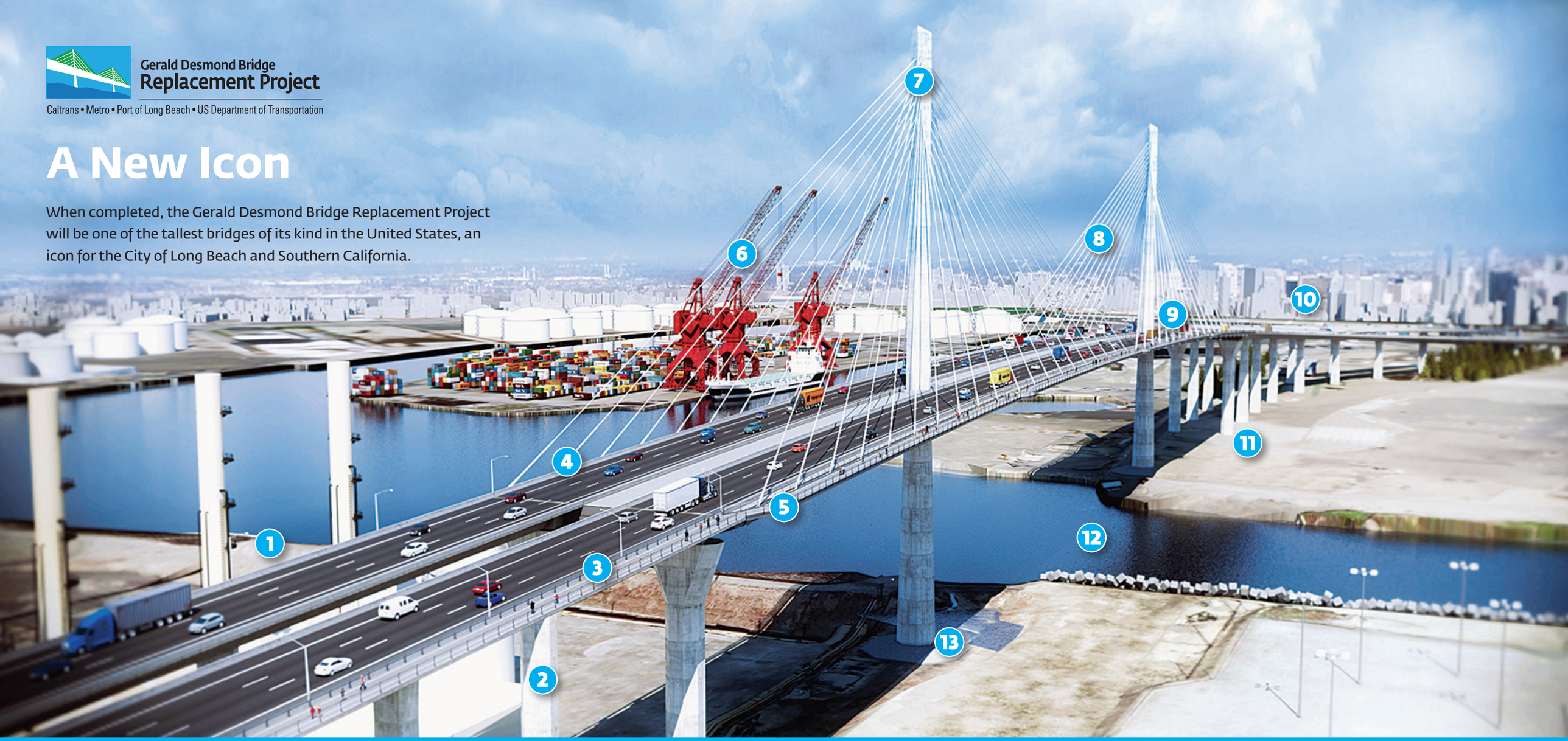
Gerald Desmond Bridge
Replacement Project

Caltrans • Metro • Port of Long Beach • US Department of Transportation

A New Icon

When completed, the Gerald Desmond Bridge Replacement Project will be one of the tallest bridges of its kind in the United States, an icon for the City of Long Beach and Southern California.



1. **WEST APPROACH:** The 2,800-ft. west approach will be on Terminal Island.

2. **COLUMNS:** More than 90 above-ground steel-reinforced concrete columns will support the west and east approach sections of the bridge.

3. **PEDESTRIAN & BICYCLE ACCESS:** A pedestrian and bicycle path on the south side of the new bridge will connect to bike routes in downtown Long Beach and the east Port area.

4. **HINGES:** Hinges are placed strategically between sections of the bridge to prevent damage by allowing movement during an earthquake or temperature changes.

5. **OVERLOOK:** Observation decks will offer dynamic views from 205 feet above the water, facing south toward the harbor and Catalina Island.

6. **CABLE:** Forty cables will be used to connect each tower to the road deck. The longest cable on the bridge will be 573 feet. Each cable is made up of 30-80 strands. If all the strands were laid end-to-end, they would add up to 1.7 million feet in length.

7. **TOWERS:** At 515 feet tall, the bridge's two towers will be the second tallest of any cable-stayed bridge in the U.S. The steel-reinforced concrete towers will be supported by massive foundations. The tower design – unique to this bridge – transitions from an octagon shape at the base to diamond shape at the top.

8. **CABLE-STAYED BRIDGE:** The new bridge is a cable-stayed design, in which cables directly connect the towers to the road deck (unlike a traditional suspension bridge, which uses cables draped over towers). The entire length of the bridge – main span and approaches -- will be 8,800 feet.

9. **SPAN:** The main span and back spans of the new bridge will be 2,000 feet long and 205 feet above the water. It will be the highest deck of any cable-stayed bridge in the U.S.

10. **EAST APPROACH:** The 3,600-ft. east approach will connect the bridge to both the Long Beach (710) Freeway and east Ocean Boulevard toward downtown Long Beach.

11. **FOUNDATIONS:** The bridge will be supported by about 350 foundation piles, as deep as 175 feet below the surface.

12. **BACK CHANNEL:** The bridge will span the Port's 220-ft.-wide back channel, allowing bigger ships to access the North Harbor area.

13. **PILE CAP:** Pile caps are concrete and steel structures built atop a cluster of foundation piles. The pile caps support columns that connect to the road deck.

STAY CONNECTED:

www.newgdbridge.com
@newgdbridge
www.facebook.com/newgdbridge
(562) 283-7610