

COMPLETED PROJECTS

SITE:	Brookfield Place Tower 2
LOCATION:	Perth CBD
SCOPE OF WORK:	Fire Protection – (Fire Sprinkler / Fire Detection)
COMPLETION DATE:	September 2015



Brookfield Place Tower 2, located in the centre of the CBD, comprises sixteen levels of premium commercial space covering an area of 34,000 square meters. Tower 2 reflects modern corporate workplace design and facilities which attracts high occupancy determined by its innovative core and advanced infrastructure. The building has a 5-star Green Star rating for design and 6-star Green Star rating for office interiors. Brookfield Place Tower 2 has attracted high profile tenants including Brookfield Multiplex, Ashurst, Corrs, Deloitte and Wesfarmers.

SCOPE DETAILS

Within our scope for this project we were tasked with the design and construct contract for all the Wet Fire services and Fire Detection services which included:

- A fully compliant combined fire system to AS2118.6
- A fully compliant Hose Reel system to AS2441
- Compliant portable extinguishers to AS2444
- A fully compliant Fire Detection system to AS1668.1 and Emergency Warning Intercommunication system to AS1670.4

The fire systems were required to be provided throughout the 5 x Basement levels from B5 through to the Podium level and including the Plant Room on Level 17. Within the basement levels there was the requirement for various interfaces and areas of the existing car park from Tower 1 which required to be integrated into the Tower 2 Basement systems.



CHALLENGES & SOLUTIONS

Throughout the project there were various challenges which we had to overcome:

- Firstly, with the requirement within this project to have wall wetting sprinklers to the glazed façade on the East side, a design had to be engineered to allow for 2 things, compliance and constructability.

With a focus on waterproofing of the glazing whilst containing the sprinkler pipework feeding the element required, with minimal impact on the façade itself. We at Firesafe adopted a strategy that would allow us to manufacture some pipework in a way which was unobtrusive and would still allow installation to be done without the need to ever exit the building and still maintain a satisfactory compliant installation.



- Secondly, with an emphasis on the low level interfacing between several adjacent building's fire panels – Westralia Square, Brookfield Place Tower 1 & the new Brookfield Place Tower 2, it was recognised that each panel was of a different manufacturer as specified. Furthermore, with the other 2 buildings being occupied live working buildings, works had to be scheduled and coordinated to ensure no disruption to the businesses who occupied these premises.
- The works had to be coordinated with all 3 buildings centre management and/or construction team, the live buildings service and maintenance companies and our own operatives to ensure smooth transition and works, and to minimise the amount of any required downtime for works and commissioning.
- Thirdly, with the location of the fire pump house being nominated to the B5 Basement which was an existing basement level with no reticulated floor drains, we had to facilitate the final operating building with a way to reuse its sprinkler water to ensure compliance with the Green Star requirements as set out in the contract. This was achieved by the installation of a retention tank from which water could be stored and recirculated into the buildings water treatment system.
- Lastly, it was a requirement of the project to provide the 5 x car park levels with an operating wet fire system, which we had to provide by hooking up the on-street water main to the network of fire pipework in order to provide these levels for beneficial use of the system to these areas meaning an operating fire system. This required some interfacing for alarms as well as the physical possibility that these systems would in fact operate at some point in an emergency.