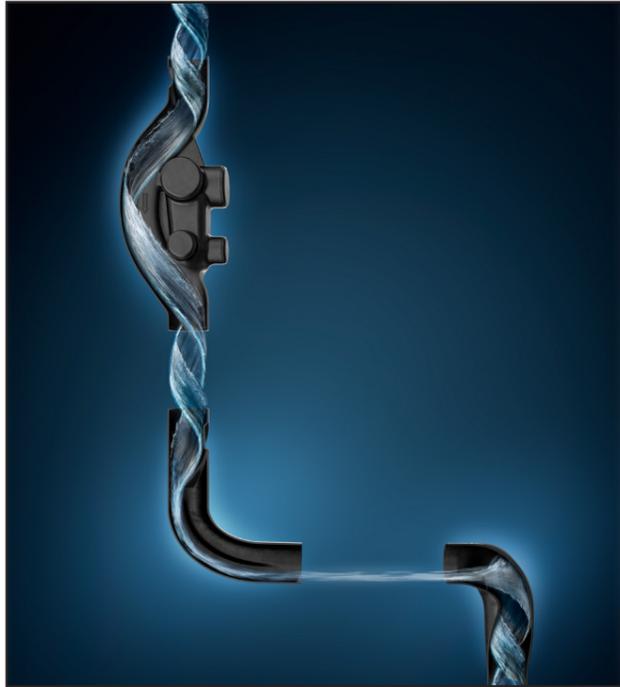


180 GEORGE PARRAMATTA

DESIGN FLEXIBILITY FOR A LANDMARK BUILDING



"We hope to see the Australian market catch up to see how advanced the Geberit SuperTube system is to incorporate into the building due to its flexibility and the space it can save. It has major benefits over the conventional system, designed 30 to 40 years ago, which doesn't fit the current market of buildings trends we are seeing."

Nick Ilias
Hydraulic Designer of Ilias Design Group

THE CHALLENGE

In Western Sydney, Meriton has reimagined the skyline with two iconic new towers. This landmark destination, 180 George, presents the tallest residential buildings ever to grace Parramatta's commercial and cultural precinct. The mixed-use development combines five-star retail and lifestyle amenities with 522 apartments that overlook the CBD and Parramatta River. Spacious living quarters were integral to the design of 180 George, which sets a new standard for sky homes and is the epitome of luxury.

K-MAC Plumbing installed all hydraulic services for this prestigious project and required a robust, cost-effective and easy-to-install drainage system. But spanning a total of 123 floors, the key question was how to meet the demanding discharge requirements that increased with every level, without encroaching on precious living space. The answer lay in Geberit SuperTube technology, which achieved optimum flow performance while delivering gains in sellable space.

RESULTS

- Greater design flexibility.
- Significant gains in living space.
- Stack shaft size reduced from 0.39 m³ to 0.21 m³ per floor.
- Maintained 110mm pipe size for both towers' entire height and avoided upsizing to 160mm pipes.
- Greater durability, longevity and sustainability with HDPE system.



*© Meriton Group

THE SOLUTION

Geberit SuperTube is an advanced building drainage system with a high-capacity, hydraulically optimised design that solved the discharge challenges of this ambitious project. The innovative Swiss system has three cleverly devised components: the Sovent, BottomTurn Bend and BackFlip Bend. These work together to eliminate the parallel pressure-relief line or aerator assembly, which is required with traditional drainage systems at stack offsets and bases. SuperTube also features a smaller pipe diameter of 110mm instead of 160mm, further decreasing duct space.

Due to its compact design, SuperTube only required 21 stacks. This is a significant reduction compared to conventional drainage system. This also translated into a luxurious 134 sqm gain in apartment floor space and offered greater design freedom and flexibility not only for the architects, but also for K-MAC Plumbing and the project's hydraulic consultants, Ilias Design Group.

"From the first meeting, we could see that the SuperTube system would answer many of the design challenges we faced."

Nick Ilias, Hydraulic Designer, Ilias Design Group



Geberit SuperTube system offers greater design freedom and provides space gain benefits.

PROJECT OVERVIEW

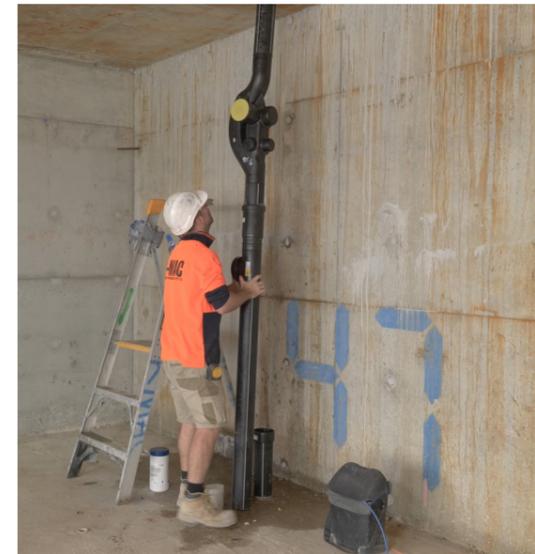
- Developer: Meriton Group
- Architects: Woods Bagot
- Hydraulics: Ilias Design Group
- Plumber: K-MAC Plumbing
- Plumbing Supplies: Reece Group
- Height: 186 and 211 m
- Floors: 56 and 67 floors – 123 total
- Buildings: 2 towers
- Completion: 2022

One of the system components, the BottomTurn Bend, is designed with an in-built flow divider, which provides an effortless transition from vertical annular flow to horizontal laminar flow at stack offsets. This is accomplished without the need for a fall or slope for up to six metres. There are a total of 60 stack offsets where suspension height of ceilings was 200mm rather than 400mm. As a result, SuperTube was able to create loftier ceiling heights, which leads to a better living space.

The simplicity of the SuperTube system also offered K-MAC Plumbing the benefit of easier installation, leading to more efficient use of labour and lower material costs. For K-MAC Plumbing Site Supervisors Matt Foulkes and Luke Fox, who oversaw the North Tower and South Tower respectively, the installation proved quick and straightforward.



Geberit BottomTurn bend supports the horizontal pipelines without slopes for up to 6m, creating loftier ceiling heights.



Prefabricated stack that is easy and quick to install onsite.

"Geberit SuperTube takes the complexity out of the installation. For us, it's a very easy system to teach our guys and then install."

Matt Foulkes and Luke Fox, Site Supervisors, K-MAC Plumbing

To save time and associated costs, Geberit, Reece Group, Ilias Design Group and K-MAC Plumbing worked together to streamline the prefabrication process of the high-capacity system, making it easier to transport and install.

"The success of the project is all part of an integrated system that goes in there. The SuperTube system has been one of the major stalwarts of projecting quality and giving us a safe and sound system."

Ken McDonald, Director, K-MAC Plumbing

SuperTube's sophisticated system significantly reduced material usage, and its HDPE construction is more durable and sustainable, which has futureproofed 180 George and ensured its distinguished legacy.



Scan the QR to watch the video for more information or click on [SuperTube - 180 George](#)



Only one electrofusion joint per stack using Geberit ESG3 machine makes it safe and easy to use.

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