Celebrating the History of Canada’s Architectural, Engineering and Construction Wonder

Defining the Toronto skyline at 553.33m (1,815ft5in), the CN Tower is Canada’s most recognizable and celebrated icon. The CN Tower is an internationally renowned architectural triumph, an engineering Wonder of the Modern World, world-class entertainment and dining destination and a must see for anyone visiting Toronto. Each year, over 1.5 million people visit Canada’s National Tower to take in the breathtaking views and enjoy all the CN Tower has to offer.

After 40 months of construction, the CN Tower was opened to the public on June 26, 1976 and it was well on its way to becoming the country’s most celebrated landmark. It is the centre of telecommunications for Toronto serving over 16 Canadian television and FM radio stations, the workplace of over 500 people throughout the year, and an internationally renowned tourism destination.

Although the CN Tower inspires a sense of pride and inspiration for Canadians and a sense of awe for foreign tourists, its origins are rooted in practicality. The 1960s ushered in an unprecedented construction boom in Toronto transforming a skyline characterized by relatively low buildings into one dotted with skyscrapers. These buildings caused serious communications problems for existing transmission towers, which were simply not high enough to broadcast over the new buildings. Signals bounced off the buildings creating poor television and radio reception for residents. With its microwave receptors at 338 m (1,109 ft.) and at the 553.33m (1,815 ft., 5 inches) antenna, the CN Tower swiftly solved the communications problems with room to spare and as a result, people living in the Toronto area now enjoy some of the clearest reception in North America.

The CN Tower was built in 1976 by Canadian National who wanted to demonstrate the strength of Canadian industry by building a tower taller than any other in the world. Building the CN Tower was a vast and ambitious project that involved 1,537 workers who worked 24 hours a day, five days a week for 40 months to completion.

Tower construction crews moved in on February 6, 1973, and started to remove over 56 metric tonnes of earth and shale for the foundation. Once the foundation was ready, work began on the CN Tower’s 335 m (1,100ft.) concrete shaft, a hexagonal core with three curved support arms. This involved pouring concrete into a massive mold or “slipform”. As the concrete hardened, the slipform, supported by a ring of climbing jacks powered by hydraulic pressure, moved upwards, gradually decreasing in size to produce the CN Tower’s gracefully tapered contour.
Eight months later, the CN Tower’s concrete shaft was the tallest structure in Toronto and by February 1974, it was the tallest in Canada. In August 1974, work began on the seven-story tower sphere that would eventually house the observation decks and revolving restaurant. The CN Tower approached completion in March 1975, when Olga, the giant Sikorsky helicopter flew into the city to lift the 44 pieces of the antenna into place. The CN Tower was finished on April 2, 1975, and opened to the public June 26, 1976.

When the 44th and final piece of the CN Tower’s antenna was bolted into place April 2, 1975, the CN Tower joined the ranks of 17 other great structures that had previously held the title of World’s Tallest Free-Standing Structure, a record the Tower would hold for an incredible 34+ years. Ross McWhirter, editor of the Guinness Book of World Records, was on hand to record the milestone for history and since then, the CN Tower has received numerous mentions in the famous book including most recently the World’s Highest Wine Cellar.

In 1995, the CN Tower was classified as one of the Seven Wonders of the Modern World by the American Society of Civil Engineers. Canada’s Wonder of the World shares this designation with the Empire State Building, the Chunnel under the English Channel, the Golden Gate Bridge in San Francisco, Itaipu Dam on the Brazil/Paraguay border, the Panama Canal, and the North Sea Protection Works off the European coast.

Since the CN Tower opened, Canadians and tourists from around the world have made the trip to Toronto to celebrate this marvel of engineering. Besides serving as a telecommunications hub, the CN Tower provides a wide range of unique attractions, exhibits and food and beverage venues.

Over the years, millions of dollars has been invested in expanding and revitalizing the CN Tower to continue to provide visitors with a world class experience:

- In 1986 the world’s first flight simulator ride experience, Tour of the Universe, was launched at the CN Tower.

- In 1998 a base expansion project added 75,000 square feet of attractions and shopping at the Base of the Tower including a theatre and gift shop. At the Maple Leaf Cinema visitors can see a 3D film and the Gift Shop with 10,000 square feet of shopping features a wide array of high quality authentic Canadiana and CN Tower souvenir merchandise.

- For over three decades, the CN Tower continues to remain a critical telecommunications link adapting over the years to the incredible advances of the last decades by providing a cell site for wireless voice and data transmissions as well as for radio and television broadcasts.

- 360 The Restaurant at the CN Tower following extensive renovations and remodeling, re-opened to critical acclaim in 1995 with a newly appointed Chef’s team who would ensure the quality of the cuisine was every bit as spectacular as the view. Over the years, ongoing upgrades to the restaurant included the addition in 1997 of a state of the art 9,000 bottle wine cellar. Located at 351, the Cellar was designated the World’s Highest Wine Cellar by Guinness in 2006 and continues to provide guests with one of the most extensive selections in the Toronto area. For over a decade 360 has been winning
awards for its cuisine, wine and ambiance and become a popular fine-dining and special event destination for Torontonians, dignitaries, celebrities and tourists alike.

- To meet the demands of growing numbers of visitors to the Tower, in 1996 two additional elevators were installed at the CN Tower for a total six glass fronted elevators taking visitors to the top along one of the longest elevator hoistways on the planet.

- In 2002 the CN Tower underwent a dramatic upgrade when the Radome was replaced (white, donut shaped, Teflon-coated fiberglass fabric protecting the Tower’s microwave equipment at the base of the main pod).

- The CN Tower is always upgrading its security through investments in new equipment and training. In 2002, the CN Tower initiated an award winning new training program as well as introducing a state-of-the-art, non-contact security archway at the entrance at a cost of $1 million. The CN Tower has been a technological leader since it was first built in 1976 and technology advancements and security advancements are important to ensuring the safety and security of visitors and staff. The new system complements systems the CN Tower has always had including 24 hour 7 day a week internal and external security.

- In 2006 the CN Tower added new meeting and event space at the base to meet the growing demand for at this unique Toronto event venue, presenting 1,100 sq. ft. of flexible space adjacent to the CN Tower’s 144-seat Maple Leaf Cinema. The new meeting rooms, Aspen, Birch and Cedar are fully equipped for audiovisual presentations and a variety of room layouts can accommodate up to 90 people for meetings, breakout sessions, working lunches, and more. Full food and beverage services is available in-room, or guests can head skyward where pre- and post-meeting meals and receptions can be enjoyed in Horizons Café or the award-winning 360 The Restaurant at the CN Tower.

- On June 28, 2007. With the installation of innovative programmable LED exterior lighting, the CN Tower literally lights up the Toronto skyline each night vividly illuminating the structure elegantly in red and white. The technology features 1,330 LED fixtures that are both energy efficient and cost effective to maintain- using 60% less energy that the conventionally lit Tower of 10 years ago. The system’s full capabilities are demonstrated during a spectacular light show at the top of every hour each night.

- Lifting off April 9, 2008, the CN Tower introduced North America's first and the world's highest glass floor paneled elevators. A portion of the elevator floor now features two glass panels which when combined represent almost 0.6m2 (6 ft2) of floor space. Traveling at a speed of 22km/15mph, the Tower's six glass-fronted elevators rocket guests to the top of its glass-fronted elevator shaft - 346m/1136ft in 58 seconds, earning the distinction as the World's #1 elevator ride.

- 2010 - A state of the art theatre is added to the lineup of thrilling experiences at the CN Tower. The upgraded Maple Leaf Cinema is now one of the most technically advanced venues in the country for public and private screenings or presentations. This state of the art theatre is fully equipped with leading edge high definition digital cinema technology projection and sound systems including the latest in high definition 3D.
2011 – The first of its kind in North America, EdgeWalk is the world’s highest full circle hands-free walk on a 5 ft (1.5 m) wide ledge encircling the top of the CN Tower’s main pod, 356m, (1168 ft, 116 stories) above the ground. This adrenalin-fueled experience allows thrill seekers to walk the edge of one of the world’s greatest man-made wonders. Adventure lovers walk “hands-free” in groups of six, while attached to an overhead safety rail via a trolley and harness system. Trained EdgeWalk guides encourage visitors to push their personal limits, allowing those who dare to lean back over Toronto, with nothing but air beneath them. Everyone who meets the stipulated requirements will be welcome to experience these breathtaking open-air views of Toronto and Lake Ontario. Every aspect of EdgeWalk, from design, to build, to attraction logistics and operation has been developed with the utmost safety and security in mind. The entire experience will run 1.5 hours, with the walk itself lasting approximately 30 minutes.

www.edgewalkcntower.ca
Over 35 Years of Memories

National icon… Toronto landmark… Engineering Wonder… memorable events, celebrations and a who’s who of celebrities and dignitaries… we’ve selected just a sample of memorable moments in the history of Canada’s famous icon and Toronto, Ontario’s beloved landmark:

1. In the beginning: 1970 – CN Tower project is approved; 1971 – wind tunnel experiments are conducted; 1972 – soil and bedrock testing are undertaken; 1973 - February 6, construction begins.
2. 1975 - March 31, the CN Tower officially became the World's Tallest Free-Standing Structure. This was according to Ross McWhirter, then editor of the Guinness Book of World Records, who was on site to witness the placement of one of the last sections of antenna. The CN Tower held the record as the tallest building, tower, freestanding structure for over three decades.
3. 1975 - April 2, thousands of onlookers are riveted by the sight of a giant Erickson Air-crane Sikorsky helicopter completing installation of the 44 piece antenna at the top of the Tower.
4. 1976 – May 1, first broadcast. CFTO-TV and CBC-TV begin transmitting from the CN Tower.
5. 1976 – June 26, 12 midnight - the CN Tower opens to the public to welcome over 12,000 enthusiastic guests on its very first day.
6. 1976 – October 1, Canada’s Prime Minister at that time, The Right Honourable Prime Minister Pierre Trudeau, while attending the official opening ceremonies, seals a time capsule that will be opened in the year 2076.
7. 1977 – first annual fundraising climb of the CN Tower staircase takes place to raise money for the United Way of Greater Toronto.
8. 1979 – Dar Robinson jumps from the top of the main pod (1139 ft 8 in / 347.37 m) with a parachute for the movie, “Highpoint” starring Christopher Plummer. Dar Robinson later returns to perform a controlled cable fall filmed for the TV show That's Incredible.
9. 1981 – On this memorable occasion the CN Tower was visited by Her Majesty Queen Elizabeth the Queen Mother. Along with dignitaries from all over the world, the CN Tower is regularly visited by a who’s who in entertainment from actors to musicians and sports celebrities.
10. 1986 – The world’s first flight simulator ride experience, Tour of the Universe, is launched at the CN Tower.
11. 1988 – Two hang gliders fly from the roof of the main pod (1,207 ft / 368 m), landing at Toronto Island Airport, setting a world record.
12. 1989 - Brendan Keenoy of Toronto, sets the world record for the fastest climb of the 1760* steps (vertical height 342 m or 1,122 feet) in 7 minutes and 52 seconds. *Note: The original Tower staircase had 1760 steps until October 1996. When the stairwell is relocated, total stairs increase to 1,776.)

13. 1991 – first annual fundraising stair climb for the World Wildlife Fund is held. This along with the stair climb for United Way of Greater Toronto would go on to average over 20,000 climbers and raise over $3 million for charity every year.

14. 1992 – a new rappel record is set by the Canadian School of Rescue Training along with the British Royal Marine Commandos who rappelled from the Sky Pod level, 1,465ft (446m).

15. 1994 – The CN Tower opens the world’s first Glass Floor at 1,122 ft (342 m) high, thrilling guests with a “dare to walk on air” experience.

16. 1995 – The CN Tower is designated a Wonder of the Modern World by the American Society of Civil Engineers (along with other engineering wonders such as, The Empire State Building, Golden Gate Bridge, English Channel Tunnel, Panama Canal, Itaipu Dam and North Sea Protection Works).

17. 1995 – 360 The Restaurant at the CN Tower is redesigned and relaunched to accolades and goes on to win awards year after year for its food, wine and ambiance.

18. 1997 – two additional elevators are installed in one of the world’s longest elevator hoistways for a total six elevators to meet the demands of growing numbers of visitors.

19. 1997 – a state of the art 9,000 bottle wine “Cellar in the Sky” is added to 360 Restaurant enabling it to store one of the most extensive selections in the Toronto area.

20. 1998 – $27 million base expansion adds 6,969 sq. m. (75,000 sq. ft.) of attractions and shopping at the base.

21. 1999 – Canada Post features CN Tower as part of a commemorative set of stamps to mark the Millennium.

22. 1999 – December 31, a dramatic fireworks display off the CN Tower, counts down the last 10 seconds of the year and ushers in the new Millennium.

23. 2002 - Canadian Olympian & Paralympic Champion Jeff Adams climbs the stairs of the CN Tower in his wheelchair to raise awareness for a barrier-free society and to raise funds for the Variety Village Outreach Program.

24. 2002 - The CN Tower undergoes a dramatic upgrade when the Radome, (donut shaped, Teflon-coated fiberglass fabric which protects the Tower’s microwave equipment at the base of the main pod) is replaced. High angle experts are suspended from the main pod by ropes and harnesses to execute some of this work.

25. 2003 - The Barenaked Ladies join Canada Post and the CN Tower to officially launch the World’s Highest Mailbox atop the World’s Tallest Building (located on the Look Out Level at 1,136 ft / 342 m).

26. 2003 – To Build A Nation documentary series features the CN Tower in a one hour program, exploring this great engineering feat told through the key individuals who drove the project.

27. 2005 - The CN Tower is featured during the final episode of The Amazing Race, a popular travel based reality series watched by millions around the world.

28. 2006 – Royal Canadian Mint launches CN Tower collector coin in celebration of the Tower’s 30th anniversary.

29. 2006 – CN Tower celebrates over 30 years of memories as the tallest building, tower, freestanding structure.

30. 2006 – New meeting space is added at the base to meet the growing demand for meetings and events at this unique Toronto venue.
31. 2007 – Innovative programmable energy efficient LED structural lighting is installed. The CN Tower now literally lights up the Toronto skyline each night in red and white with a lighting program throughout the year for holidays, citywide events as well as charities and events.

32. 2008 – CN Tower introduces North America’s first and the world’s highest glass floor paneled elevators presenting a thrilling new perspective on the view 346 m (1,136ft) straight down.

33. 2010 - A state of the art high definition theatre with 3D capabilities is added to the lineup of thrilling experiences at the CN Tower. The upgraded Maple Leaf Cinema is now one of the most technically advanced venues in the country for public and private screenings or presentations.

34. 2011 – EdgeWalk at the CN Tower the most thrilling attraction in CN Tower history opens to the public.

35. 2014 – Glass Floor Experience Turns 20. When it opened on June 26, 1994, the CN Tower’s Glass Floor was the first experience of its kind in the world, offering visitors a dare-to-walk-on-air view 342m (1,122 feet) straight down to the ground. Since then, the Glass Floor has continued to thrill CN Tower visitors and has joined a bucket list of see through floor experiences around the world including the Grand Canyon, Ledge, and more.

36. 2015 – 360 Restaurant celebrates 20 award-winning years! Located atop Canada’s National Tower, 360 provides one of the country’s finest dining experiences showcasing Canadian cuisine.

37. 2016 – Canadian icon…Toronto landmark…Engineering Wonder… …on June 26 2016, the CN Tower will mark the 40th year since it opened to the public in 1976.