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

Companies Involved

- **Developer**: KLCC Property Holdings Berhad
- **Architect**:
  - Design
  - Architect of Record: Cesar Pelli & Associates
  - Engineer of Record: Adamson Associates
- **Structural Engineer**:
  - Design: Thornton Tomasetti
  - Engineer of Record: Ranhill Bersekutu Bhd
- **MEP Engineer**:
  - Design: WSP Flack + Kurtz
  - Engineer of Record: KTA Tenaga Sdn Bhd
- **Project Manager**: Lend Lease
- **Main Contractor**: Hazama Corporation; Ho Hup Construction Sdn. Bhd.; J.A. Jones Construction Co.; Mitsubishi Corporation; MMC Engineering & Construction Co.
- **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

About Petronas Twin Tower 1

- **Height: Occupied**: 375 m / 1,230 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
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**

**CTBUH Initiatives**

- **CTBUH 50th Anniversary: Moments in History #4**
  2 May 2019 – Conference Activity
- **CTBUH Study Examines Tallest Buildings with Dampers**
  22 Aug 2018 – CTBUH Research
- **Top Company Rankings: The World’s 100 Tallest Buildings**
  13 Oct 2016 – CTBUH Research

**Research Papers**

- **Conjoined Tower Structures for Mile-High Tall Buildings**
  Mar 2019 – International Journal of High-Rise Buildings Volume 8 Number 1
- **World’s Tallest Buildings with Dampers**
  Jul 2018 – CTBUH Journal, 2018 Issue III
- **Rethinking Evacuation: Rethinking Cities**

**Videos**

- **Rethinking CTBUH’s Height Criteria in the Context of Tall Timber**
  30 Oct 2017 – Robert Foster, The University of Queensland
- **Building Tall Skyscraper Lecture Series: How High Can We Go?**
- **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

**Other Building Facts**

- **Tallest twin-tower buildings in the world.**

To submit more information or donate images for this project, please use our submission portal.