

9 THINGS TO KNOW ABOUT...

STAY CABLES

The Gordie Howe International Bridge will have the longest main span of any cable-stayed bridge in North America. Critical to its design is the incorporation of 216 stay cables that serve two purposes -- they deliver the weight of the entire structure to the tower and, through tension, maintain the bridge deck's stability and placement.

1

CABLE-STAYED DESIGN

The Gordie Howe International Bridge is designed with a cable-stayed system. It will include 216 stay cables to support the bridge and road deck.



2

STAY CABLES

Stay cables are metal strands inside weather-resistant, high-density polyethylene (HDPE) plastic pipes that are completely anchored to two points, the anchor boxes inside both towers and the edge girders on the deck.



3

ANCHORED AND SECURED

Stay cables are secured to 27 anchor boxes and 8 formwork boxes inside each tower and 108 edge girders on the deck. These boxes are made of steel.



4

STRANDS APLENTY

More than 16,000 strands will be used to connect the bridge towers to the deck. Between 38 and 122 strands of cable will be fed inside each HDPE pipe.



5

LONG LENGTH

End-to-end, the strands measure a length of approximately 5,000 kilometres/3,107 miles. That is the same distance as a round-trip from Windsor, Ontario to Salt Lake City, Utah.



6

SEEING DOUBLE

Two parallel stay cable units are installed simultaneously. Once the stay cables are secured and tightened, crews will move to the opposite end of the tower to install the next cables.



7

DAYS LONG PROCESS

Once the crane is moved into position and the structural steel and deck work is complete, crews can begin installing the next pair of cables. It will take on average two-to-five days to feed the strands of cables into the HDPE pipes and stress the stay cables into position.



8

SUPPORT SYSTEM

Together, the bridge towers and cable system will be rated at 151,060 kilonewtons (kN) to support nearly 34 million pounds of weight. That is the equivalent to 5,660 African bush elephants standing together on the bridge deck at one time.



9

WORLD WONDER

Once complete, the Gordie Howe International Bridge will be the longest cable-stayed bridge in North America and 10th longest in the world.



PONT INTERNATIONAL
**GORDIE
HOWE**
INTERNATIONAL BRIDGE