HABS/HAER INVENTORY

U.S. Department of the Interior
National Park Service
Washington, DC 20240

1. SITE I.D. NO

2. NAME(S) OF STRUCTURE
Costilla Crossing Bridge; State Bridge CNO1
Bridge over Rio Grande River
CDH: CON14.6E-00.0N

5. ORIGINAL USE
roadway bridge

7. CLASSIFICATION
BT&A: TRUSS: WROUGHT IRON 7 6 0 2

9. RATING
national

10. DATE
1892

3. SITE ADDRESS (STREET & NO)
County Road over Rio Grande River
13.8 miles east of Antonito
SE¼ S22, T33N, R11E

6. PRESENT USE
roadway bridge

8. UTM ZONE 13 EASTING 432780 NORTHING 4103650

11. REGION
RMRO

4. CITY/VICINITY
Antonito vicinity

COUNTY
Conejos

STATE
Colorado

SCALE 1:24 1:62.5 OTHER

QUAD NAME Kiowa Hill

12. OWNER/ADMIN ADDRESS
Conejos County Conejos County Courthouse Box 127 Conejos Colorado 81129

13. DESCRIPTION AND BACKGROUND HISTORY INCLUDING CONSTRUCTION DATE(S), PHYSICAL DIMENSIONS, MATERIALS, MAJOR ALTERATIONS, EXTANT EQUIPMENT, AND IMPORTANT BUILDERS, ARCHITECTS, ENGINEERS, ETC.

Pin/rigid-connected, 8-panel iron/steel Thatcher through truss

span number:	2	end/top chrd:	4 Z-sections w/continuous plate; 2 channels w/lacing
span length:	155'4"	bottom chord:	2 rectangular eyebars
overall length:	313'6"	vertical:	2 square eyebars; 4 angles w/ lacing
overall height:	25'0"	diagonal:	2 square or rectangular eyebars; 2 channels w/ lacing
clearance hgt.:	17'6"	flr./decking:	timber decking w/timber/log/steel stringers and tapered built-up steel floor beams
roadway width :	15'8"	substructure:	stone abutments w/ steel-cased concrete twin-tube pier

In April 1891 the Colorado State Legislature appropriated $10,000 for a bridge at the Costilla Crossing of the Rio Grande River between Costilla and Conejos counties. Rather than design the bridge as usual, the State Engineer solicited plans and specifications with the competitive bids from bridge companies. The response was unprecedented: 38 proposals were submitted. In February 1892, the construction contract was awarded to the Wrought Iron Bridge Company of Canton, Ohio, for $8400. Using wrought and cast iron and steel components, the contractor erected this two-span Thatcher truss that year, completing it by the end of August. Once a pivotal crossing of the river in southern Colorado, the bridge now serves as an isolated and relatively minor span. Its condition is unaltered.

14. CONDITION ☐ EXCELLENT ☐ GOOD ■ FAIR ☐ DETERIORATED ☐ RUINS

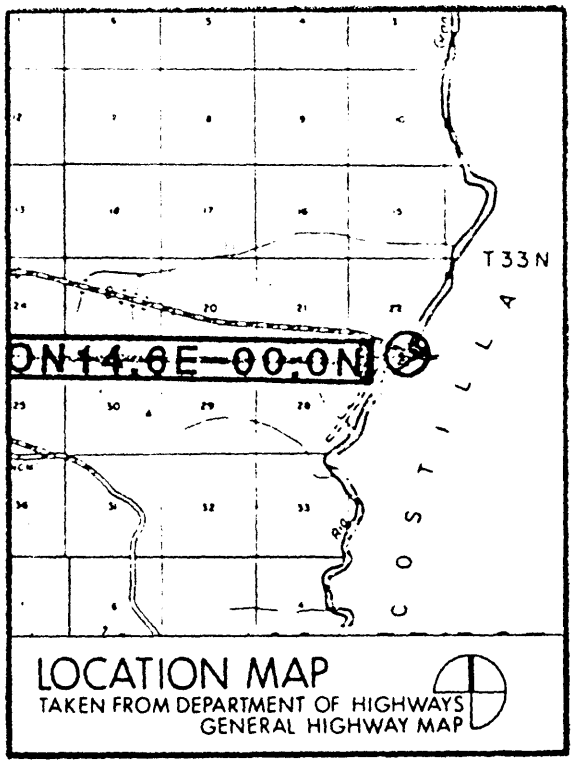
15. DANGER OF DEMOLITION? (SPECIFY THREAT) ■ YES ☐ NO ☐ UNKNOWN

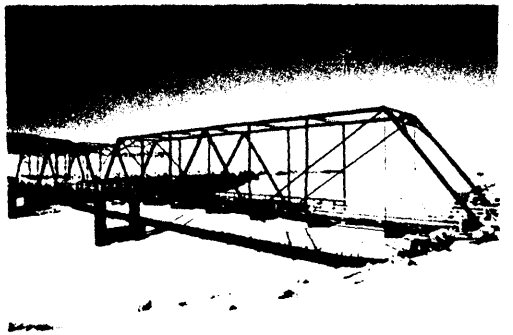
16. SIGNIFICANCE AREA OF SIGNIFICANCE: Engineering

Edwin Thatcher, Chief Engineer of the Keystone Bridge Company, patented a namesake truss in 1884. An innovative structural type, it never quite caught on, and Wrought Iron Bridge was apparently the only bridgebuilder to manufacture all-metal versions of it. With perhaps 30-40 ever built in the country, only three are known to exist today, including the Costilla Crossing Bridge. This bridge is historically significant as the oldest vehicular truss in southern Colorado and one of the oldest in the state, the oldest still-functioning State Bridge, one of the few bridges left in Colorado with iron components and one of only two roadway bridges in the survey erected by Wrought Iron Bridge before that firm was absorbed to form the gargantuan American Bridge Company. In absolutely pristine condition, the Costilla Crossing Bridge is one of the last of its type - the state's most technologically significant vehicular bridge.

GPO : 1982 O - 383-339

17. PHOTOS AND SKETCH MAP OF LOCATION





18. LOCATED IN AN HISTORIC DISTRICT? ☐ YES ■ NO ☐ NAME

19. PUBLIC ACCESSIBILITY ☐ YES, LIMITED ■ YES, UNLIMITED ☐ NO ☐ UNKNOWN

20. EXISTING SURVEYS ☐ NR ☐ NHL ☐ HABS ☐ HAER-1 ☐ HAER ☐ NPS ■ STATE ☐ COUNTY ☐ LOCAL ☐ OTHER

21. REFERENCES—HISTORICAL REFERENCES, PERSONAL CONTACTS, AND/OR OTHER

Structure Inventory and Appraisal: CON14.6E-00.ON. Colorado Department of Highways, Denver Colorado.

6th Biennial Report of the State Engineer, Colorado: 1891-1892. Denver, Colorado: Smith-Brooks Printing Company, 1892, pages 368-69.

Highway Planning Survey photograph, 30 September 1936. Colorado Department of Highways, Denver Colorado.

Donald Jackson, HAER Historian. Oral interview with Clayton Fraser, 13 January 1984.

Field inspection by Clayton Fraser, 3 January 1984.

Builder's plate on bridge portal: "1892 Built by Wrought Iron Bridge Co. Canton Ohio."

"Organization of the American Bridge Company." Electrical World and Engineer, Vol. XXXVI, Number 1 (7 July 1900). page 38.

22. INVENTORIED BY	AFFILIATION	DATE
Clayton Fraser and CarlHallberg	Fraserdesign Loveland Colorado	13 January 1984