The **Golden Gate Bridge** is a [suspension bridge](https://en.wikipedia.org/wiki/Suspension_bridge) spanning the [Golden Gate](https://en.wikipedia.org/wiki/Golden_Gate), the one-mile-wide (1.6 km) [strait](https://en.wikipedia.org/wiki/Strait) connecting [San Francisco Bay](https://en.wikipedia.org/wiki/San_Francisco_Bay) and the [Pacific Ocean](https://en.wikipedia.org/wiki/Pacific_Ocean). The structure links the U.S. city of [San Francisco](https://en.wikipedia.org/wiki/San_Francisco), [California](https://en.wikipedia.org/wiki/California)—the northern tip of the [San Francisco Peninsula](https://en.wikipedia.org/wiki/San_Francisco_Peninsula)—to [Marin County](https://en.wikipedia.org/wiki/Marin_County,_California), carrying both [U.S. Route 101](https://en.wikipedia.org/wiki/U.S._Route_101_in_California) and [California State Route 1](https://en.wikipedia.org/wiki/California_State_Route_1) across the strait. It also carries pedestrian and bicycle traffic, and is designated as part of [U.S. Bicycle Route 95](https://en.wikipedia.org/wiki/U.S._Bicycle_Route_95). Being declared one of the [Wonders of the Modern World](https://en.wikipedia.org/wiki/Wonders_of_the_Modern_World) by the [American Society of Civil Engineers](https://en.wikipedia.org/wiki/American_Society_of_Civil_Engineers),[[7]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-7) the bridge is one of the most internationally recognized symbols of San Francisco and California. It was initially designed by engineer [Joseph Strauss](https://en.wikipedia.org/wiki/Joseph_Strauss_(engineer)) in 1917.

The [Frommer's](https://en.wikipedia.org/wiki/Frommer%27s) travel guide describes the Golden Gate Bridge as "possibly the most beautiful, certainly the most photographed, bridge in the world."[[8]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-Frommers-8)[[9]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-Frommers2-9) At the time of its opening in 1937, it was both the [longest](https://en.wikipedia.org/wiki/List_of_longest_suspension_bridge_spans) and the [tallest](https://en.wikipedia.org/wiki/List_of_tallest_bridges) suspension bridge in the world, with a main span of 4,200 feet (1,280 m) and a total height of 746 feet (227 m).[[10]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-10)

**Ferry service**[[edit](https://en.wikipedia.org/w/index.php?title=Golden_Gate_Bridge&action=edit&section=2)]

*Further information:*[*Ferries of San Francisco Bay*](https://en.wikipedia.org/wiki/Ferries_of_San_Francisco_Bay)

Before the bridge was built, the only practical short route between San Francisco and what is now Marin County was by boat across a section of San Francisco Bay. A ferry service began as early as 1820, with a regularly scheduled service beginning in the 1840s for the purpose of transporting water to San Francisco.[[11]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-two-11)

### Conception

lthough the idea of a bridge spanning the Golden Gate was not new, the proposal that eventually took hold was made in a 1916 [*San Francisco Bulletin*](https://en.wikipedia.org/wiki/San_Francisco_Bulletin) article by former engineering student James Wilkins.[[17]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-Owens-17) San Francisco's City Engineer estimated the cost at $100 million (equivalent to $2.5 billion today), and impractical for the time. He asked bridge engineers whether it could be built for less.[[11]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-two-11) One who responded, [Joseph Strauss](https://en.wikipedia.org/wiki/Joseph_Strauss_(engineer)), was an ambitious engineer and poet who had, for his [graduate thesis](https://en.wikipedia.org/wiki/Thesis), designed a 55-mile-long (89 km) [railroad bridge across](https://en.wikipedia.org/wiki/Bering_Strait_crossing) the [Bering Strait](https://en.wikipedia.org/wiki/Bering_Strait).[[18]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-experience-18) At the time, Strauss had completed some 400 [drawbridges](https://en.wikipedia.org/wiki/Moveable_bridge)—most of which were inland—and nothing on the scale of the new project.[[3]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-Denton-3) Strauss's initial drawings[[17]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-Owens-17) were for a massive [cantilever](https://en.wikipedia.org/wiki/Cantilever_bridge) on each side of the strait, connected by a central suspension segment, which Strauss promised could be built for $17 million (equivalent to $423 million today).[[11]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-two-11)

### Design

Strauss was the chief engineer in charge of the overall design and construction of the bridge project.[[15]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-Sigmund-15) However, because he had little understanding or experience with cable-suspension designs,[[23]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-PBS-23) responsibility for much of the engineering and architecture fell on other experts. Strauss's initial design proposal (two double cantilever spans linked by a central suspension segment) was unacceptable from a visual standpoint. The final graceful suspension design was conceived and championed by [Leon Moisseiff](https://en.wikipedia.org/wiki/Leon_Moisseiff), the engineer of the [Manhattan Bridge](https://en.wikipedia.org/wiki/Manhattan_Bridge) in New York City.[[24]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-24)

### Finance[[edit](https://en.wikipedia.org/w/index.php?title=Golden_Gate_Bridge&action=edit&section=5)]

The Golden Gate Bridge and Highway District, authorized by an act of the [California Legislature](https://en.wikipedia.org/wiki/California_Legislature), was incorporated in 1928 as the official entity to design, construct, and finance the Golden Gate Bridge.[[15]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-Sigmund-15) However, after the [Wall Street Crash of 1929](https://en.wikipedia.org/wiki/Wall_Street_Crash_of_1929), the District was unable to raise the construction funds, so it lobbied for a $30 million [bond measure](https://en.wikipedia.org/wiki/Bond_measure) (equivalent to $473 million today). The bonds were approved in November 1930,[[18]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-experience-18) by votes in the counties affected by the bridge.[[30]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-30) The construction budget at the time of approval was $27 million ($438 million today). However, the District was unable to sell the bonds until 1932, when [Amadeo Giannini](https://en.wikipedia.org/wiki/Amadeo_Giannini), the founder of San Francisco–based [Bank of America](https://en.wikipedia.org/wiki/Bank_of_America), agreed on behalf of his bank to buy the entire issue in order to help the local economy.[[11]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-two-11)

### Construction

Construction began on January 5, 1933.[[11]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-two-11) The project cost more than $35 million[[31]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-31) ($530 million in 2020 dollars[[32]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-inflation-USGDP-32)), and was completed ahead of schedule and $1.3 million under budget (equivalent to $25.7 million today).[[33]](https://en.wikipedia.org/wiki/Golden_Gate_Bridge#cite_note-33) The Golden Gate Bridge construction project was carried out by the McClintic-Marshall Construction Co., a subsidiary of [Bethlehem Steel Corporation](https://en.wikipedia.org/wiki/Bethlehem_Steel_Corporation) founded by Howard H. McClintic and Charles D. Marshall, both of [Lehigh University](https://en.wikipedia.org/wiki/Lehigh_University).

### Construction

Strauss remained head of the project, overseeing day-to-day construction and making some groundbreaking contributions. A graduate of the [University of Cincinnati](https://en.wikipedia.org/wiki/University_of_Cincinnati), he placed a brick from his alma mater's demolished McMicken Hall in the south anchorage before the concrete was poured.