Júlio Prestes Complex

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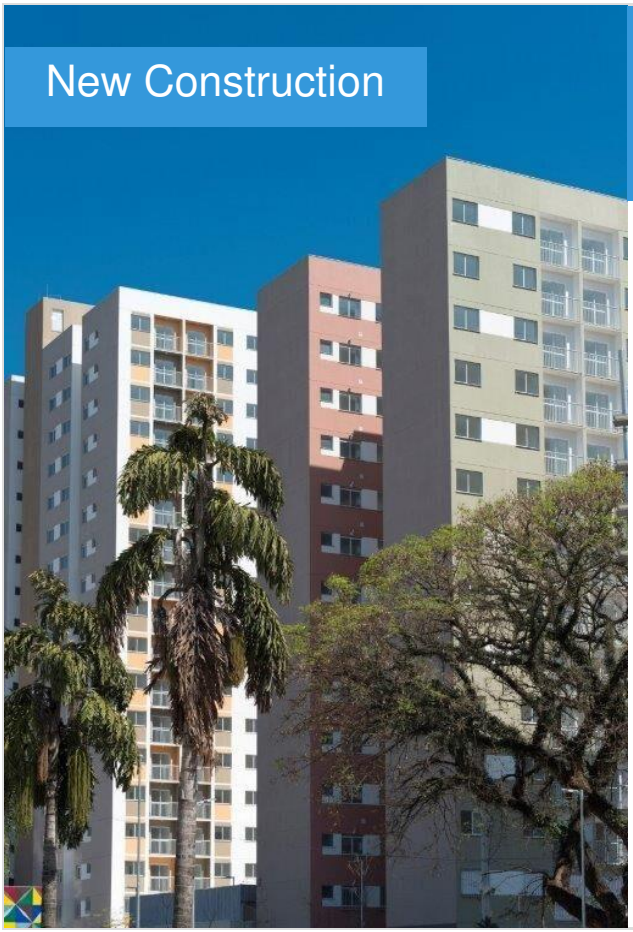

Primary energy need :
kWhpe/m².year
(Calculation method :)

ENERGY CONSUMPTION

Economical building *Building*

- *< 50* **A**
- *51 à 90* **B**
- *91 à 150* **C**
- *151 à 230* **D**
- *231 à 330* **E**
- *331 à 450* **F**
- *> 450* **G**

Energy-intensive building

Building Type : Collective housing < 50m
Construction Year : 2018
Delivery year : 2018
Address 1 - street : Torre 5 H2 Av. Duque de Caxias, 925 01214100 SãO PAULO, Brazil
Climate zone : [Cfb] Marine Mild Winter, warm summer, no dry season.

Net Floor Area : 41 063 m²
Number of Dwelling : 1 202 Dwelling

Certifications :

General information

The Julio Prestes apartment complex provides a green living environment for residents without sacrificing quality. Developed by the Brazilian government's PPP Habitacional, a public-private housing partnership, the apartments house mostly low-income residents as a part of the government's mission to provide more affordable housing in the central region of Brazil. Located in São Paolo, the Julio Prestes apartments consist of eight residential buildings with a total of 1,202 units, of which 914 have been EDGE certified. 1,130 of the housing units are affordable housing reserved for families with lower incomes, while the remaining 72 units are for middle-income families. The complex has indoor recreation areas, a sports court and extensive green areas for residents to enjoy.
Below the residential units, each tower has shops with a total of 67 retail spaces. The complex includes a nursery for up to 200 children and the Tom Jobim School of Music for over 1,300 students. In addition to providing a multi-faceted community, the energy-efficient Julio Prestes complex also offers its residents the opportunity to reduce their environmental footprint and pay fewer utility bills. With the help of less glazing on the facades and low-flow showerheads and faucets, Julio Prestes conserves energy and water and reduces living costs for residents. The apartments also save a significant amount of embodied energy in materials, with a reduction of up to 57% due to the energy-efficient materials used to construct the floors, roof and walls.

PPP Habitacional hopes to revitalize neighborhoods in the central region of Brazil. They plan on building more apartments, including housing units for low-income families, where social services will also be provided. Julio Prestes has received final EDGE certification from GBCI.

(We typically choose the Software PDF that has the highest number of units)

See more details about this project

https://www.edgebuildings.com/projects/julio-prestes/

Photo credit

Courtesy of Julio Prestes

Stakeholders

Stakeholders

Function : Investor

Brazilian government's PPP Habitacional

Project owner

Function : Developer

Canopus Group

citplsing[at]gmail.com

http://www.canopus.com.br/

Energy

Energy consumption

Breakdown for energy consumption : 12 kWhfe/m2.year: hot water
8 kWhfe/m2.year: Lighting
7 kWhfe/m2.year: common amenties
19 kWhfe/m2.year: home appliances

Envelope performance

More information :
Roof U-value: 2.4 W/m².K
Wall U-value: 1.9 W/m².K
Glass U-value: 5.8 W/m².K

More information

Final Energy Use: 176.81 kWh/Month/Unit
Energy Savings: 310.13 MWh/Year
Embodied Energy in Materials Savings: 19856.64 GJ

Those numbers correspond to the building with the highest number of units (Torre 5 - H2)

Real final energy consumption

Final Energy : 45,40 kWhfe/m^2.year

Renewables & systems

Systems

Heating system :

- No heating system

Hot water system :

- Gas boiler

Cooling system :

- No cooling system

Ventilation system :

- Natural ventilation

Renewable systems :

- No renewable energy systems

Products

Product

ENERGY SAVINGS
-Reduced Window to Wall Ratio - WWR of 14.68%
-Energy-Saving Light Bulbs - Internal Spaces/ Common Areas and External Spaces

-Lighting Controls for Common Areas and Outdoors

WATER SAVINGS
-Low-Flow Showerheads - 5.22 L/min
-Low-Flow Faucets for Kitchen Sinks - 7.3 L/min
-Low-Flow Faucets in All Bathrooms - 5.94 L/min
-Dual Flush for Water Closets in All Bathrooms - 6 L/first flush and 3 L/second flush

EMBODIED SYSTEMS
-In-Situ Reinforced Concrete (with >25% GGBS) for Floor slabs and roof construction Slab, 200 mm , Steel : 20 kg/m²

-Medium Weight Hollow Concrete Blocks for Internal and External Walls

Costs

Energy bill

Forecasted energy bill/year : 199 100,00 €

Real energy cost/m2 : 4.85
Real energy cost/Dwelling : 165.64

Health and comfort

Water management

17 kL/unit/year: shower
17 kL/unit/year: kitchen
12 kL/unit/year: water faucets
14 kL/unit/year: water closets
14 kL/unit/year: washing and cleaning

Carbon

GHG emissions

GHG in use : 4,15 $KgCO_2/m^2/year$

Contest

Reasons for participating in the competition(s)

31% Energy Savings
Reduced window to wall ratio; insulation for roof; energy-saving lighting for internal areas, common areas, and external spaces; and lighting controls for common areas and outdoor spaces.

32% Water Savings
Low-flow showerheads, low-flow faucets for kitchen sinks and bathrooms, and dual-flush water closets.

57% Less Embodied Energy in Materials
In-situ reinforced concrete with more than 25% ground granulated blast-furnace slag for floors and roofs, and medium weight hollow concrete blocks for internal and external walls.

Building candidate in the category

Energy & Hot Climates

Users' Choice

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