Sydney Tower Eye is the tallest structure in Sydney, and the second tallest in Australia, after the Q1 on the Gold Coast (322m).

Construction started 1975 and was completed in September 1981 at a cost of 36 million dollars.

## It was built in 3 stages:

- 1. First, as a shopping complex at street level (5 levels total)
- 2. Ten levels of offices were added
- 3. Then, the Tower itself was born!

The turret has 420 windows.

The Tower windows are cleaned by a hydraulically driven machine we nickname 'Charlie'. Charlie will take 2.5 days to finish cleaning. Above the window cleaner there is a water tank which holds 162,000 litres of water which acts as a stabiliser as well as a sprinkler system in case of a fire.

Above the water tank we also have telecommunication levels, and plant rooms which contain protection equipment for the tower.

The lifts have three speeds, which are determined by the wind speed.

At full speed the lifts travel at 7 metres per second, which is approximately 25 kph.

- Full Speed
- 40 secs to observation deck
- Half speed
- 80 secs to observation deck
- Slow speed
- 5 minutes to observation deck

The shaft holds three double decker elevators.

The shaft of the tower has slits in it to allow wind to travel through, this aids pressurisation.



**Around the shaft there are 56 cables,** which are each made up of 235 strands. These stabilise the tower. If each strand was laid out end to end, they would reach Auckland, New Zealand from here (about 2300 kilometres!).

The diameter of the shaft is 6.7 metres and the diameter of the turret is approximately 31 metres. The turret consists of:

- Level 1 a la carte restaurant (rotates)
- Level 2 Buffet restaurant (rotates)
- Level 3 Private event room/functions
- l evel 4 **Observation deck**

The tower has 1504 fire stairs. To celebrate the Tower's birthday and to raise money for charity we open these stairs in what we call 'The Tower Run-Up'. You must be 18 years of age to take part. The record was set in 2000 by a man named Paul Crake with a time of 6 minutes and 52 seconds. The Tower Staff walk down the stairs every three to six months as a practice drill in case of an emergency taking approximately 30 minutes.

The Observation deck stands at 250m equivalent to 76 storeys.

Originally it was owned by AMP and was sold to Westfield in 2001. From street level to the very top of **the tower is 309m.** 

At the very top of the tower, there is a red flashing light which acts as a navigational beacon for ships in the harbour and out at the ocean, as well as for planes flying in and out of Sydney.

The same man who operates 'Charlie' is responsible for climbing to the top and doing maintenance checks and periodically replacing the light.

Considering the height we are at, The Sydney Tower Eye will often experience high winds, occasionally reaching 100km/h. **The tower is built to withstand winds reaching up to 172 km/h,** in which case it would sway up to 1 metre each way. The tower has never actually swayed this much and the most recorded were 30 centimetres during the earthquake in Newcastle in 1989.

