

**This week, we've compiled our top 10 record breakers in concrete. From old to new, this list will give you an idea of the best of the best in the world of concrete!**



## 1. Oldest Man-Made Concrete

The earliest recordings of concrete structures date back to 6500BC by the Nabataea traders in regions of Syria and Jordan. They created concrete floors, housing structures, and underground cisterns. Contrary to popular belief, the Ancient Romans were not the first to create this innovation and did not implement this until around 500 years later, though they were the first to use the material widespread and at a much larger scale.

## 2. First Concrete Road

Court Avenue in Bellefontaine, Ohio is recorded as the first concrete road in the United States. Built in 1893, George Bartholomew pioneered his own concrete mix and set out to pave America's first concrete street. The majority were skeptical of this method, as dirt

roads were more familiar, and believed the pavement would not be long-lasting. Bartholomew's method proved successful and was strong enough to see little damage for the first several decades. The road required only \$1400 for maintenance in its first fifty years! Great job, George!

### **3. Tallest Concrete Structure**

The Burj Khalifa, a skyscraper located in Dubai, is currently the tallest structure in the world. Standing at a total height of 829.8 metres (or 2,722 feet), the Burj Khalifa has been used as a platform for the Guinness world record of highest BASE jump from a building! The primary structure of this building is reinforced concrete, and used 330,000 m<sup>3</sup> (431,600 yd<sup>3</sup>) of concrete. The project cost \$1.5 billion USD, and took approximately 6 years to complete.

### **4. Largest Concrete Pour**

This year Safari Group, Mazsaya Consulting Engineers, Oscar Construction Co Ltd, and CONMIX Ltd. completed the largest continuous concrete pour at 20,246 m<sup>3</sup> (26,480.76 yd<sup>3</sup>). The pour took place from April 13-16, 2017 in Sharjah, United Arab Emirates, and was poured for a new mall project. The pour lasted 62 hours and took 140 individual trucks to deliver the concrete. Between four construction companies, there were approximately 622 people on the job.

### **5. Longest Concrete Bridge**

The Danyang-Kunshan Grand Bridge is the world's longest bridge, spanning 102.4 miles (165 kilometers). The bridge is located on the rail line between Shanghai and Nanjing in Eastern China, and cost approximately \$8.5 billion. The bridge employed 10,000 workers and took 4 years- time, completing in 2010. Danyang-Kunshan has held the Guinness World record title of "longest bridge in the world" since 2011.

### **6. Largest Concrete Dam**

The Three Gorges Dam located in Hubei province, China is said to be the largest concrete dam in the world, containing 27.2×10<sup>6</sup> m<sup>3</sup> (35.6×10<sup>6</sup> cubic yards) of concrete! The project began in December of 1994, and opened in 2003, costing \$37 billion to build. This dam also currently holds the title, "heaviest concrete structure" (see number 8).

## 7. Longest Concrete Tunnel

The Gotthard Base Tunnel is the world's longest and deepest traffic tunnel with a length of 57.09 km. The tunnel runs through the Alps in Switzerland, and is a component in one of the largest environmental protection projects in Europe. LafargeHolcim supplied 1.3 million m<sup>3</sup> of high-tech concrete for various sections of the tunnel.

## 8. Heaviest Concrete Structure

Coming in for a second round is the Three Gorges Dam from Hubei province, China, holding the title of the world's heaviest concrete structure, weighing in at 144,309,356,753.51 pounds... of concrete that is! The hydroelectric dam spans the Yangtze River and also holds the title, "largest concrete dam in the world". Talk about record breaking...

## 9. Largest Concrete Producer

[LafargeHolcim](#) is the world's largest concrete producer. Lafarge, a French-based building materials company, and Holcim, a Swiss-based building materials and aggregates company, decided to combine efforts. The company merged in 2015 with the new name LafargeHolcim, combining over 180 years of experience. Together, they produce around 427 million tons of concrete yearly. LafargeHolcim has a local presence in 80 countries with over 1400 ready-mix plants around the world!

## 10. Largest Concrete Boom Pump

The world's largest truck-mounted concrete boom pump was created by Putzmeister America, a producer of machinery for the concrete placing industry, and successfully used by Associated Concrete Pumping. The 70Z-meter pump features 227 feet of vertical reach and 212 feet of horizontal reach. It features a five-section Z-fold boom for maximum flexibility and has a 59-foot outside turning radius. The 70Z's 10 axles come off the ground to steady its 176,000 pound weight.