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**WATERWAY HOUSE**

**V&A WATERFRONT**



## PROJECT FEATURE

# WATERWAY HOUSE

**WATERWAY HOUSE**  
V&A Waterfront, Cape Town

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**GEOTECH ENGINEERS**  
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**PORT AND COASTAL ENGINEERS**  
PRDW

**LANDSCAPE ARCHITECTS**  
OVP Associates

**INTERIORS**  
InHouse Brand Architects (BAT)  
Savile Row (EY)

**MAIN CONTRACTOR**  
NMC

**PHOTOGRAPHY**  
Wieland Gleich  
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Waterway House is a substantial new office development located at the gateway to Cape Town's V&A Waterfront, the city's premier tourist attraction and new business address of choice.

The newly completed Waterway House is the first phase of the new mixed-use Canal District. The Canal District creates a gateway for the V&A Waterfront and aims to integrate it with adjacent city neighbourhoods – both via the canal running from the CTICC to Alfred Basin and new pedestrian movement routes along Dock Road and into Prestwich Street. Development in this district will also include Battery Park; a new city park around the remnants of the historic Amsterdam Battery, with canal side shops and cafés, as well as residential apartments.

Situated on Dock Road, Waterway House sits on a narrow linear site just over 200m long and around 45m wide, between the road and the canal. The new building is an unashamedly long linear building, following the shape of the site – its architectural articulation, both in terms of spatial form and tectonic modulation, mitigate and reinforce this linearity, while the breaks in the façade enable strong visual links from Dock Road back to the canal and Signal Hill beyond.

### Heritage

The V&A Waterfront is rich with heritage, with several significant historical structures ranging from remnants of early Dutch coastal fortifications from the 18th century to the Grain Silo complex which dates from the early 20th century.

The Waterway House site is adjacent to the remaining fragment of the Amsterdam Battery, originally constructed in c. 1781 and now a protected National Heritage Resource. The building design serves to protect the visual connection between the Battery and











the sea, as well as the Noon Gun on Signal Hill, with the development split into two buildings along this sightline. Visibility of the Battery structure from Dock Road has also been maintained.

The preservation of the Amsterdam Battery itself forms part of the Battery Park project, currently under construction, and will provide a new urban park and connection to the city, as well as underground parking for the Canal Precinct.

#### The Tenants

Waterway House South is the new home of British American Tobacco SA (BAT), who have moved to the V&A Waterfront from Stellenbosch where the

company had been based since its formation in 1904. They now occupy the full extent of 8,080m<sup>2</sup> of rentable area over three office floors. The ground floor retail space is occupied by Shift Coffee, along with Bulthaup, Porsche and Ducati showrooms.

Waterway House North is the new Cape Town address of financial services firm EY, who have taken up just over 3,600m<sup>2</sup> on the 3rd floor and part of the 2nd floor. Of the remaining 5,400m<sup>2</sup> of office space, Scatec will occupy a portion of the 2nd floor, and there are currently further negotiations in place with other prospective tenants. Ferrari, Grohe, Limeline & Minotti have located their showrooms in the ground floor retail space.







### The Composition

The building sits on a basement, which accommodates parking and primary building services. This basement required the excavation of almost the entire site, with contractors picking through an area of 190 x 35m, down to  $\pm 7\text{m}$  deep almost entirely into Malmesbury Shale. The resultant two level parking basement provides the required 350 parking bays.

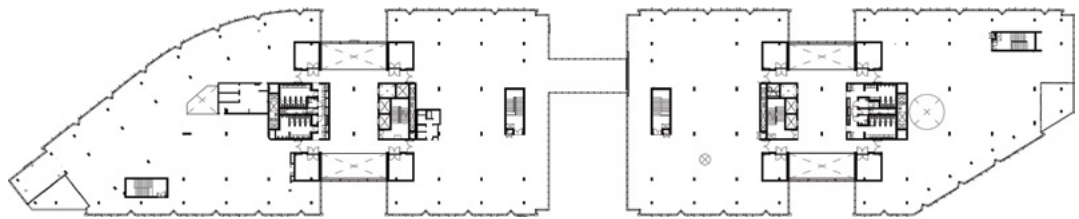
The roof of the basement forms a common podium over which the building is then divided into two halves. As Dock Road dips towards the mid-point of the site, the podium appears to elevate itself out of the ground, a condition which

also occurs consistently along the canal edge. Rock that was excavated out of the basement has been used to clad the raised podium along the canal edge.

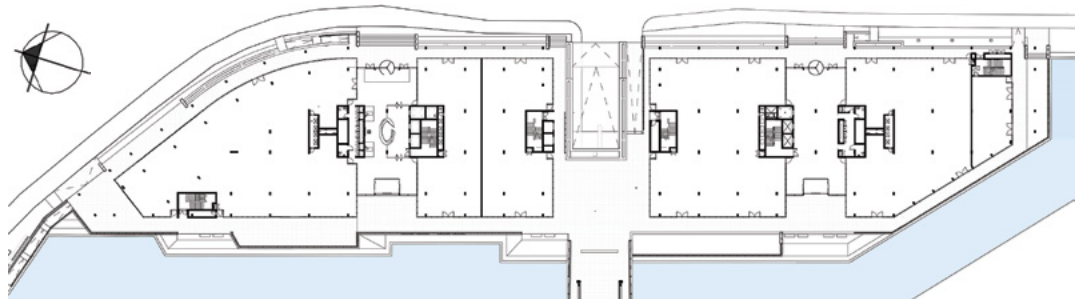
Although actually separate structures, these two buildings share a common design language and have similar, mirrored floorplates – which are adapted at each end to the particular constraints of the north and south site boundaries.

The two buildings are coupled at the centre of the site by a suspended and semi-transparent link bridge on the second and third floors. This bridge, and the space below, allows a view corridor from Table Bay to the Noon Gun on Signal Hill.





THIRD FLOOR PLAN - TYPICAL



GROUND FLOOR PLAN

Directly below the bridge is the vehicular access to the parking basement, and beyond this is a bridge over the canal to connect Waterway House to the rest of the Canal District.

Each building is also fragmented by generous entrances recessed into their respective façades along both Dock Road and canal sides, thus breaking the buildings up into two further segments. The final articulation is reminiscent of a train with a series of carriages, reducing its apparent mass and length.

The parapets of both buildings are crowned by a steel framed aluminium 'eyebrow' that not only unifies the two buildings tectonically, but also has a practical function, concealing the anchor system for rope access window cleaners.

The retail space on the ground floor is set back from the office floors above, creating a more hospitable pedestrian environment and

also contributing to the perception of the office space floating above the ground. Retail spaces are contained within continuous full height shopfronts with a clear height of 4.5m, while slim perimeter columns are externalised on the Dock Road and the far end façades.

Entrance atria to North and South buildings are seemingly identical, with only the reception joinery and various tile selections differing through tenant interventions. Each building is serviced by a bank of three lifts traversing from the parking basement via securitised lobbies up to all office floors. A further bank of two shuttle lifts link the parking to the podium externally.

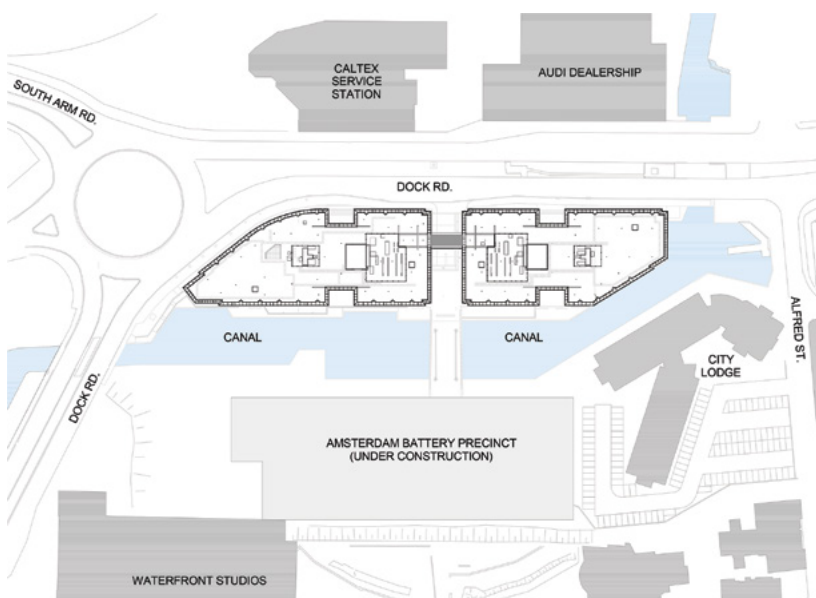
### The Façade

The façade to the office floors is made up of a crystalline double glazed curtain wall, which adds to the buildings' sense of lightness, and animates with reflected activity, particularly of the water on the canal frontage. Significantly, it is the product of an intricate analysis of the east/west orientation of this building, and the corresponding play of light during the course of the day.

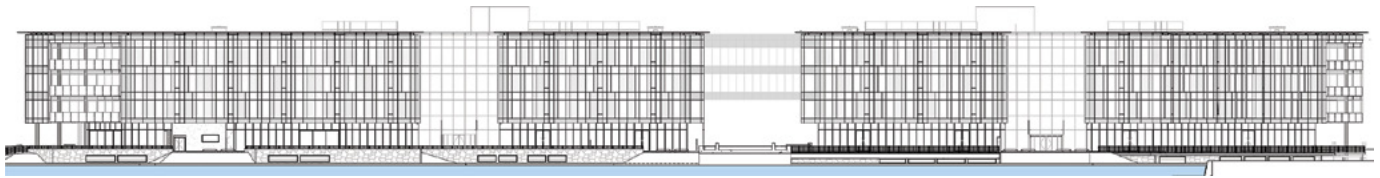
The integrated façade system deploys two different approaches – for the short sides facing north and south, and for long sides facing east and west. The short sides of the buildings, as well as the reveals to the entrances, are simply glazed with Solar E Grey glass to both the continuous vision panels as well as the horizontal spandrel panels. This creates a neutral offset to the complexity of the Dock Road and the canal façade design.

At both far ends of the building terraces are provided to each floor providing breakaway spaces for the offices, with spectacular city views to the south and harbour views to the north.

The balustrades are formed of frame-less glass panels, fixed onto steel channels which in turn are







WEST ELEVATION

cast into the concrete slab edges. This detail is repeated internally at the office floor lift lobby edges, as they overlook the building entrances.

On the east and west elevations however, each of the façade modules is projected outwards and framed with a band of clear glass incorporating 100% white frit onto the outer face. This frame in turn, holds the complex matrix of staggered horizontal and vertical elements, comprising a combination of fully transparent “vision” panels and semi-transparent vision panels, which utilise a 60% frit pattern to contribute to the reduction of heat load, as well as vertical spandrel panels which have an insulated core. Together they allow maximum natural light penetration into the offices within the allowable heat load design.

The required fire rating between floors is incorporated into the horizontal spandrel panels extending around the slab edges. These horizontal spandrels are matched to either the vision panels above or below them.

A series of vertical grooves are also incorporated into the façade to further break the horizontal lines of the building. These grooves incorporate top hung openable window sections to provide some

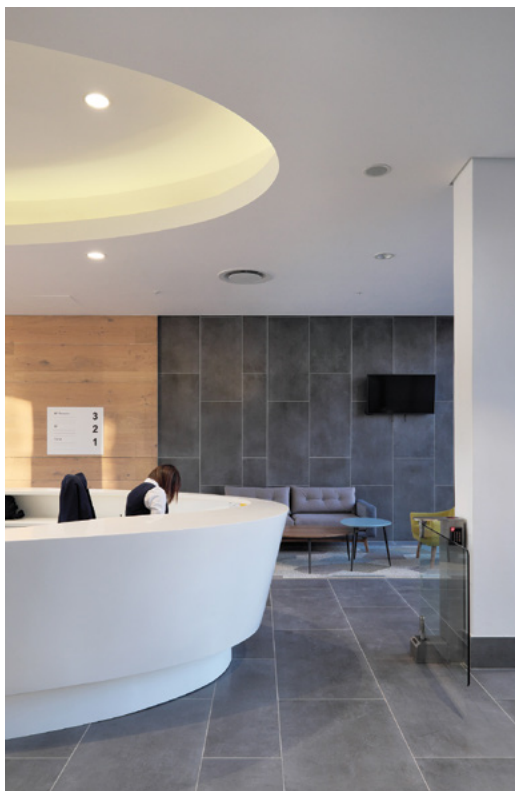
natural ventilation, if desired. Layered onto the curtain wall, are staggered aluminium fins which assist to further reduce solar heat gain and glare.

### The Bridge

The North and South buildings are 15m apart from each other, with further 4.5m wide slab cantilevers along these edges. The challenge of linking the two buildings is solved by suspending the joining double deck bridge from the roofs. This is achieved by forming concrete cantilever beams onto the roofs, which extend outwards up to the parapets and provide the load capacity to carry the entire bridge.

The bridge itself is then formed as a steel structure, with the primary girders spanning between parapets of the North and South buildings. Suspended from these girders via tensile steel rods are the third and second floors. These suspended floor slabs are constructed of concrete cast into a steel pan system, resting in turn on a slim steel beam grid.

The curtain wall is then layered over the structure as for the rest of the building. Due to the anticipated movement of the North and South



WATERWAY HOUSE



buildings relative to each other, the bridge is positively fixed only to the North building, with a slip joint formed at its junction to the South building.

#### Sustainability

Waterway House achieved a 5 Green Star SA Design office certification, as administered by the Green Building Council of SA (GBCSA), and is currently targeting the 5 Star As-Built certification. The overall strategic sustainability focus throughout the design process was on reduction of potable water use, overall energy reduction, and the creation of a superior indoor environment for building occupants.

The façade was designed to allow increased levels of daylight to penetrate the floor plate while at the same time provide remarkable external views. Fresh air to the building is around 67% greater than the normal standard. In addition, the building's acoustics have also been addressed. All of these factors contribute towards a superior indoor environmental quality, improving building user experience, and in turn increasing productivity and reducing staff turnover.

Potable water usage has been reduced by approximately 60% through the provision of low flow fittings and rainwater harvesting and storage for use in toilets. An energy efficient air cooled air-conditioning system with motion sensors, together with double glazed high performance glass in the façade, reduces energy consumption by around 25%.

Photovoltaic panels have been installed on the roof which provide clean energy to the building. All energy and water systems are monitored to provide real-time information for management of the building and in order to improve efficiencies.

Cyclist facilities for both staff and visitors, including shower and changing facilities, have been provided, as well as preferential parking bays for alternative fuel vehicles. The site's proximity to public transport routes further encourages efficient and viable alternatives to private car use.

In addition to best practice in terms of architectural design, sustainability features such as these deliver financial benefit to tenants due to reduced operating costs, user experience and increased productivity.







#### THIS SPREAD: EY Interiors

Working closely with Ergoform, Savile Row developed custom workstations in order to achieve the vibrant yet comfortable workspace that EY envisioned

### EY INTERIORS

With the bustling Waterfront dock on one side, and an open vista of the mountain on the other, EY's new workplace is firmly rooted in Cape Town's thriving business hub.

When they decided to move out of their downtown offices EY were clear they wanted their new home to be a comfortable, welcoming, flexible and inspiring space. A workplace that accurately reflected the EY personality and their position as an innovative leader in their industry.

Savile Row design director Adrian Davidson explains: "The client brief over and above implementing EY's global new 'Ways of Working' principles, was to encourage us as the Interior Architects, to push the design in terms of a non-corporate look and feel. As a practice when planning we usually work using metrics, data, best practice etc. On EY we had lots of workplace user data, and we designed spaces based on the numbers. However the problem with the measurable is it can become generic and you end up with space that doesn't represent anybody. As a studio our strength is that we constantly remind ourselves that the spaces we create are for people, so to us it's more than getting the metrics right, its about creating a balance between the cool head and warm heart – the measurable and immeasurable."

Savile Row's aim was to make the work environment pleasurable and not just address functions, but create spaces people feel good in. So they designed the space as somewhere that reflects different psychosocial needs: there are places to relax, recharge, work,

learn, celebrate. With flexibility in mind, Savile Row designed the Harbour Terrace with full height sliding doors so the whole area can become one flowing indoor/outdoor entertainment space.

To create easy interaction between the two floors, a central staircase was introduced, with its overhead skylight flooding light into the area.

The distinctive design aesthetic was achieved through mixing and contrasting textural finishes and tones to achieve an effective balance between laid-back industrial and refined comfort. The client and design team are thrilled with the result, and the lively work atmosphere bears witness to the success of the design.

