The life-size Noah’s Ark will be the largest timber-frame building in the world.
And this is how you shall make it: The length of the ark shall be three hundred cubits, its width fifty cubits, and its height thirty cubits.

— Genesis 6:15, NKJV
History of the Cubit

A cubit is based on the measurement from the tip of the fingers to the elbow. Throughout history there have been several different cubit lengths.
Why the Hebrew Long Cubit?

We don’t know what cubit length Noah used to build the Ark, but we know that in large-scale construction projects ancient civilizations usually used the long cubit. In the Old Testament we read that Solomon used an older long cubit in the construction of the temple.

We can assume Noah probably used a long cubit for the construction of the Ark. So for the Ark Encounter we decided to use the length of the Hebrew long cubit.

20.4 Inches
A Cubit
A cubit is divided into several segments though these varied like the cubit lengths.

A Handbreadth
Five handbreadths make up a cubit. A handbreadth can be divided into 4 finger widths.

A Span
A span is half of a cubit. One span is two and a half handbreadths.
Fun Comparisons

Width = 2 school buses
Height = 3 giraffes stacked
Length = 1.5 football fields
Volume = 483 semi-trailers
The Wood

The big logs come from trees that were killed by a beetle infestation. Most of the other timber comes from renewable forests.

Round logs
Engelmann Spruce and Douglas Fir
Utah, Colorado
(64) logs, 28” to 38” dia. X 48’ long
(56) logs, 20”+ dia. X 18’ long
(4) logs, external braces from deck 3 to ground level, 32”+ dia. X 52’ long. At Grid 1 & Grid 31.

Heavy timber
Douglas Fir
Oregon, Washington
(64) 20” X 20” X 32’ long
(64) 18”X 18” X 18’ long

Floor joist, decks 2 and 3, and roof deck, 6’ c/c, 16” X 18” full length and width of Ark. Girder beams, four per deck, full length of the Ark. Timber braces all decks.
Glulaminated members
Southern Yellow Pine
Georgia, Alabama
166 ribs for exterior wall of the Ark.
10.5" X 22" X 55' tall
12" X 5'-0" X 680' in total length from Bow to Stern.

Wood decking & flooring
Decking, 600,000 board feet (bf); 76 miles of decking.
Bamboo flooring, 290,000 bf; 55 miles of flooring.

Ark, exterior cladding
1" X 10", 185,000 bf; 35 miles.
(ACCOYA natural wood, 50 year warranty, will weather gray)

Ark interior cladding
(on exterior walls)
94,000 bf; 18 miles.

Plywood
4’ X 8’, 15, 150 sheets.

Safety railings
2” X 4”; 4 miles.

Rain vent/cavity
Behind ACCOYA cladding, 3/8” X 2”; 17 miles.
All Accounted For
Each piece of wood is prepared off site for a specific location within the Ark. While off site, each plank and beam is assigned a number, so when it arrives at the Ark site, the builders know the exact location it is intended to go.

Won’t Tumble Down
The planks and beams are being cut off site. The accuracy has to be within 1/32 of an inch variance to ensure that the Ark will stay standing. The cut has to be precise because of the weight of the center beams.
3.1 Million Board Feet

Over 3.1 million board feet of timber will be used in the construction of the Ark. A board foot is 12 inches by 12 inches by 1 inch. In board feet (laid end to end) there is enough timber in the Ark construction to go from Williamstown, Kentucky, to Philadelphia, Pennsylvania.
The ribs of the Ark are made of laminated timber (called Glulams). Ribs with beams and logs are made into a structure called a bent. Thirty-two bents will be constructed and bolted onto the concrete platform on top of the piers. The keel of the Ark will go under the platform so the concrete platform will not be seen once the Ark is constructed. The keel will be 12.5 feet off the ground.
Parking Lot
The Ark Encounter sits on 200 acres
As a guest, you will be able to walk under the Ark. These piers stretch the height of 12.5 feet above the ground level to the underside of the Ark; 15 feet from the ground level to deck 1 of the Ark.

3,500 yards of poured concrete and approximately 6,000 yards of concrete in precast slabs will be used in the construction. Because of the massive size of the Ark, to be within building code regulation, the first floor must be concrete. So the Ark will be built around the concrete floor.
Solid Foundation

Half a million cubic yards of dirt were moved to prepare the Ark site. Some places were lowered by about 40 feet. Four feet under the site was solid rock—so the foundation for each pier sits on solid rock.
The Towers

Three seven-story buildings (70 feet high) are being constructed to which the Ark will anchor. Each tower will extend into the Ark about 14 feet.

The two end towers contain elevators and stairs. The large middle tower contains stairs and restrooms. These supports are designed to hold up under 120 MPH wind forces and contain a 50,000 gallon underground water tank for extra fire protection.
Site Excavation

Approximately one million cubic yards of dirt were removed to prepare the parking lot (across the valley from the Ark) for 4,000 vehicle spaces. Approximately 500,000 cubic yards of dirt were moved on the Ark site.
August 26, 2010
Parking lot looking toward Ark location.
January 6, 2015

The utility pole helps show how much land has been moved.
August 26, 2010
Looking toward the tram road from the Ark location.
January 6, 2015
Looking toward the tram road from the Ark location.
August 26, 2010
Looking at the Ark from the stern end.
Looking at the Ark from the stern end.

March 15, 2016
August 26, 2010
Looking at the Ark from the stern end.
March 25, 2016
Looking at the Ark from the stern end.
August 8, 2014
Looking at the Ark location from the advancement hut.
December 14, 2015
Looking at the Ark location from the advancement hut.
Ark Bays

The Ark will contain 132 bays. Many of the bays are being constructed off site to be installed once the Ark structure is completed. Seventy-four bays will be exhibits, the others will contain space for dining, offices, housekeeping, mechanical, security, etc.
The Designer's Handiwork
These small figurines are sculpted with our 3D printer, and then meticulously hand painted by one of our designers. The figures shown on this page will be used in the Babel diorama.
Sculpt It
Our artists start by sculpting animal kinds on the computer.

CNC Machine
Pieces of the animal are cut out on this machine.
Pieced Together
Then their pieces are assembled.

Fur Application
Fur is applied, cut, and airbrushed to get a realistic affect.
Making the Giraffe Kind
Making the Tyrannosaurus Kind
"We are so excited that the construction progress and schedule landed on this 7/7 date. Genesis 7:7 states that Noah and his family entered the Ark. So it’s fitting we allow the public to enter the life-size Ark on 7/7." — Ken Ham
Get Your Tickets!

For the first 40 days, guests can purchase daytime tickets for 9 a.m.–4 p.m. or nighttime tickets for 5 p.m.–midnight. The day and evening times will also offer some differing experiences.
Dr. John Whitcomb

Dr. John Whitcomb coauthored *The Genesis Flood* with the late Dr. Henry Morris.