

SANTA CRUZ COUNTY BRIDGE PRIORITY PROJECTS



3 BRIDGE TYPES



CONCRETE

56



TIMBER

1



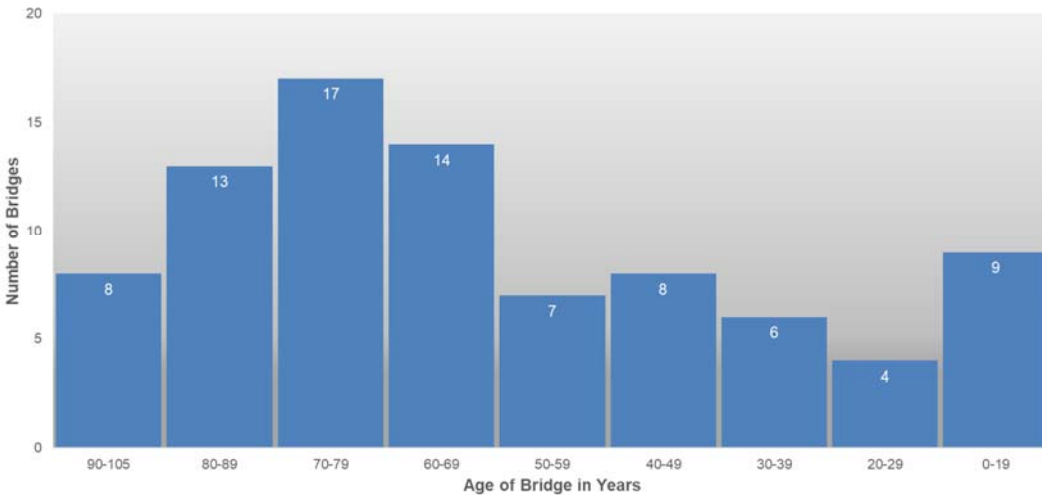
STEEL

41

The average bridge project cost in Santa Cruz County is estimated at \$3,000,000.



Santa Cruz County Bridges by Age



NBIS Bridges are inspected **BIANNUALLY** by the State Department of Transportation (Caltrans).

98

IS THE AMOUNT OF BRIDGES SANTA CRUZ COUNTY IS RESPONSIBLE FOR IN THE UNINCORPORATED AREAS OF THE COUNTY

21

BRIDGES CURRENTLY NEEDING REPLACEMENT OR REHABILITATION



Santa Cruz County Highway Bridge Priority Projects

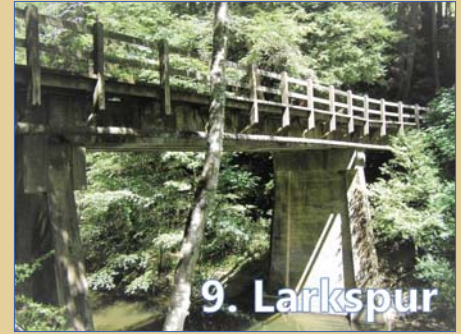


Key

-  Bridges
-  Highways
-  Major Roads
-  Rivers



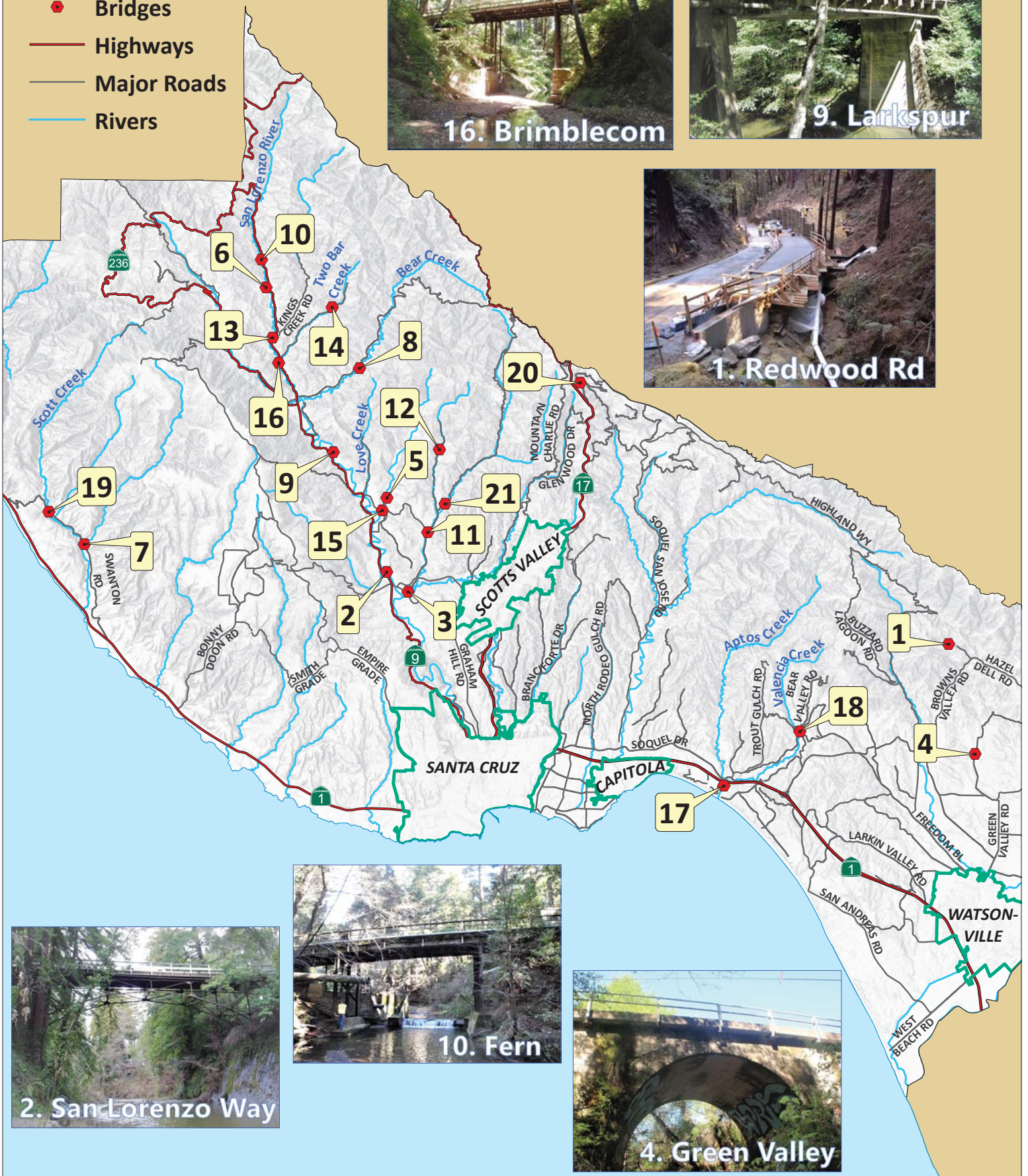
16. Brimblecom



9. Larkspur



1. Redwood Rd



2. San Lorenzo Way



10. Fern



4. Green Valley

FUTURE BRIDGE PROJECTS

Project No	Project	Year Built	Suff Rating	Project Type	Description	Estimated Cost	Construction Date
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Highway Bridge Program Projects:

1	Redwood Rd over Browns Creek Trib	1940	12.9	Bridge Replacement	Poor health, scour issues	\$3,375,286	2019
2	San Lorenzo Wy over San Lorenzo River	1920	19.6	Bridge Replacement	Poor health, costly maintenance, poor alignment, outdated barriers	\$6,095,000	2020
3	Conference Dr over Zayante Creek	1930	59.8	Scour Repair	Install scour protection	\$413,000	2021
4	Green Valley Rd over Casserly Creek	1915	19.7	Bridge Replacement	Poor health, scour issues	\$2,047,000	2021
5	Rancho Rio Av over Newell Creek	1958	17.5	Bridge Replacement	Poor health, poor alignment, scour issues, one lane	\$1,676,000	2022
6	Either Way Ln over San Lorenzo River	1940	6.6	Bridge Replacement	Poor health, outdated barriers, one lane	\$2,114,000	2023
7	Swanton Rd over Big Creek	1950	23.4	Bridge Replacement	Scour issues, poor health, outdated barriers	\$2,540,000	2024
8	Forest Hill Dr over Bear Creek	1961	46.2	Bridge Replacement	Poor alignment, outdated barriers	\$1,981,000	2024
9	Larkspur St over San Lorenzo River	1957	48	Bridge Replacement	Poor alignment, outdated barriers, scour issues, one lane	\$3,809,000	2025
10	Fern Dr over San Lorenzo River	1950	27.3	Bridge Replacement	Poor health, scour issues, one lane	\$2,548,000	2025
11	Quail Hollow Rd over Zayante Creek	1949	48.6	Bridge Replacement	Poor alignment, outdated barriers	\$3,272,000	2026
12	Lompico Rd over Lompico Creek	1940	56.4	Bridge Replacement	Poor alignment, scour issues, fish barrier	\$1,860,400	2026
13	Pleasant Way over San Lorenzo River	1949	29.6	Bridge Replacement	Poor health, poor alignment, costly maintenance, one lane	\$3,740,000	2027
14	Two Bar Rd over Two Bar Creek	1959	46.5	Bridge Rehabilitation	Scour issues, poor health, outdated barriers	\$1,696,000	2028
15	Glen Arbor Road over Newell Creek	1948	71.2	Bridge Replacement	Poor alignment, outdated barriers, costly maintenance	\$3,959,000	2029
16	Brimblecome Rd over San Lorenzo River	1948	32.7	Bridge Replacement	Poor alignment, outdated barriers, costly maintenance	\$2,746,000	2030

Bridge Preventative Maintenance Program Projects:

17	Spreckles Drive over Aptos Creek	1937	63.4	Scour Protection	Damaged scour protection	\$80,000	2022
18	Valencia Rd Bridge over Valencia Creek	1935	67.5	Scour Protection	Damaged scour protection	\$45,000	2023
19	Swanton Rd Bridge over Scotts Creek	1936	72.9	Clean & Paint Steel	Weathered protective coating	\$115,000	2024
20	Wookwardia Rd Bridge Viaduct	1984	50.1	Clean & Paint Steel	Weathered protective coating	\$135,000	2024
21	East Zayante Rd Bridge at PM 3.2	1948	50.3	Concrete Spall repair	Minor damage to abutment	\$90,000	2022
Total						\$43,871,686	*

*Cost does not include overhead

FUNDING HIGHWAY BRIDGE PROJECTS

Meeting the Demands

Highway bridge design and construction is specialized and costly with the average bridge replacement project in Santa Cruz estimated at \$3,000,000. There are many unique challenges involved in replacing a bridge such as maintaining traffic, construction sequencing, habitat protection, and anticipating future transportation needs.

Regionally, costs are inflated by the ever-increasing construction demands of the Bay Area combined with a shrinking skilled labor force. Locally, Santa Cruz County presents its own unique challenges with mountainous terrains, unstable soils, high average rainfall, nearby seismic faults and endangered species to name a few.

While meeting the needs of our bridge program is a challenge, the necessity is clear with the average age of bridges in Santa Cruz County being 61 years old. Most of these bridges were designed with a lifespan of 50 years.

Nationally, investments in bridges were bolstered in 2009 and 2010 with the influx of additional funding from the American Recovery and Reinvestment Act, however, funding for the local Highway Bridge Program (HBP) in California still falls well short of the annual needs. In 2019, the annual needs for California's bridges is estimated to be \$600 million and the local HBP provides approximately \$300 million per annum. Despite the shortfall, the Santa Cruz County Department of Public Works continued to boost our bridge program. Beginning the planning process early is important as there are many considerations to factor into the design. To keep up with current bridge work demands and reduce maintenance costs Public Works has tasked the Road Design section with a goal of replacing a bridge every 1-2 years.

While the County alone does not have a sufficient budget to fund a robust bridge program, there are outside resources available. Funding through Federal grants is crucial to ensuring that our public bridges are safe and reliable, however, the levels of federal investment which is currently one half of the annual needs is the main factor on how quickly bridge infrastructure can be rehabilitated and replaced.

Highway Bridge Program

FHWA has a safety program named the Highway Bridge Program (HBP). This program provides federal funding to local agencies to rehabilitate and replace deficient locally owned public highway bridges that are in the NBIS inventory. This program covers 88.53% of the eligible project costs.

The County currently has 14 bridges that are programmed for replacement with the goal of modernizing its aging bridge inventory incrementally over the coming decades. In addition, the County has a bridge programmed for rehabilitation and for scour mitigation for stability of the bridge foundation. FHWA also has a bridge preventative maintenance program and the County currently has five bridges that have been programmed for larger maintenance projects.

Off-System Bridges

Off-system bridges are found on roads classified as "local" in the Federal-Aid Highway System. These roads are low Volume, do not provide alternative roadway connectivity, and are typically selected less for replacement in favor of more widely used structures. However, these bridges are vital to the communities that travel over them every day. Santa Cruz County has many bridges in this category due to the majority of area being mountainous and rural.

In 2010 an incentive to replace off-system bridges became available through a pilot program. This program allows the use of State toll credits to fund the remaining 11.47% of local agency project costs.

By: Jeffrey de los Santos



Redwood Rd Bridge Replacement Project, Before & After

