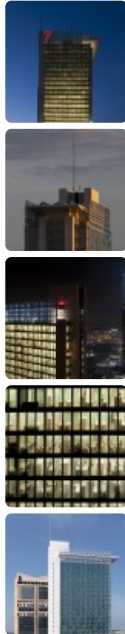


## Torre Garibaldi B

This project is a **renovation** and replaced **Ferrovie dello Stato 2**



Click an image to view larger version.

### Figures

|                       |               |
|-----------------------|---------------|
| Height: Architectural | 98 m / 322 ft |
| Floors Above Ground   | 26            |

### Facts

|                      |  |
|----------------------|--|
| Official Name        | Torre Garibaldi B  |
| Name of Complex      | Complesso Garibaldi  |
| Other Names          | Ferrovie dello Stato 2, F. S. Tower 2, State Railways Administration Tower 2 |
| Structure Type       | Building   |
| Status               | COM  |
| Country              | Italy  |
| City                 | Milan  |
| Street Address & Map | <a href="#">Piazza Sigmund Freud 1</a>                                       |
| Postal Code          | 20154  |
| Building Function    | office   |
| Construction Start   | 2008   |
| Completion           | 2010   |

### Companies Involved

|                     |   |
|---------------------|---|
| Owner/Developer     | Beni Stabili S.p.A.   |
| Architect           | <ul style="list-style-type: none"><li>• Design: Progetto CMR</li></ul>                                |
| Structural Engineer | <ul style="list-style-type: none"><li>• Design: Studio Tecnico Ing. Rom</li></ul>                     |
| MEP Engineer        | <ul style="list-style-type: none"><li>• Design: Tekser S.r.l.</li></ul>                               |
| Main Contractor     | Maltauro S.p.A.   |
| Other Consultant    | <ul style="list-style-type: none"><li>• Façade: Permasteelisa Group</li></ul>                         |
| Material Supplier   | <ul style="list-style-type: none"><li>• Elevator: KONE</li><li>• Sealants: Sika Services AG</li></ul> |

### About Torre Garibaldi B

The Garibaldi Complex in Milan was constructed mainly in the 1980s, but then fell into disuse as the buildings aged. The business district is located in the heart of Milan at the intersection of both underground trains as well as regional trails, along with bus and tram lines, offering an ideal situation in the city. Though this area, along with the Porta Nuova and Isola zones, has been isolated from the city for some time because of its disuse and disrepair, it is now being highly valued for its location and opportunity for sustainable growth.

As part of this renaissance of the business districts, several new buildings are being built. However, in the Complesso Garibaldi, the existing structure of Tower 2 was renovated; a more sustainable solution to demolition and new construction. Many new developments are planned in these districts, but this project provides an alternative approach to the rejuvenation of the area.

The original structure of the tower was completed in 1992, and was in good enough condition to be reused. In addressing the redesign of the façades and the interior components, a highly ecological approach was taken. Located in the heart of Milan with access to a variety of public transit services and districts in the city, creating an icon of sustainability and urban redevelopment was the main goal for the tower.

To create a unique and high-performing building while also drawing on the tradition of Milanese architecture, the choice of materials and implementation of new technology was carefully considered. The stone accents and cantilevered roof recall the rationalism of Milan in the 1950s, while the highly calibrated glazed cavity wall represents the new direction toward a sustainable future in design.

Designing an office building which offers a comfortable working environment with efficient space planning and environmentally conscious features required innovative solutions. The most prominent attribute of the building is its highly faceted façades with unique canted cells reflecting light at different angles. Though this dynamic treatment provides visual interest in the tower, it is also a high-performance ventilated

cavity wall. Taking advantage of the stack effect, air is pulled through the cavity in the summer time to keep the interior spaces cool, and retained in the winter to provide additional insulation value. Additionally, motorized blinds are placed within the cavity to combat glare. The system is controlled by a system of sensors, ensuring the comfort of the spaces within.

In conjunction with this passively powered façade system, double-height greenhouses were implemented on the southwest corner of the building, reaching every floor, to provide a buffer against solar radiation in the summer and to act as a temperature equalizer in the winter. The greenhouses incorporate operable windows to encourage natural ventilation in the summer, further decreasing solar gain and increasing user control over the internal environment.

Aside from these major architectural features, the building exhibits many other sustainable features: photovoltaic panels are incorporated into the southern façade; solar hot-water collectors are located on the roof and account for 50% of the building's hot water needs; a rainwater harvesting system accounts for 13% of the flushing water for toilets; a geothermal heat pump system supplies heating and cooling and reduces conditioning energy by about 47%; and lastly, an integrated Building Management System integrates the controls for all of the building systems into one panel for easy control and automation.

## Torre Garibaldi B

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### CTBUH Initiatives

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#### **Complesso Garibaldi - Tower B Chosen as Featured Building**

May 2013 – Featured Tall Building

#### **Awards Symposium Puts Spotlight on Achievement, Future**

19 Oct 2012 – Awards Event Report

### Videos

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#### **Session 2: What Contributes Most to Sustainability in Tall Buildings?**

11 Jun 2013 – Dennis Poon, Neville Glanville, Klaus Lothar & David Malott

#### **Best Tall Building Featured Finalist: Complesso Garibaldi - Tower B**

18 Oct 2012 – Gianni Bardazzi, Maire Tecnimont

#### **Interview: Complesso Garibaldi Tower B**

18 Oct 2012 – Gianni Bardazzi, Maire Tecnimont

### CTBUH Awards

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#### **Best Tall Building Europe 2012 Award of Excellence**

CTBUH Awards 2012

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