

DATA SHEET

PHO 692 506

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

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RECEIVED NOV 20 1978 27
DATE ENTERED

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

SEE INSTRUCTIONS IN HOW TO COMPLETE NATIONAL REGISTER FORMS
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC
Apache Canyon Railroad Bridge
AND/OR COMMON

RECEIVED
DEC 18 1978

N.M. HISTORIC PRESERVATION PROGRAM

2 LOCATION

STREET & NUMBER Located three miles (4.8 km) northeast of Lamy over Galisteo Creek

CITY, TOWN Lamy
STATE New Mexico
VICINITY OF VICINITY OF 1
CODE 035 COUNTY Santa Fe CODE 049

3 CLASSIFICATION

| CATEGORY | OWNERSHIP | STATUS | PRESENT USE | |
|---|---|--|--|--|
| <input type="checkbox"/> DISTRICT | <input type="checkbox"/> PUBLIC | <input checked="" type="checkbox"/> OCCUPIED | <input type="checkbox"/> AGRICULTURE | <input type="checkbox"/> MUSEUM |
| <input type="checkbox"/> BUILDING(S) | <input checked="" type="checkbox"/> PRIVATE | <input type="checkbox"/> UNOCCUPIED | <input checked="" type="checkbox"/> COMMERCIAL | <input type="checkbox"/> PARK |
| <input checked="" type="checkbox"/> STRUCTURE | <input type="checkbox"/> BOTH | <input type="checkbox"/> WORK IN PROGRESS | <input type="checkbox"/> EDUCATIONAL | <input type="checkbox"/> PRIVATE RESIDENCE |
| <input type="checkbox"/> SITE | PUBLIC ACQUISITION | ACCESSIBLE | <input type="checkbox"/> ENTERTAINMENT | <input type="checkbox"/> RELIGIOUS |
| <input type="checkbox"/> OBJECT | <input type="checkbox"/> IN PROCESS | <input type="checkbox"/> YES: RESTRICTED | <input type="checkbox"/> GOVERNMENT | <input type="checkbox"/> SCIENTIFIC |
| | <input type="checkbox"/> BEING CONSIDERED | <input type="checkbox"/> YES: UNRESTRICTED | <input type="checkbox"/> INDUSTRIAL | <input checked="" type="checkbox"/> TRANSPORTATION |
| | | <input checked="" type="checkbox"/> NO | <input type="checkbox"/> MILITARY | <input type="checkbox"/> OTHER: |

4 OWNER OF PROPERTY

NAME Atchison, Topeka and Santa Fe Railroad Attn: R.K. Knowlten
STREET & NUMBER 80 East Jackson Blvd.
CITY, TOWN Chicago VICINITY OF STATE Illinois

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC. Santa Fe County Courthouse
STREET & NUMBER
CITY, TOWN Santa Fe STATE New Mexico

6 REPRESENTATION IN EXISTING SURVEYS

TITLE New Mexico State Register of Cultural Properties
DATE December 9, 1977
DEPOSITORY FOR SURVEY RECORDS Historic Preservation Section, New Mexico State Planning Office
CITY, TOWN Santa Fe STATE New Mexico

7 DESCRIPTION

| CONDITION | | CHECK ONE | CHECK ONE |
|--|---------------------------------------|---|---|
| <input type="checkbox"/> EXCELLENT | <input type="checkbox"/> DETERIORATED | <input checked="" type="checkbox"/> UNALTERED | <input checked="" type="checkbox"/> ORIGINAL SITE |
| <input checked="" type="checkbox"/> GOOD | <input type="checkbox"/> RUINS | <input type="checkbox"/> ALTERED | <input type="checkbox"/> MOVED DATE _____ |
| <input type="checkbox"/> FAIR | <input type="checkbox"/> UNEXPOSED | | |

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

Located three miles northeast of Lamy, the Apache Canyon Railroad Bridge stands as an example of the comprehensive bridge replacement program launched by the Atchison, Topeka and Santa Fe Railway in the early 1890's. When the original construction crew reached Apache Canyon in the early part of 1880, a wood-treated bridge was erected to span Galisteo Creek. Twelve years later this structure was replaced by a deck plate girder bridge which has been in use for the past eighty-five years.

The Apache Canyon Bridge crosses the canyon diagonally. The girders are 105 ft. in length. The track, intersecting three loops of the Galisteo River at Apache Canyon, makes six crossings over a space of more than two thousand feet. An extremely oblique skew span (105 ft. long) is capable of center support by a transverse secondary span at the center arranged to transform the primary span into two continuous plate girder deck spans.

The ends of the bridge rest on abutments on opposite sides of the canyon. The center line of the track is on a ten degree curve and is 14½ inches off the center line of the plate girder bridge at the center and at both ends of the span. The abutments are anchored in granite rock on both sides of the canyon. The track-bed on the structure measures ten feet in width and the distance between the center point of the structure and the shorter pedestal supporting the deck girder is sixteen feet.

Currently, the bridge stands in good condition and bears a regular traffic load on the trains passing through the canyon from Lamy.

8 SIGNIFICANCE

| PERIOD | AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW | | | |
|---|--|---|---|--|
| <input type="checkbox"/> PREHISTORIC | <input type="checkbox"/> ARCHEOLOGY-PREHISTORIC | <input type="checkbox"/> COMMUNITY PLANNING | <input type="checkbox"/> LANDSCAPE ARCHITECTURE | <input type="checkbox"/> RELIGION |
| <input type="checkbox"/> 1400-1499 | <input type="checkbox"/> ARCHEOLOGY-HISTORIC | <input type="checkbox"/> CONSERVATION | <input type="checkbox"/> LAW | <input type="checkbox"/> SCIENCE |
| <input type="checkbox"/> 1500-1599 | <input type="checkbox"/> AGRICULTURE | <input type="checkbox"/> ECONOMICS | <input type="checkbox"/> LITERATURE | <input type="checkbox"/> SCULPTURE |
| <input type="checkbox"/> 1600-1699 | <input type="checkbox"/> ARCHITECTURE | <input type="checkbox"/> EDUCATION | <input type="checkbox"/> MILITARY | <input type="checkbox"/> SOCIAL/HUMANITARIAN |
| <input type="checkbox"/> 1700-1799 | <input type="checkbox"/> ART | <input checked="" type="checkbox"/> ENGINEERING | <input type="checkbox"/> MUSIC | <input type="checkbox"/> THEATER |
| <input checked="" type="checkbox"/> 1800-1899 | <input checked="" type="checkbox"/> COMMERCE | <input type="checkbox"/> EXPLORATION/SETTLEMENT | <input type="checkbox"/> PHILOSOPHY | <input checked="" type="checkbox"/> TRANSPORTATION |
| <input type="checkbox"/> 1900- | <input type="checkbox"/> COMMUNICATIONS | <input type="checkbox"/> INDUSTRY | <input type="checkbox"/> POLITICS/GOVERNMENT | <input type="checkbox"/> OTHER (SPECIFY) |
| | | <input type="checkbox"/> INVENTION | | |

SPECIFIC DATES 1892

BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

The Apache Canyon Bridge near Lamy is a rare example of an engineering project designed to span a canyon lengthwise. A precedent for this design was set around 1875 when the well-known "hanging bridge" was constructed two miles west of Canyon City, Colorado. The engineering feat performed at Apache Canyon removed one of the numerous obstacles the railroad encountered in connecting a permanent rail line from Raton to Santa Fe.

The tracks of the Atchison, Topeka and Santa Fe reached Las Vegas in the summer of 1879 and then turned westward toward Santa Fe. Construction of the line through Glorieta Pass proved to be a difficult feat. The pass, reaching an elevation of 7,453 feet amidst a large forest, rendered this thirty-mile segment troublesome to build and operate. Following a steep climb to the top of the pass, a cut thirty feet deep had to be made as the rails crossed the divide between the Pecos River and the Rio Grande. The line followed canyons and creek beds to the headwaters of Galisteo Creek.

From the crest of the pass the A.T. & S.F. crews built downwards for forty miles, owing to a descent in elevation of more than two thousand feet. Apache Canyon, a narrow, rugged gorge situated just northeast of Lamy, presented the supervisors and construction crew with a formidable challenge. In early 1880 the company erected a wood bridge at the site, but this structure served only temporary needs. Twelve years later the unique deck plate girder bridge replaced the rather unreliable wood structure.

From Apache Canyon the line turned westward to meet the Rio Grande. The crews then built rapidly down the Rio Grande Valley, passing through Albuquerque on April 15, 1880. By September, the railhead had reached San Marcial in southwestern New Mexico, a distance of 235 miles from Las Vegas.

The appearance of the A.T. & S.F. in New Mexico had a profound effect upon the territory's economy. The arrival of the railroad stimulated mining development and influenced the expansion of sheep and cattle operations. With the railroad at their disposal, Rio Grande Valley farmers had an easily accessible means of shipping produce to eastern markets.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

"Bridging Canyons Lengthwise." Engineering News, Vol. XXVII, No. 27 (June 30, 1892), 653. (Available at Library, Texas Tech University)

Bryant, Keith, L., Jr. History of the Atchison, Topeka and Santa Fe Railway. New York: Macmillan Publishing Company, Inc., 1974, pp. 60-63. (Available at Southwest Collection, Texas Tech University)

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY 27 acres

UTM REFERENCES

| | | | | | | | | | | | | | |
|---|------|---------|-------|----------|-----|-------|------|---------|-------|----------|-----|-----|-------|
| A | 1,3 | 4,2,2 | 5,4,0 | 3,9 | 3,0 | 4,3,0 | B | 1,3 | 4,2,2 | 6,6,0 | 3,9 | 3,0 | 2,8,0 |
| | ZONE | EASTING | | NORTHING | | | ZONE | EASTING | | NORTHING | | | |
| C | 1,3 | 4,2,2 | 4,7,0 | 3,9 | 2,9 | 9,4,0 | D | 1,3 | 4,2,2 | 2,8,0 | 3,9 | 2,9 | 9,6,0 |

VERBAL BOUNDARY DESCRIPTION

Beginning at the point where the Atchison, Topeka and Santa Fe Railway enters Apache Canyon from the northeast (UTM Reference 13/422600/3930360), proceed southwest along the tracks for 2000 feet. The boundary includes 300 feet on either side of the track.

Justification: The boundary is drawn to include the bridge and the associated abutments and retaining walls.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

| STATE | CODE | COUNTY | CODE |
|-------|------|--------|------|
| STATE | CODE | COUNTY | CODE |

11 FORM PREPARED BY

NAME / TITLE

William L. Cumiford, Project Manager

ORGANIZATION

History of Engineering Program

DATE

Mar. 2, 1978

STREET & NUMBER

Box 4089 Texas Tech University

TELEPHONE

(806) 742-3591

CITY OR TOWN

Lubbock

STATE

Texas

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL

STATE

LOCAL

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

Thomas W. Hill

TITLE

State Historic Preservation Officer

DATE

11-13-78

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

Charles Alfrey

DATE

4-27-78

ATTEST:

Bill Blouin

KEEPER OF THE NATIONAL REGISTER

DATE

April 27, 1979

UNITED STATES DEPARTMENT OF THE INTERIOR
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CONTINUATION SHEET Significance ITEM NUMBER 8 PAGE 2

The construction of the Apache Canyon Bridge was an important development from both engineering and historical perspectives. Technologically, the structure was innovative in that it was one of the first bridges built in the west designed to span a canyon lengthwise. Furthermore, it was one of the first major projects in the massive bridge replacement program initiated by the Santa Fe Railway in 1892, a testimony to the importance placed upon the New Mexico line by the company.

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CONTINUATION SHEET Bibliography ITEM NUMBER 9 PAGE 2

Hickley, Howard V. "Bridging Canyon Lengthwise." Transactions of the American Society of Civil Engineers, Vol. XXVI, No. 531 (May, 1892), 521-28.
(Available at Library, Texas Tech University)

Lynch, Dudley M. "Lamy: Railroad Junction." New Mexico Magazine, Vol. XLIV, No. 10 (October, 1966), 2-5. (Available at Southwest Collection, Texas Tech University)

Myrick, David F. New Mexico's Railroads: An Historical Survey. Golden: Colorado Railroad Museum, 1970, p. 18. (Available at History of Engineering Library, Texas Tech University)

"A Novel Plate-Girder Bridge Pier." Engineering Record, Vol. XXVI, No. 6 (July 23, 1892), 95. (Available at Library, Texas Tech University)

Stanley, F. Ciudad Santa Fe - Territorial Days. Pampa, TX: Pampa Print Shop, 1965, p. 154. (Available at Southwest Collection, Texas Tech University)

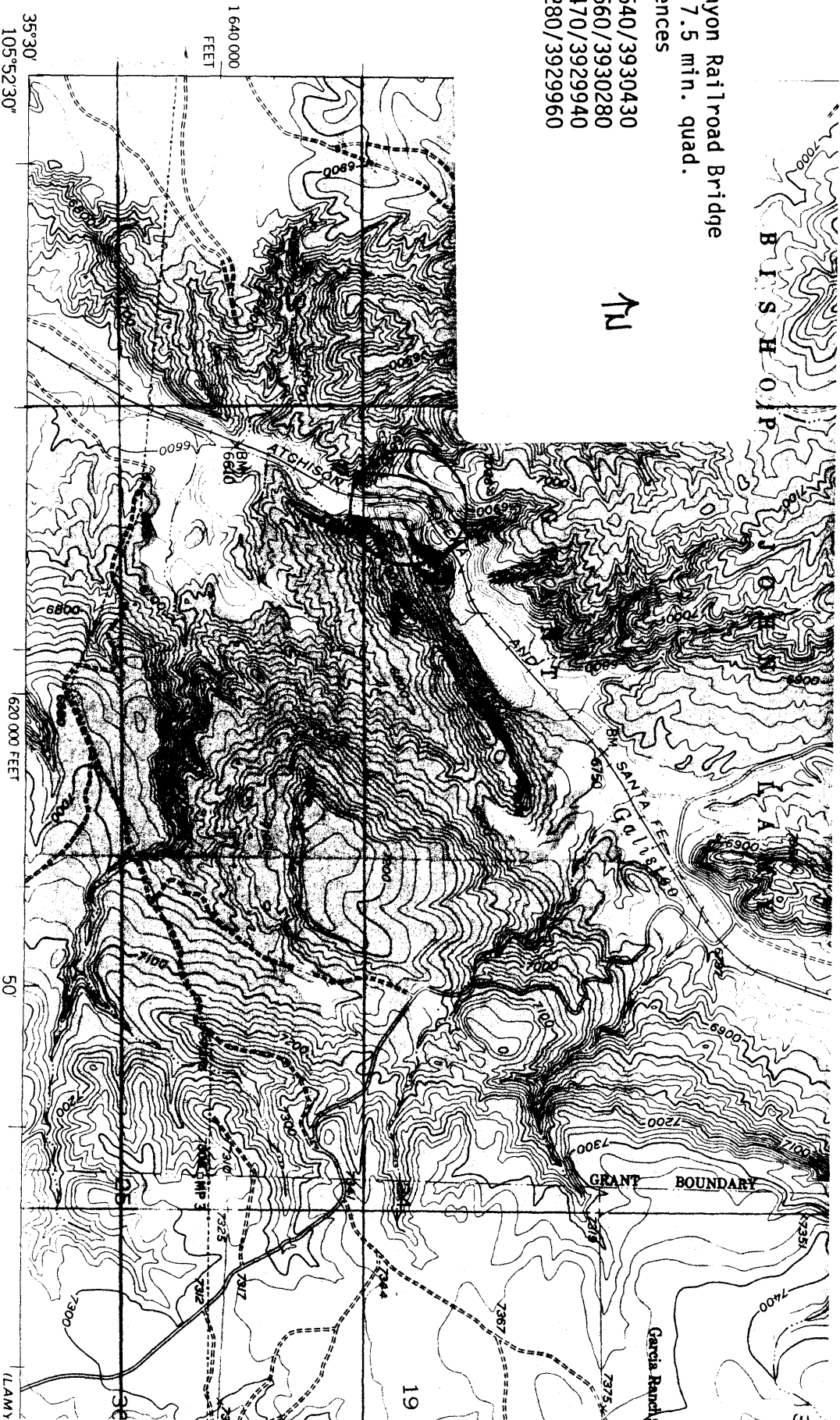
_____. The Lamy, New Mexico Story. n.p., 1966, pp. 12-17. (Available at Southwest Collection, Texas Tech University)

Waters, L.L. Steel Trails to Santa Fe. Lawrence, Kansas: University of Kansas Press, 1950, p. 169. (Available at Southwest Collection, Texas Tech University)

Apache Canyon Railroad Bridge
 Glorieta 7.5 min. quad.
 UTM References

- A. 13/422540/3930430
- B. 13/422660/3930280
- C. 13/422470/3929940
- D. 13/422280/3929960

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 105°52'30"

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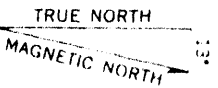
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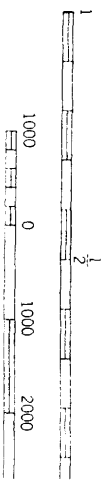
(LAMY

Mapped, edited, and published by the Geological Survey
 Control by USGS and USC&GS

Topography from aerial photographs by multiplex methods
 Aerial photographs taken 1952. Field check 1953.
 Polyconic projection. 1927 North American datum
 10,000-foot grid based on New Mexico coordinate system
 central zone
 Dashed land lines indicate approximate locations
 Unchecked elevations are shown in brown
 1000-meter Universal Transverse Mercator grid ticks,
 zone 13, shown in blue



APPROXIMATE MEAN
 DECLINATION, 1953



CONTOUR 11
 DATUM IS

THIS MAP COMPLIES WITH NA
 FOR SALE BY U. S. GEOLOGICAL SURVEY, E
 A FOLDER DESCRIBING TOPOGRAPHIC M.