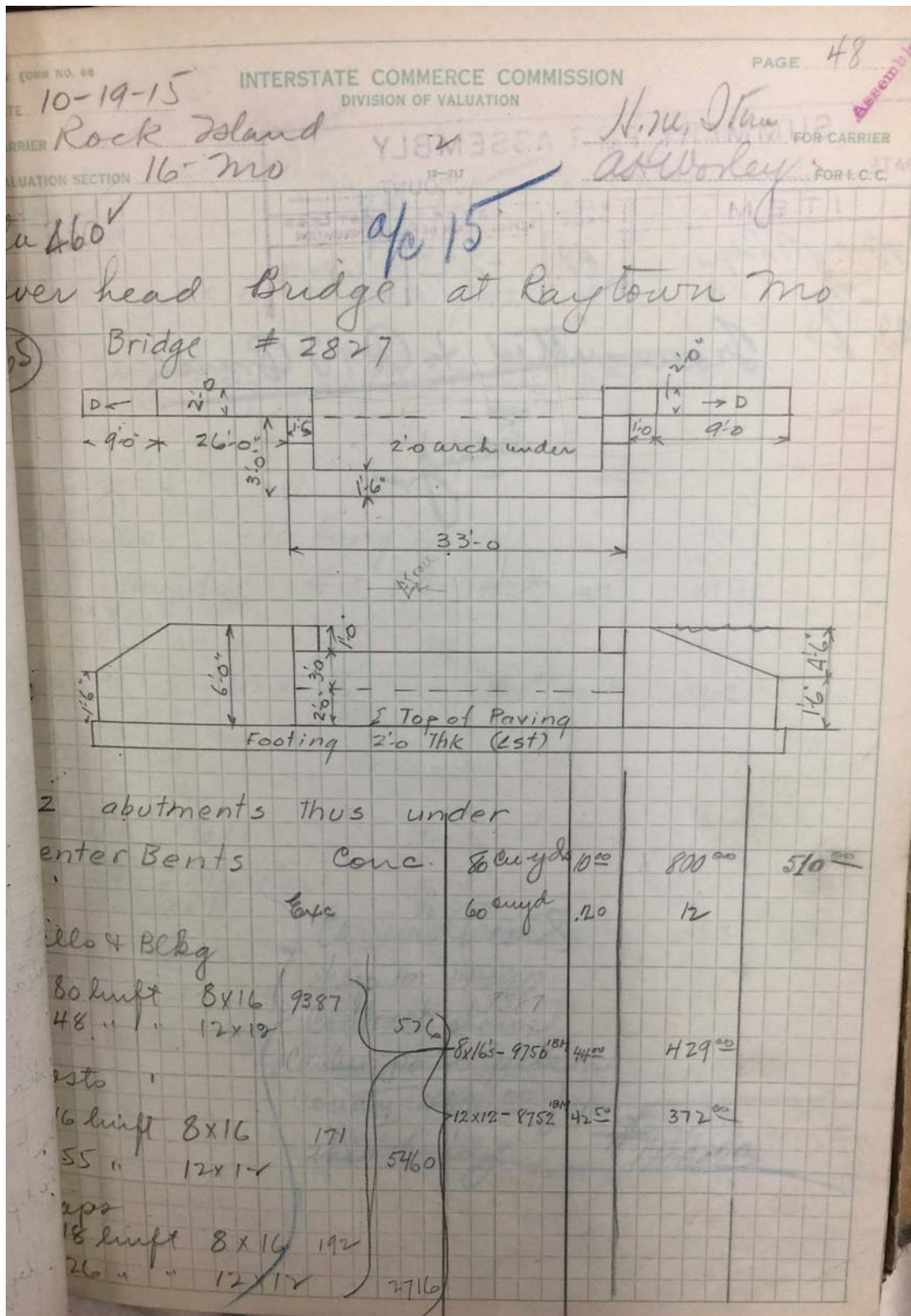
Section 5: Other Surveys	
What other surveys has this bridge been a part of?	
Bridgehunter.com BH 53056	

Section 6: Narratives
Brief Description of the Bridge:
Originally designed over a roadway, this bridge measures 20' in length, 10' in width and 10' in height. The roadway is no longer in use.
History of the Bridge:
Originally designed c. 1903 for the St. Louis, Kansas City & Colorado Railroad, this I-Beam bridge is now obsolete due to the rerouting of Raytown Road.
Significance of the Bridge:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this I-Beam road crossing appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility. It retains historic integrity in order to convey significance.
Sources of Information:
See historic context for bibliography.

Section 7: Contact Information			
Legal Owner:	Calvin Williford, Executive Director, Rock Island Rail Corridor Authority		
Street Address 1:	22501 Woods Chapel Road		
City:	Blue Springs	State:	MO
		Zip Code:	64015
Prepared By:	Cydney Millstein and Kelsey Lutz	Date:	3/1/2017
Title of Preparer:	Principal and assistant	Organization:	Architectural and Historical Research, LLC
Street Address 1:	1537 Belleview Avenue		
City:	Kansas City	State:	MO
		Zip Code:	64108
Email:	cydney@ahr-kc.com	Phone:	(816) 472-4154



Bridge at MP 282.4, Raytown, MO. General view of the west façade looking east (above); detail of the abutment and I-beam encased in concrete looking southeast (below). Date: December 5, 2016.



Original engineering notes from the ICC files, C. R. I. & P. RY, Val Sections. National Archives, College Park, MD. Bridge at MP 282.7. RG No. 134, 570, Box 683.



Missouri Bridge/Culvert Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 284.4

Common Name: Culvert at MP 284.4

Other Name(s): Union Pacific Railroad culvert

Section 2: Bridge Location

County: Jackson

City or Town (vicinity): Kansas City

Legal Location: Township: 49N

Range: 32W Section: 29

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad; Chicago, Rock Island & Pacific Railroad

Feature Crossed: Runoff from Round Grove Creek

Latitude: 39.0309445

Longitude: -94.46640833

Coordinates: UTM Zone: 15

Northing: 4321233.52

Easting: 373073.56

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)? ☐ Yes ☒ No

Is the Bridge part of a listed historic district? ☐ Yes ☒ No

Has the Bridge been determined eligible for the NRHP? ☐ Yes ☒ No

Is preservation underway? ☐ Yes ☒ No

Is the bridge endangered? ☐ Yes ☒ No

By what? N/A

Has the Bridge been relocated? ☐ Yes ☒ No When? N/A

Where from? N/A

Construction Date: c. 1903-1904

Modification Date: N/A

Builder: The Gasconade Railway Construction Company, St. Louis

Fabricator: N/A

Section 4: Bridge Design			
Overall length of bridge:	170 ft.	Overall type of bridge:	Concrete Arch Culvert
Number of tracks:	1	Manufacturer of track:	
Skew:	0		
Legal Load Condition:	Cooper E 40		
SUBSTRUCTURE			
Number of Abutments:	0	Abutment Material:	N/A
Abutment Configuration:	N/A		
Number of Piers/Bents:	0	Pier Material:	N/A
Pier Configuration:	N/A		
SUPERSTRUCTURE			
Bridge Type:	Concrete Arch Culvert		
# of Spans:	1		
Main Span(s)			
Main Span Material:	Concrete		
# of Main Spans:	1	Width of Main Spans:	16 ft.
Length of each Main Span:	170 ft.	Total length of all Main Spans:	170 ft.
Height over deck (<i>*for through truss & through arches</i>): N/A			
Deck material:	Ballast	Deck construction method:	For Rail
Wearing Surface: Ballast			
Approach Span(s)			
Approach Span Material:	None		
# of Approach Spans:	0	Width of Approach Spans:	N/A
Length of each Approach Span:	N/A	Total length of all Approach Spans:	N/A

Section 5: Other Surveys
What other surveys has this bridge been a part of?
None

Section 6: Narratives:
Brief Description of the Bridge:
This concrete culvert measures 170' in length and 16' wide.
History of the Bridge:
Using J. P. Frizzel's actual measurements for drainage areas, the design for this 16' wide concrete culvert was taken from standardized plans for the St. Louis, Kansas City & Colorado Railroad. Along the entire line, approximately 500 culverts and cattle passes were constructed varying from 2 to 36 feet in width.
Significance of the Bridge:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this concrete arch culvert appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility. It retains historic integrity in order to convey significance.
Sources of Information:
See historic narrative for bibliography.

Section 7: Contact Information			
Legal Owner:	Calvin Williford, Executive Director, Rock Island Rail Corridor Authority		
Street Address 1:	22501 Woods Chapel Road		
City:	Blue Springs	State:	MO
		Zip Code:	64051
Prepared By:	Cydne Millstein and Kelsey Lutz	Date:	3/1/2017
Title of Preparer:	Principal and assistant	Organization:	Architectural and Historical Research, LLC
Street Address 1:	1537 Belleview Ave.	Street Address 2:	1537 Belleview Ave.
City:	Kansas City	State:	MO
		Zip Code:	64108
Email:	cydney@ahr-kc.com	Phone:	(816) 472-4154



Culvert at MP 284.4, Kansas City. General views of the west façade, looking northeast.
Date: December 5, 2016





Missouri Bridge Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 285.0

Common Name: Bridge over 47th Street

Other Name(s): Union Pacific Railroad bridge

Section 2: Bridge Location

County(ies): Jackson

City or Town (vicinity): Kansas City

Legal Location: Township: 49 N

Range: 32 W

Section: 29

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad; Chicago, Rock Island & Pacific Railroad

Feature Crossed: Roadway (47th Street)

Latitude: 39.03594

Longitude: -94.47072

Coordinates: UTM Zone: 15S

Northing: 4321793.94

Easting: 372709.31

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)?

☐ Yes

☒ No

Is the Bridge part of a listed historic district?

☐ Yes

☒ No

Has the Bridge been determined eligible for the NRHP?

☐ Yes

☒ No

Is preservation underway?

☐ Yes

☒ No

Is the bridge endangered?

☐ Yes

☒ No

By what? N/A

Has the Bridge been relocated?

☐ Yes

☒ No

When? N/A

Where from? N/A

Construction Date: c. 1903

Modification Date: N/A

Builder: Stubbs, Flick, Johnson Construction Company, Kansas City

Fabricator: American Bridge Company, New York

Section 4: Bridge Design			
Overall length of bridge:	43 ft.	Overall type of bridge:	Deck Plate Girder
Number of tracks:	1	Manufacturer of track:	Illinois Steel Company
Skew:	0		
Legal Load Condition:	Cooper E 80		
SUBSTRUCTURE			
Number of Abutments:	2	Abutment Material:	Concrete
Abutment Configuration:	T		
Number of Piers/Bents:	2	Pier Material:	Concrete
Pier Configuration:	T		
SUPERSTRUCTURE			
Bridge Type:	Deck Plate Girder		
# of Spans:	1		
Main Span(s)			
Main Span Material:	Metal		
# of Main Spans:	1	Width of Main Spans:	Click here to enter text.
Length of each Main Span:	43 ft.	Total length of all Main Spans:	43 ft.
Height over deck (<i>*for through truss & through arches</i>): N/A			
Deck material:	Ballast	Deck construction method:	For Rail
Wearing Surface: Ballast			
Approach Span(s)			
Approach Span Material:	None		
# of Approach Spans:	0	Width of Approach Spans:	N/A
Length of each Approach Span:	N/A	Total length of all Approach Spans:	N/A

Section 5: Other Surveys
What other surveys has this bridge been a part of?
Bridgehunter.com BH 48932

Section 6: Narratives
Brief Description of the Bridge:
This deck plate girder bridge measures 43' in length and features concrete piers and abutments.
History of the Bridge:
Stubbs, Flick and Johnson Construction Company, Kansas City constructed the bridge manufactured by American Bridge Company, New York. Construction date c. 1903 for the St. Louis, Kansas City & Colorado Railroad.
Significance of the Bridge:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this deck plate girder appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility. It retains historic integrity in order to convey significance.
Sources of Information:
See historic context for bibliography

Section 7: Contact Information			
Legal Owner:	Calvin Williford, Executive Director, Rock Island Corridor Authority		
Street Address 1:	22501 Woods Chapel Road :		
City:	Blue Springs	State:	MO Zip Code: 64051
Prepared By:	Cydne y Millstein and Kelsey Lutz	Date:	3/1/2017
Title of Preparer:	Principal and assistant	Organization:	Architectural & Historical Research, LLC
Street Address 1:	1537 Belleview Avenue		
City:	Kansas City	State:	MO Zip Code: 64108
Email:	cydney@ahr-kc.com	Phone:	(816) 472-4154



Bridge at MP 285.0, Raytown, MO. General view of the west façade, facing east (above); view of the deck and piers, facing north (below). Date: February 7, 2017





Missouri Bridge Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 285.2

Common Name: Bridge over Blue Ridge Cutoff Other Name(s): Union Pacific Railroad bridge

Section 2: Bridge Location

County: Jackson

City or Town (vicinity): Kansas City

Legal Location: Township: 49 N

Range: 32 W Section: 29

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad; Chicago, Rock Island & Pacific Railroad

Feature Crossed: Roadway (Blue Ridge Cutoff)

Latitude: 39.03997

Longitude: -94.47609

Coordinates: UTM Zone: 15S

Northing: 4322248.72 Easting: 372251.77

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)? ☐ Yes ☒ No

Is the Bridge part of a listed historic district? ☐ Yes ☒ No

Has the Bridge been determined eligible for the NRHP? ☐ Yes ☒ No

Is preservation underway? ☐ Yes ☒ No

Is the bridge endangered? ☐ Yes ☒ No

By what? N/A

Has the Bridge been relocated? ☐ Yes ☒ No When? N/A

Where from? N/A

Construction Date: c. 1903

Modification Date(s): N/A

Builder: Stubbs, Flick, Johnson Construction Company, Kansas City

Fabricator: American Bridge Company, New York

Section 4: Bridge Design			
Overall length of bridge:	96 ft.	Overall type of bridge:	Through Plate Girder
Number of tracks:	1	Manufacturer of track:	Illinois Steel Company
Skew:			
Legal Load Condition:	Cooper E 80		
SUBSTRUCTURE			
Number of Abutments:	2	Abutment Material:	Concrete
Abutment Configuration: T			
Number of Piers/Bents:	4	Pier Material:	Concrete
Pier Configuration: Piers			
SUPERSTRUCTURE			
Bridge Type:	Through Plate Girder		
# of Spans:	1		
Main Span(s)			
Main Span Material:	Metal		
# of Main Spans:	1	Width of Main Spans:	Unknown
Length of each Main Span:	96 ft.	Total length of all Main Spans:	96 ft.
Height over deck (<i>*for through truss & through arches</i>):			
Deck material:	Ballast	Deck construction method:	For Rail
Wearing Surface: Ballast			
Approach Span(s)			
Approach Span Material:	N/A		
# of Approach Spans:	0	Width of Approach Spans:	N/A
Length of each Approach Span:	N/A	Total length of all Approach Spans:	N/A

Section 5: Other Surveys	
What other surveys has this bridge been a part of?	
Bridgehunter.com BH 36481	

Section 6: Narratives:
Brief Description of the Bridge:
This through plate girder bridge measure 96' in length and features concrete piers and abutments.
History of the Bridge:
Constructed c. 1903 by Stubbs, Flick and Johnson Construction Company, Kansas City and manufactured by the American Bridge Company, this through plate girder is one of two of its type on the line west of Versailles, MO.
Significance of the Bridge:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this through plate girder appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility. It retains historic integrity in order to convey significance.
Sources of Information:
See historic context for bibliography

Section 7: Contact Information			
Legal Owner:	Calvin Williford, Executive Director, Rock Island Rail Corridor Authority		
Street Address 1:	22501 Woods Chapel Road		
City:	Blue Springs	State:	MO
		Zip Code:	64051
Prepared By:	Cydney Millstein and Kelsey Lutz	Date:	3/1/2017
Title of Preparer:	Principal and assistant	Organization:	Architectural & Historical Research, LLC
Street Address 1:	1537 Belleview Ave.		
City:	Kansas City	State:	MO
		Zip Code:	64108
Email:	cydney@ahr-kc.com	Phone:	(816) 472-4154



Bridge at MP 285.2, Raytown, MO. General view of the south façade; view facing north (above);
general view of the south façade; view facing northeast (below). Date: February 7, 2017





Bridge at MP 285.2, Raytown, MO. General view of the deck; view facing west (above); general view of the tracks and deck; view facing east (below).
Date: February 7, 2017.





Missouri Bridge Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 285.5

Common Name: Bridge over Sportsman Drive

Other Name(s): Union Pacific Railroad bridge

Section 2: Bridge Location

County: Jackson

City or Town (vicinity): Kansas City

Legal Location: Township: 49N

Range: 32W

Section: 30

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad; Chicago, Rock Island & Pacific Railroad

Feature Crossed: Roadway (Sportsman Drive)

Latitude: 39.042919

Longitude: -94.480667

Coordinates: UTM Zone: 15S

Northing: 4322582.44

Easting: 371860.96

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)? ☐ Yes ☒ No

Is the Bridge part of a listed historic district? ☐ Yes ☒ No

Has the Bridge been determined eligible for the NRHP? ☐ Yes ☒ No

Is preservation underway? ☐ Yes ☒ No

Is the bridge endangered? ☐ Yes ☒ No

By what? N/A

Has the Bridge been relocated? ☐ Yes ☒ No When? N/A

Where from? N/A

Construction Date: Unknown

Modification Date: N/A

Builder: Unknown

Fabricator: Unknown or N/A

Section 4: Bridge Design			
Overall length of bridge:	148 ft.	Overall type of bridge:	Steel Box Girder with sloping webs
Number of tracks:	1	Manufacturer of track:	
Skew:	0		
Legal Load Condition:	Cooper E 72		
SUBSTRUCTURE			
Number of Abutments:	2	Abutment Material:	Concrete
Abutment Configuration:	T		
Number of Piers/Bents:		Pier Material:	
Pier Configuration:			
SUPERSTRUCTURE			
Bridge Type:	Steel Box Girder with sloping webs		
# of Spans:	1		
Main Span(s)			
Main Span Material:			
# of Main Spans:	1	Width of Main Spans:	
Length of each Main Span:	148 ft.	Total length of all Main Spans:	148 ft.
Height over deck (<i>*for through truss & through arches</i>): N/A			
Deck material:	Ballast	Deck construction method:	For Rail
Wearing Surface:	Ballast		
Approach Span(s)			
Approach Span Material:	N/A		
# of Approach Spans:	0	Width of Approach Spans:	N/A
Length of each Approach Span:	N/A	Total length of all Approach Spans:	N/A

Section 5: Other Surveys
What other surveys has this bridge been a part of?
None

Section 6: Narratives
Brief Description of the Bridge:
This steel box girder bridge with sloping webs measures 148' in length.
History of the Bridge:
It appears that this contemporary bridge replaced an historic span.
Significance of the Bridge:
Due to its age, this bridge is considered a non-contributing resource to the historic railroad line.
Sources of Information:
See historic context for bibliography

Section 7: Contact Information			
Legal Owner: Calvin Williford, Executive Director, Rock Island Rail Corridor Authority			
Street Address 1: 22501 Woods Chapel Road			
City: Blue Springs	State: MO	Zip Code: 64015	
Prepared By: Cydney Millstein and Kelsey Lutz		Date: 3/1/2017	
Title of Preparer: Principal and assistant		Organization: Architectural & Historical Research, LLC	
Street Address 1: 1537 Belleview Ave.			
City: Kansas City	State: MO	Zip Code: 64108	
Email: cydney@ahr-kc.com	Phone: (816) 472-4154		



Bridge No. 285.5, Kansas City, MO. General view of the east façade, facing northwest (above); View of the deck facing north (below). Date: February 7, 2017



Missouri Bridge/Culvert Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 286.2

Common Name: Concrete Arch Culvert with
Flume and Weir at MP 286.2

Other Name(s): Union Pacific Railroad concrete arch
culvert with flume and weir

Section 2: Bridge Location

County(ies): Jackson

City or Town (vicinity): Kansas City

Legal Location:

Township: 49N

Range: 32W

Section: 19

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado
Railroad; Chicago, Rock Island &
Pacific Railroad

Feature Crossed: Drainage

Latitude: 39.04847783

Longitude: -94.49105

Coordinates:

UTM Zone: 15S

Northing: 4323214.04

Easting: 370972.48

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)? ☐ Yes ☒ No

Is the Bridge part of a listed historic district? ☐ Yes ☒ No

Has the Bridge been determined eligible for the NRHP? ☐ Yes ☒ No

Is preservation underway? ☐ Yes ☒ No

Is the bridge endangered? ☐ Yes ☒ No

By what? N/A

Has the Bridge been relocated? ☐ Yes ☒ No

When? N/A

Where from? N/A

Construction Date: c. 1903-1904

Modification Date: N/A

Builder: The Gasconade Railway
Construction Company, St.
Louis

Fabricator: N/A

Section 4: Bridge Design			
Overall length of bridge:	128 ft.	Overall type of bridge:	Concrete Arch Culvert with Flume and Weir
Number of tracks:	1	Manufacturer of track:	Illinois Steel Company
Skew:	0		
Legal Load Condition:	Cooper E 40		
SUBSTRUCTURE			
Number of Abutments:	0	Abutment Material:	N/A
Abutment Configuration:	N/A		
Number of Piers/Bents:	0	Pier Material:	N/A
Pier Configuration:	N/A		
SUPERSTRUCTURE			
Bridge Type:	Concrete Arch Culvert with Flume and Weir		
# of Spans:	1		
Main Span(s)			
Main Span Material:	Concrete		
# of Main Spans:	1	Width of Main Spans:	7 ft.
Length of each Main Span:	128 ft.	Total length of all Main Spans:	128 ft.
Height over deck (<i>*for through truss & through arches</i>): N/A			
Deck material:	Ballast	Deck construction method:	For Rail
Wearing Surface:	Ballast		
Approach Span(s)			
Approach Span Material:	None		
# of Approach Spans:	0	Width of Approach Spans:	N/A
Length of each Approach Span:	N/A	Total length of all Approach Spans:	N/A

Section 5: Other Surveys
What other surveys has this bridge been a part of?
None

Section 6: Narratives
Brief Description of the Bridge:
This concrete culvert, with flume and weir, measures 128' in length and 7' wide.
History of the Bridge:
Using J. P. Frizell's actual measurements for drainage areas, the design for this 7' wide concrete culvert with flume and weir was taken from standardized plans for the St. Louis, Kansas City & Colorado Railroad. Along the entire line, approximately 500 culverts and cattle passes were constructed varying from 2 to 36 feet in width.
Significance of the Bridge:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this concrete culvert (with flume and weir) appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility. It retains historic integrity in order to convey significance.
Sources of Information:
See historic context for bibliography.

Section 7: Contact Information			
Legal Owner:	Calvin Williford, Executive Director, Rock Island Rail Corridor Authority		
Street Address 1:	22501 Woods Chapel Road		
City:	Blue Springs	State:	MO
		Zip Code:	64051
Prepared By:	Cydne Millstein and Kelsey Lutz	Date:	3/1/2017
Title of Preparer:	Principal and assistant	Organization:	Architectural & Historical Research, LLC
Street Address 1:	1537 Belleview Ave.		
City:	Kansas City	State:	MO
		Zip Code:	64108
Email:	cydney@ahr-kc.com	Phone:	(816) 472-4154



Culvert and Flume at MP 286.2, Kansas City. General view facing east, southeast (above); view from rail corridor facing southwest (below). Date: February 7, 2017



Weir at MP 286.2, Kansas City. General view facing south. Date: February 7, 2017



Missouri Bridge/Culvert Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 286.5

Common Name: Culvert at MP 286.5

Other Name(s): Union Pacific Railroad culvert

Section 2: Bridge Location

County: Jackson

City or Town (vicinity): Kansas City

Legal Location: Township: 49N

Range: 32W Section: 19

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad; Chicago, Rock Island & Pacific Railroad

Feature Crossed: Drainage

Latitude: 39.05101383

Longitude: -94.49531667

Coordinates: UTM Zone: 15S

Northing: 4323501.55 Easting: 370607.87

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)? ☐ Yes ☒ No

Is the Bridge part of a listed historic district? ☐ Yes ☒ No

Has the Bridge been determined eligible for the NRHP? ☐ Yes ☒ No

Is preservation underway? ☐ Yes ☒ No

Is the bridge endangered? ☐ Yes ☒ No

By what? N/A

Has the Bridge been relocated? ☐ Yes ☒ No When? N/A

Where from? N/A

Construction Date: c. 1903-1904

Modification Date(s): N/A

Builder: The Gasconade Railway Construction Company, St. Louis

Fabricator: N/A

Section 4: Bridge Design			
Overall length of bridge:	29 ft.	Overall type of bridge:	Concrete Arch Culvert
Number of tracks:	1	Manufacturer of track:	Illinois Steel Company
Skew:	0		
Legal Load Condition:	Cooper E 40		
SUBSTRUCTURE			
Number of Abutments:	0	Abutment Material:	N/A
Abutment Configuration:	N/A		
Number of Piers/Bents:	0	Pier Material:	N/A
Pier Configuration:	N/A		
SUPERSTRUCTURE			
Bridge Type:	Concrete Arch Culvert		
# of Spans:	1		
Main Span(s)			
Main Span Material:	Concrete		
# of Main Spans:	1	Width of Main Spans:	7 ft.
Length of each Main Span:	29 ft.	Total length of all Main Spans:	29 ft.
Height over deck (<i>*for through truss & through arches</i>): N/A			
Deck material:	Ballast	Deck construction method:	For Rail
Wearing Surface: Ballast			
Approach Span(s)			
Approach Span Material:	None		
# of Approach Spans:	0	Width of Approach Spans:	N/A
Length of each Approach Span:	N/A	Total length of all Approach Spans:	N/A

Section 5: Other Surveys
What other surveys has this bridge been a part of?
None

Section 6: Narratives
Brief Description of the Bridge:
This concrete culvert measures 29' in length and 7' wide.
History of the Bridge:
Using J. P. Frizzel's actual measurements for drainage areas, the design for this 7' wide concrete culvert was taken from standardized plans for the St. Louis, Kansas City & Colorado Railroad. Along the entire line, approximately 500 culverts and cattle passes were constructed varying from 2 to 36 feet in width.
Significance of the Bridge with Justification:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this concrete arch culvert appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility. It retains historic integrity in order to convey significance.
Sources of Information:
See historic context for bibliography.

Section 7: Contact Information			
Legal Owner:	Calvin Williford, Executive Director, Rock Island Rail Corridor Authority		
Street Address 1:	22501 Woods Chapel Road		
City:	Blue Springs	State:	MO
		Zip Code:	64051
Prepared By:	Cydne Millstein and Kelsey Lutz	Date:	3/1/2017
Title of Preparer:	Principal and assistant	Organization:	Architectural & Historical Research, LLC
Street Address 1:	1537 Belleview Ave.		
City:	Kansas City	State:	MO
		Zip Code:	64108
Email:	cydney@ahr-kc.com	Phone:	(816) 472-4154



Culvert at MP 286.5, Kansas City. General view of west façade looking southeast. Date: February 7, 2017



Missouri Bridge Inventory Form

Section 1: Bridge Identification

Bridge Number: MP 287.0

Common Name: Bridge over East Stadium Drive

Other Name(s): Union Pacific Railroad bridge

Section 2: Bridge Location

County(ies): Jackson

City or Town (vicinity): Kansas City

Legal Location: Township: 49N

Range: 33W

Section: 24

Route (current): Not active

Route(s) (historic): St. Louis, Kansas City & Colorado Railroad; Chicago, Rock Island & Pacific Railroad

Feature Crossed: Roadway (East Stadium Drive)

Latitude: 39.05721

Longitude: -94.50083

Coordinates: UTM Zone: 15S

Northing: 4324197.06

Easting: 370142.13

Section 3: Bridge History

Is the Bridge listed in the National Register of Historic Places (NRHP)? ☐ Yes ☒ No

Is the Bridge part of a listed historic district? ☐ Yes ☒ No

Has the Bridge been determined eligible for the NRHP? ☐ Yes ☒ No

Is preservation underway? ☐ Yes ☒ No

Is the bridge endangered? ☐ Yes ☒ No

By what? N/A

Has the Bridge been relocated? ☐ Yes ☒ No When? N/A

Where from? N/A

Construction Date: 1903

Modification Date(s): 1904

Builder: Gasconade Railway Construction Company, St. Louis

Fabricator: N/A

Section 4: Bridge Design			
Overall length of bridge:	24 ft.	Overall type of bridge:	Concrete Slab and I-Beam/Arch
Number of tracks:	1	Manufacturer of track:	Illinois Steel Company
Skew:			
Legal Load Condition:	Cooper E 40		
SUBSTRUCTURE			
Number of Abutments:	2	Abutment Material:	Concrete
Abutment Configuration: Wing Wall			
Number of Piers/Bents:	0	Pier Material:	N/A
Pier Configuration: N/A			
SUPERSTRUCTURE			
Bridge Type:	Concrete Slab and I-beam/Arch		
# of Spans:	1		
Main Span(s)			
Main Span Material:	Concrete		
# of Main Spans:	1	Width of Main Spans:	? ft.
Length of each Main Span:	24 ft.	Total length of all Main Spans:	24 ft.
Height over deck (<i>*for through truss & through arches</i>): N/A			
Deck material:	Ballast	Deck construction method:	For Rail
Wearing Surface: Ballast			
Approach Span(s)			
Approach Span Material:	N/A		
# of Approach Spans:	0	Width of Approach Spans:	N/A
Length of each Approach Span:	N/A	Total length of all Approach Spans:	N/A

Section 5: Other Surveys	
What other surveys has this bridge been a part of?	
Bridgehunter.com BH 43766	

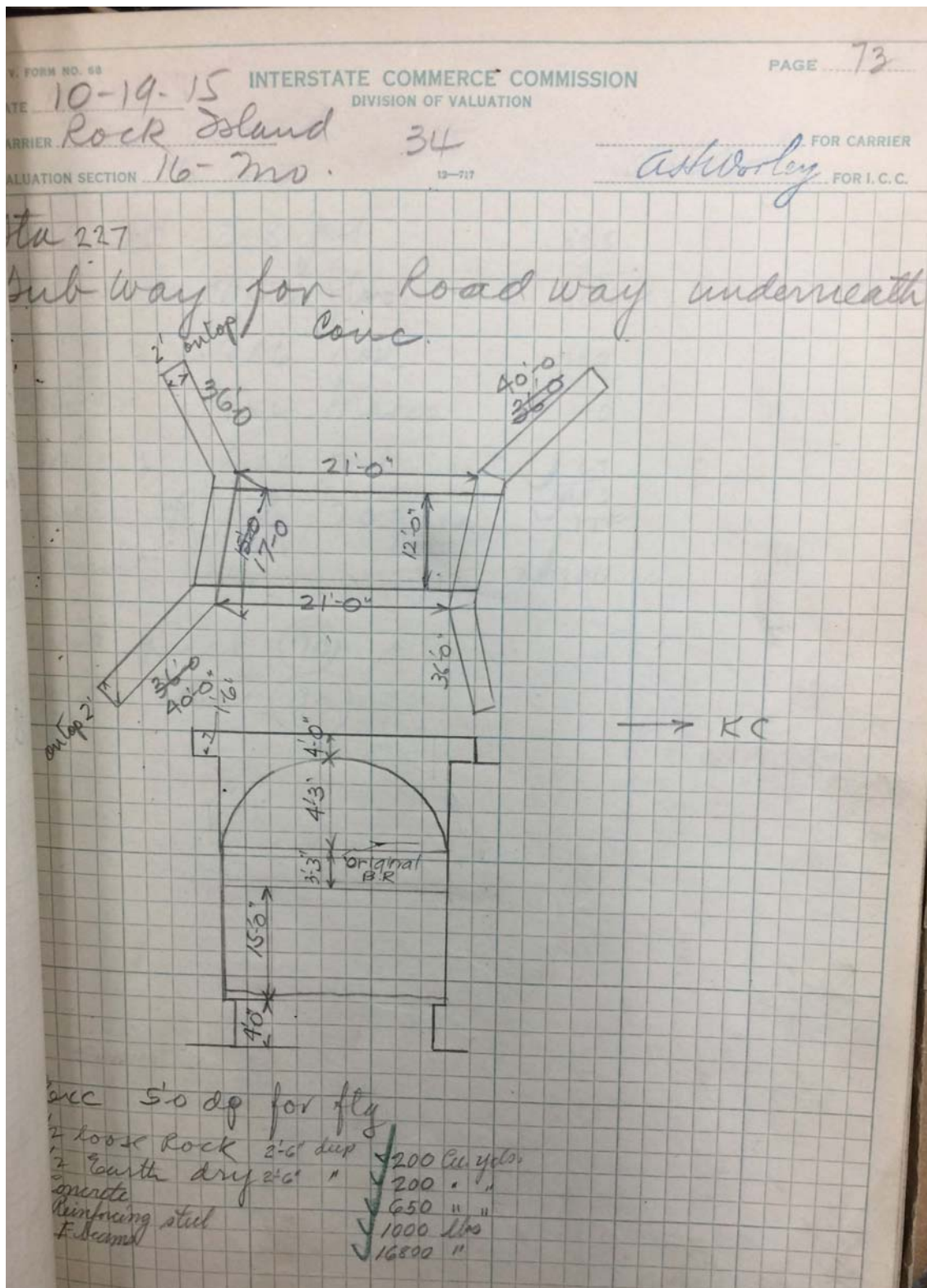
Section 6: Narratives
Brief Description of the Bridge:
This concrete and I-beam span with an overhead arch (modification) measures 24' long. A concrete monolith slab measuring 22" deep contains eight, 20", 65lb. I-Beams, together with corrugated steel reinforcing bars. The top of the monolith is troughed to a depth of 9" and a layer of sand 3" deep is spread over the concrete to act as a cushion. Ties are laid on the sand and filled with rock ballast. The elliptical arch was added in 1904 to accommodate an increase of grade by eight feet at a railroad crossing in the immediate area. At this time, an arch was built up over the flat span and the filling put in above the arch without disturbing the original span. Wing walls were built up and cut to accommodate the increased height of the bank.
History of the Bridge:
Originally constructed for the St. Louis, Kansas City & Colorado Railroad, this concrete and I-beam span was modified by the Chicago, Rock Island & Pacific Railroad in 1904 when the line was further developed and expanded west to Kansas City.
Significance of the Bridge with Justification:
Pursuant to the recommendations included in previous Phase I reports for the historic St. Louis, Kansas City & Colorado Railroad/Chicago, Rock Island & Pacific Railroad and the MOA, this concrete and I-Beam span appears to be eligible for listing in the NRHP under Criteria A and C and meets the 50-year age recommendation for eligibility. It retains historic integrity in order to convey significance.
Sources of Information:
See historic context report for bibliography

Section 7: Contact Information			
Legal Owner:	Calvin Williford, Executive Director, Rock Island Rail Corridor Authority		
Street Address 1:	22501 Wood Chapel Rd.		
City:	Blue Springs	State:	MO
		Zip Code:	64015
Prepared By:	Cydney Millstein and Kelsey Lutz	Date:	3/1/2017
Title of Preparer:	Principal and assistant	Organization:	Architectural & Historical Research, LLC.
Street Address 1:	1537 Belleview Ave.	Street Address 2:	
City:	Kansas City	State:	MO
		Zip Code:	64108
Email:	cydney@ahr-kc.com	Phone:	(816) 472-4154



Bridge at MP 287.0, Kansas City, MO. General view of the east façade looking west (above); general view of the west façade looking east (below). Date: February 7, 2017





Original engineering notes from the ICC files, C. R. I. & P. RY, Val Sections. National Archives, College Park, MD. Bridge at MP 287.0. RG No. 134, 570, Box 683. Engineer's marks indicate the location of the original bridge beam below the arch.

Appendix E

Section 106 Project Report



MISSOURI DEPARTMENT OF NATURAL RESOURCES
STATE HISTORIC PRESERVATION OFFICE
SECTION 106 PROJECT INFORMATION FORM

Submission of a completed Project Information Form with adequate information and attachments constitutes a request for a review pursuant to Section 106 of the National Historic Preservation Act of 1966 (as amended). We reserve the right to request more information. **Please refer to the CHECKLIST on Page 2 to ensure that all basic information relevant to the project has been included.** For further information, refer to our website at: <http://dnr.mo.gov/shpo> and follow the links to Section 106 Review.

NOTE: Section 106 regulations provide for a 30-day response time by the Missouri State Historic Preservation Office from the date of receipt.

PROJECT NAME

Rock Island Corridor Shared Use Path Project

FEDERAL AGENCY PROVIDING FUNDS, LICENSE, OR PERMIT

Federal Highway Administration

APPLICANT

TranSystems

TELEPHONE

(614) 433-7800

CONTACT PERSON

Amber Taylor, RPA

TELEPHONE

(614) 433-7800

ADDRESS FOR RESPONSE

1105 Schrock Road, Suite 400
Columbus, Ohio 43229

LOCATION OF PROJECT

COUNTY

Jackson

STREET ADDRESS

Begins south of Stadium Drive, Kansas City, Mo. Terminates in Lee's Summit, Missouri

CITY

Various cities throughout Jackson Co.

LEGAL DESCRIPTION OF PROJECT AREA (TOWNSHIP, RANGE, SECTION, ¼ SECTION)

USGS TOPOGRAPHIC MAP QUADRANGLE NAME (SEE MAP REQUIREMENTS ON PAGE 2)

Independence

YEAR

2015

TOWNSHIP

Beginning: 49N, End:47N

RANGE

Beginning:33W, End:31W

SECTION

Beginning:24, End:21

PROJECT DESCRIPTION

DESCRIBE THE OVERALL PROJECT IN DETAIL. IF IT INVOLVES EXCAVATION, INDICATE HOW WIDE, HOW DEEP, ETC. IF THE PROJECT INVOLVES DEMOLITION OF EXISTING BUILDINGS, MAKE THAT CLEAR. IF THE PROJECT INVOLVES REHABILITATION, DESCRIBE THE PROPOSED WORK IN DETAIL. USE ADDITIONAL PAGES IF NECESSARY.

The Rock Island Corridor Shared Use Path Project is composed of approximately 16.5 miles of the historic Rock Island & Pacific Railroad corridor extending from just south of Stadium Drive, Kansas City, Missouri, southeast to the proposed terminus near Hamblen Road in Lee's Summit, Missouri (milepost 287 at Stadium Drive, Kansas City, MO to milepost 270.6 northwest of Greenwood, MO). This specific section of the route was originally part of the Chicago, Rock Island & Pacific Railroad (St. Louis Subdivision), which ran from Kansas City to St. Louis. This portion of the historic corridor stretches through Lee's Summit, Raytown, Knobtown, and Kansas City, MO, in Jackson County, Missouri.

ARCHAEOLOGY (EARTHMOVING ACTIVITIES)

HAS THE GROUND INVOLVED BEEN GRADED, BUILT ON, BORROWED, OR OTHERWISE DISTURBED? PLEASE DESCRIBE IN DETAIL (USE ADDITIONAL PAGES, IF NECESSARY) PHOTOGRAPHS ARE HELPFUL:

The ground is part of an existing rail line. This ground has been significantly disturbed through initial installation of the rail line including grading.

WILL THE PROJECT REQUIRE FILL MATERIAL? ☒ YES ☐ NO

IF YES, INDICATE PROPOSED BORROW AREAS (SOURCE OF FILL MATERIAL) ON TOPOGRAPHIC MAP

ARE YOU AWARE OF ARCHAEOLOGICAL SITES ON OR ADJACENT TO PROJECT AREA? ☐ YES ☒ NO

IF YES, IDENTIFY THEM ON THE TOPOGRAPHIC MAP

STRUCTURES (REHABILITATION, DEMOLITION, ADDITIONS TO, OR CONTRUCTION NEAR EXISTING STRUCTURES)

TO THE BEST OF YOUR KNOWLEDGE, IS THE STRUCTURE LOCATED IN ANY OF THE FOLLOWING?

☐ AN AREA PREVIOUSLY SURVEYED
FOR HISTORIC PROPERTIES.

☐ A NATIONAL REGISTER DISTRICT

☐ A LOCAL HISTORIC DISTRICT

IF YES, PLEASE PROVIDE THE NAME OF
THE SURVEY OR DISTRICT:

IF YES, PLEASE PROVIDE THE NAME OF
THE SURVEY OR DISTRICT:

IF YES, PLEASE PROVIDE THE NAME OF
THE SURVEY OR DISTRICT:

- PLEASE PROVIDE PHOTOGRAPHS OF ALL STRUCTURES, SEE PHOTOGRAPHY REQUIREMENTS
- **NOTE:** ALL PHOTOGRAPHS SHOULD BE LABELED AND KEYED TO ONE MAP OF THE PROJECT AREA
- PLEASE PROVIDE A BRIEF HISTORY OF THE BUILDING(S), INCLUDING CONSTRUCTION DATES AND BUILDING USES. (USE ADDITIONAL PAGES, IF NECESSARY.)

ADDITIONAL REQUIREMENTS

Map Requirements: Attach a copy of the relevant portion (8 ½ x 11) of the current USGS 7.5 min. topographic map **and**, if necessary, a large scale project map. Please do not send an individual map with each structure or site. While an original map is preferable, a good copy is acceptable. For a list of sites from which to order, download or print the required USGS 7.5 min. topographic maps at little or no cost, consult <http://dnr.mo.gov/shpo/sectionrev.htm>.

Photography Requirements: Clear black and white or color photographs (minimum 3" x 5") are acceptable. Polaroids, photocopies, emailed or faxed photographs are not acceptable. **Good quality photographs are important for expeditious project review.** Photographs of neighboring or nearby buildings are also helpful. All photographs should be labeled and keyed to one map of the project area.

CHECKLIST-DID YOU PROVIDE THE FOLLOWING INFORMATION?

- | | |
|---|--|
| ☒ Topographic map 7.5 min. (per project, not structure) | ☐ Other supporting documents (If necessary to explain the project) |
| ☒ Thorough description (all projects) | ☐ For new construction, rehabilitations, etc., attach work write-ups, plans, drawings, etc. |
| ☒ Photographs (all structures) | ☒ Is topographic map identified by quadrangle and year? |

Return this Form and Attachments to:

**MISSOURI DEPARTMENT OF NATURAL RESOURCES
STATE HISTORIC PRESERVATION OFFICE
Attn: Section 106 Review
P.O. BOX 176
JEFFERSON CITY, MISSOURI 65102-0176**

**Rock Island Corridor Shared Use Path Project
Jackson County, Missouri**

January 2017

Prepared by:

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EXECUTIVE SUMMARY

TranSystems Corporation, with assistance from Architectural & Historical Research, LLC, conducted a literature review and field visit for the proposed Rock Island Corridor Shared Use Path Project. The Rock Island Corridor Shared Use Path Project stretches approximately 16.5 miles of the historic Rock Island & Pacific Railroad corridor extending from just south of Stadium Drive, Kansas City, Missouri, southeast to the proposed terminus near Hamblen Road in Lee's Summit, Missouri (milepost 287 at Stadium Drive, Kansas City, MO to milepost 270.6 near Greenwood, MO). This specific section of the route was originally part of the Chicago, Rock Island & Pacific Railroad (St. Louis Subdivision), which ran from Kansas City to St. Louis. This portion of the historic corridor stretches through Lee's Summit, Raytown, Knobtown, and Kansas City, MO, in Jackson County, Missouri.

A literature review indicated that there are no National Register of Historic Places resources or previously identified archaeological or history/architecture resources, nor cemeteries within or adjacent to the proposed corridor improvements.

The majority of the project area is previously disturbed rail line through residential subdivisions, agricultural or pastoral lands, and industrial/commercial businesses. Field work included identifying potential structures fifty years old or older immediately adjacent to the railroad right-of-way and confirming the disturbance of right-of-way along the rail line. Photographs were taken throughout the corridor and soil probes were taken in suspect areas to confirm disturbance. Photographs and documentation of disturbance are provided in Appendix B.

The purpose of this coordination is to provide information and field data to the State Historic Preservation Office to confirm methodology, the proposed Area of Potential Effects, and future work.

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1.0 INTRODUCTION

TranSystems Corporation, with assistance from Architectural & Historical Research, LLC, conducted a literature review and field visit for the proposed Rock Island Corridor Shared Use Path Project. The Rock Island Corridor Shared Use Path Project is composed of approximately 16.5 miles of the historic Rock Island & Pacific Railroad corridor extending from just south of Stadium Drive, Kansas City, Missouri, southeast to the proposed terminus near Hamblen Road in Lee's Summit, Missouri (milepost 287 at Stadium Drive, Kansas City, MO to milepost 270.6 near Greenwood, MO). This specific section of the route was originally part of the Chicago, Rock Island & Pacific Railroad (St. Louis Subdivision), which ran from Kansas City to St. Louis. This portion of the historic corridor stretches through Lee's Summit, Raytown, Knobtown, and Kansas City, MO, in Jackson County, Missouri.

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 the 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 reconnaissance survey is being 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 initial field work completed in December 2016.

Fieldwork was conducted along the corridor for archaeological investigation during the week of December 12, 2016 by Amber Taylor, RPA and Jessica Frey. Field work for above-ground history/architecture resources was completed by Cydney Millstein of Architectural & Historical Research, LLC. during the week of December 5, 2016. Maps were generated by Amber Taylor and Jessica Frey.

2.0 BACKGROUND AND RESEARCH CONTEXT

2.1 Records Review

The project team conducted a secondary source literature review focused on identifying previously recorded cultural resources within a larger study area. This research not only provides information regarding the types of sites recorded in the immediate vicinity of the project, but also provides a framework for developing a research design for the project, as well as a historic context within which to interpret sites identified during the survey.

There are no National Register of Historic Places sites within or adjacent to the proposed project.

There are no previously identified historic structures or archaeological sites within or adjacent to the project corridor.

There are no cemeteries within or adjacent to the project corridor.

Cultural Resource Management (CRM) surveys and reports were identified and evaluated for background information, comparative analysis, and eligibility for inclusion on National Register of Historic Places (NRHP). These CRM reports are listed below and briefly discussed.

2010 *Phase One Cultural Resource Survey Report Rock Island Trail Johnson, Cass, and Henry County, Missouri (SCI No. 2008-0137.40).* Prepared for Missouri Department of Natural Resources by SCI Engineering, Inc.

A Phase I Archaeological Survey was completed for the proposed trail along right-of-way connecting to the Katy Trail through Johnson, Cass, and Henry Counties in Missouri. The project included forty-seven (47) miles of right-of-way along the Chicago, Rock Island and Pacific Railroad (CRPS) starting in Windsor and terminating in Pleasant Hill, Missouri. The APE for the project was fifty (50) foot right-of-way south from existing railroad track. The project found that although the tracks had been abandoned for over twenty (20) years, “the Chicago, Rock Island, and Pacific Railroad was in mostly good condition and retained integrity for inclusion on the NRHP”. However, there were pockets of areas that were not field surveyed and discussed surrounding the tracks because of access and overgrowth. SHPO confirmed the status of the Chicago, Rock Island, and Pacific Railroad on October 5, 2010.

2012 *Historic Context Statement-Final Report Rock Island Abandonment Pleasant Hill to Highway P Cass County, Missouri.* Prepared for Missouri Central Railroad by SCI Engineering, Inc.

This report presented a Historic Context Statement for approximately 5.6 miles of rail line being proposed as abandoned. The report identified economic and historic impact of the Rock Island Railroad to the city of Pleasant Hill and surrounding regions. This was discussed for the contributing components and APE as well as confirmation on the rail and infrastructure as eligible only.

2013 *Phase One Archaeological Survey Report Missouri Central Railroad Company Abandonment MP 257.283 (Wingate) to MP 215.325 (Windsor) in Cass, Johnson, Henry, and Pettis Counties, Missouri.*

A Phase One Archaeological Survey was completed for the Missouri Central Railroad Company (MCRR) to seek approval from the Surface Transportation Board (STB) to abandon rail line between milepost 257.283 (near Wingate) and milepost 215.325 (near Windsor) in Cass, Johnson, Henry and Pettis Counties, Missouri. The Missouri Department of Natural resources (MDNR) hoped to develop a portion of the rail into a trail connecting to Katy Trail in Windsor. This was a second report accompanying the 2010 initial Phase I Cultural Resource Survey where SHPO confirmed that the

rail was eligible for inclusion on the National Register of Historic Places (NRHP). This report took the previous context, eligibility, documentation, and assessing of elements (contributing and non-contributing) one step further.

2015 *Memorandum of Agreement (MOA) Among the Surface Transportation Board (STB), Missouri Central Railroad Company, Missouri State Historic Preservation Office, and Missouri Department of Natural Resources, Division of State Parks. Submitted to the Advisory Council on Historic Preservation*

In October 2015, the Missouri Central Railroad Company-Abandonment and Discontinuance of Service Exemption for Cass, Pettis, Benton, Morgan, Miller, Cole, Osage, Maries, Gasconade, and Franklin Counties, Missouri was submitted and signed by the Advisory Council on Historic Preservation (ACHP).

2.2 Soil Description

The project corridor is comprised of four specific soil types which will be discussed briefly below. Please reference Appendix A, Figure 3 for Soil Mapping.

Snead – Urban Land Complex (10143)

The Snead series consists of moderately deep, moderately well drained, slowly permeable soils that formed in residuum from calcareous, clayey, gray shales and thin interbedded limestones. These soils are found on upland side slopes and have slopes ranging from 2 to 30 percent. This soil complex is equally used for row crops such as corn and soybeans and pasture land. This complex can be found along the northern end of the project study area.

Higginsville-Urban Land Complex (10032)

The Higginsville series consists of deep, somewhat poorly drained soils formed in loess more than 5 feet thick overlying limestone, shale, or sandstone bedrock. These upland soils have thin deposits of till overlying the bedrock in some places. Permeability is moderate and slopes range from 2 to 14 percent. Higginsville soils are on gently sloping to strongly sloping upland side slopes, ridgetops, and to a very limited extent high stream terraces. Most areas of Higginsville soils are cultivated in corn and soybeans as well as small gains, hay, and pasture lands. The Higginsville complex can be found throughout the study area.

Snead- Rock outcrop Complex (10141)

The Snead rock outcrop complex occurs as areas of a moderately deep, moderately sloping and strongly sloping, moderately well drained Snead soil closely intermingled with areas where limestone crops out. It is on convex side slopes in the uplands. Most areas support native hardwoods and are suited to trees. Due to the limestone outcropping, the Snead rock outcrop complex is generally unsuited to building site development and onsite waste disposal. The Snead rock outcrop complex can be found primarily in the southern portion of the study area.

Greenton-Urban Land Complex (10024)

The Greenton series consists of very deep and deep, somewhat poorly drained, slowly permeable soils formed in thin loess and the underlying residuum from clay shales and thinly bedded limestone. These soils are found on uplands and valley side slopes and crest positions at the end of ridges. Slope gradients of the complex range from 2 to 25 percent. These soils are used to grow corn, soybeans, and wheat or are used for pasture land. The Greenton urban land complex is only found within the southernmost portion of the study area.

2.3 Current Land Use

The project corridor consists of the Chicago, Rock Island & Pacific Railroad and immediately adjacent railroad right-of-way. The railroad begins near Stadium Drive behind the Arrowhead Stadium running parallel to Raytown Road through industrial, commercial, and residential subdivisions. The project corridor is heavily wooded with several areas of encroachment by businesses and residences.

2.4 Historical Overview of the Chicago, Rock Island & Pacific Railroad

The entity that predominantly built the section of line surveyed in the study, as well as maintained it for the longest period of time was the Chicago, Rock Island & Pacific Railroad (Rock Island). Beginning in 1847 as the Rock Island and La Salle Railroad, named for the two cities that it connected 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.¹ As was typical of many railroads of the time, Rock Island would procure other smaller railroads in its constant quest to cover more territory to expand their operations.

In keeping with their expansion plans, Rock Island acquired the St. Louis, Kansas City & Colorado Railroad. Taking cue from the positive financial effects that the railroad boom had on smaller towns, the St. Louis, Kansas City & Colorado Railroad was organized in 1884 with the specific goal of connecting established towns located southwest of St. Louis.² After surveying and acquiring necessary funding, the railroad company started construction of their line west from St. Louis to Bland, Missouri. With this section completed in 1901, construction continued westward on a 14.5-mile section, located between the Gasconade River and Versailles, Missouri, making it as far as Belle due east of the proposed terminus.³

As the St. Louis, Kansas City & Colorado Railroad continued their plans for expansion, the Rock Island reorganized in 1902 to meet the goals of unifying its current system and procuring more new territory. At the same time, The Chicago, Rock Island & Pacific took interest in the fledgling St. Louis, Kansas City & Colorado Railroad and purchased their company.⁴ This afforded an opportunity for Rock Island to connect to St. Louis, as they had no lines into the city.⁵ 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. Rock Island eventually took control of all the St. Louis, Kansas City & Colorado Railroad's previously constructed line from St. Louis to Belle (1902).⁶ At this time, the Rock Island planned to continue construction of their line westward into Kansas City, retaining the same construction company that the St. Louis, Kansas City & Colorado used.⁷ Once completed, the line from Kansas City to St. Louis

¹ *The Historical Guide to North American Railroads* 2nd Edition (Waukesha, WI: Kalmbach Publishing Co., 2000), 112-113.

² SCI Engineering Inc., "Rock Island Abandonment Pleasant Hill to Highway P, Cass County, Missouri." Prepared for Missouri Central Railroad, 2012, 10.

³ "The St. Louis, Kansas City & Colorado," *The Railroad Gazette* 37 (21 October 1904), 460.

⁴ 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.

⁵ "The Rock Island Capital Plan," *The Railroad Gazette* 34 (1 August 1902), 611-612.

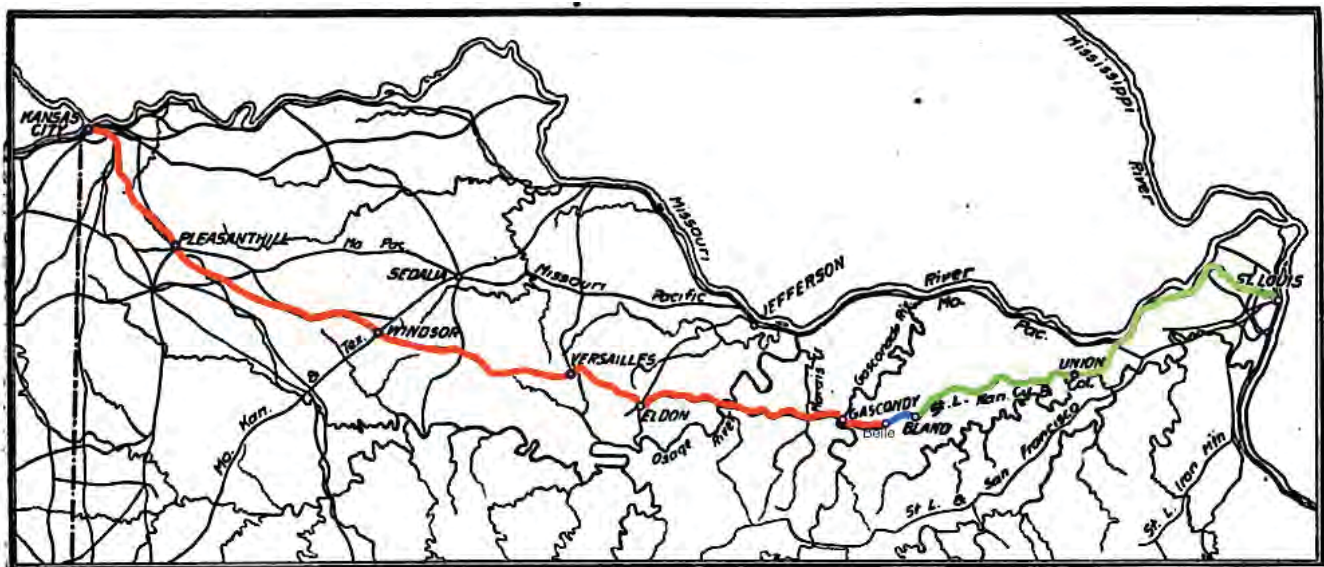
⁶ "Railroad Construction: Chicago, Rock Island & Pacific," *The Railroad Gazette* 34 (1 August 1902), 715.

⁷ "The St. Louis, Kansas City & Colorado," *The Railroad Gazette* 37 (21 October 1904), 460. The construction company retained was The Gasconade Railway Construction Company.

would become known as the Rock Island Saint Louis Subdivision.⁸ Despite other railroads having already established a line to and from Kansas City and St. Louis, Rock Island still found advantages for completing their own line.

To connect Kansas City with St. Louis after the acquisition would prove a difficult task. Although grading had been completed to Eldon, Missouri, when Rock Island acquired the line in 1902, much work was still to be done. Original surveys propose that the line could stretch through major towns such as Independence, Blue Springs, and Warrensburg, Missouri. 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 in the area. After reassessing the terrain, 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.⁹

1904 Map of the Rock Island St. Louis Subdivision Progress (MO)



● 1901 ● 1902 (Grading completed to Eldon) ● 1904

Original map from *The Railroad Gazette* 1904

The new route would also result in a more direct line to sections already completed under the St. Louis, Kansas City, and Colorado Railroad and a shorter commute from Kansas City to St. Louis than any other railroad at the time in

⁸ "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.

⁹ "Leaves Out the Tunnels," *The 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.

Missouri.¹⁰ With the reduced grade, freight could be shipped for forty-nine percent less than that of the competing Missouri Pacific Railroad.¹¹

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 the most favorable for laying rail bed and was prone to slides and settling. Thirty steam shovels were needed to help with the grading and excavating, as embankments were as high as 100 feet.¹² The parts of the line previously completed by the St. Louis, Kansas City & Colorado would need to be widened from 16 feet to 24 feet, to adhere to Rock Island standards. Even with these hindrances, the new Saint Louis Subdivision of the Rock Island line was completed from Belle to Kansas City by 1904.¹³

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 that had previously established the route from Kansas City to St. Louis also drew service away from the Rock Island. Passenger service along the St. Louis Subdivision was limited during these times.¹⁴

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 saw revenues drop even further. Compounded by failures of wheat crops during 1930 and by a massive drought that caused dust storms in the Rock Island territory, Rock Island declared bankruptcy in 1933.¹⁵

New leaders were 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 brought in as Chief Operating Officer. Durham implemented several new programs, such as a scrap drive to help modernize some aspects of the line as well as upgrading and improving current lines. With these new incentives and strong leadership from the executives, Rock Island began to once again be profitable in 1941. The next year Durham retired and company was passed to Farrington. Farrington was responsible for the introduction of the Rock Island Rockets, a diesel engine fleet that improved the passenger traffic along the line.¹⁶ Although this increased passenger traffic as a whole, the St. Louis Subdivision was not affected by this and instead had an alternate means of transportation for passengers. The Doodlebugs, as they were known, were two motorized passenger cars that would run on the line. One Doodlebug would leave Kansas City and meet with the other Doodlebug that had left from St. Louis in the middle of the route at the Eldon station. This made for a two-part trip for passengers

¹⁰ *Ibid.* The second shortest route belonged to the Wabash Railroad and third shortest to the Missouri Pacific Railroad.

¹¹ "Building of a Railway," *The Kansas City Star* (15 November 1903), 15.

¹² J. L. Campbell, "The St. Louis, Kansas City & Colorado Railroad," *The Engineering Record* 50 (22 October 1904), 472-476.

¹³ The majority of the sources consulted cite 1904 as the opening date (i.e. *The Historical Guide to North American Railroads*, *The Engineering Record* (1904), with few exceptions.

¹⁴ Archeological Research Center of St. Louis Inc., "Phase I Archaeological Survey of Approximately 144.30 Miles of the Missouri Central Railroad Company Right-of-Way in Benton, Cole, Cass, Franklin, Gasconade, Maries, Miller, Morgan, Osage, and Pettis Counties, Missouri." Prepared for the Missouri Central Railroad Company, August 2015, 22.

¹⁵ *The Historical Guide to North American Railroads*, 115-116.

¹⁶ *Ibid.*

who wanted to traverse the whole route. This service was discontinued in 1950. As a whole, passenger service along the St. Louis Subdivision ceased in 1959, although freight was still transported until 1980.¹⁷

Although the railroad performed adequately through the 1950s and 1960s, other more substantial railroad companies 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.¹⁸

A merger between Rock Island and the Union Pacific Railroad was proposed in 1964. 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.¹⁹ Although the merger in particular was 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 essentially to be split between the Union Pacific, the Denver & Rio Grande Western and the Santa Fe.

With ten years having 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 once again, 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.²⁰

¹⁷ Archeological Research Center of St. Louis Inc. *Phase I Archaeological Survey*, 23.

¹⁸ *The Historical Guide to North American Railroads*, 116.

¹⁹ *Ibid.*

²⁰ *Ibid.*

3.0 RESEARCH DESIGN

The research design is focused on the identification and evaluation of any historic architectural properties within the proposed project area. For the purpose of this study, a historical architectural property is any site, building, structure, or object that is 50 years or older (OHPO 1994: 42-43). The ultimate goal of this study, according to Section 106 of the NHPA, as amended, is to consider the effects of the undertaking on historic properties. Historic properties are those properties listed on or as eligible for listing on the National Register of Historic Places (NRHP). Therefore, the eligibility criteria must be applied to any previously unrecorded architectural properties within the project area, in addition to previously recorded properties to which the eligibility criteria have not been applied. Properties can be eligible for the NRHP if they meet one or more of the following criteria:

“The quality of significance in American history, architecture, archaeology, engineering, and culture is present in the districts, sites, buildings, structures and objects that possess integrity of location, design, setting materials, workmanship, feeling and association and:

(a) That are associated with the events that have made a significant contribution to the broad patterns of history; or

(b) That are associated with the lives of persons significant in our past; or

(c) That embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

(d) That have yielded or may be likely to yield, information important to the prehistory or history.”

It is important to note that a property must retain integrity sufficient to convey its significance in order to be eligible for the NRHP. There are seven aspects of integrity, defined as location, design, setting, materials, workmanship, feeling and association. Integrity can be diminished by the physical change in context of the property, either through the natural process of aging or by man-made factors.

3.1 Proposed Area of Potential Effects (APE)

The proposed Area of Potential Effects (APE) for archaeology is considered the footprint of the construction limits including staging and any ground disturbing activities. The proposed Area of Potential Effects (APE) for the history/architecture above-ground resources includes the rail line and associated structures (bridges, overpasses, etc.), as well as any structure immediately adjacent to the proposed project construction. Figure 1, in Appendix A illustrates the existing rail line and the railroad right-of-way.

3.2 History/Architecture Methodology

Following the records/archival research and development of historic context, a visual inspection of the project area was conducted. Team members from Architectural & Historical Research, LLC, including Cydney Millstein (principal) and Kelsey Lutz along with various company team members involved in the project, walked the corridor on December 5, 6 and 9, 2016. An overview of the structures within or adjacent to the rail corridor were photographed and documented. Representative photographs of the corridor and above-ground structures are included in Appendix B.

3.3 Archaeological Methodology

Prior to archaeological field work taking place in December 2016, survey and utility crews were in the field marking any below ground utilities. Along the majority of the rail line corridor are fiber optic lines with additional gas and water lines in the more urbanized areas. During field work, photographs were taken along the corridor as well as in areas where the soil was saturated with standing water. In several locations, the rail line was at the bottom of a cut hillside indicating that any intact cultural resources would have been at the top of the mountain and were destroyed when the rail line was built. Soil probes were used in any green space and in areas of suspect disturbance to confirm disturbance.

4.0 HISTORY/ARCHITECTURE FIELD RESULTS

Based on the reconnaissance survey, the cultural resources tied to the Rock Island Railroad include various bridge types, concrete box and concrete arch culverts, a tunnel, and misc. resources (signs, switches, etc.), that are all located within the rail corridor or bed. It is important to note that buildings historically associated with the railroad, as illustrated in various historic maps, such as the Rock Island depot in Raytown, MO, are no longer extant. An investigation of the view shed along the approximately 16.5-mile corridor revealed few historical resources including individual buildings and/or developments that are historic in nature, with the exception of the Wildwood Lake subdivision (near 67th and Raytown Road, Lee's Summit) and a single residential property at 1700 SW Longview Road, Lee's Summit. Therefore, it is recommended that the APE should generally focus on the rail corridor, as the vast majority of the cultural resources are located in or directly adjacent to, this historic rail bed, with few exceptions (as noted, above).

5.0 ARCHAEOLOGICAL FIELD RESULTS

Based on the field work, the entire project corridor has been previously disturbed when the rail line was built as well as from improvements for maintenance and upkeep of the corridor. Additionally, utilities and encroachments have caused modern day disturbances that have disturbed the areas immediately adjacent to the rail line. In several locations (Appendix B, Photos 8, 36, and 56), the rail line is located in the bottom of a hill, with any intact cultural resources on original ground surface destroyed when the rail line was put in. Areas of standing water were documented and although do not represent wetlands, the areas were heavily saturated, submerged below water, and covered in ice. Soil probes confirmed disturbance with no distinctive horizons, mixed gravel sizes throughout the probe, and in several probes, wet soil six to eight inches below ground surface.

While the corridor is expansive, field investigations confirmed that the corridor has been previously disturbed with the installation of the rail line, as well as maintenance and modern utilities. It is highly unlikely that further investigations would yield any intact sub-surface cultural resources including any prehistoric or historic sites.

6.0 CONCLUSIONS AND RECOMMENDATIONS

TranSystems Corporation, with assistance from Architectural & Historical Research, LLC, conducted a literature review and field visit for the proposed Rock Island Corridor Shared Use Path Project. The Rock Island Corridor Shared Use Path Project stretches approximately 16.5 miles of the historic Rock Island & Pacific Railroad corridor extending from just south of Stadium Drive, Kansas City, Missouri, southeast to the proposed terminus near Hamblen Road in Lee's Summit, Missouri (milepost 287 at Stadium Drive, Kansas City, MO to milepost 270.6 northwest of Greenwood, MO). This specific section of the route was originally part of the Chicago, Rock Island & Pacific Railroad (St. Louis Subdivision), which ran from Kansas City to St. Louis. This portion of the historic corridor stretches through Lee's Summit, Raytown, Knobtown, and Kansas City, MO, in Jackson County, Missouri.

The reconnaissance survey is being 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 APE. Field work identified that there were limited above-ground resources except for the rail line and accompanying structures (bridges, overpasses, culverts, etc.). Additionally, the archaeological field work confirmed the pre-field assumption that due to historic and modern day disturbance, that there are no intact soils within the proposed project corridor and rail right-of-way and limited to slim possibility of unidentified archaeological sites being found within the proposed archaeological APE.

Moving forward, it is proposed to complete Section 106 coordination that a Phase I History/Architecture survey with all identified rail structures within the APE and finding of eligibility to be completed. Due to the disturbance throughout the corridor, it is proposed that there be no further archaeological investigations.

7.0 REFERENCES CITED

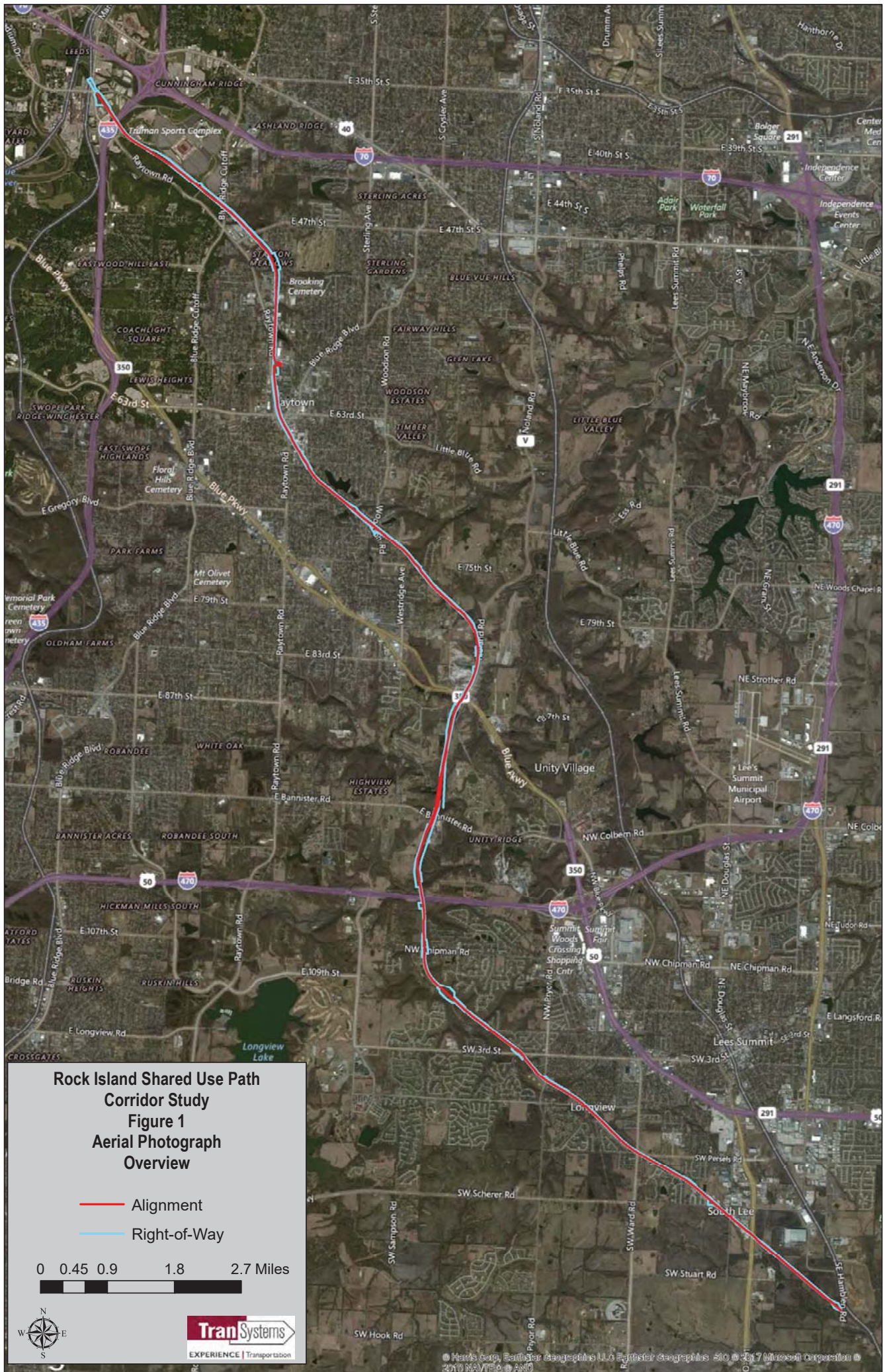
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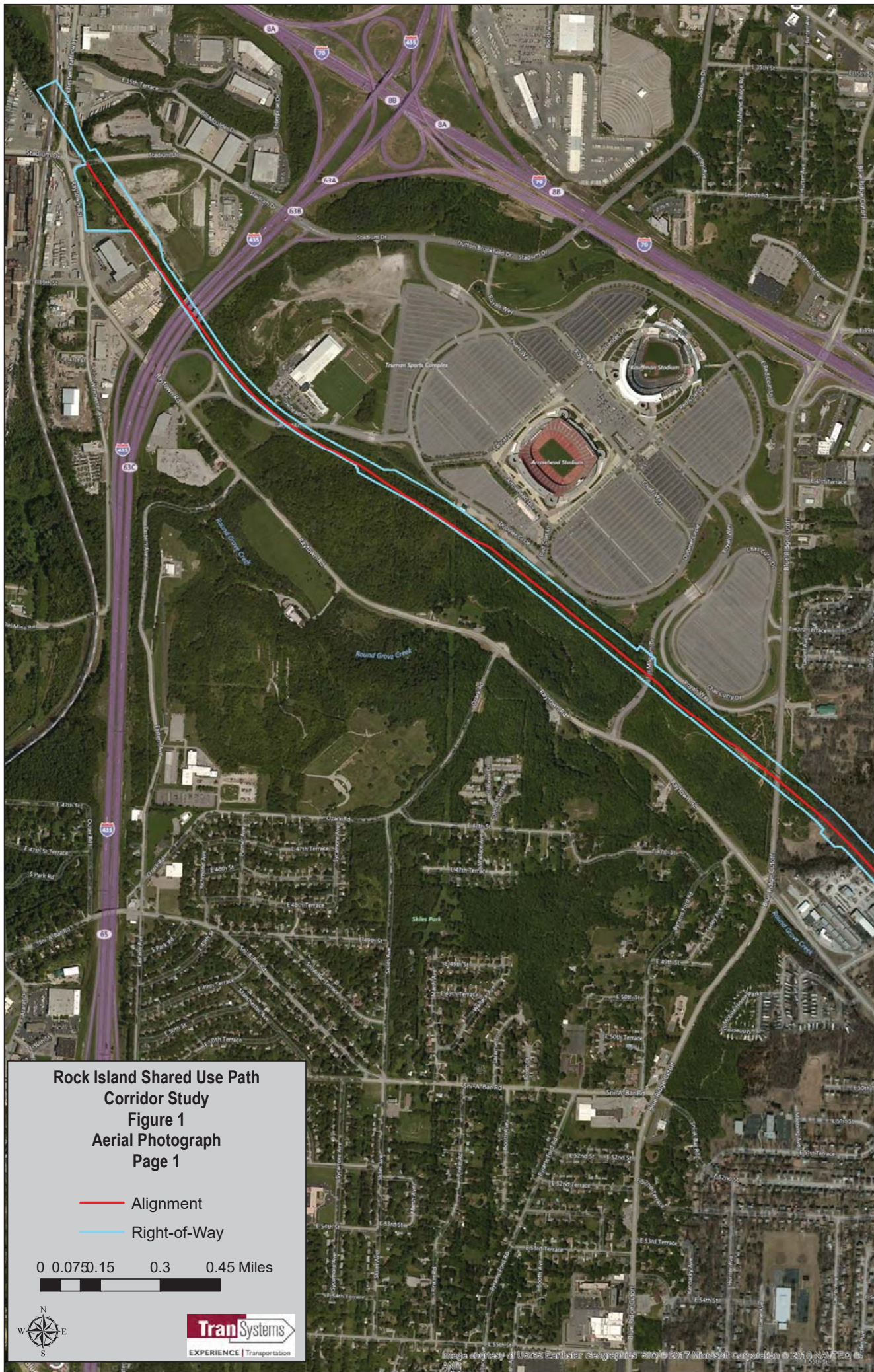
APPENDICES

APPENDIX A

FIGURES

Disclaimer (applicable to all maps): This concept depicts a potential location for a shared use path within the Rock Island Corridor. The exact location, design and right of way for this project cannot be determined from these concepts and could be different from that shown. Preliminary design will need to be conducted to refine the improvements.







Rock Island Shared Use Path
Corridor Study
Figure 1
Aerial Photograph
Page 2

- Alignment
- Right-of-Way

0 0.075 0.15 0.3 0.45 Miles





Rock Island Shared Use Path
Corridor Study
Figure 1
Aerial Photograph
Page 3

— Alignment
— Right-of-Way

0 0.075 0.15 0.3 0.45 Miles



TranSystems
EXPERIENCE | Transportation



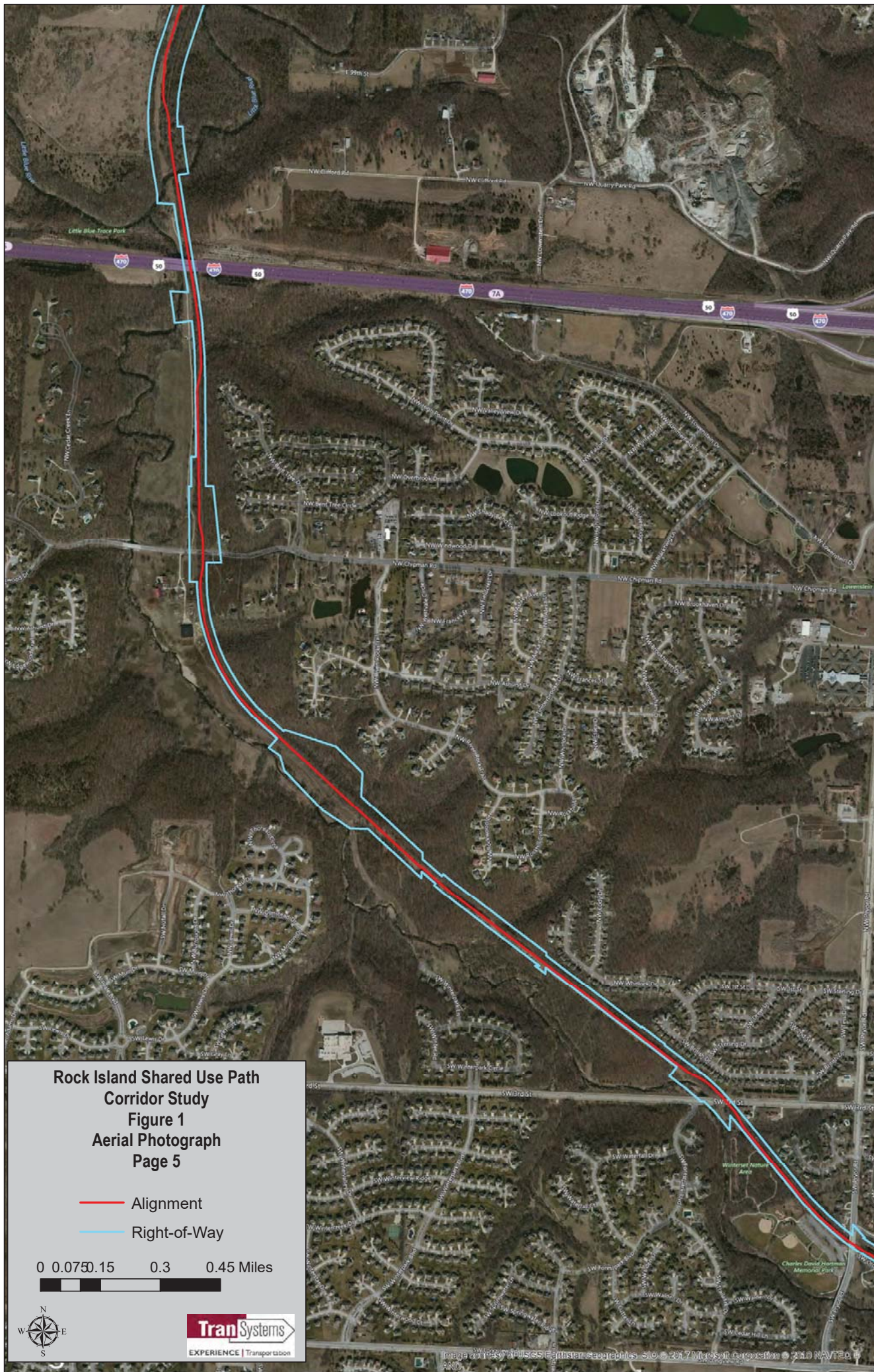
Rock Island Shared Use Path
Corridor Study
Figure 1
Aerial Photograph
Page 4

- Alignment
- Right-of-Way

0 0.075 0.15 0.3 0.45 Miles



TranSystems
EXPERIENCE | Transportation

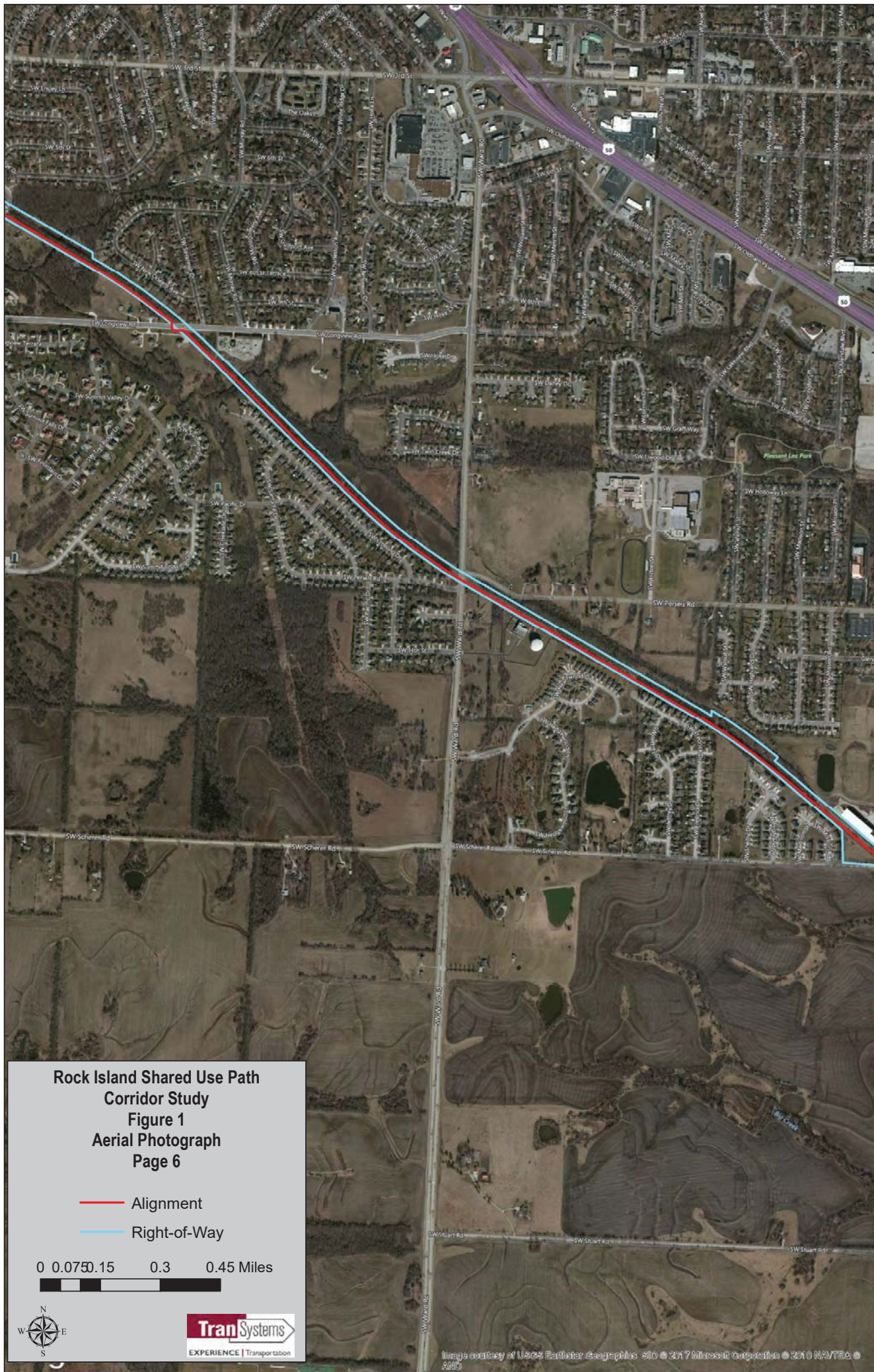


Rock Island Shared Use Path
Corridor Study
Figure 1
Aerial Photograph
Page 5

- Alignment
- Right-of-Way

0 0.075 0.15 0.3 0.45 Miles





Rock Island Shared Use Path
Corridor Study
Figure 1
Aerial Photograph
Page 6

— Alignment
— Right-of-Way

0 0.075 0.15 0.3 0.45 Miles



TranSystems
EXPERIENCE | Transportation



Rock Island Shared Use Path
Corridor Study
Figure 1
Aerial Photograph
Page 7

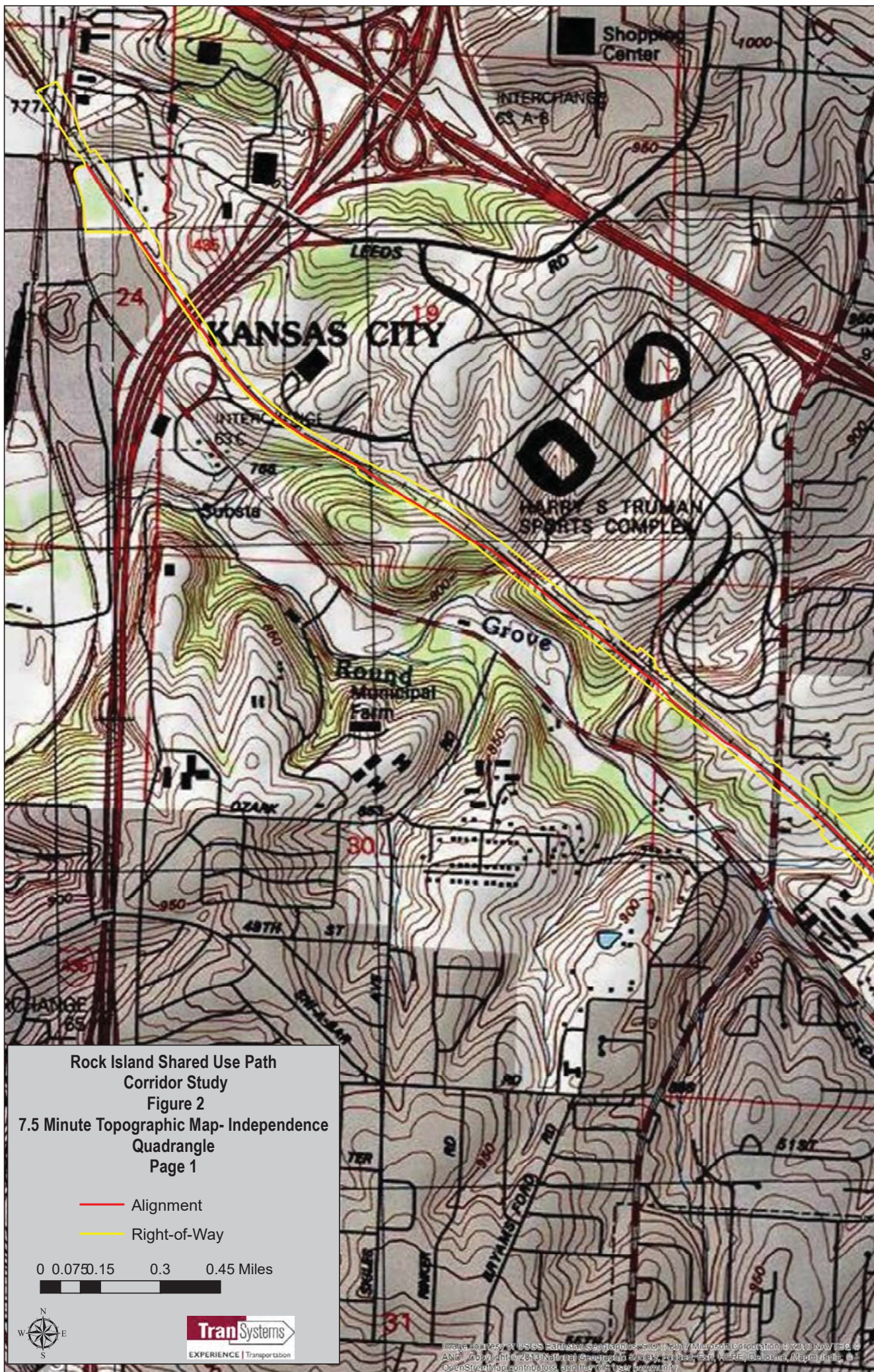
Alignment
Right-of-Way

0 0.075 0.15 0.3 0.45 Miles

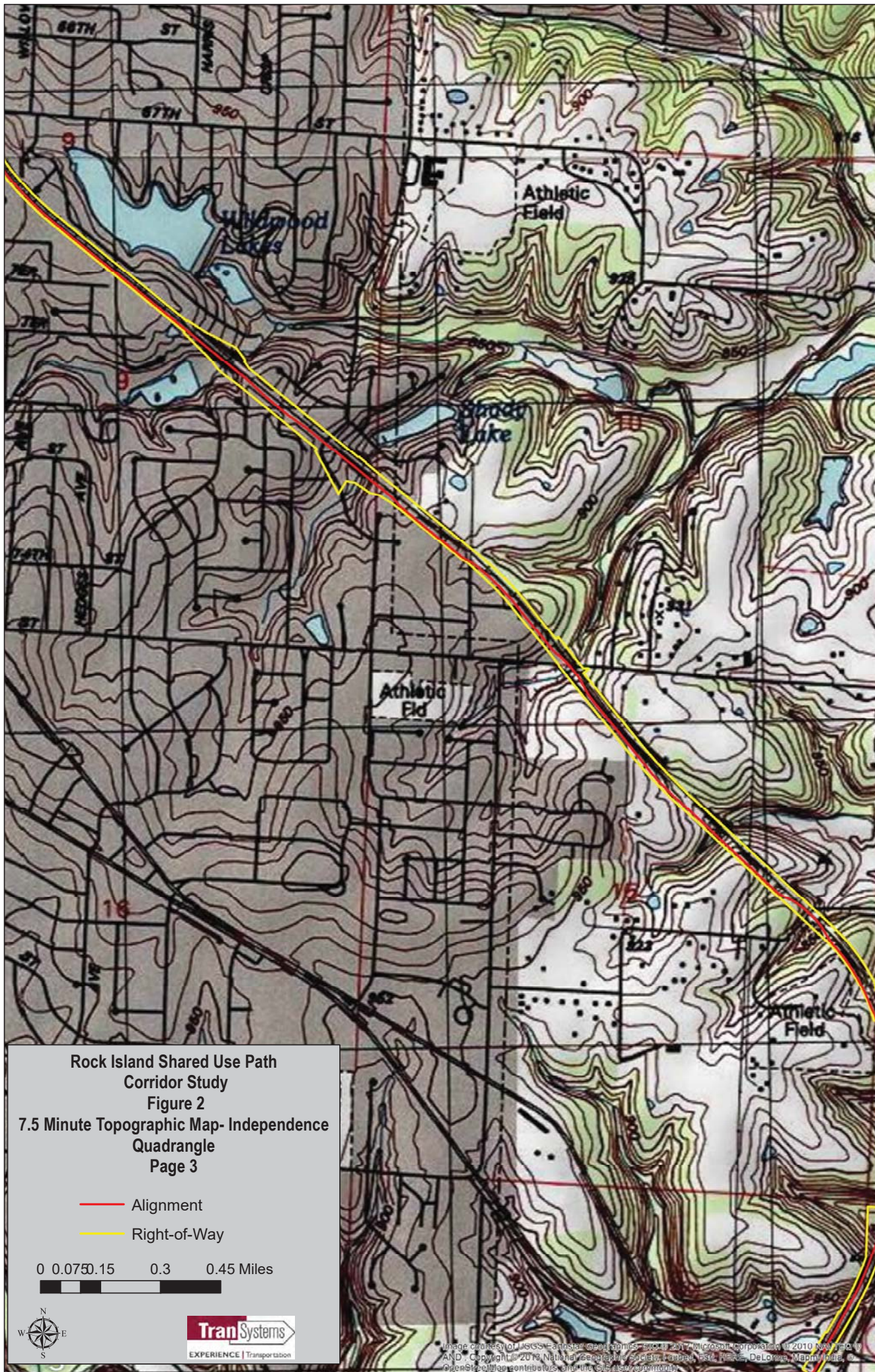


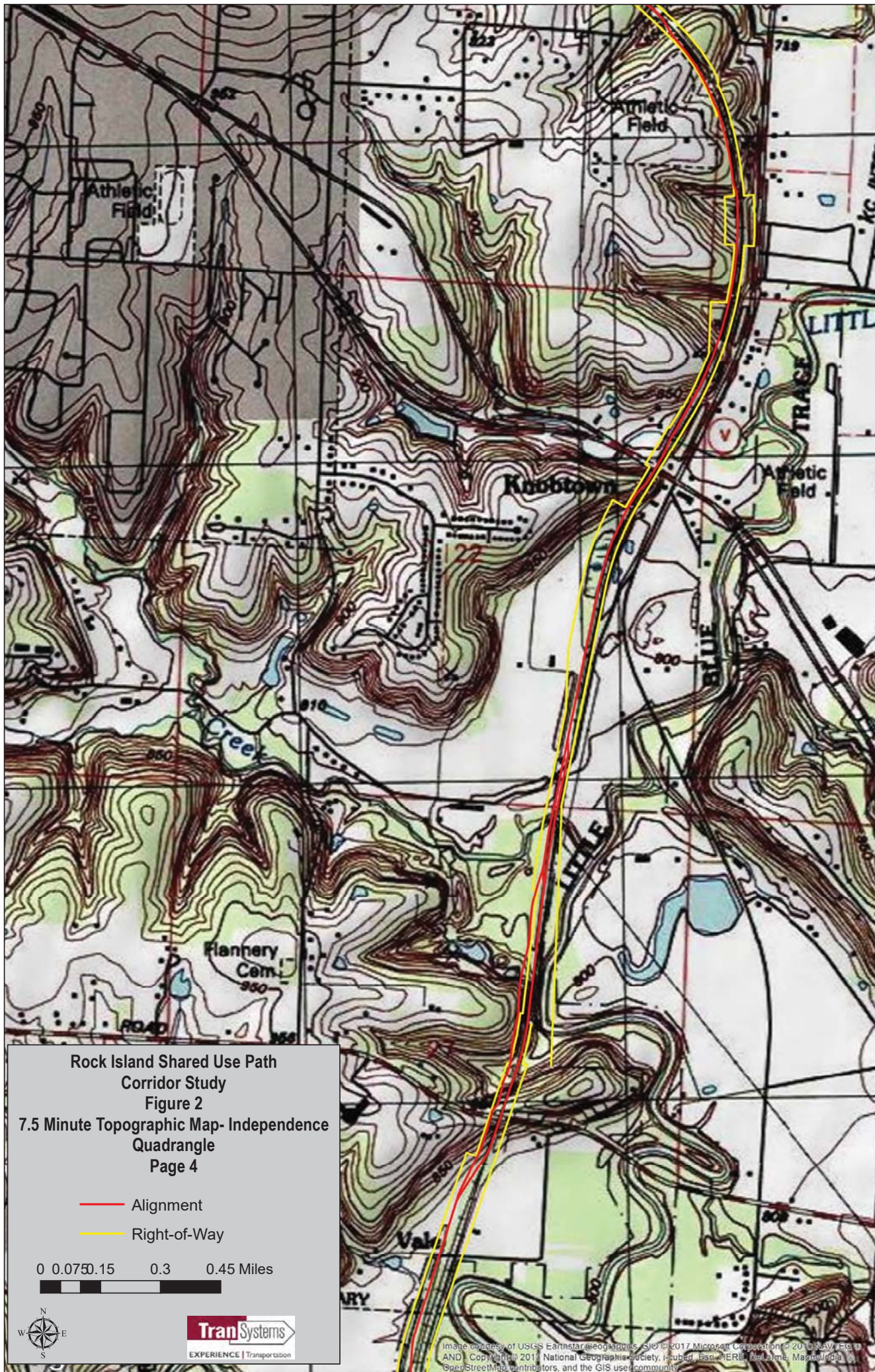
TranSystems
EXPERIENCE | Transportation

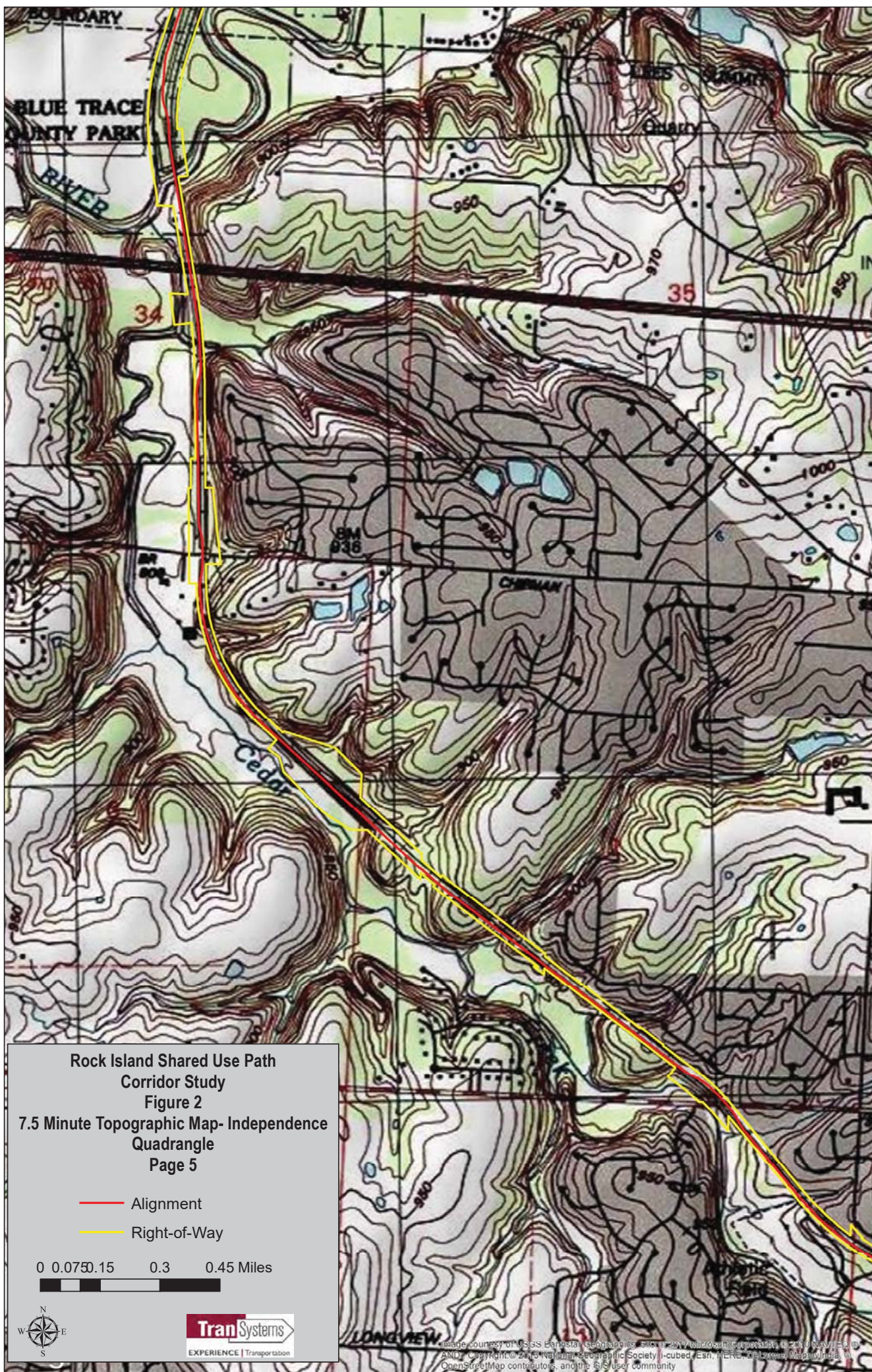












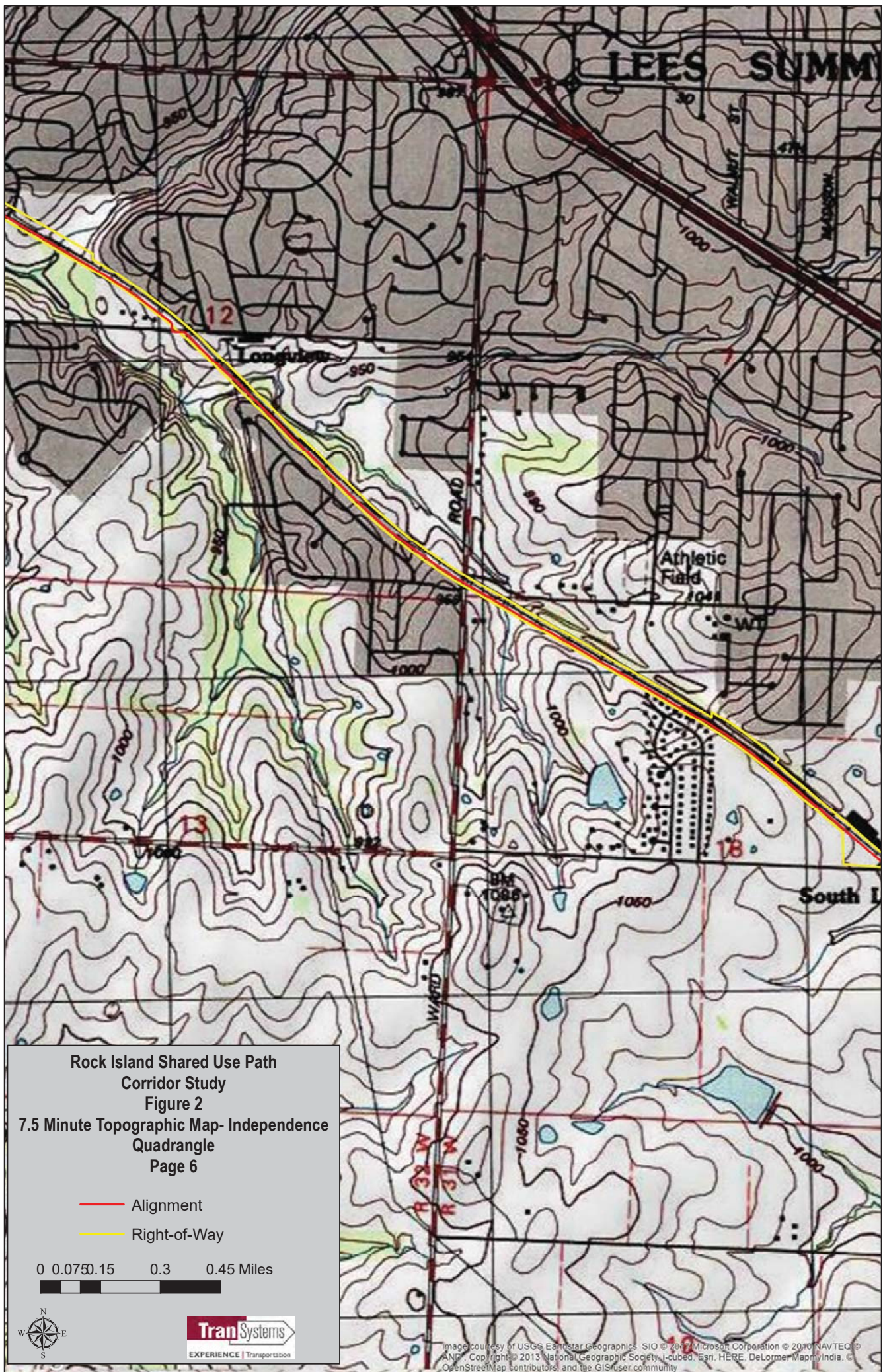
Rock Island Shared Use Path
Corridor Study
Figure 2
7.5 Minute Topographic Map- Independence
Quadrangle
Page 5

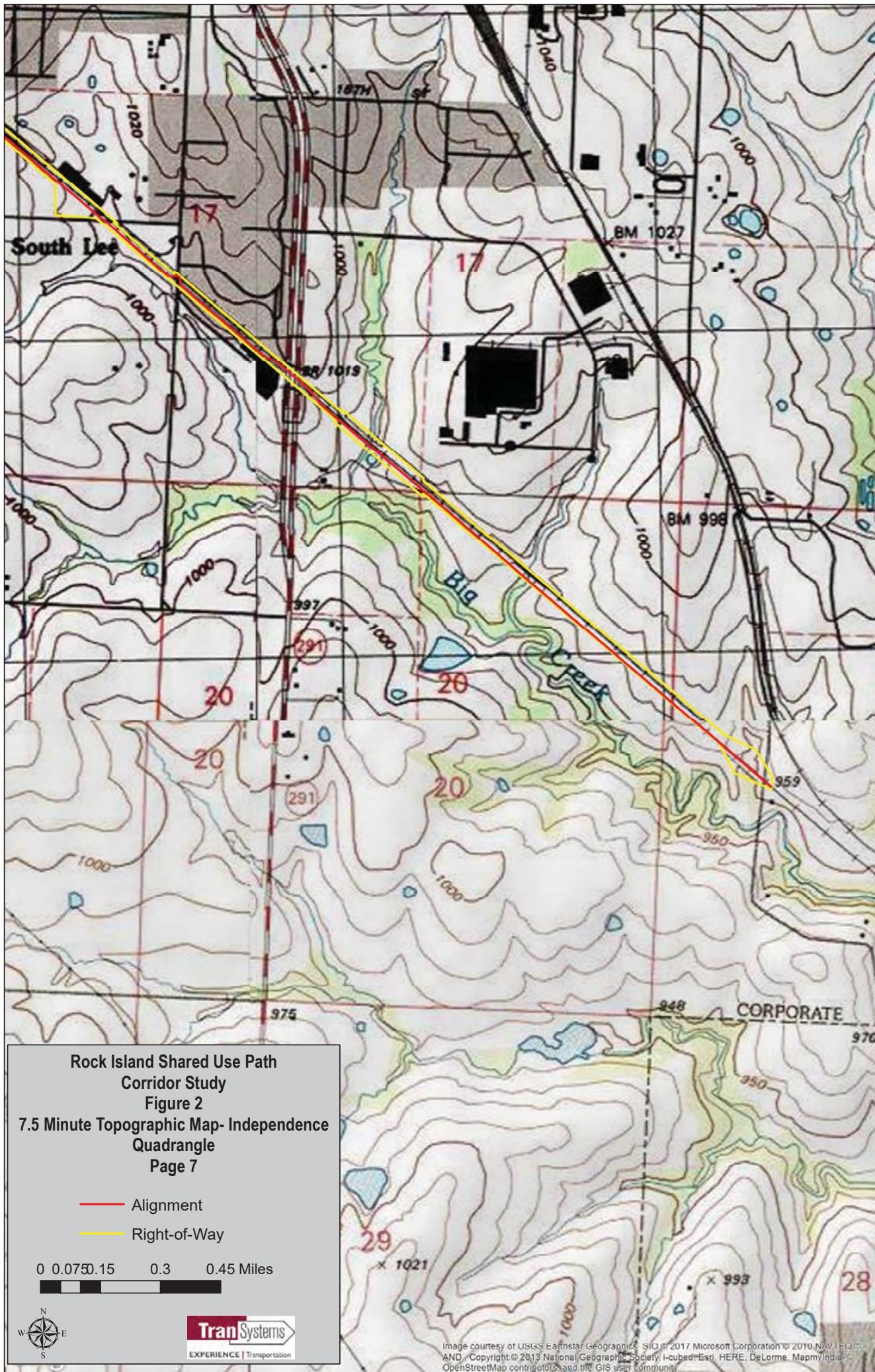
— Alignment
— Right-of-Way

0 0.075 0.15 0.3 0.45 Miles



Image courtesy of USGS Earthdata, OpenStreetMap contributors, and the GIS user community. All rights reserved. No warranty is made by the USGS for the use of the data. The data is provided as is. The data is not to be used for navigation or other purposes without the permission of the USGS.







Project Number:
P101150264

Figure 3
Soil Map- Page 1
Rock Island Shared Use Path Corridor Study
Jackson County, Missouri

Map Unit Legend

Jackson County, Missouri (MO095)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
10026	Higginsville silt loam, 5 to 9 percent slopes	0.8	0.7%
10032	Higginsville-Urban land complex, 5 to 9 percent slopes	76.7	89.7%
10128	Sharpsburg-Urban land complex, 2 to 5 percent slopes	5.0	4.6%
10132	Sibley silt loam, 2 to 5 percent slopes	1.9	1.7%
10136	Sibley-Urban land complex, 2 to 5 percent slopes	5.4	4.9%
10141	Snead-Rock outcrop complex, 14 to 30 percent slopes	8.9	8.1%
99012	Urban land, upland, 5 to 9 percent slopes	11.3	10.3%
Totals for Area of Interest		110.0	100.0%

Map Unit Legend

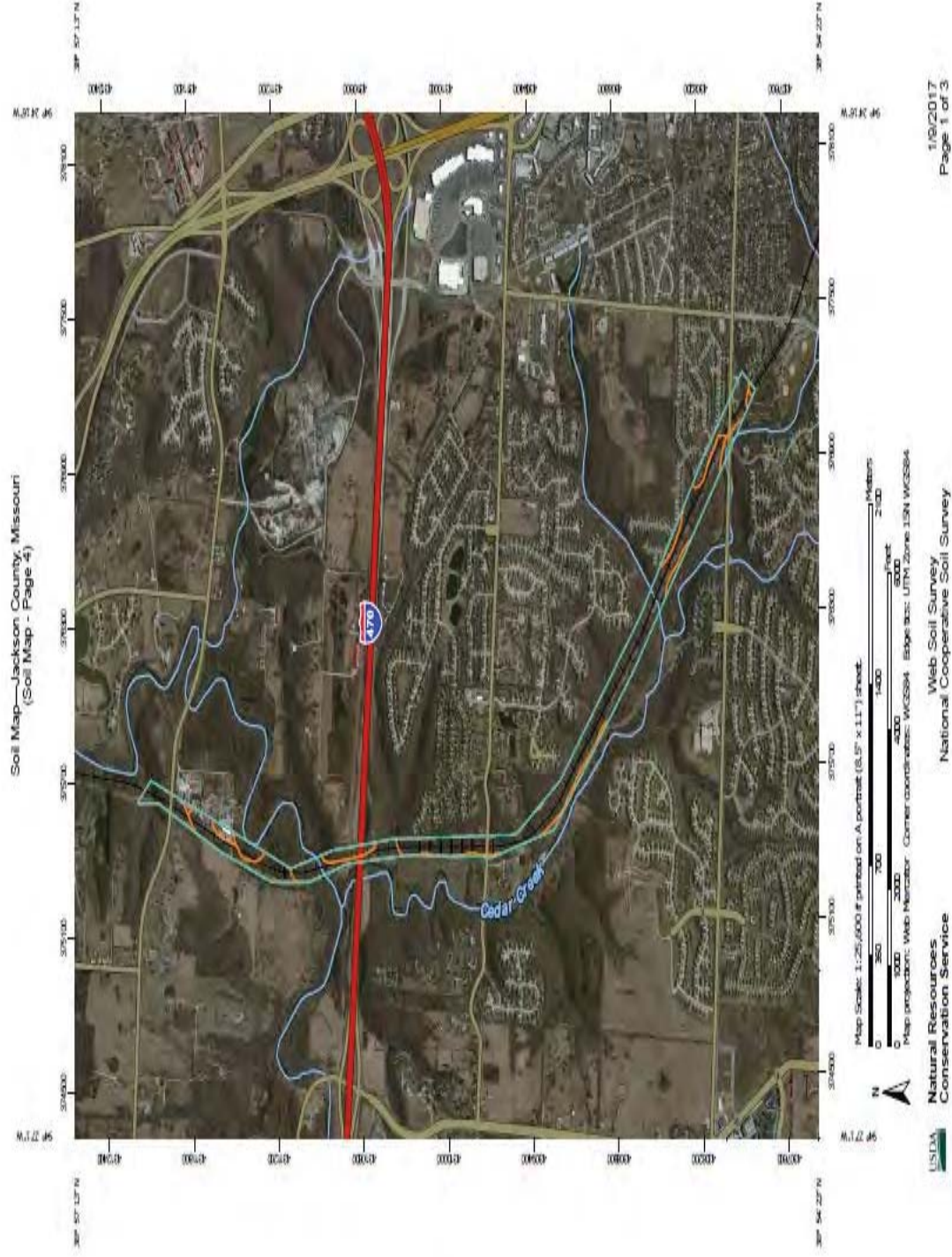
Jackson County, Missouri (MO095)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
10026	Higginsville silt loam, 5 to 9 percent slopes	0.8	0.7%
10032	Higginsville-Urban land complex, 5 to 9 percent slopes	76.7	69.7%
10128	Sharpsburg-Urban land complex, 2 to 5 percent slopes	5.0	4.6%
10132	Sibley silt loam, 2 to 5 percent slopes	1.9	1.7%
10136	Sibley-Urban land complex, 2 to 5 percent slopes	5.4	4.9%
10141	Snead-Rock outcrop complex, 14 to 30 percent slopes	8.9	8.1%
99012	Urban land, upland, 5 to 9 percent slopes	11.3	10.3%
Totals for Area of Interest		110.0	100.0%

Map Unit Legend

Jackson County, Missouri (MO095)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
10026	Higginsville silt loam, 5 to 9 percent slopes	6.3	5.6%
10032	Higginsville-Urban land complex, 5 to 9 percent slopes	1.7	1.5%
10107	Menfro silty clay loam, 9 to 14 percent slopes, severely eroded	0.2	0.1%
10113	Oska silty clay loam, 5 to 9 percent slopes, eroded	9.7	8.6%
10132	Sibley silt loam, 2 to 5 percent slopes	2.7	2.4%
10141	Snead-Rock outcrop complex, 14 to 30 percent slopes	44.4	39.6%
36007	Bremer silt loam, 0 to 2 percent slopes, occasionally flooded	19.3	17.2%
36020	Kennebec silt loam, 0 to 2 percent slopes, occasionally flooded	13.1	11.7%
60025	Urban land-Harvester complex, 2 to 9 percent slopes	2.5	2.2%
60125	Harvester-Urban land complex, 9 to 14 percent slopes	0.7	0.7%
99000	Pits, quarry	2.9	2.6%
99021	Udorthents, nearly level	1.5	1.3%
99033	Udarents-Urban land complex, 2 to 9 percent slopes	7.3	6.5%
Totals for Area of Interest		112.2	100.0%

Project Number:
P101150264

Figure 3
Soil Map Legend- Page 6
Rock Island Shared Use Path Corridor Study
Jackson County, Missouri



Project Number:
P101150264

Figure 3
Soil Map- Page 7
Rock Island Shared Use Path Corridor Study
Jackson County, Missouri

Map Unit Legend

Jackson County, Missouri (MO095)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
10024	Greenton-Urban land complex, 5 to 9 percent slopes	0.4	0.3%
10141	Snead-Rock outcrop complex, 14 to 30 percent slopes	72.6	61.8%
10143	Snead-Urban land complex, 9 to 30 percent slopes	11.2	9.6%
10179	Udarents-Urban land-Osaka complex, 5 to 9 percent slopes	0.4	0.3%
38007	Bremner silt loam, 0 to 2 percent slopes, occasionally flooded	12.6	10.7%
38020	Kennebec silt loam, 0 to 2 percent slopes, occasionally flooded	12.4	10.6%
38083	Kennebec silt loam, 1 to 4 percent slopes, occasionally flooded	5.9	5.0%
88033	Udarents-Urban land complex, 2 to 9 percent slopes	2.1	1.8%
Totals for Area of Interest		117.5	100.0%



1/9/2017
Page 1 of 3

Web Soil Survey
National Cooperative Soil Survey

Project Number:
P101150264

Figure 3
Soil Map- Page 9
Rock Island Shared Use Path Corridor Study
Jackson County, Missouri

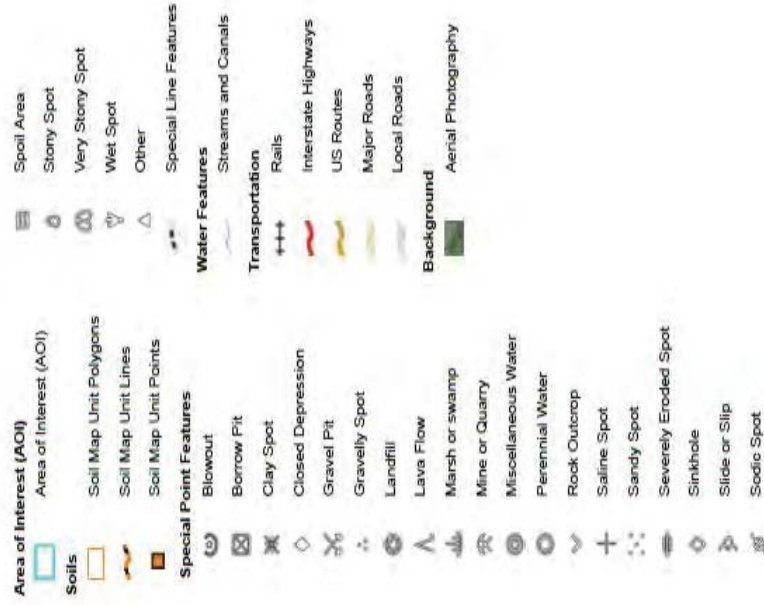
Map Unit Legend

Jackson County, Missouri (MO095)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
10024	Greenton-Urban land complex, 5 to 8 percent slopes	80.2	46.3%
10082	Arsburg-Urban land complex, 1 to 5 percent slopes	26.9	15.5%
10116	Sampsel silty clay loam, 2 to 5 percent slopes	17.9	10.3%
10120	Sharpsburg silt loam, 2 to 5 percent slopes	1.0	0.6%
10128	Sharpsburg-Urban land complex, 2 to 5 percent slopes	1.7	1.0%
10142	Snead-Rock outcrop complex, 5 to 14 percent slopes	10.7	6.2%
10143	Snead-Urban land complex, 9 to 30 percent slopes	0.5	0.3%
10179	Udarents-Urban land-Osaka complex, 5 to 9 percent slopes	4.2	2.4%
10180	Udarents-Urban land-Sampsel complex, 2 to 5 percent slopes	26.1	15.1%
10181	Udarents-Urban land-Sampsel complex, 5 to 9 percent slopes	3.9	2.2%
Totals for Area of Interest		173.1	100.0%

Project Number:
P101150264

Figure 3
Soil Map Legend- Page 10
Rock Island Shared Use Path Corridor Study
Jackson County, Missouri

MAP LEGEND



MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.sc.egov.usda.gov>
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Jackson County, Missouri
Survey Area Data: Version 17, Sep 28, 2016

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 19, 2012—Mar 25, 2012

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

APPENDIX B
PHOTO LOG AND MAP

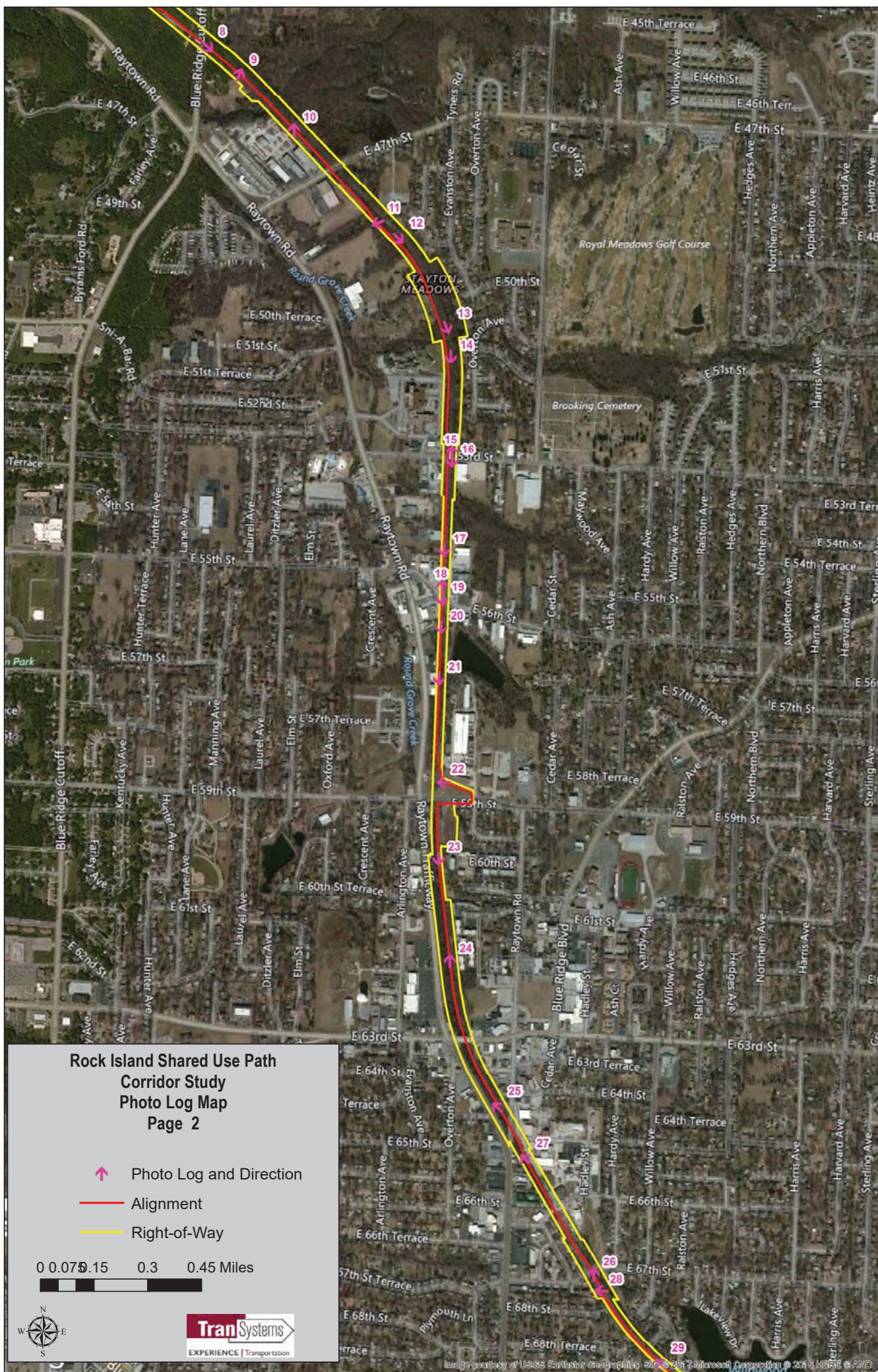


Rock Island Shared Use Path
Corridor Study
Photo Log Map
Page 1

- ↑ Photo Log and Direction
- Alignment
- Right-of-Way

0 0.075 0.15 0.3 0.45 Miles





Rock Island Shared Use Path
Corridor Study
Photo Log Map
Page 2

- ↑ Photo Log and Direction
- Alignment
- Right-of-Way

0 0.075 0.15 0.3 0.45 Miles





Rock Island Shared Use Path
Corridor Study
Photo Log Map
Page4

- ↑ Photo Log and Direction
- Alignment
- Right-of-Way

0 0.075 0.15 0.3 0.45 Miles





Rock Island Shared Use Path
Corridor Study
Photo Log Map
Page 5

- ↑ Photo Log and Direction
- Alignment
- Right-of-Way

0 0.075 0.15 0.3 0.45 Miles





Rock Island Shared Use Path
Corridor Study
Photo Log Map
Page 6

- ↑ Photo Log and Direction
- Alignment
- Right-of-Way

0 0.0750.15 0.3 0.45 Miles







Photo 1:
Rail bridge over East
Stadium Drive, facing
southeast.



Photo 2:
Rail bridge over East
Stadium Drive, facing
northwest.

**Rock Island Corridor
Jackson County, Missouri**

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 3.

Along rail corridor,
facing northwest.



Photo 4.

Underneath Interstate
435 overpass, facing
southeast.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 5.

South of Interstate 435, facing southeast.



Photo 6.

Approaching the Lancer Lane overpass, facing southeast.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 7.

South of Lance Lane
and west of stadium,
facing southeast.



Photo 8.

South of Blue Ridge
Cutoff, approaching
industrial complex
Automatic Systems
Inc., facing
southeast.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 9.

Debris behind Automotive Systems Inc. from dumping activities. Tracks in bottom of mountain, facing northeast.



Photo 10.

Buried fiber optic cable.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo11.

Clearing west of the tracks where man made path has been cleared, facing west.



Photo 12.

South of Calvary Baptist Church, facing southeast.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 13.

East of Two Rivers
Psychiatric Hospital,
facing southeast.



Photo 14.

Behind the
residences along
Overton Avenue,
facing south.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 15.

Standing on East 53rd
Street, facing north.



Photo 16.

Standing on East 53rd
Street, facing north.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 17.

North of 56th Street
behind industrial
warehouses, facing
south.



Photo 18.

North of 56th Street
behind industrial
warehouses, facing
north. .

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 19.

East 56th Street,
facing south.



Photo 20.

South of East 56th
Street, facing south.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 21:

North of intersection of Raytown Road and East 59th Street, facing south.



Photo 22:

At end of tracks on north side of East 59th Street, facing west.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 23.

South of East 59th
Street, facing south.



Photo 24.

West of residential
complex in recent area
of clear cutting
maintenance where
ground is saturated,
facing north.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 25.

Tracks are underwater and area around is completely saturated, facing northwest.



Photo 26.

East of commercial and industrial warehouses, facing north.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 27.

East 67th Street
bridge facing north.



Photo 28.

No Trespassing sign
stopping access,
between two
residential areas,
facing west.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 29.

Between residences
along Wildwood
Lake, facing
northwest.



Photo 30.

Between residences
along Wildwood
Lake, facing
northwest.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 31.

North of Woodson
Road, facing
northwest.



Photo 32.

Woodson Road,
facing southeast.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 33.

South of Woodson Road, facing northwest.



Photo 34.

South of Woodson Road north of Irwin Road, facing northwest.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 35.

South of Irwin Road,
facing southeast.



Photo 36.

South of East 75th
Street, facing
southeast.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 37.

Approaching Frost Road, facing southeast.



Photo 38.

Approaching Frost Road, facing southeast.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 39.

South of Frost Road,
facing southeast.



Photo 40.

West of Norfleet
Road, facing south.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 41:

Bridge crossing Little Blue River, facing southeast.



Photo 42:

North of NW Chipman Road, facing north.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 43.

North of NW Chipman Road, facing north.



Photo 44.

South of Chipman Road, facing south.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 45.

Facing southeast.



Photo 46.

Facing southeast.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 47

Overpass to SW Pryor Road, facing southeast.



Photo 48.

South of SW Pryor, facing southeast.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 49

South of SW
Longview Road,
facing southeast.



Photo 50

Intersection of
Persels and SW
Ward Road, facing
south.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 51:

South of Persels
Road, facing
southeast.



Photo 52:

North of Scherer
Road, facing
southeast.

**Rock Island Corridor
Jackson County, Missouri**

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey/

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 53.

South of State Route
291, facing
northwest.



Photo 54.

Facing southeast.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264



Photo 55.

Looking southwest
at pasture land
north of Big Creek,
facing southwest.

Rock Island Corridor
Jackson County, Missouri

PHOTO DOCUMENTATION



Photographer:
A.Taylor /J. Frey

Date of Photograph:
December 2016

Project Number:
P101150264

ADDITIONAL HISTORY/ARCHITECTURE
DETAILED PHOTOS



Concrete skewed bridge at 75th St. between Westridge Rd. and Larson Ave.; view looking northwest.



Deck plate girder bridge at 47th St. and Raytown Rd.; view looking east northeast.

Bridges and Tunnels

PHOTO DOCUMENTATION

Architectural & Historical
Research, LLC.

Photographer:
C. Millstein

Date of Photographs:
12/5/16

Project Number:
P101150264



Skewed concrete arch bridge at Frost Rd. and east 79th St.; view looking northeast.



Panoramic view of a deck plate girder bridge over the Little Blue River, north of I-470; looking east.

Bridges and Tunnels		PHOTO DOCUMENTATION	
Architectural & Historical Research, LLC.	Photographer: C. Millstein	Date of Photographs: 12/6/16	Project Number: P101150264



Panoramic view of Vale Tunnel, looking north.



Skewed concrete arch bridge at Raytown Rd. and Stadium Dr.; view looking east.

Bridges and Tunnels

PHOTO DOCUMENTATION

Architectural & Historical
Research, LLC.

Photographer:
C. Millstein

Dates of Photographs:
12/6/16, 8/16/16

Project Number:
P101150264



Concrete arch culvert
north of NW Chipman
Rd.; view looking east
from the right-of-way.



Concrete arch culvert
near Cedar Creek,
south of SW Longview
Rd.; view looking
southeast.

Culverts

PHOTO DOCUMENTATION

Architectural & Historical
Research, LLC.

Photographer:
C. Millstein

Dates of Photographs:
12/6/16, 12/9/16

Project Number:
P101150264



Concrete arch culvert
near Blue Ridge Cutoff
and East 47th St. (KML
111)

Culverts		PHOTO DOCUMENTATION	
	Photographer: S. Clark	Date of Photograph: 12/6/16	Project Number: P101150264





Telltale device near
Vale Tunnel at railbed,
north of Bannister Rd.;
view looking
northwest.

Railroad Structures		PHOTO DOCUMENTATION	
Architectural & Historical Research, LLC.	Photographer: C. Millstein	Date of Photograph: 12/6/16	Project Number: P101150264



Freight bumping post
near East 47th St. and
Pittman Rd.



Detail view of freight
bumping post near
East 47th St. and
Pittman Rd.

Railroad Structures

PHOTO DOCUMENTATION



Photographer:
S. Clark

Date of Photographs:
12/5/16

Project Number:
P101150264



Detail of rail branding for 1930 rail; near Raytown Rd. and East 57th St.



Detail of rail branding for 1929 rail; in Little Blue Trace Park north of I-470 and east of View High Dr.

Rails and Ties

PHOTO DOCUMENTATION

Architectural & Historical
Research, LLC.

Photographer:
C. Millstein

Dates of Photographs:
12/5/16, 12/6/16

Project Number:
P101150264



View near Larson Ave., south of East 75th St.; looking southeast.



View between Frost Rd., Krister Park, and East 77th Terr.; view looking southeast.

Railbed

PHOTO DOCUMENTATION

**Architectural & Historical
Research, LLC.**

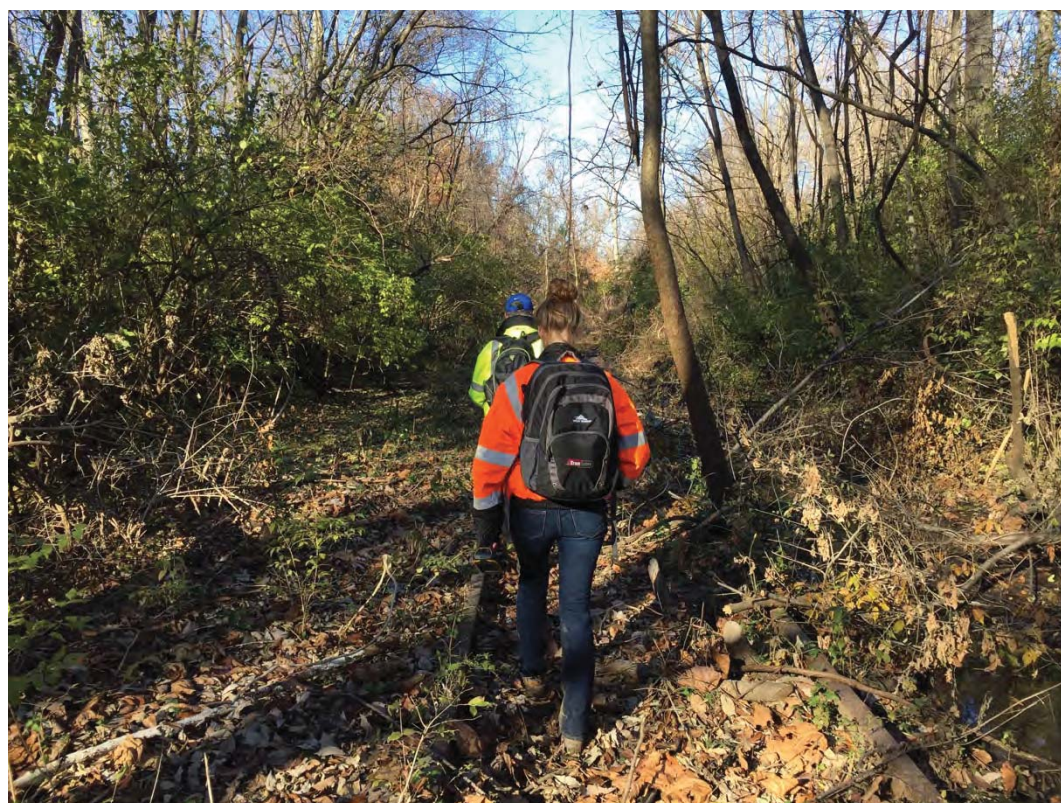
**Photographer:
C. Millstein**

**Date of Photographs:
12/5/16**

**Project Number:
P101150264**



View between
Woodson Dr. and Irwin
Rd., near 73rd St.;
looking southeast.



View near Raytown
Rd. and East 60th St.;
looking north.

Railbed

PHOTO DOCUMENTATION

**Architectural & Historical
Research, LLC.**

**Photographer:
C. Millstein**

**Date of Photographs:
12/5/16**

**Project Number:
P101150264**

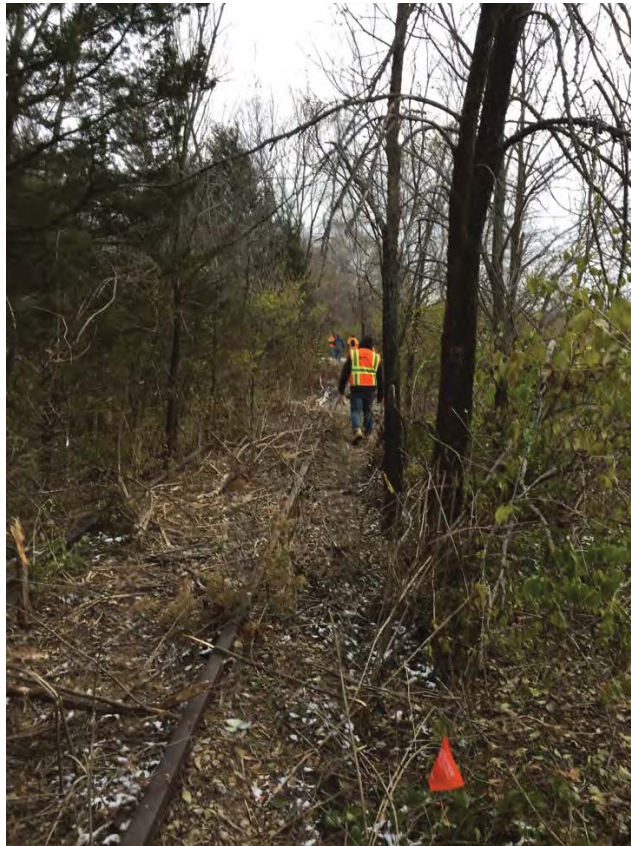


View south of Frost Rd., adjacent to Noland Rd.; looking southeast.



View between I-470 and NW Chipman Rd.; looking north.

Railbed		PHOTO DOCUMENTATION	
Architectural & Historical Research, LLC.	Photographer: C. Millstein	Date of Photographs: 12/6/16	Project Number: P101150264



View south of SW 3rd St. bridge, north of SW Longview Rd.; looking southeast.



View south of SW Longview Rd. east of SW Crossing Dr.; looking northwest.

Railbed		PHOTO DOCUMENTATION	
Architectural & Historical Research, LLC.	Photographer: C. Millstein	Date of Photographs: 12/9/16	Project Number: P101150264



View near Dubliner Cir. and the stadium (KML 53).

Railbed

PHOTO DOCUMENTATION



Photographer:
S. Clark

Date of Photograph:
12/6/16

Project Number:
P101150264



Panoramic view near East 77th Terr. and west of Noland Rd.; looking northwest.

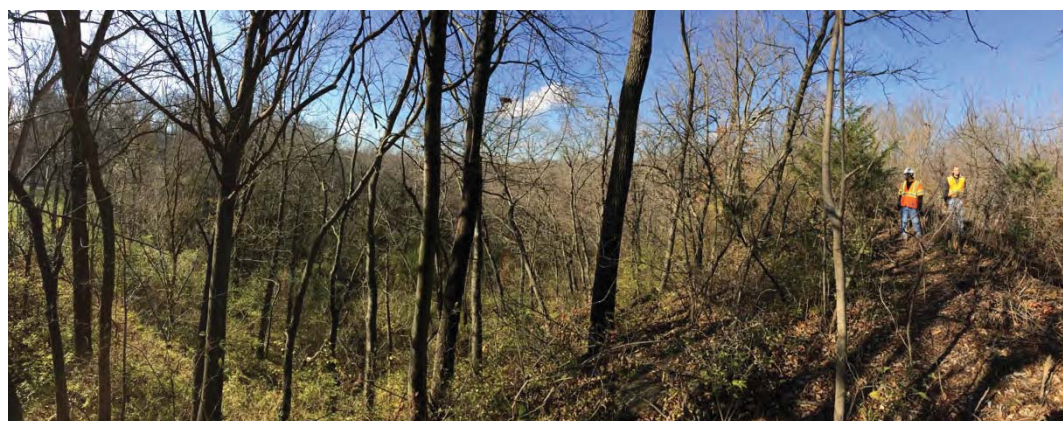


Panoramic view at East 75th St. between Blue Parkway and Noland Rd.; looking southeast.

Viewsheds and Buildings		PHOTO DOCUMENTATION	
Architectural & Historical Research, LLC.	Photographer: C. Millstein	Date of Photographs: 12/5/16	Project Number: P101150264



View north of Frost Rd. at East 77th Terr.; looking northwest.



Panoramic view of viewshed between Woodson Dr., 70th Terr., and Lakeshore Dr.; looking northwest.

Viewsheds and Buildings

PHOTO DOCUMENTATION

Architectural & Historical
Research, LLC.

Photographer:
C. Millstein

Date of Photographs:
12/5/16

Project Number:
P101150264



Panoramic view of viewshed near Wildwood Lakes, East 70th Terr. and Lakeshore Dr.; looking northwest.



Panoramic view of viewshed near East 56th St. and Raytown Rd.; looking north northwest.

Viewsheds and Buildings		PHOTO DOCUMENTATION	
Architectural & Historical Research, LLC.	Photographer: C. Millstein	Date of Photographs: 12/5/16	Project Number: P101150264



View from the deck plate girder bridge at Noland Rd. and 350 Highway, looking northeast.



Panoramic view between I-470 and NW Chipman Rd.; looking north.

Viewsheds and Buildings

PHOTO DOCUMENTATION

Architectural & Historical
Research, LLC.

Photographer:
C. Millstein

Date of Photographs:
12/6/16

Project Number:
P101150264



Panoramic view west of SW New Orleans Ave. and Cedar Creek; looking northwest.



1700 Southwest Longview Rd.; view looking east, southeast.

Viewsheds and Buildings

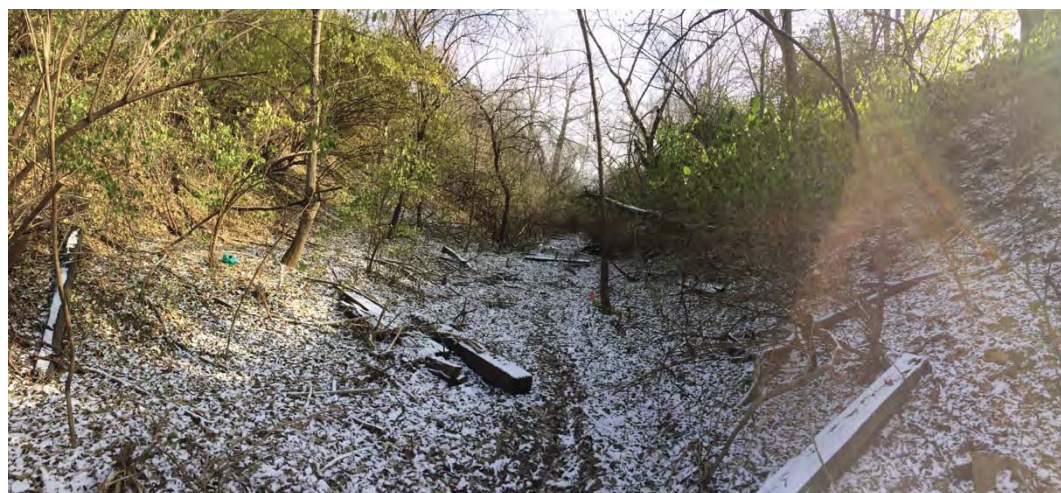
PHOTO DOCUMENTATION

Architectural & Historical
Research, LLC.

Photographer:
C. Millstein

Date of Photographs:
12/9/16

Project Number:
P101150264



Panoramic view
between SW Fredrick
Dr. and SW Highland
Dr.; looking southeast.



Panoramic view west
of SE Hamblen Rd
and east of 291
Highway; looking
northwest.

Viewsheds and Buildings

PHOTO DOCUMENTATION

Architectural & Historical
Research, LLC.

Photographer:
C. Millstein

Date of Photographs:
12/9/16

Project Number:
P101150264



Panoramic view near East Bannister Rd. and White Creek.; looking north.



View near Blue Ridge Cutoff and East Circle Dr. (KML 79).

Viewsheds and Buildings

PHOTO DOCUMENTATION

TranSystems and Architectural
& Historical Research, LLC.

Photographers:
C. Millstein
S. Clark

Date of Photograph:
12/6/16

Project Number:
P101150264

STATE OF MISSOURI
Eric R. Greitens, Governor • Carol S. Comer, Acting Director
DEPARTMENT OF NATURAL RESOURCES
dnr.mo.gov

March 1, 2017

Amber Taylor
TranSystems
1105 Schrock Road, Suite 400
Columbus, Ohio 43229

Re: Rock Island Corridor, Kansas City to Lee's Summit (FHWA-RTP) Jackson County, Missouri

Dear Ms. Taylor:

Thank you for submitting information on the above referenced project for our review pursuant to Section 106 of the National Historic Preservation Act (P.L. 89-665, as amended) and the Advisory Council on Historic Preservation's regulation 36 CFR Part 800, which requires identification and evaluation of cultural resources.

We have reviewed the information provided concerning the proposed Rock Island Corridor Shared Use Path Project. We concur with the Area of Potential Effect (APE) as proposed. We also concur that the archaeological investigation has confirmed that the project corridor has been extensively disturbed, and that no further archaeological studies are warranted. Finally, we concur that there is the potential for historic properties, including the rail road corridor, and that a formal historic and architectural survey should be conducted.

Please be advised that, should project plans change, information documenting the revisions should be submitted to this office for further review. In the event that cultural materials are encountered during project activities, all construction should be halted, and this office notified as soon as possible in order to determine the appropriate course of action.

If you have any questions, please write Judith Deel at State Historic Preservation Office, P.O. Box 176, Jefferson City, Missouri 65102 or call 573/751-7862. Please be sure to include the SHPO Log Number (113-JA-17) on all future correspondence or inquiries relating to this project.

Sincerely,

STATE HISTORIC PRESERVATION OFFICE

Toni M. Prawl

Toni M. Prawl, Ph.D.
Director and Deputy State
Historic Preservation Officer

TMP:jd

c Raegan Ball, FHWA
Roopa Banerjee, FHWA
Michael Meinkoth, MoDOT
Dawn Fredrickson, DNR/MSP

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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



Prepared by:
Architectural & Historical Research, LLC
Kansas City, MO
March 28, 2017

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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 Shared 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.

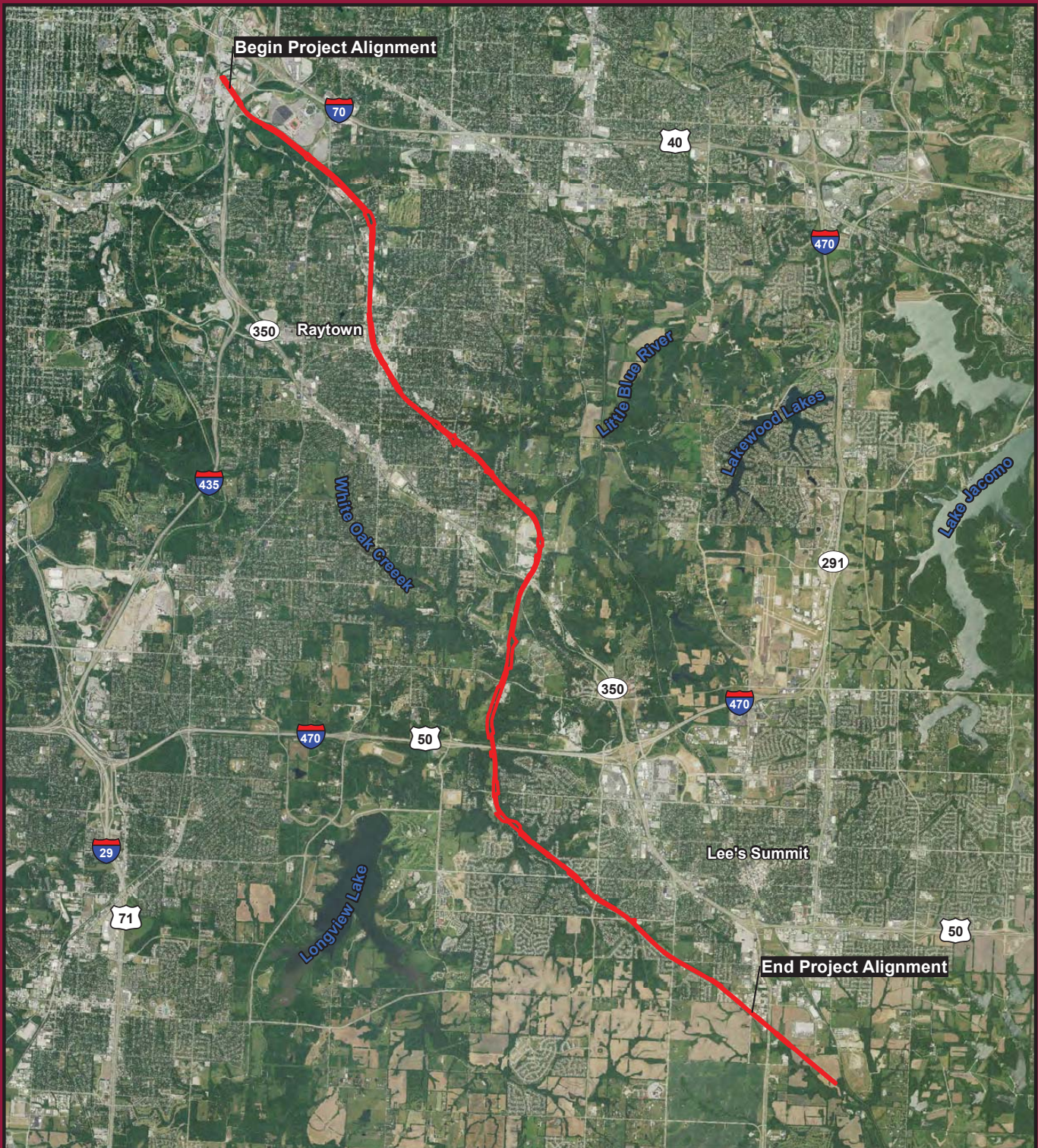
The Jackson County Legislature and the Kansas City Area Transportation Authority (KCATA) approved, in partnership, the purchase of the Rock Island Corridor from the Union Pacific Railroad. The County acquired the Rock Island Railroad Corridor with an obligation to provide freight rail service upon reasonable 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

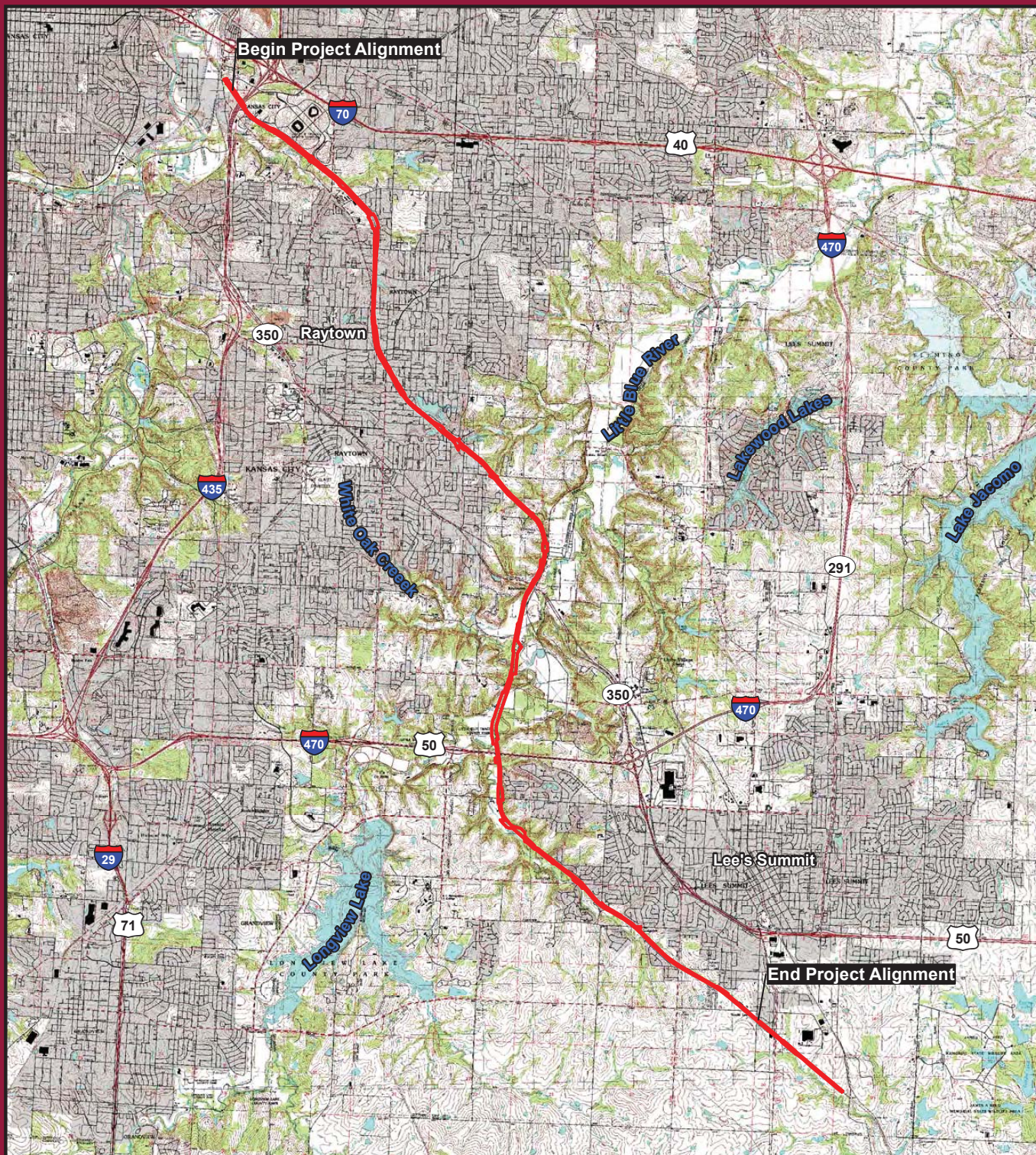


Date: March 2017

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.

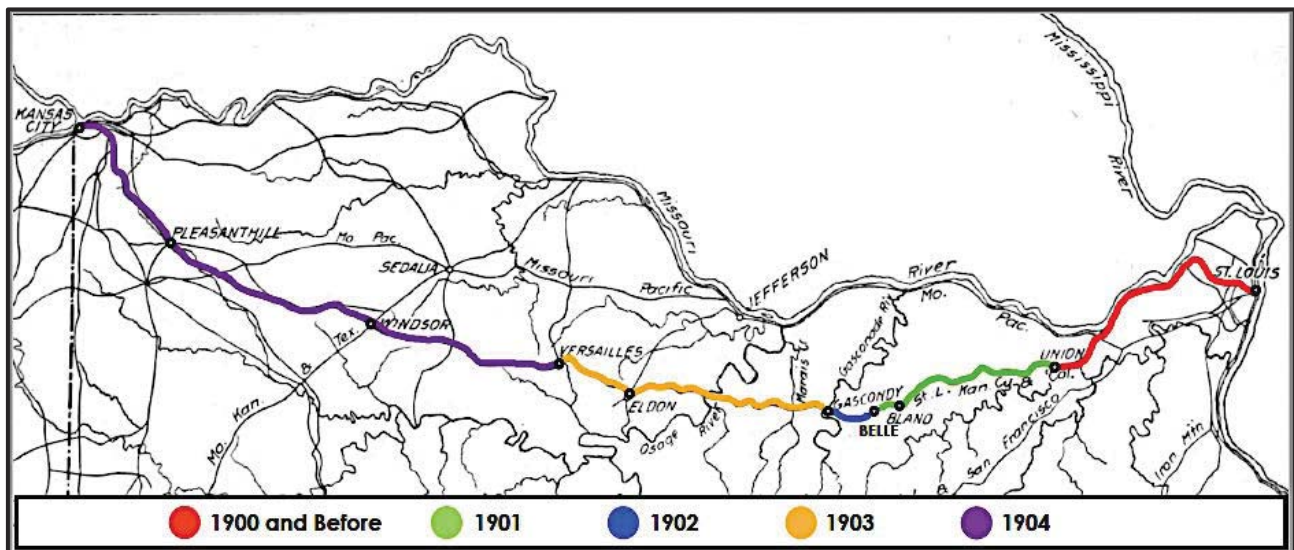
¹¹ "Leaves Out the Tunnels," *Kansas City Star* (24 November 1902): 1. Steep track grading is associated with higher fuel expenses as it takes more energy for the train to traverse these areas.

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.

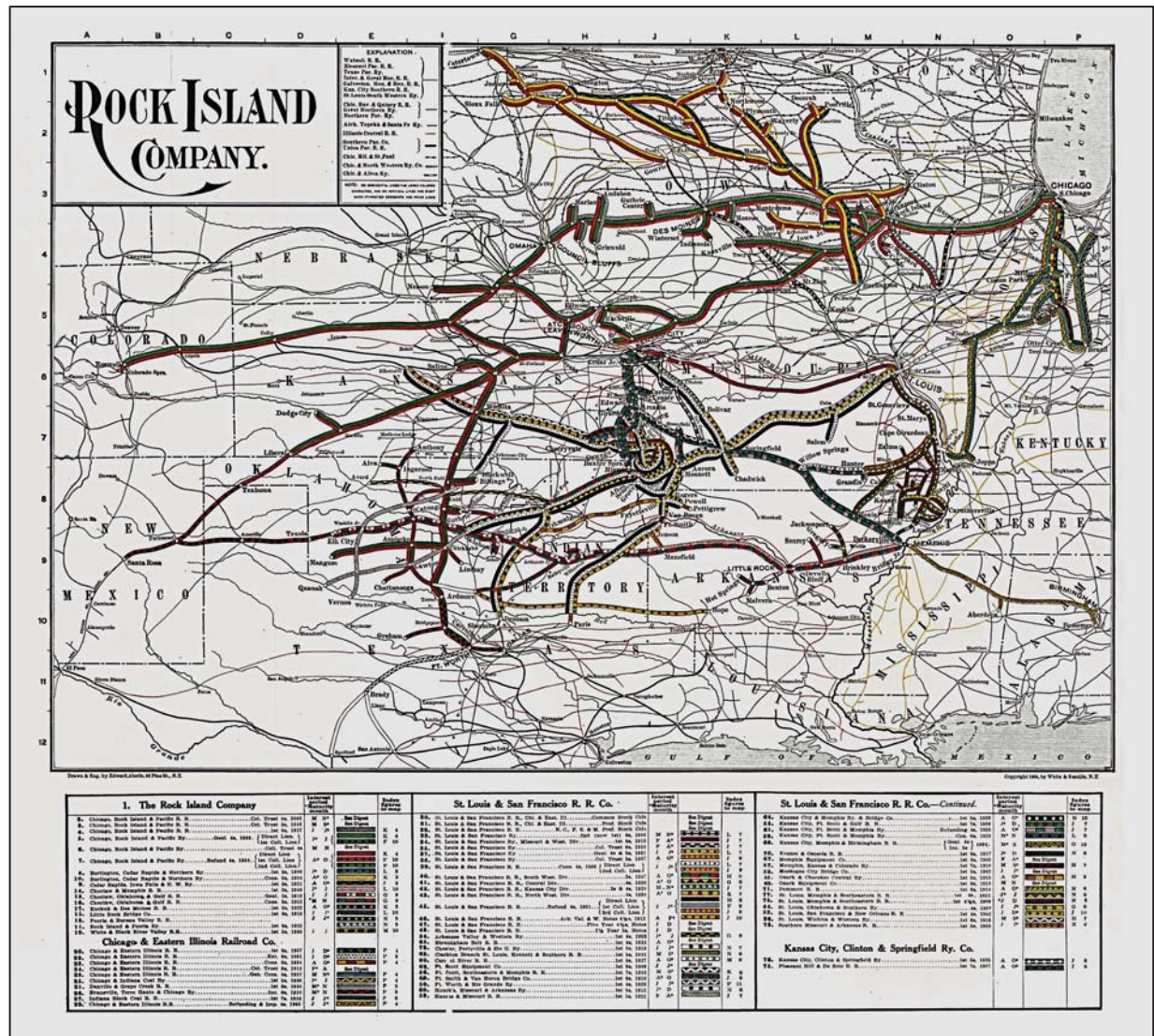
The St. Louis, Kansas City & Colorado Railroad Construction Map



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	Vigors.	118	Freeburg.	240	Denton.
22	Greve Couer Lake.	125	Acgyle.	245	Medford.
24	Monn.	135	Meta.	253	Hadsell.
27	Chesterfield.	145	Hoecker.	255	Wingate.
32	Monarch.	148	Henley.	258	Pleasant Hill.
38	Centaur.	150	Eugene.	260	Greenwood.
40	St. Albans.	154	Kiterville.	272	South Lee.
45	Labadie.	160	Eldon.	275	Vale.
51	Villa Ridge.	165	Barnett.	281	Raytown.
60	Union.	172	Marvin.	286	Leeds Junction.
65	Jeffreyburg.	177	Versailles.	291	Sheffield.
72	Beaufort.	185	Stover.	295	Grand Avenue.
74	Leslie.	194	Orest.	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.

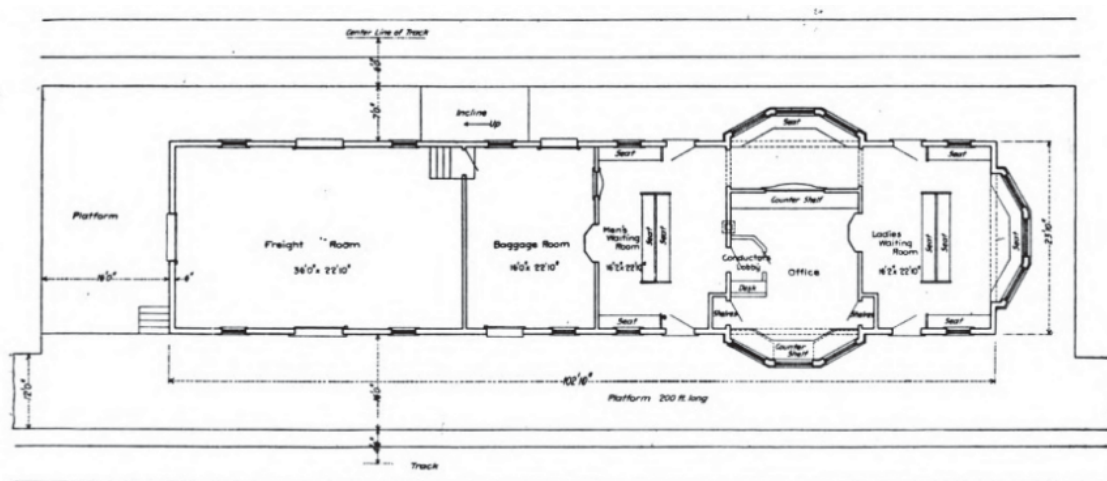
³² "Building of a Railway," *Kansas City Star* (15 November 1903) 15.

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).

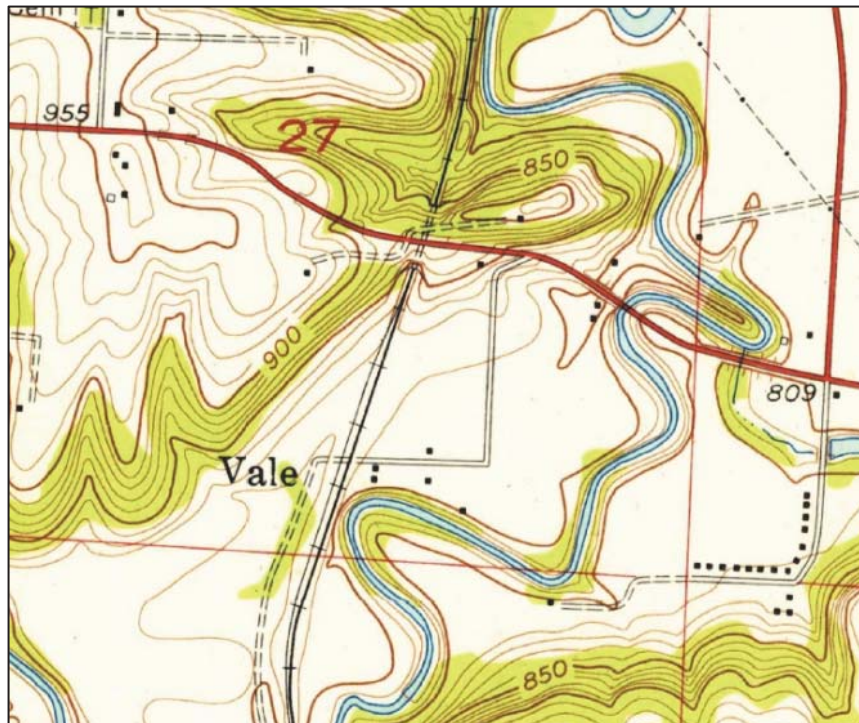
Source: Jack Forbes, "Missouri Depots Vale 1911," [Missouridepots.com](http://www.missouridepots.com/vale1911ri.htm). Accessed March 16, 2017. <http://www.missouridepots.com/vale1911ri.htm>.



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/>.

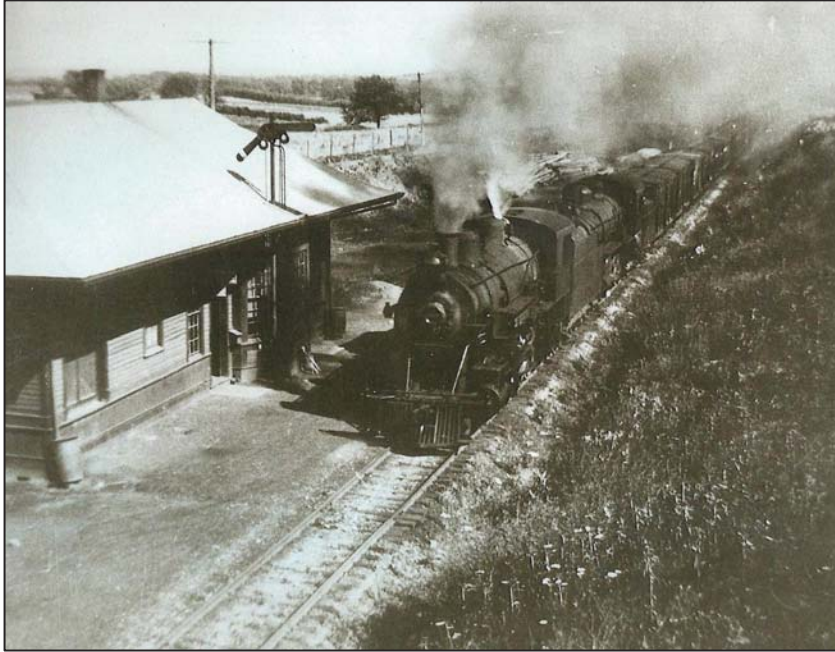
The tunnel at Vale, measuring 453 feet, was constructed from 1903 to 1904, as indicated on the entrance of the tunnel. Tell tales, a standard for railroads, were located at the north and south openings. Additionally, the Vale Brick Company was located to the north of the depot and tunnel. A spur track 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



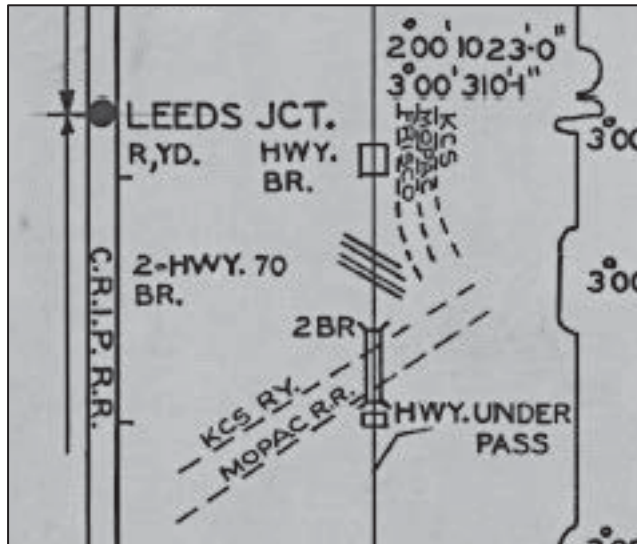
A c. 1960s photograph of the depot at Raytown.

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.

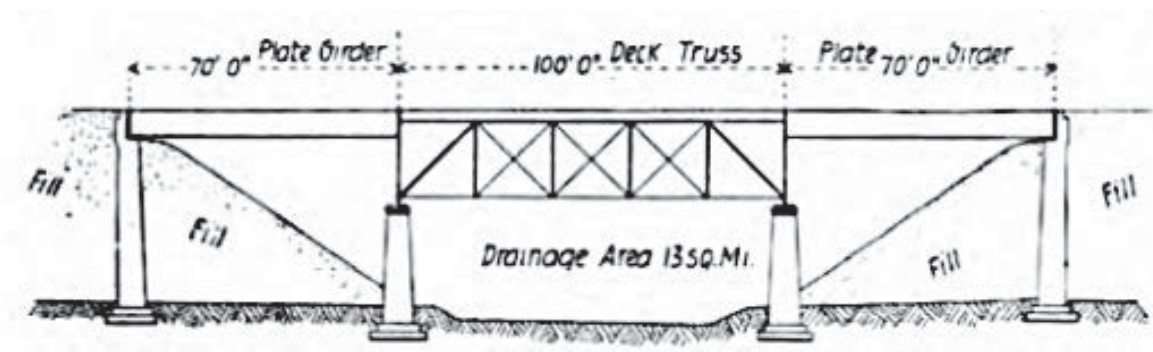
Due to similarity in design and overall features to previously identified Rock Island steel girder spans, all girder bridges in the study area appear to be manufactured by American Bridge

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



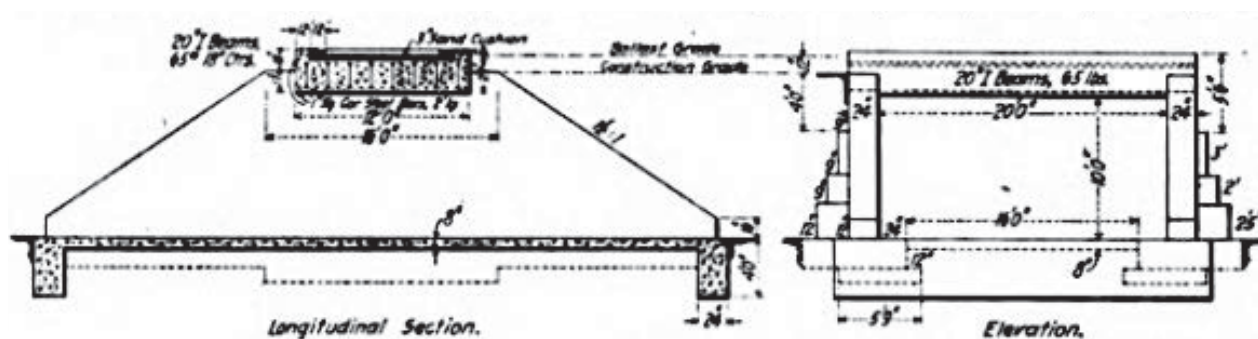
*The deck plate girder bridge over Haw Creek, similar to the crossing at the Little Blue.
This design was typical of the line.*

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

Concrete Bridges

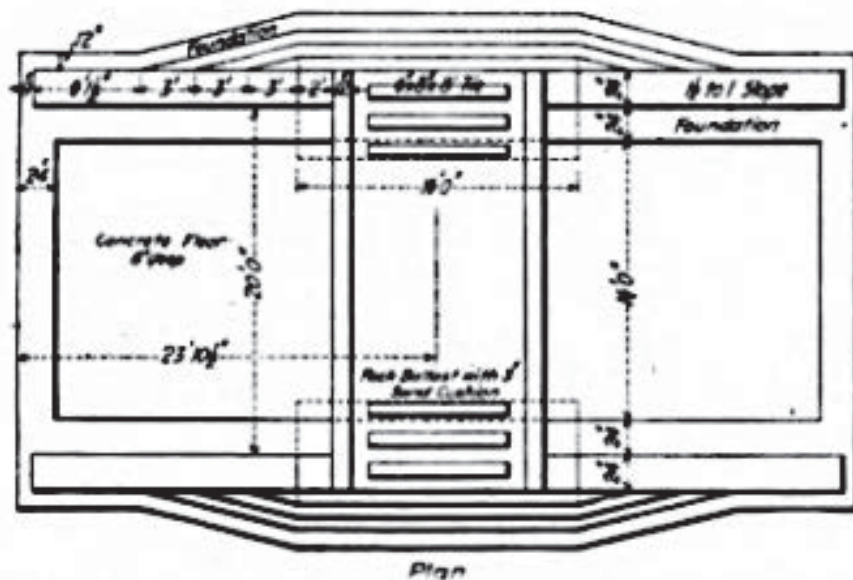
In the study area there are two (2) concrete arch bridges and three (3) concrete and I-Beam bridges. No bridge name plates were found on any of the concrete bridges.

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.



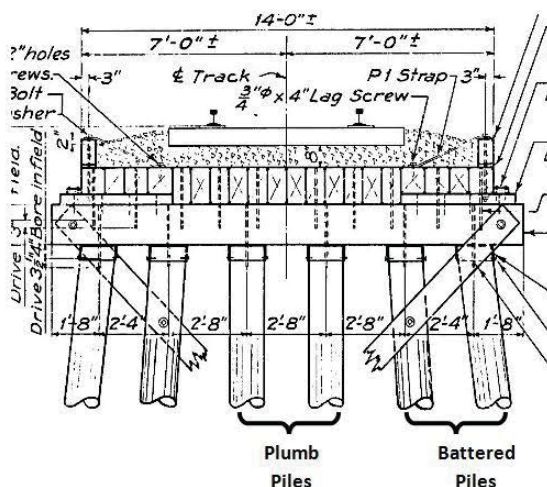
Concrete and I-Beam Solid Bridge Floor.

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.

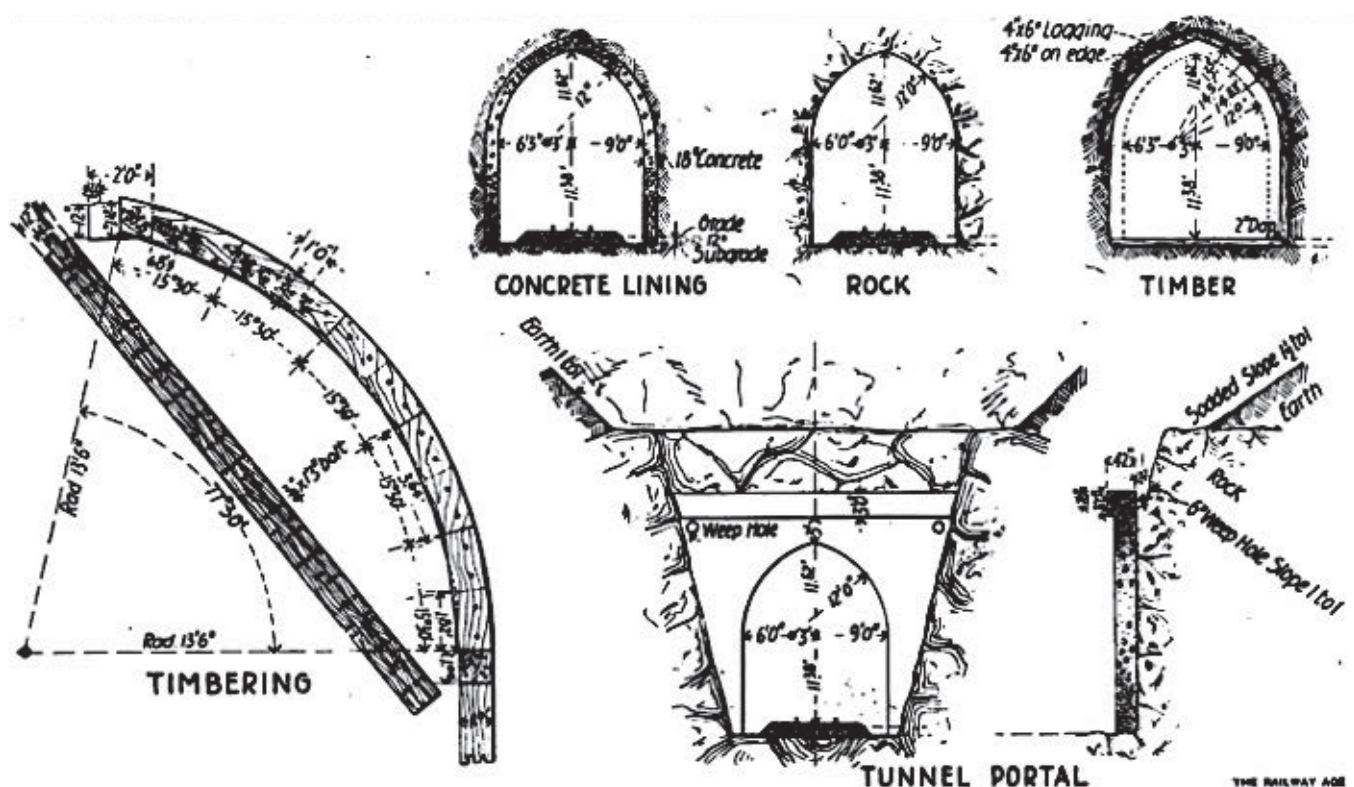


A cross-section plan of a ballasted timber trestle bridge.

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.

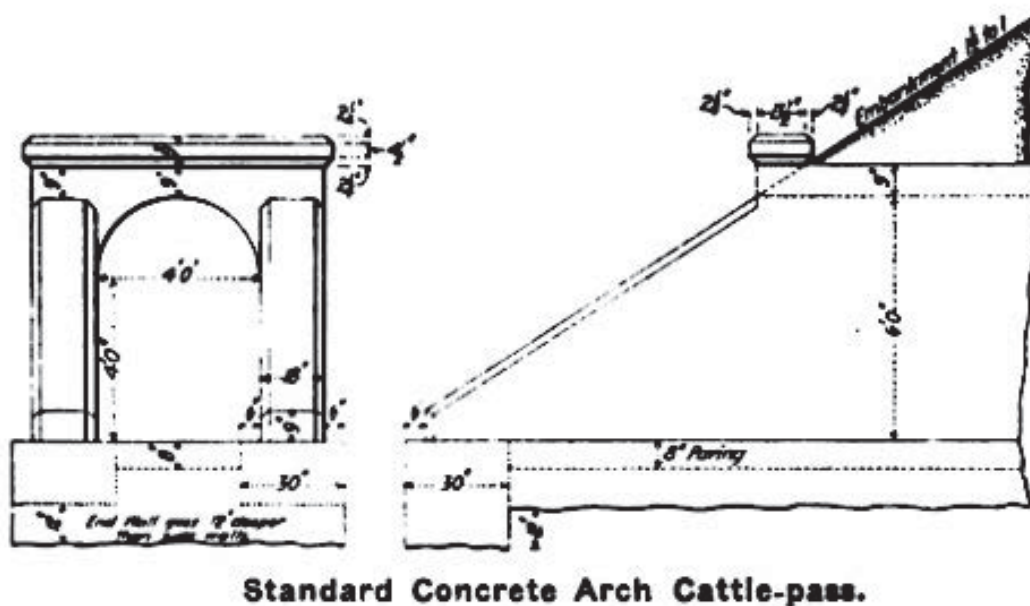
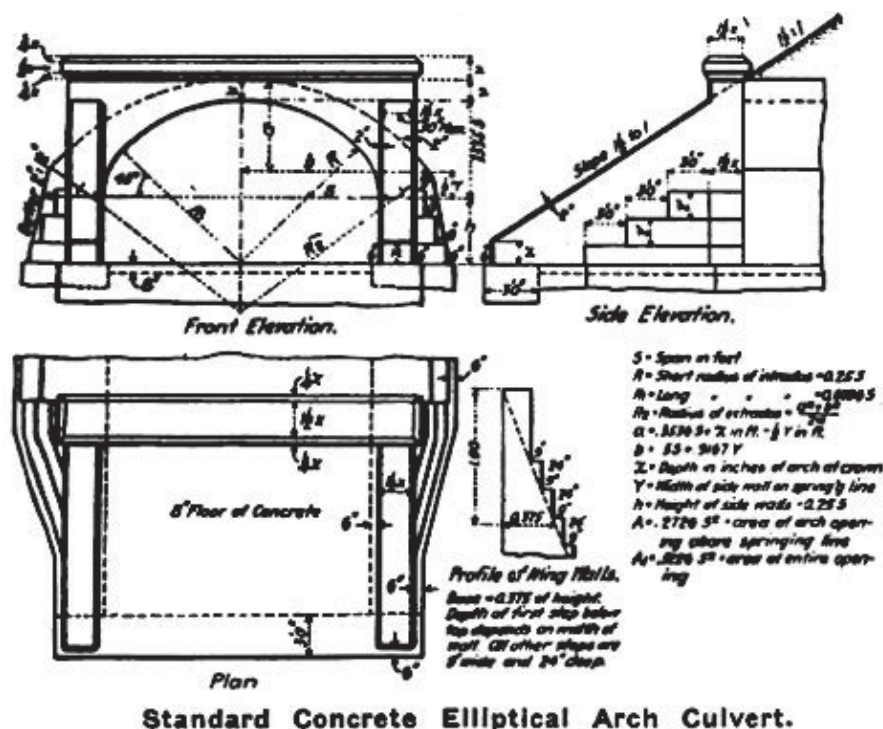
⁵² Campbell, *Railroad Gazette* 37, 460.

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.

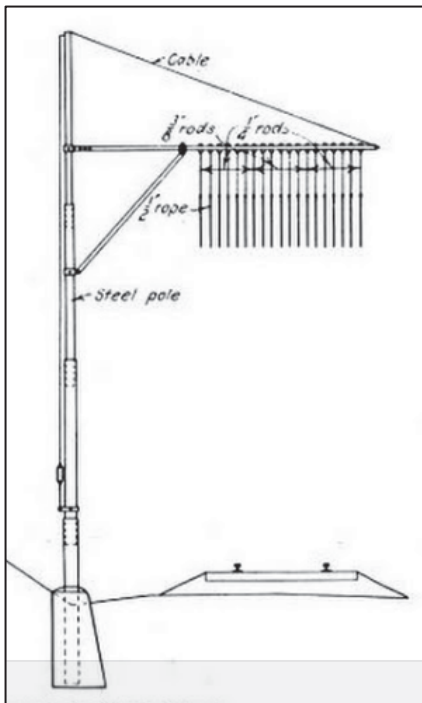
Before the invention of air brakes, brakes were set manually from a position on top of the train. To warn the brakeman of an impending low clearance situation, a device called a tell tale was used. A mast with a bracket was attached to a series of chains or cords that would hit the brakeman and top of 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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Certificate of Service

I, Carolyn Kraska, hereby certify that on September 12, 2019, a true and correct copy of the Environmental and Historic Report was sent via Federal Express to the following:

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