

# Survey Says!



Almost every project begins with land surveying. Want to build anything? You'd better know what the ground looks like, who owns the land, what's been built on that land before, and where all the underground utilities are located! So our land surveyors, like **Greg Brown, LLS, PLS**, get to walk, hike, and wade through the lands and waters of New England. One of the things they do is take measurements. But they have some units of measurement you may have never heard of before:

- 1 mile = 5,280 feet
- 1 kilometer = 0.62137 miles
- 1 acre = 43,560 square feet
- 1 acre = 160 square perches
- 1 perch = 16.5 feet
- 1 rod = 16.5 feet
- 1 chain = 66 feet
- 1 link = 0.66 feet
- 1 hectare = 2.47105 acres

## Let's measure some UNESCO World Heritage Sites!

*A World Heritage Site is a landmark or area, selected by the United Nations Educational, Scientific and Cultural Organization (UNESCO) for having cultural, historical, scientific or other form of significance, which is legally protected by international treaties.*

### Taj Mahal - Agra, Uttar Pradesh, India



The Taj Mahal was built in Agra between 1631 and 1648 as directed by Mughal emperor Shah Jahan in memory of his favorite wife. Made of white marble, the Taj Mahal is an immense landmark that spans 17 hectares. **If a surveyor surveyed the whole 17 hectares, how many square perches would they measure?**

### Palace and Park of Versailles - Île-de-France



Both the Palace and Park of Versailles located southwest of Paris, are World Heritage Cultural Sites. The most famous room inside the Palace is the Hall of Mirrors (La galerie des Glaces), which took six years to complete. This breathtaking room holds 357 mirrors and was the location of the signing of the Treaty of Versailles, which ended World War I. **This room is 73 meters in length. How many chains would that be for our surveyor?**

### Kew Botanic Gardens - Southwest London, England



The Kew Botanic Gardens were created in 1759 and helped develop garden art, botanical science, and plant classification. **If our surveyors tiptoed very, very carefully, through every tulip of this 326.179 acre garden, how many hectares would they be surveying?**

### Galápagos Islands - Ecuador



The Galápagos Islands are recognized as both a World Heritage Site and as a biosphere reserve because of the many unique plants and animals that call these islands their home. There are 19 individual islands that were formed by volcanic eruptions. The islands are located where three oceans meet, which creates one of the richest marine ecosystems in the world. **If a surveyor were to survey the entire 14,066,514 hectares, how many square feet would that be?**

### Independence Hall - Philadelphia, PA



Both the Declaration of Independence and the Constitution were signed in Independence Hall in Philadelphia. Its highest point is the tip of its steeple spire, which reaches approximately 168.5 feet above the ground. **If our intrepid surveyor were to climb to the top of the spire, how many rods would he climb?**

### Statue of Liberty - New York, NY



The Statue of Liberty that stands at the entrance to New York Harbor was a gift to the US from the country of France celebrating 100 years of American independence. But it is not the only one - google it! The Statue of Liberty that stands on US soil sits on a property that is 5.95 hectares. **If our surveyors looked at every bit of land, how many square feet would this be?**