

WHERE AUCKLAND'S CULTURE AND FUTURE CONNECT



Deep below Auckland's skyline, the City Rail Link is making history as New Zealand's first-ever underground metro line. Drawing on world-class expertise, the project responds to the city's geological complexities, notably volcanic terrain and a coastal setting, as well as its deep-rooted Māori heritage.

Construction of the City Rail Link is almost complete, with the opening set for the second half of 2026. Trains passing through the new 3.45-kilometer twin tunnels will stop at four train stations. Two are new, Te Waihorotiu and Karanga-a-Hape, while the two existing stations, renamed Maungawhau and Waitematā, have been renovated. These upgrades will connect Auckland's rail network more efficiently, improving the flow across the city. But this ambitious project means much more to the city than improved public transportation alone. Dustin Marks, Head of Target Markets at Sika New Zealand, shares a more personal perspective on the achievement, the teamwork behind it, and what lies ahead.

Local references

The new rail link is designed to ease road congestion, support a greener and more accessible city, and ultimately transform how Aucklanders travel. This means effectively doubling the capacity of Auckland's rail network at peak times. To put it into perspective, consider Auckland's iconic Harbour Bridge – a one-kilometer, eight-lane motorway that crosses Waitematā Harbour. The new rail connection is expected to deliver the equivalent of 16 additional traffic lanes per hour, or roughly three Harbour Bridges' worth of extra capacity during peak travel times.



The construction of New Zealand's first underground rail line incorporates proven systems and technical solutions from cities around the world.



Auckland's proximity to water creates distinct engineering and waterproofing challenges, especially underground.



“For the City Rail Link, we all worked together to deliver compatible, end-to-end systems for waterproofing, flooring, grouting, concrete, and finishing. And all Sika solutions are supported by our global experience in complex metro infrastructure projects. This shows that success comes from both engineering strength and strong partnerships.”

Dustin Marks, Head of Target Markets Sika New Zealand

From a construction standpoint, the project has faced some highly complex and challenging environments. Water is always a factor in Auckland, especially when building below ground level. At the Commercial Bay shopping center, which is close to Waitematā Station, construction took place approximately six meters below the low tide mark. This creates challenges related to water pressure and potential water ingress, which could disrupt operations and accelerate structural deterioration.

“You're always fighting against water down there,” explains Dustin. “Any water ingress can disrupt operations and speed up deterioration, causing the structure to age prematurely. So getting the waterproofing absolutely right was critical, especially around the safety passages between tunnels.”

Dustin adds, “New Zealand's geology is shaped by its volcanic past, and Auckland is no exception. When tunneling, you can hit very hard volcanic rock in one section and then suddenly encounter much softer material like pumice or mud. That kind of variation makes excavation and construction particularly challenging, especially as you go deeper.”

Finally, the new rail line runs directly under Auckland city center, passing under some of its largest and most complex structures. Commercial Bay, which is located at the base of a 41-story building, sits above tunnels and passages that lead into Waitematā Station. This means that the city's tallest building is right on top of where all this complex construction and detailing was taking place. As a result, the systems used throughout the structure, tunnels, and transitional zones needed to be exceptionally robust to ensure long-term stability and safety.



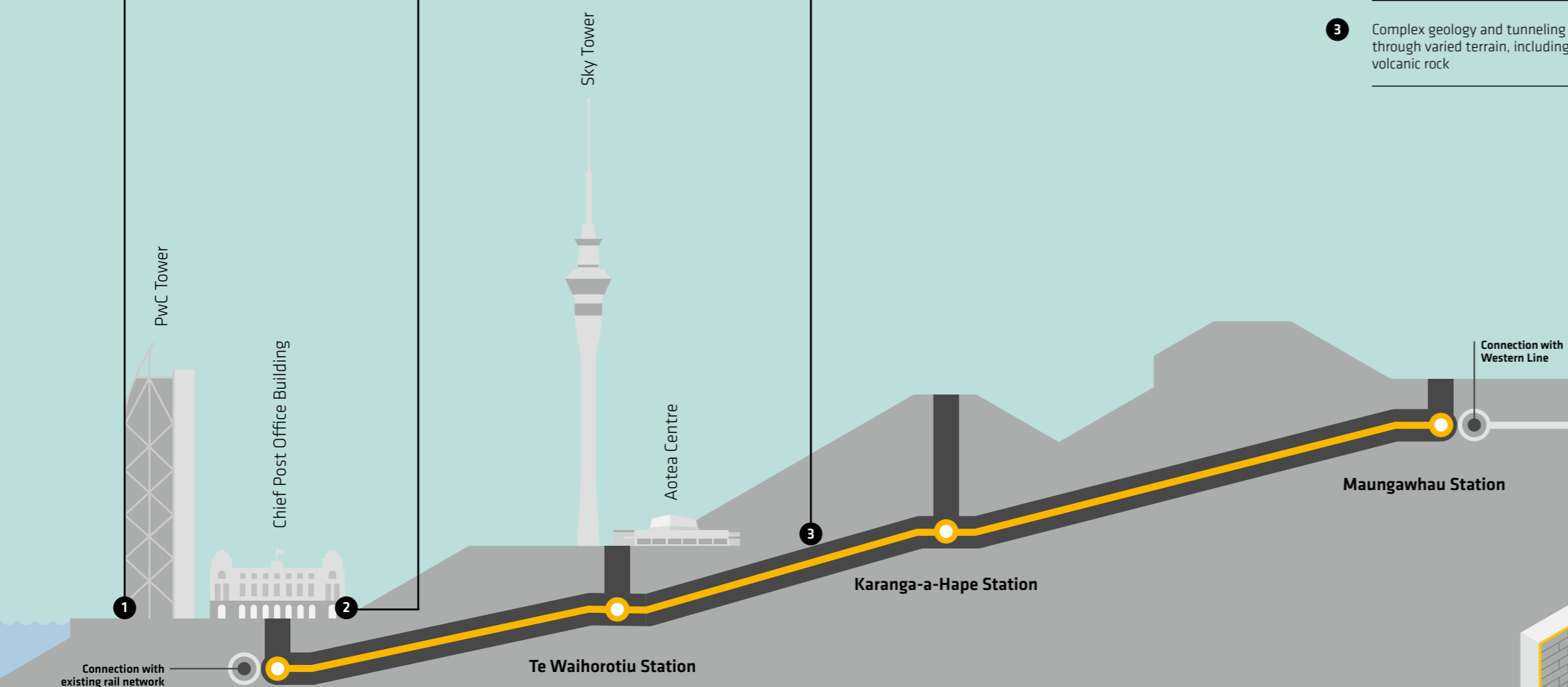
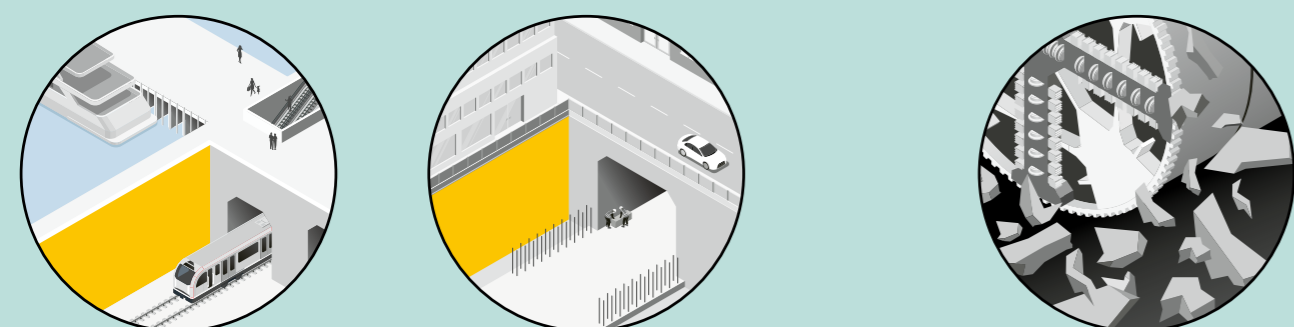
The area's volcanic origins led to construction challenges as well as inspiration, with one of the line's stations named after nearby Maungawhau (Mount Eden).



The City Rail Link passes directly under Auckland's city center and some of its tallest, most famous buildings.

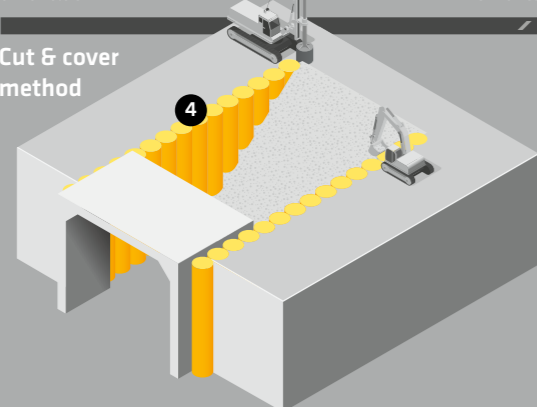


As the largest infrastructure project ever undertaken in New Zealand, City Rail Link will carry up to 54,000 passengers per hour through the city center during peak times – double the current capacity.

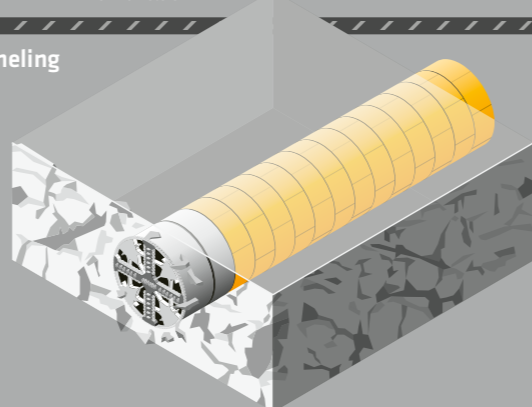


0 kilometers 1.0 kilometer 2.0 kilometers 3.45 kilometers

Cut & cover method



TBM tunneling



City Rail Link

>2.6 CHF billion investment

3.4 kilometer twin tunnels

42 meters at its deepest point

Challenges

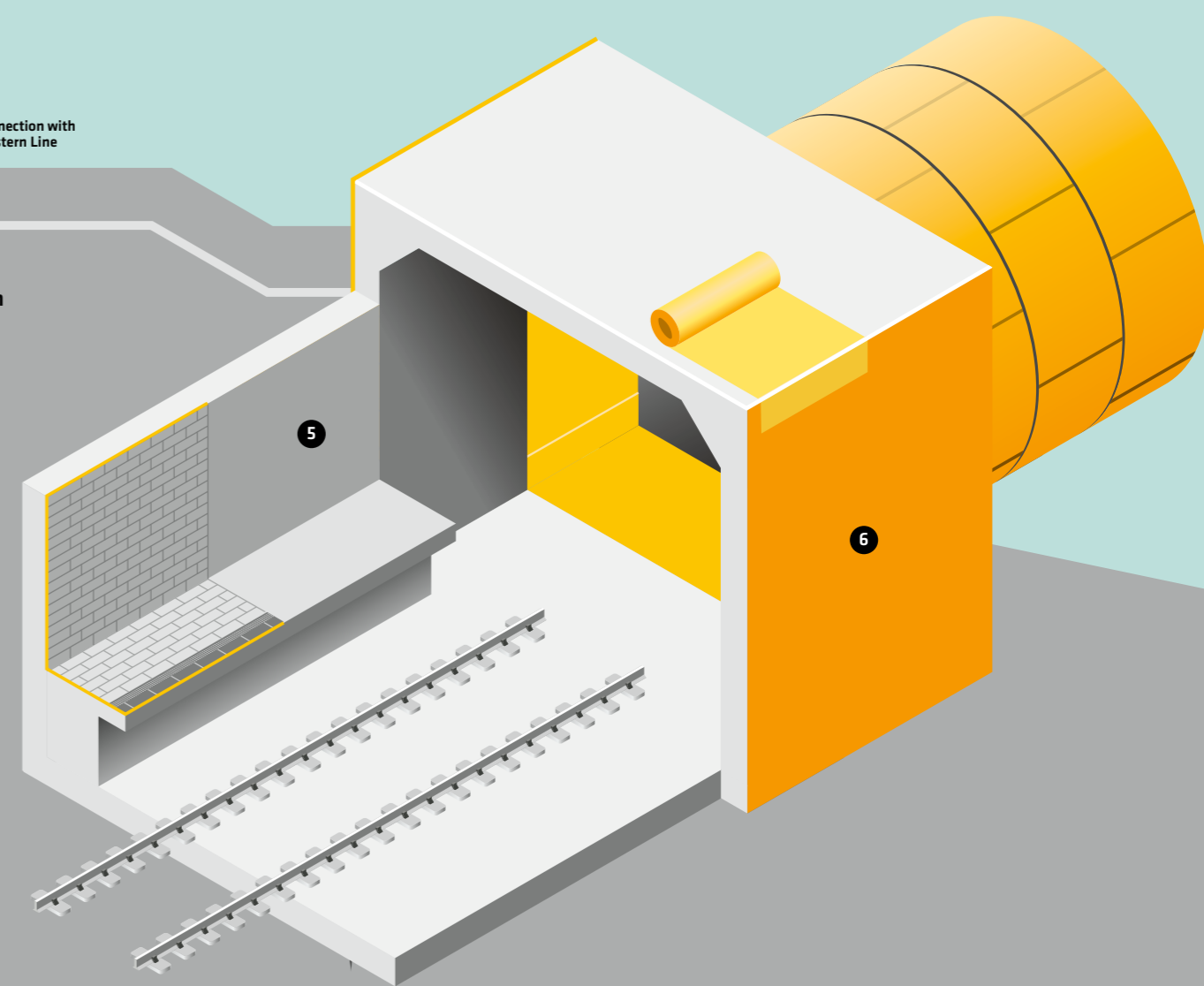
- 1 Risk of water penetration due to high water pressure, with some construction six meters under the low tide mark
- 2 Construction in a dense urban environment, close to or under important buildings and infrastructure
- 3 Complex geology and tunneling through varied terrain, including volcanic rock

Sika Solutions

- 4 Sika admixtures and fiber-reinforced solutions for high-performance concrete and shotcrete in the twin tunnel lining and segments
- 5 Proven Building Finishing solutions for the high design standards and challenging installation of extensive tile work in public-facing areas
- 6 Reliable waterproofing system built on 100+ years of global expertise as well as customized elements manufactured in Germany

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Dustin Marks, Head of Target Markets
Sika New Zealand



Global collaboration

“Because this project was going to set a new precedent for Auckland and for New Zealand, we worked closely with the design team right from the start,” says Dustin. “We tapped into Sika’s global network, bringing together expertise from around the world. Colleagues contributed insights and best practices from similar projects internationally to support the project’s design and application. Having direct access to Sika’s product engineers meant we could get quick, expert advice and give the client clear answers backed by Sika’s global know-how.”

A highly reliable waterproofing system was critical for securing the tunnels beneath Commercial Bay, especially where highly complex detailing was required around services and safety passages. With over 100 years of experience in waterproofing infrastructure and buildings, Sika brought the solution. Certain sections of the waterproofing system were designed and specially made in Germany. Due to the system’s proven track record in Europe, Sika was able to provide assurances, making it possible to immediately customize it in New Zealand. What initially seemed challenging for the customer became far simpler thanks to Sika’s reliable solutions and global expertise.

“More recently, Sika’s technical support has been essential across the stations, covering public areas like concourses in front of the building and platforms, as well as the operational spaces used by staff,” says Dustin. “We’re proud to have guided designers and contractors through some challenging installation requirements to meet both tiling standards and the architectural vision. The Cairo Metro project in Egypt was used by Sika New Zealand to promote Sika’s building finishing capabilities. We could show the designers and architects how Sika products perform successfully on major international projects.”

Revitalization in progress

The transformation around the new stations is already visible. Public spaces are being revitalized, bringing new life to Auckland’s city center. A growing sense of anticipation can be felt in the community, amplified by the thoughtful integration of Māori culture and heritage throughout the project.

Much of Sika’s contribution to the City Rail Link will remain unseen. Beneath the tiles and the station walls, Sika solutions quietly support the structures that will move thousands of people through the city each day.

As the City Rail Link nears completion, the city is already beginning to feel its presence. It is a project that will ease the daily rush, open new connections, and breathe new energy into Auckland. For Sika, being part of that story is something to be proud of – a contribution that will endure long after the first train departs.



The new underground rail line has been designed to address modern urban challenges in a historic and vibrant city.



Each of the four stations on the new rail line is set apart by its architecture and distinct local design.



Sika’s screeding and tiling solutions played a critical role in meeting the requirements for the expansive floor areas of the new stations.