

United States Department of the Interior
National Park Service

For NPS use only

National Register of Historic Places
Inventory—Nomination Form

received

APR 18 1984

date entered

JUL 2 1983

See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

OHP

historic Glen Canyon Covered Bridge

and/or common Delaveaga Covered Bridge

2. Location

street & number Branciforte Drive, Delaveaga Park

NA not for publication

city, town Santa Cruz vic. vicinity of

state California

code 95065

county Santa Cruz

code 087

3. Classification

Category	Ownership	Status	Present Use
<input type="checkbox"/> district	<input checked="" type="checkbox"/> public	<input type="checkbox"/> occupied	<input type="checkbox"/> agriculture
<input type="checkbox"/> building(s)	<input type="checkbox"/> private	<input checked="" type="checkbox"/> unoccupied	<input type="checkbox"/> commercial
<input checked="" type="checkbox"/> structure	<input type="checkbox"/> both	<input type="checkbox"/> work in progress	<input type="checkbox"/> educational
<input type="checkbox"/> site	Public Acquisition	Accessible	<input type="checkbox"/> entertainment
<input type="checkbox"/> object	<input type="checkbox"/> in process	<input type="checkbox"/> yes: restricted	<input type="checkbox"/> government
	<input type="checkbox"/> being considered	<input checked="" type="checkbox"/> yes: unrestricted	<input type="checkbox"/> industrial
	<input checked="" type="checkbox"/> NA	<input type="checkbox"/> no	<input type="checkbox"/> military
			<input checked="" type="checkbox"/> other: pedestrian acce

4. Owner of Property

name City of Santa Cruz

street & number 809 Center Street

city, town Santa Cruz

NA vicinity of

state California

5. Location of Legal Description

courthouse, registry of deeds, etc. County Recorder, Courthouse

street & number 701 Ocean Street

city, town Santa Cruz CA

state California

6. Representation in Existing Surveys

title Calif. Inventory of Historic Features volume 2
has this property been determined eligible? yes no

date 1973 federal state county local

depository for survey records Office of Historic Preservation

city, town P.O. Box 2390 Sacramento

state California 95811

7. Description

Condition		Check one	Check one
<input type="checkbox"/> excellent	<input checked="" type="checkbox"/> deteriorated	<input type="checkbox"/> unaltered	<input type="checkbox"/> original site
<input type="checkbox"/> good	<input type="checkbox"/> ruins	<input checked="" type="checkbox"/> altered	<input checked="" type="checkbox"/> moved date <u>1939</u>
<input type="checkbox"/> fair	<input type="checkbox"/> unexposed		

Describe the present and original (if known) physical appearance Summary

The Glen Canyon Covered Bridge was built across Branciforte Creek on Glen Canyon Road in 1892 by contractor G. McKay for Santa Cruz County. It was subsequently moved in 1939 to save it from demolition by a volunteer crew to a location one-half mile upstream where it continues to span Branciforte Creek in Delaveaga Park. The structure itself has been noted in a number of publications as one of significance. American Bridges and Dams by Paul Zucker illustrates this bridge as a prototypical 19th century vernacular type commenting that it would look at home in Vermont. (Zucker 1941)

The bridge is 18 feet eight inches wide, 83 feet long, and measures 23 feet in height from the roadway to the peak of the roof. It is constructed of native materials, mainly redwood and fir. It features a wood shake roof with a nine and twelve slope, and vertical facing above the exterior horizontal cross beams. The portals are sheathed with 1 x 12 inch boards as were the sides to a height of 7 feet, 6 inches.

The setting of the bridge has been altered due to its relocation, but the new location where it has been the past 44 years, presents nearly a duplicate sylvan location, combining riparian vegetation from Branciforte Creek mixed with live oaks, native evergreens, sycamores, willows and redwood trees. Alterations made to the bridge as a part of its relocation were minor in nature, involving new foundations and supports necessitated by the move, and some replacement siding. Detailed explanations of the setting, structure, relocation and alterations are found in subsequent sections of this application.

History

The Glen Canyon Covered Bridge across Branciforte Creek at Glen Canyon Road was constructed in 1892 by G.H. McKay to facilitate transportation across the stream as a part of the continuing settlement of Santa Cruz county. The original cost of the bridge was \$1,145. (Rostron n.d.) It was 83 feet long, and constructed of native fir and redwood as a straightforward Howe truss span covered with a shake roof and enclosed by vertical siding. As with all such bridges it was covered in an effort to ensure longevity on the site. It continued in its location on Glen Canyon Road until it was condemned by the County of Santa Cruz Board of Supervisors on May 13, 1939. To prevent its demolition it was moved in 1939 as part of a community-wide effort to save one of the three covered bridges which remained in Santa Cruz at that time. Upon completion of the move the bridge was located approximately one-half mile upstream in Delaveaga Park spanning Branciforte Creek.

Federal guidelines concerning movement of historic structures were not available for review 44 years ago when the citizens of Santa Cruz and the WPA moved the Glen Canyon Covered Bridge. A review of these guidelines indicated that the work done then adhered to the basic premise of the current regulations, in that all efforts were taken at that time to maintain the integrity of the bridge both structurally and aesthetically. This included special measures to ensure that the bridge remained of one piece during the move, and selection of a relocation site similar both in setting and riparian character to the original.

Structural

To reiterate, the Glen Canyon Covered Bridge is 83 feet long and measures 23 feet, 1 inch in height. It is eighteen feet wide. All substructure construction is of redwood while the superstructure is made of Douglas fir with iron vertical tie rods. The lower chords are constructed of two by twelve inch planks built up to twelve by fourteen inch chords in five sections. The depth from the lower to upper chords is fourteen feet, two inches, and the distance from the top chord to the ridge board is seven feet, eight inches. The 18 foot roadbed is formed by two by twelve inch subfloor laid diagonally over three by fourteen inch stringers and four by six inch lateral braces between six ten by twelve inch floor joists and decked with two by twelve inch planking. The trusses are formed

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of Douglas fir with cast iron bearing blocks, tension rods, etc. The twelve by fourteen inch lower chord of seven deep two by twelves laminated with spikes is 83 feet long. The outer diagonals are ten by fourteens while the inner ones are ten by twelves. The upper chord is a 49 foot long ten by twelve. One and one-half inch tie rods pass through the top chord, diagonal, lower chord and floor beam. Six six by eight inch cross beams tie the two trusses together at the top. About 85-90% original fabric could be retained.

The original roofing material of 36 inch handsplit shakes, spaced with 30 inches to the weather was installed over one by six inch skipsheathing at intervals 30 inches on center on 2 by four inch rafters, spaced 36 inches on center. The roof had a 9½ to 12 pitch with a 24 inch overhang. In 1968 the roofing was replaced with doubled up skip sheathing beneath 16 inch resawn shakes. One by six inch collar ties were added to brace the heavier roof load. The current proposal is to restore the roof as originally constructed, removing the additional sheathing and utilizing the longer handsplit shakes with larger surface exposure.

The bridge portals and span were sided with one by twelves nailed to four by four inch stringers to a height of 7 foot 6 inches above the lower chord on the sides. Over the years, the siding either fell off the structure or was vandalized as evidenced by the photographs attached which show the bridge already minus a number of boards at its original location. Eventually parks personnel removed the remaining few to eliminate an attractive nuisance. (Adams 1963) The siding is to be replaced during restoration.

The current foundation is a temporary twelve by twelve inch redwood support system (mudsill) installed following the flood of 1981 in which the previous foundation of the bridge was washed away although the bridge itself remained in its current location. As a part of the proposed restoration the bridge would be supported by concrete piers similar in character to those upon which it originally sat and the current sagging would be removed.

Alterations

As outlined above the Glen Canyon covered bridge has been altered relatively little over the years. It has been re-roofed and has lost much of its siding, however, photographs and abundant physical evidence remaining will allow for its exact restoration. The foundations require replacement now and some water pipes placed adjacent to the bridge serving the other side of the park are subject to relocation, possibly beneath the bridge out of sight.

Site

The Delaveaga Covered Bridge is now located on a site remarkably similar in both setting and topography to its original location. This can be clearly seen in the photographs which accompany this application showing the current, as well as the former location in 1939. Each setting has predominately reparation vegetation containing a mix of deciduous sycamores, evergreen firs, and redwood trees. The major difference between the current site and the original location is that the bridge was 70 feet above the creek at Glen Canyon Road and is now just fifteen feet above the same creek. In its original role, the bridge served vehicular, horsedrawn, and pedestrian traffic, while for the past 44 years it has been restricted to pedestrian usage. When restored, the bridge could again return to its original mix of vehicular, pedestrian and horse traffic. (Delaveaga Park has elaborate riding trails and a stable.) The bridge continues to function in its original capacity in that it provides the only physical link between two parts of the park.

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Relocation

The relocation of the Glen Canyon Covered Bridge to Delaveaga Park was a joint federal/local project in the summer of 1939. The bridge relocation involved volunteers from the Santa Cruz Building Councils, under the direction of Charles Stuart, President of the Santa Cruz Building and Construction Trades Council, and a teacher in the Santa Cruz High School Manual Training Department. Facilitators who assisted in the move included Rose Rostron, and W.S. Rodgers of the Santa Cruz County Board of Supervisors, Robert Burton, a local high school teacher and charter member of the Santa Cruz Historical Society and Arnold Baldwin of the City of Santa Cruz Parks Commission. The move was necessitated by the condemnation of the bridge by the County of Santa Cruz to allow replacement by a concrete span constructed by WPA.

The move itself was partially funded by the Board of Supervisors using funds allocated for demolition of the bridge, and the federal government through the WPA program and augmented by volunteer labor. The bridge was elevated through the use of jacks and moved on steel rollers onto a cribbing consisting of four steel wheeled carts. The bridge was then rolled along Glen Canyon Road to Branciforte Drive and into Delaveaga Park and over Branciforte Creek. The bridge was rededicated as the Delaveaga Covered Bridge in 1940 as part of a park improvement project which involved construction of new playgrounds and ball fields. The dedication ceremony was sponsored by the Native Daughters of the Golden West, Santa Cruz Parlor Number 26. The move itself was accompanied by minor restoration work to replace vertical siding on the front of one bridge portal, and well as construction of new entry fences and foundation supports. In its new location, the bridge provided access to the newly constructed play areas, and allowed park users an opportunity to experience transportation modes of the past first hand. A bonus of the new site was that park users were given the opportunity to view the bridge from the side far better than before. At the previous site it was very difficult to photograph or see the bridge from the side because the land about was all private property and not accessible.

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/
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> art	<input checked="" type="checkbox"/> engineering	<input type="checkbox"/> music	<input type="checkbox"/> humanitarian
<input checked="" type="checkbox"/> 1800-1899	<input type="checkbox"/> commerce	<input type="checkbox"/> exploration/settlement	<input type="checkbox"/> philosophy	<input type="checkbox"/> theater
<input type="checkbox"/> 1900-	<input type="checkbox"/> communications	<input type="checkbox"/> industry	<input type="checkbox"/> politics/government	<input checked="" type="checkbox"/> transportation
		<input type="checkbox"/> invention		<input type="checkbox"/> other (specify)

Specific dates 1892, 1939

Builder/Architect G.H. McKay, contractor

Statement of Significance (in one paragraph)

The Glen Canyon Covered Bridge was erected in 1892 at "the northern gateway of Santa Cruz" and allowed increased settlement of this part of Santa Cruz County. (McHugh n.d.) The bridge is one of three remaining covered bridges in Santa Cruz County from an era in which several streams and rivers of the county were spanned by such structures including the San Lorenzo River on Soquel Avenue in the middle of the city of Santa Cruz, Santa Cruz County. The covered bridges in Paradise Park and in Felton also spanning the San Lorenzo river are also valued historic resources of Santa Cruz County but the Glen Canyon, now Delaveaga Covered Bridge, has its own unique historic value. It is supposed to be the only bridge known in Northern California to have been moved as part of a community historic preservation effort. (Oakland Tribune n.d.) The bridge is of both engineering and transportation significance as a typical example of a Howe truss design covered bridge. It is an important resource for the understanding and appreciation of past transportation means throughout Santa Cruz County and northern California. Current information indicates that it is the southernmost covered bridge in the State of California. (Adams 1963) The current condition of the bridge is sufficiently sound and original to provide accurate representation of its engineering and transportation associated historic values. Because of this historic significance and basic structural integrity, the bridge embodies distinctive characteristics of early engineering and transportation methods in Santa Cruz County, California, and the west.

Transportation Context

The Glen Canyon Covered Bridge, now the Delaveaga Covered Bridge is one of three historic covered bridges preserved in Santa Cruz County. Only Humboldt and Siskiyou counties have a greater number of such bridges. The three bridges of Santa Cruz County each present a different engineering solution to the same problem of strong truss design: double Warren at Felton, double Warren without tie rods at Paradise Park, and Howe at Glen Canyon. (Adams 1963) The bridge, although relocated, is in the same general reparian, typographic and climatic region of the county and continues to traverse the same creek as it did in its original location. As one of the three remaining covered bridges from an era in which at least four such bridges existed in the county the Glen Canyon Covered Bridge represents an important remaining link to past transportation methods.

Engineering Context

The contractor of the Glen Canyon Covered Bridge elected to utilize the Howe truss, a simple one for unsophisticated vernacular building because it involves modular components easily cut and assembled. Willaim Howe, a Massachusetts architect and brother of the inventor of the sewing machine, introduced his truss design circa 1840, and it was much used in the west as well as the entire country for timber bridges. (Adams 1963) Measured drawings of the bridge as originally constructed are appended giving engineering specifications. The Howe truss design has proved both durable and functional which has contributed to the continued presence of the bridge and its ability to withstand a major relocation in 1939.

A unique aspect of this relocation is the fact that the bridge continues to serve essentially the same geographic area of the county, spanning the same creek and remains in

9. Major Bibliographical References

Anonymous

"Santa Cruz Pensions an Old Bridge". Clipping, page 22, Tom McHugh Scrapbook III, Special Collections, McHenry Library, University of California, Santa Cruz.

10. Geographical Data

Acreeage of nominated property less than 1.

Quadrangle name Felton

Quadrangle scale 1:24000

UTM References

A

1	0	5	8	8	7	9	0	4	0	9	5	1	5	0
Zone	Easting			Northing										

B

Zone	Easting			Northing										

C

D

E

F

G

H

Verbal boundary description and justification former site: to 1939 bridge spanned Branciforte Creek 250 feet north on Glen Canyon Drive from the intersection of Branciforte Drive and Glen Canyon. Moved to location 2,100 feet north on Branciforte Creek in Delaveaga Park. Site nominated begins at a point on the easterly side of Branciforte Drive 322 feet north of the

List all states and counties for properties overlapping state or county boundaries

state NA code county N/A code

state code county code

11. Form Prepared By

Edna E. Kimbro, City of Santa Cruz Historic Preservation Commission, Chair;
name/title Mark Primack, HPC; Miki Ryan, Santa Cruz Historical Society, President; Joe Hall,

organization Delaveaga Bridge Committee

date 20 May 1983

Planning Dept.

street & number 809 Center Street

telephone (408) 429-3555 (Planning Dept.)

city or town Santa Cruz

state CA 95060

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

K. M. Ellm

title State Historic Preservation Officer

date 12/20/83

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I hereby certify that this property is included in the National Register

Entered in the
National Register

date

5/17/84

for *Delores Byers*
Keeper of the National Register

Attest:

Chief of Registration

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the same riparian and topographic area. The movement of the bridge is also an interesting engineering and historic feat in the heritage of Santa Cruz. According to a newspaper article describing the bridge in 1939, it born then a legend admonishing motorists to "drive no faster than a walk." (McHugh n.d.) Probably the excessive vibrations caused by motor vehicle traffic had weakened the bridge appreciably contributing to the decision to replace it with a new structure. More important, increased traffic on Glen Canyon Road required a wide bridge than the single lane covered one. As a result of this increasing urbanization, and proposed realignment of Glen Canyon Road the bridge was condemned on May 13, 1939.(Otto 1939) Local preservationists expressed deep concern and initiated activities to save the bridge. Robert Burton, a Santa Cruz High School teacher and Historical Society activist, and Rose Rostron, the first female County Supervisor, joined forces with a Mr. Burns-Park to preserve the Glen Canyon Bridge. (SCHS Minutes 1954). Together through their intensive lobbying and community support, the County Board of Supervisors agreed to allow the relocation of the structure a short distance up Branciforte Creek. The bridge was painstakingly moved on rollers to a site just within Delaveaga Park approximately one-half mile north were its attractive surroundings and accessibility have made it "the most photographed of all covered spans, frequently featured in television and films".(Adams 1963) Articles in newspapers at that time, (Oakland Tribune n.d.) indicated that this was the first known movement of a covered bridge from one location to another. In its present location, the Glen Canyon Covered Bridge, now called the Delaveaga Covered Bridge is readily accessible to the public and serves as a tangible reminder of past modes of transportation and engineering and represents one of three covered bridges remaining from a time when there were more such structures extant.

In 1981, the record rainfall in the Branciforte Creek watershed led to emergency measures undertaken to again preserve the bridge. However, except for minor damage to its replacement foundation resulting from logs and debris in the creek, the bridge withstood the flooding and remained in its current location in the park. There, community members are continuing their efforts to stabilize and restore the Glen Canyon Covered Bridge and are actively seeking funds to cover the City's offer of half the necessary sum. The project has been put out to bid and awaits funding before construction can commence.

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- Oakland Tribune
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(11/78)

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HERITAGE CONSERVATION AND RECREATION SERVICE

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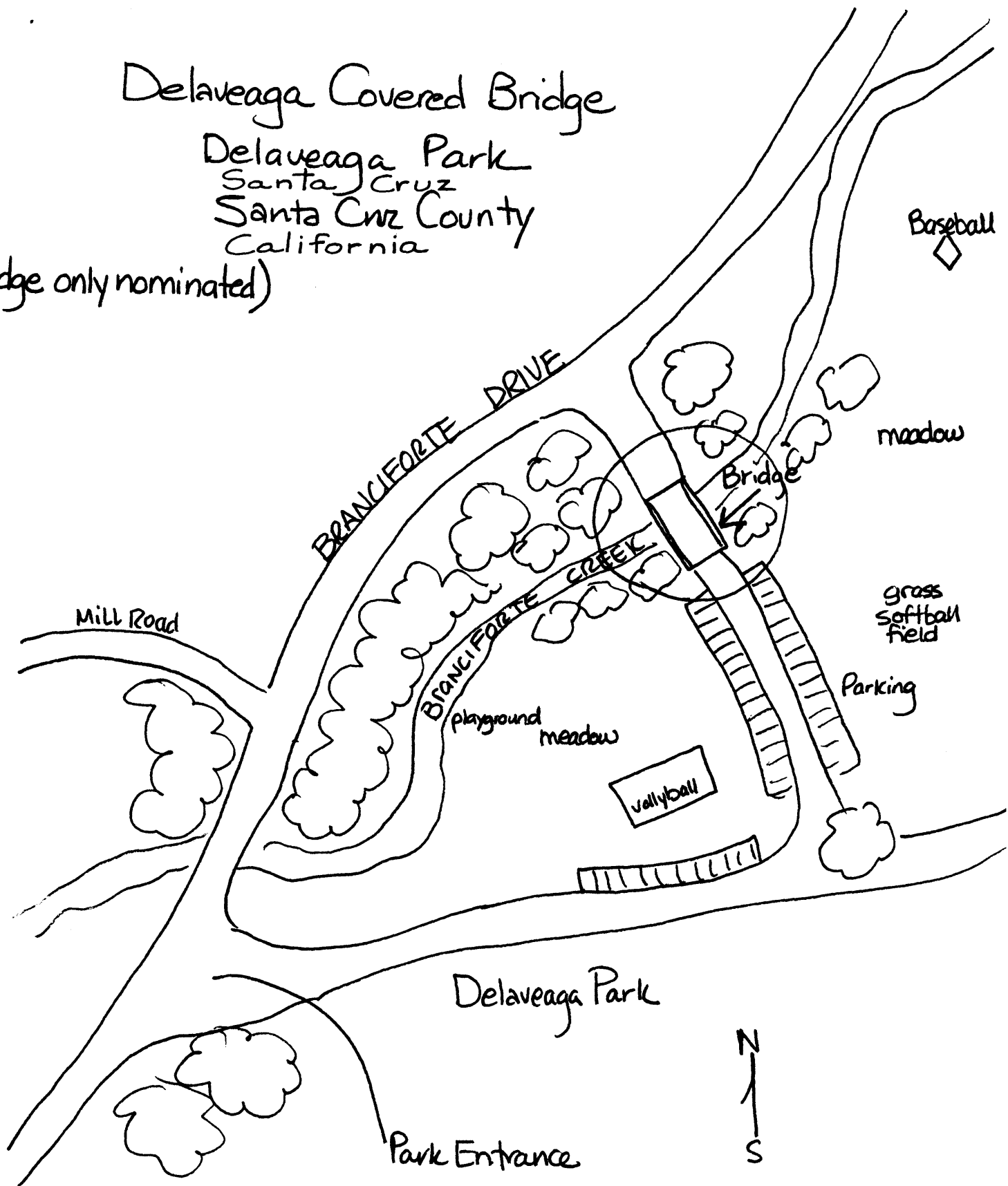
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intersection of Mill Road and Branciforte Drive; thence on a line 145 degrees to the southeast for a distance of 160 feet; thence on a line 58 degrees to the northeast for a distance of 70 feet; thence on a line 238 degrees to the northwest for a distance of 160 degrees; thence on a line 138 feet to the southwest for a distance of 70 feet.

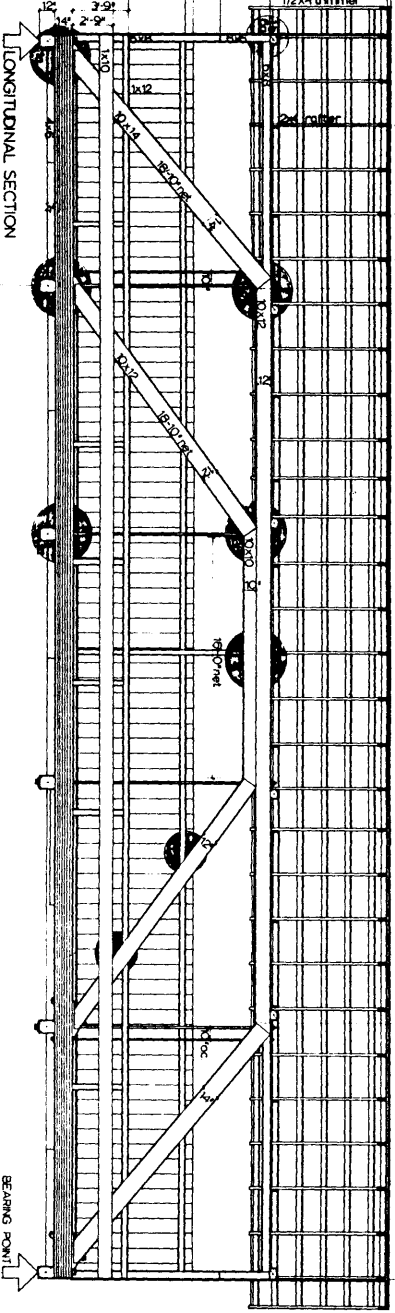
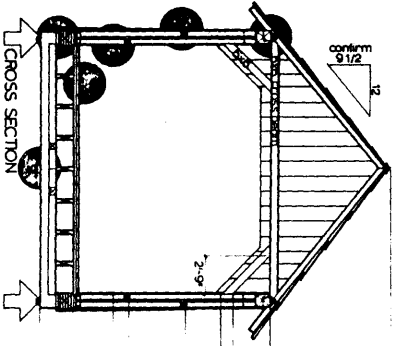
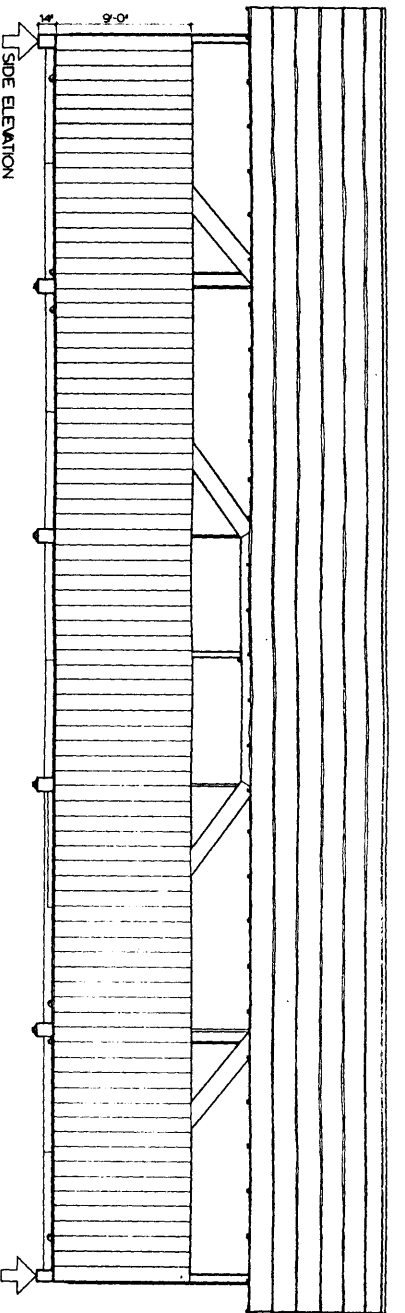
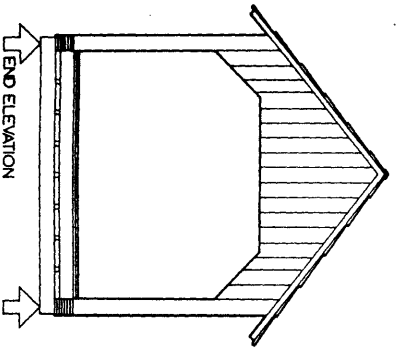
Delaveaga Covered Bridge

Delaveaga Park
Santa Cruz
Santa Cruz County
California

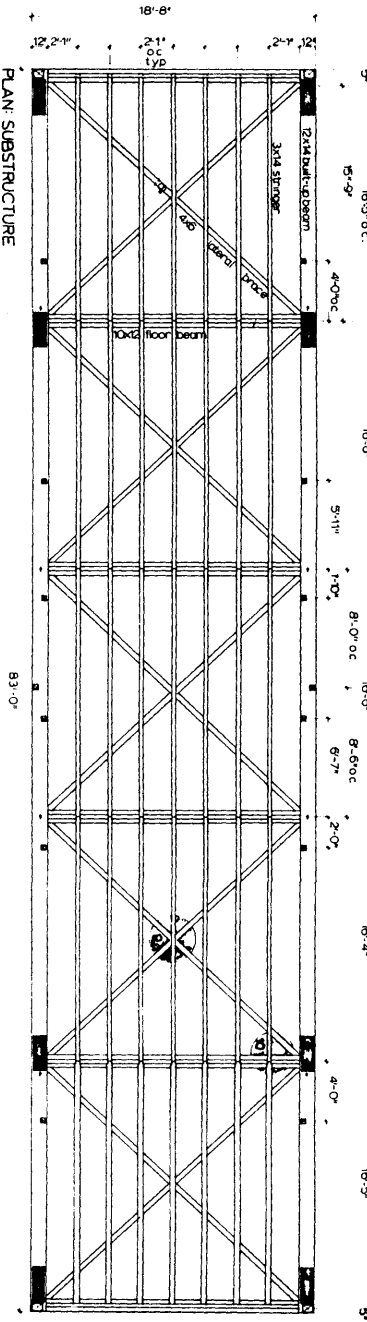
(Bridge only nominated)



Scale: 1" = 100 feet

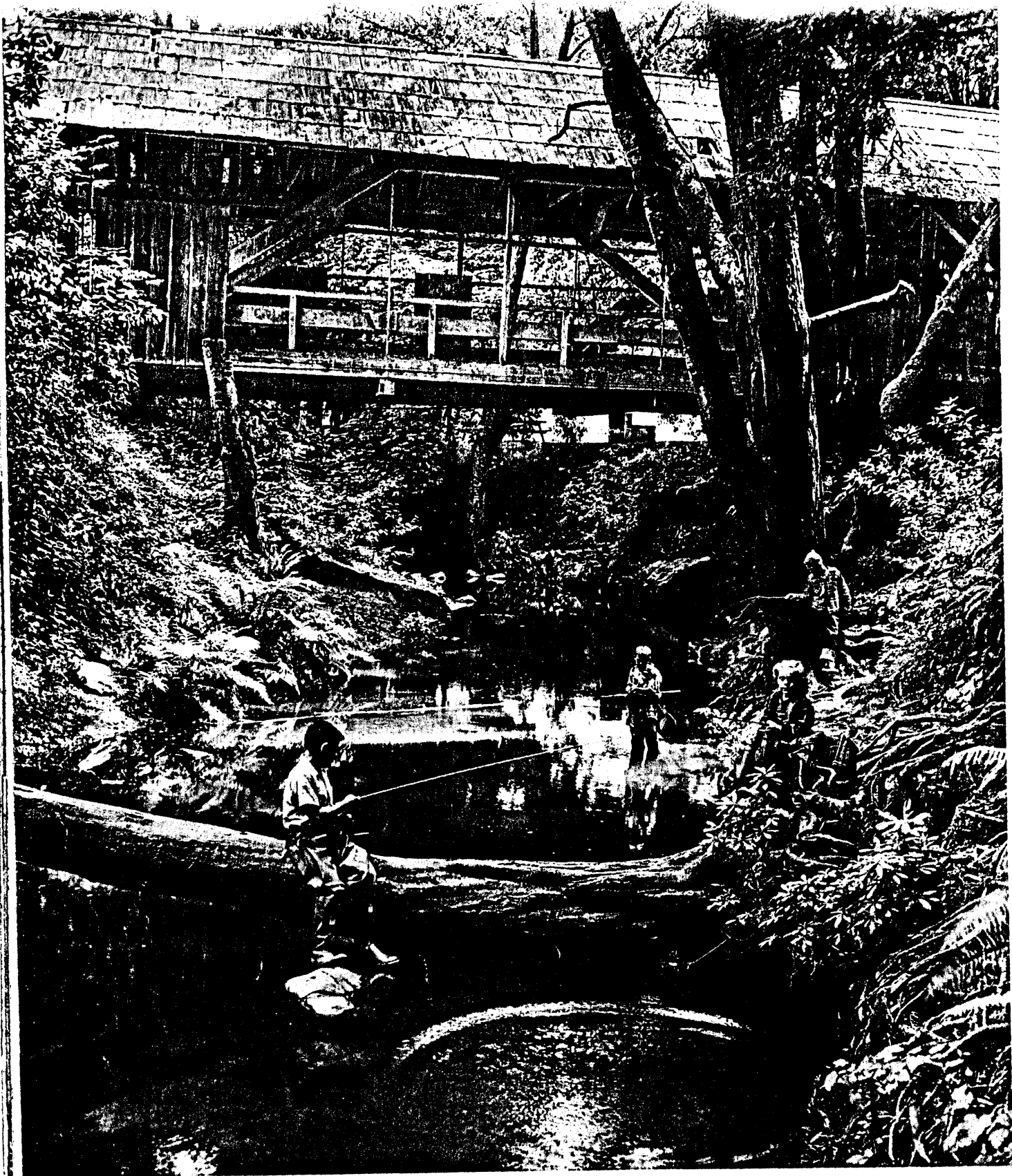


GLEN CANYON GOV BRIDGE
 DE LAVEAGA PARK
 SANTA CRUZ CA
 PARKS AND RECREATION DEPT.
 DRAWN BY: W.E. FRANK
 JANUARY 1983



NATIONAL REGISTER OF HISTORIC PLACES INVENTORY ATTACHMENT A

RESTORATION PLANS



De Laveaga Park

There are a number of reasons why the Glen Canyon bridge (C11) at Santa Cruz is the most photographed of all covered spans. It has been featured in a number of movie and TV productions because of the attractive surroundings in DeLaveaga Park and because of the bridge's retired status. Its open sides make for easier lighting and camera manipulation. And it's the closest covered bridge to Hollywood.—Vester Dick photo

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KRAMER A. ADAMS
COVERED BRIDGES OF THE WEST
1977

ATTACHMENT C