Petronas Twin Tower 1

Facts

Official Name: Petronas Twin Tower 1
Name of Complex: Petronas Towers
Other Names: Tower 1, Petronas Twin Tower Kuala Lumpur City Centre, Petronas Tower 1
Structure Type: Building
Status: Completed
Country: Malaysia
City: Kuala Lumpur
Street Address & Map: Jalan Ampang
Postal Code: 50088
Building Function: office
Structural Material: composite
  - Core: Reinforced Concrete
  - Columns: Reinforced Concrete
  - Floor Spanning: Steel

Construction Start: 1992
Completion: 1998
Official Website: Petronas Twin Towers

Rankings

Global Ranking: #14 Tallest in the World
Regional Ranking: #11 Tallest in Asia
National Ranking: #1 Tallest in Malaysia
City Ranking: #1 Tallest in Kuala Lumpur

About Petronas Twin Tower 1

Height: Occupied
375 m / 1,230 ft
Height: Architectural
451.9 m / 1,483 ft
Height: To Tip
451.9 m / 1,483 ft
Floors Above Ground
88
Floors Below Ground
5
# of Elevators
39
Top Elevator Speed
7 m/s
Tower GFA
197,500 m² / 2,125,872 ft²

Companies Involved

Developer: KLCC Property Holdings Berhad
Architect: Cesar Pelli & Associates
  - Design
  - Architect of Record: Adamson Associates
Structural Engineer: Thornton Tomasetti
  - Design
  - Engineer of Record: Ranhill Bersekutu Bhd
MEP Engineer: WSP Flack + Kurtz
  - Design
  - Engineer of Record: KTA Tenaga Sdn Bhd
Project Manager: Lend Lease

Other Consultant
  - Damping: RWDI
  - Façade: Vidaris, Inc.
  - Fire: Rolf Jensen & Associates
  - Wind: RWDI

Material Supplier
  - Construction Hoists: Alimak Hek
  - Elevator: Otis Elevator Company
  - Paint/Coating: Jotun
  - Sealants: Dow Corning Corporation
  - Steel: Arbed
The Petronas Towers, located in Kuala Lumpur, were designed to herald the emergence of Malaysia into the global economy and act as an easily identifiable symbol for the fast-growing country.

The development’s scope, scale, and design reflect the desire to create a representative manifestation of local traditions and ingenuity. In particular, the design is based on Islamic geometry, a reflection of Malaysia’s cultural heritage. The buildings are perhaps most noteworthy for the skybridge that connects them on the 41st and 42nd floors. Although there is no structural benefit to the connection, it offers more than just an architectural flourish. By linking the two buildings together, the facilities of each tower around that level can be shared, including a conference room, prayer room, and executive dining room. Additionally, the skybridge is an integral part of the towers’ fire evacuation strategy.

Due to budgetary constraints, the development timeline of Petronas Towers was constrained to six years, an ambitious feat considering that the original expected construction time for the project was eight years. To speed things along, two construction consortiums were hired, each being responsible for building one of the towers. Naturally, incentives were established that rewarded the first team to the top with the rights to build the skybridge, resulting in a race between the Japanese and South Korean consortiums. Ultimately, Tower 2 was the first to reach its pinnacle, with the South Korean crew claiming victory.

### Petronas Twin Tower 1

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  22 Aug 2018 – CTBUH Research

- **Top Company Rankings: The World’s 100 Tallest Buildings**  
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  Apr 2011 – CTBUH Journal Paper

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- **CTBUH 2016 China Conference - Panel,”Tall Buildings and Context: How High Can We Go and Why Should We?”**  
  18 Oct 2016 – Ron Klemencic, Magnusson Klemencic Associates; Karl Almstead, Turner Construction Company; Andrew Nicholson, CBRE; Jon Pickard, Pickard Chilton; Ian Smith, thyssenkrupp

- **CTBUH Video Interview – Hashimah Hashim**  
  18 Oct 2016 – Hashimah Hashim, KLCC Property Holdings Berhad

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- **Conjoined Tower Structures for Mile-High Tall Buildings**  
  Mar 2019 – International Journal of High-Rise Buildings Volume 8 Number 1

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  Jul 2018 – CTBUH Journal, 2018 Issue III

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