ARCHITECTURE STUDENT CONTEST

CONTEST TASK

ARCHITECTURE STUDENT CONTEST 2027

Madrid, Spain

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ABOUT THE ARCHITECTURE STUDENT CONTEST BY SAINT-GOBAIN

The **Architecture Student Contest** is an **international competition for students in architecture, construction engineering, design and related fields**. The competition is a great chance to **gain professional experience** while discovering the **importance of sustainability** in modern construction. It is a two-step competition: the **National Stage** and the **International Stage**. It was first organized in 2004 by Saint-Gobain Isover in Serbia and became an international event in 2005. The 2026 edition in Belgrade, Serbia attracted **1,400 students** from **34 countries**.

The goal of the Architecture Student Contest is to provide students with a unique experience more closely related to a "real" client request. Thus, students can propose ideas under realistic constraints while addressing sustainability criteria.

ACKNOWLEDGMENTS

Special **thanks to our partners**: CREA Madrid Nuevo Norte, CSCAE (Consejo Superior de los Colegios de Arquitectos de España), **Ayuntamiento de Madrid**, the **World Green Building Council**, **OneClick LCA**, and **Saint-Gobain Spain** for all their support during the development of the Architecture Student Contest 2027.

PARTNERS

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1. BACKGROUND

SPAIN

The Kingdom of Spain is located on the Iberian Peninsula in southwestern Europe and is home to approximately 48 million people. Bordered by both the Atlantic Ocean and the Mediterranean Sea, the country benefits from a highly strategic geographical position that has historically connected Europe with Africa and the Americas.

Today, Spain stands as a vibrant and globally connected nation, shaped by centuries of cultural exchange. Its identity is defined by a remarkable diversity, expressed through its rich architectural heritage, multiple coexisting languages, and a wide range of regional traditions. This unique combination positions Spain as a dynamic cultural landscape where history and modernity coexist.

HISTORY

Prehistory

Spain's human history stretches back hundreds of thousands of years. One of the most significant sites is the **Altamira Cave** (35,000 BC), often called the "Sistine Chapel of Paleolithic Art" due to its remarkably preserved polychrome paintings of bison and horses. In the south, the mysterious **Tartessos** civilization represents the first organized state in Iberia, flourishing during the Bronze Age.

Figure 1 ***(Prehistory):*** *A high-resolution photo of the Altamira Cave bison paintings*

Roman Era

The Roman era transformed **Hispania** into one of the Empire's most vital and integrated provinces, bequeathing a legacy of monumental engineering and urban planning that still dictates the layout of many Spanish cities today. Roman mastery is visible in enduring landmarks such as the soaring **Aqueduct of Segovia**, which stands without a drop of mortar, the **Roman Theatre of Mérida**, and the colossal **Walls of Lugo** - the only Roman city walls in the world to remain fully intact.

Figure 2 ***(Roman Era):*** *The Aqueduct of Segovia*

Beyond infrastructure, Hispania was a cradle of imperial power; it was the birthplace of some of Rome's most influential emperors, including **Trajan, Hadrian, and Marcus Aurelius**. While the iconic protagonist of the film *Gladiator*, Maximus Decimus Meridius, is a fictional character famously referred to as "The Spaniard," his persona reflects the historical reality that the region produced the Empire's most elite military and political minds. Additionally, the province was an economic powerhouse, home to **Las Médulas**, the largest open-pit gold mine in antiquity - and the primary exporter of the Mediterranean's most sought-after luxury, a fermented fish sauce known as *garum*, which was so prized it was often more expensive than the finest perfumes.

Middle Ages: Al-Andalus and the Reconquista

For nearly eight centuries (711–1492), the Iberian Peninsula known as **Al-Andalus**. This era was characterized by a unique *"convivencia"* (coexistence) where Muslim, Christian, and Jewish scholars collaborated, making Spain the primary gateway for Greek and Oriental knowledge to re-enter Europe.

Architecture in Spain reached a level of sophistication that remains a reference for sustainable design today. Masterpieces like the **Mosque-Cathedral of Córdoba** and the **Alhambra in Granada** are not only aesthetic triumphs but also engineering marvels. During the Middle Ages, Spain served as Europe's primary scientific hub, fostering advancements that fundamentally shaped the built environment through a unique synthesis of culture and technology.

Figure 3 (Middle Ages): An interior detail of the arches in the Mosque-Cathedral of Córdoba

The **Toledo School of Translators** acted as a crucial intellectual crossroads, reintroducing the classical works of Aristotle, Ptolemy, and Euclid to the West and providing the mathematical foundation for modern architectural logic. This era saw a revolution in **Mathematics and Astronomy**, where the introduction of Arabic numerals and advanced geometry transformed structural calculations, and scholars like Azarquiel refined astronomical instruments to achieve precise site alignment. Furthermore, Spain's mastery of **Hydraulic Engineering**—evidenced by sophisticated irrigation systems (*acequias*) and water-lifting devices (*norias*)—enabled the creation of "paradise gardens." These integrated green spaces served as early models of bioclimatic design, using water and vegetation to manage urban microclimates, a concept that remains central to the sustainability goals of the 2027 contest.

The Origins of Madrid (Mayrit)

It is important for participants to note that **Madrid itself was founded during this era**. Established in the 9th century by the Emir Muhammad I of Córdoba, the city was originally a fortress named **Mayrit** (meaning "place of many springs"). Its early development was defined by its *qanat* system—underground water channels that provided the settlement with a sophisticated water supply, a testament to the engineering prowess of the time.

Modern History

Spain's modern history is a story of global influence followed by internal transformation. After the "Golden Age" of the 16th and 17th centuries, the 20th century was marked by the tragedy of the **Spanish Civil War** (1936–1939) and the subsequent dictatorship led by Francisco Franco until his death in 1975. His passing marked the beginning of the "Spanish Transition", with the first democratic elections held in 1977. The process was formalized with the ratification of the Spanish Constitution in 1978 and later joining the European Union in 1986 which sparked a period of rapid modernization and urban expansion.

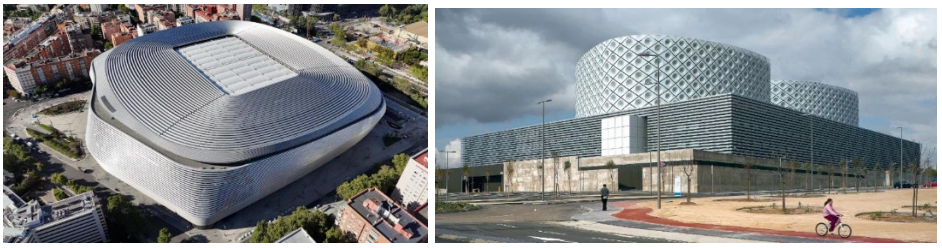


Figure 4 ***(Sports & Modern Hospital):*** *A dynamic image of a packed Santiago Bernabéu Stadium and Modern Hospital of Madrid*

GEOGRAPHY

Spain is the second-most mountainous country in Europe. The central **Meseta** (high plateau) is surrounded by mountain ranges like the **Pyrenees** to the north and the **Sierra Nevada** to the south. This diverse relief includes rugged Atlantic coastlines, fertile Mediterranean plains, and the volcanic landscapes of the Canary Islands.

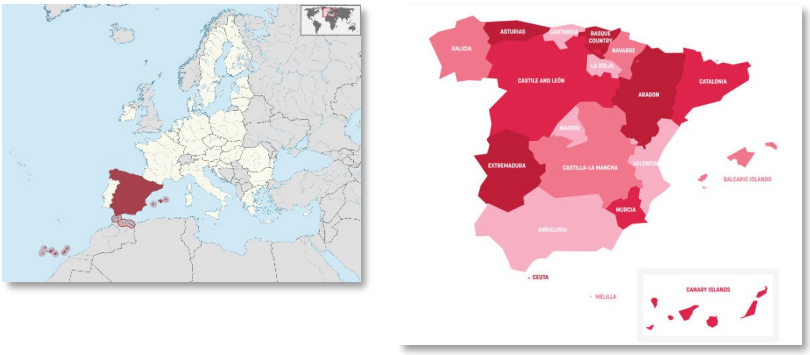


Figure 5 ***(Map):*** *A map of Spain highlighting the 17 Autonomous Communities.*

ECONOMY

Spain possesses a highly developed and diversified social market economy, currently ranking as the fourth largest in the Eurozone. While it remains a global powerhouse in **Tourism and Agriculture** (as the world's leading producer of olive oil and the second most visited country) the nation has successfully transitioned into high-tech sectors. Spain is a world leader in **Renewable Energy**, frequently generating over half of its electricity from wind and solar power, and its engineering firms are global benchmarks in high-speed rail and large-scale infrastructure. This economic landscape is characterized by a strong commitment to the "Green Transition," making it an ideal setting for architectural projects that prioritize circular economy principles and sustainable industrial growth.

CONSTRUCTION MARKET

Investment in construction and renovation in Spain continues to play a significant role within the economy, driven by both traditional sectors and rapidly expanding new markets. In the **hotel sector**, recent investment has reached some of the highest levels on record, with a clear focus on the renovation, repositioning, and expansion of existing assets. Hotel renovation has become a strategic priority for operators, aimed at improving energy efficiency, architectural quality, and user experience, particularly in established urban and tourist destinations. In parallel, **data centers** are establishing themselves as one of the most dynamic markets within the construction sector. Spain is positioned as a strategic hub for Southern Europe, with an estimated investment volume of around **€8 billion in 2026** and accelerated growth in installed capacity, driven by digitalization, the cloud, and artificial intelligence.

In the **healthcare market**, the construction of hospitals and care centers remains a stable driver of both public and private investment. Spain maintains a significant pipeline of new hospitals and expansions, with both regional and private projects representing several billion euros in planned investment. This reinforces the modernization of healthcare infrastructure and the creation of new clinical capacity.

Category Source: Data base Alimarket "Sanidad y Dependencia".	Operational (Current)	In Project (Future)
Total Hospitals	846	79
Total Beds	171,602	11,182
Ownership Type	Operational	In Project
Public	65.31%	71.62%
Private	17.21%	24.70%
Third Sector (Non-profit)	13.14%	3.24%
Non-medical Service Concessions	3.16%	—
Construction & Operation Concessions	1.18%	0.44%

SPORTS: A Culture of Excellence and Passion

Sport is a vital pillar of Spanish social life, serving as both a national passion and a source of global prestige. **Football** is the undisputed king, with the national team ("La Roja") and legendary clubs like **Real Madrid and FC Barcelona** achieving unparalleled international success.

However, Spain's "Golden Age" of sport extends far beyond the football pitch, with icons like **Rafael Nadal** in tennis, the **Gasol brothers** in basketball, or **Fernando Alonso** in Formula 1. The legacy of the **1992 Barcelona Olympics** remains a global case study in urban regeneration, demonstrating how major sporting events can be leveraged to modernize city infrastructure and create lasting public spaces—a theme of social sustainability that resonates deeply with the contest's objectives.

2. ABOUT MADRID AND ITS CLIMATE

GENERAL DESCRIPTION OF MADRID

Madrid is the largest municipality in the Community of Madrid. The city's population stands at approximately **3.5 million inhabitants**, according to the most recent municipal census (**2025–2026**), while its metropolitan area exceeds **6.8 million**. Madrid remains among the leading urban areas in the European Union in terms of both municipal and metropolitan population, alongside London, Paris, and Berlin.

Located in Southwestern Europe, the city occupies a total area of 604.3 km^2. Madrid is notable for its green infrastructure, boasting more than 6,000 hectares of municipal green spaces and nearly two million trees. With a ratio exceeding 18 m^2 of green space per inhabitant, the city surpasses WHO recommendations. Over 50% of its streets are lined with trees, and most of the population has access to a green space within a 15-minute walk.

Residential Model and Urban Rehabilitation

Regarding the residential model, Spain has the highest proportion of its population living in flats or apartments within the European Union. According to the latest Eurostat data (**2024**), **65.3% of the Spanish population resides in multi-family housing**—well above the European average. This reinforces the critical importance of urban rehabilitation and energy efficiency policies in consolidated cities like Madrid.

Healthcare Model and Local Infrastructure

Madrid's healthcare model is heavily supported by a network of local primary care facilities, a key element in ensuring accessibility and equity in health services. This context emphasizes the need to develop **neighbourhood-scale healthcare infrastructure** that is energy-efficient, integrated into the urban fabric, and capable of responding to growing demand and new, citizen-centered care models.

In quantitative terms, the Community of Madrid has more than **430 primary care centres**, including health centres and local clinics, employing over 13,000 professionals to serve a population of more than 7 million people. In 2024 alone, the primary care network recorded approximately **51 million consultations**, highlighting the significant high pressure on the service and its role as the gateway to the healthcare system. These figures underscore the strategic importance of strengthening local healthcare facilities, particularly in neighbourhoods undergoing transformation or growth, ensuring their capacity, accessibility, and adaptation to new demographic and care requirements.

VISION FOR THE FUTURE: KEY ELEMENTS FOR THE CITY

Madrid is transitioning from a traditional European capital into a "polycentric" and hyper-connected metropolis. The cornerstone of this vision is **Madrid Nuevo Norte**, one of Europe's largest urban regeneration projects. It aims to transform the northern rail wasteland into a new, high-tech Central Business District (CBD) that prioritizes "walking to work" and social cohesion.

Beyond high-rises, the city's future vision is defined by "Solarpunk" principles—integrating nature directly into the urban fabric. This is best exemplified by the **Bosque Metropolitano** (Metropolitan Forest), a 75-kilometer green belt currently being planted to encircle the city.

The goal is to create a "living wall" that mitigates the urban heat island effect, connects existing parks, and provides a continuous natural habitat for biodiversity.

WEATHER AND CLIMATE

The climate of Madrid is **moderately continental, with four seasons**.[1] The Madrid region has a cold semi-arid climate, with cool winters due to its altitude of 667 m above sea level and its distance from the sea. This includes occasional snowfall and minimum temperatures that can sometimes fall below freezing.

Summers are hot, with July being the warmest month. In July, average daytime temperatures generally range between 32 and 33 °C, depending on the location. During heatwaves, summer temperatures can occasionally exceed 35 °C. Due to Madrid's altitude and dry climate, daily temperature fluctuations are often significant during the summer.

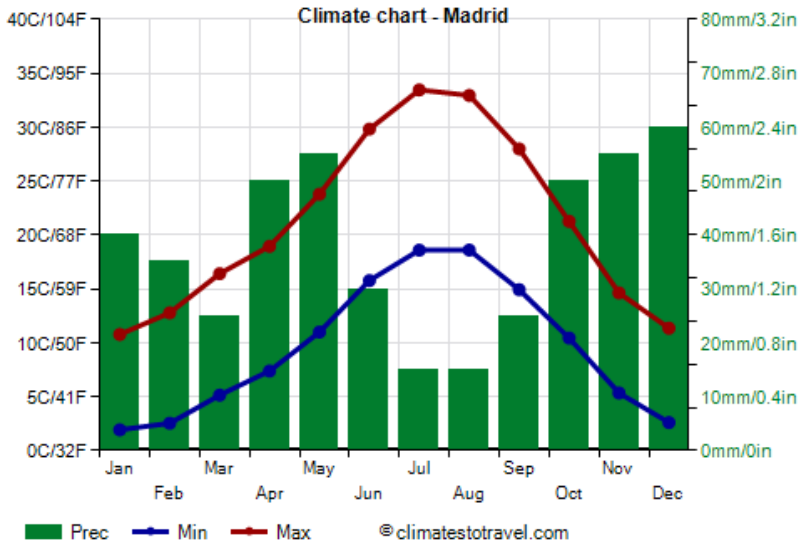


Figure 6: Madrid monthly temperature and precipitation

The highest temperature recorded in Madrid was **42.2 °C on 24 July 1995**, while the lowest was **–10 °C on 16 January 1945** (both measured at the airport rather than within the city). Rainfall occurs mainly in **winter and spring**, and combined with relatively low annual humidity, Madrid is considered **the driest capital city in Europe**. Summer precipitation is very limited and usually takes the form of short showers or thunderstorms, mainly in August.

Madrid benefits from high solar exposure, with approximately **2,770 hours of sunshine per year**, averaging about **11.6 hours per day in July** and **4 hours per day in December**, placing it among the sunniest cities in Europe.

Precipitation is not abundant, since it amounts to 455 millimetres (18 inches) per year, in fact, the landscape of the plateau is semi-arid, especially during the summer months. The rains, however, are quite frequent from October to April. In May, and more rarely in summer, some thunderstorms can break out in the afternoon, but generally, from June to August it almost never rains.

[1] https://en.wikipedia.org/wiki/Climate_of_Madrid

For the energy simulation, the teams can use the weather file provided by Saint-Gobain.[2]

ARCHITECTURE OF MADRID: HISTORICAL TO MODERN ARCHITECTURE

To understand Madrid's architectural evolution, these five sites are essential:

- **The Royal Palace (Palacio Real):** Completed in the mid-18th century, this Baroque and Neoclassical masterpiece is the largest royal palace in Western Europe. Its limestone and granite façade represents the grandeur of the Spanish Empire.

- **The Prado Museum (Museo del Prado):** A quintessential example of 18th-century Spanish Neoclassicism designed by Juan de Villanueva. It sits at the heart of the "Landscape of Light," a UNESCO World Heritage site that integrates architecture with Enlightenment-era urban planning.

- **Madrid Río[3]:** This massive urban park was created by burying the M-30 motorway underground. It is a world-class example of landscape architecture (completed 2011) that reclaimed the Manzanares River for pedestrians, featuring innovative bridges like the Arganzuela Footbridge.

- **Cuatro Torres Business Area (CTBA):** Representing the 21st-century skyline, these four (now five, with Caleido) skyscrapers include works by Norman Foster and César Pelli. They symbolize Madrid's shift toward a global financial hub and modern verticality.

ENVIRONMENTAL GOALS

Madrid has committed to one of the most ambitious climate roadmaps in Europe under the **Madrid 360 Environmental Sustainability Strategy**[4] [5]. Key targets include:

- **Climate Neutrality by 2050**: The city aims to achieve absolute net-zero emissions by 2050, supported by an interim target of reducing greenhouse gas emissions by 65% by 2030 (measured against 1990 baselines). This interim objective significantly exceeds the EU's general statutory requirements.
- **Low-Emission Zones (LEZ)**: Fully implemented across the entire municipality, the city-wide LEZ restricts highly polluting vehicles from entering any of Madrid's 21 districts. The regulatory framework is designed to keep air quality consistently below EU nitrogen dioxide NO2limits.
- **Decarbonisation and Public Transport**: The municipal sustainability framework mandates that 25% of the public bus fleet (EMT) must be fully electric, alongside a complete prohibition on the operation of legacy coal-fired heating boilers in residential developments.
- **Bioclimatic Urban Cooling**: Driven by the Metropolitan Forest and associated nature-based initiatives, this 75-kilometre ecological ring is engineered to lower maximum local summer temperatures by an average of 4°C, absorbing an estimated 175,000 tonnes of CO2 annually upon maturity.

[2] File provided as a part of Contest task documentation
[3] https://www.esmadrid.com/fr/information-touristique/madrid-rio
[4] Madrid Green & Digital Transition
[5] Roadmap to Climate Neutrality by 2025

3. SPECIFIC INFORMATION ABOUT THE TASK

Madrid Nuevo Norte (MNN)[6] is the largest urban regeneration project in Europe, designed to transform a 5.6-kilometer-long strip of underutilized land and former railway yards into a sustainable, avant-garde extension of the city. Central to its vision is the complete remodelling of Chamartín Station, which will become a premier high-speed rail hub, surrounded by a new Central Business District featuring a world-class skyline.

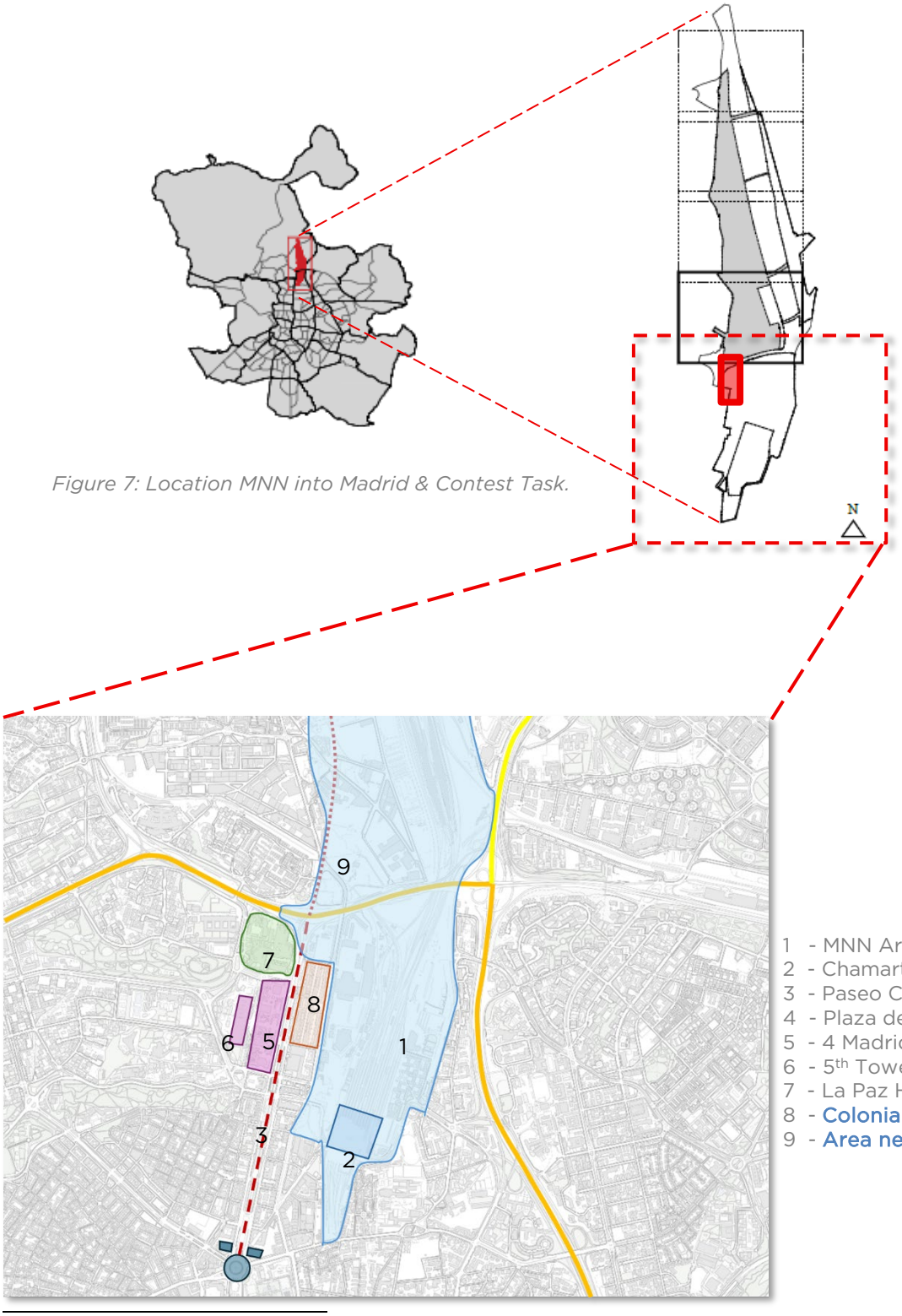


Figure 7: Location MNN into Madrid & Contest Task.

[6] https://creamadridnuevonorte.com/en/

The project is a pioneer in sustainable urbanism, having **received pre-certification for both LEED and BREEAM Gold standards**. It prioritizes a "15-minute city" model where 80% of journeys are made by public transport, foot, or bicycle, effectively reconnecting northern neighbourhoods that were historically separated by railway tracks.

Beyond its economic role as a new engine for the Spanish capital, MNN places a profound emphasis on nature and social well-being. The development will create over 400,000 square meters of green space, including a 14.5-hectare «Central Park» flagship built directly over the covered rail tracks and a green axis that links the city to the El Pardo regional park.

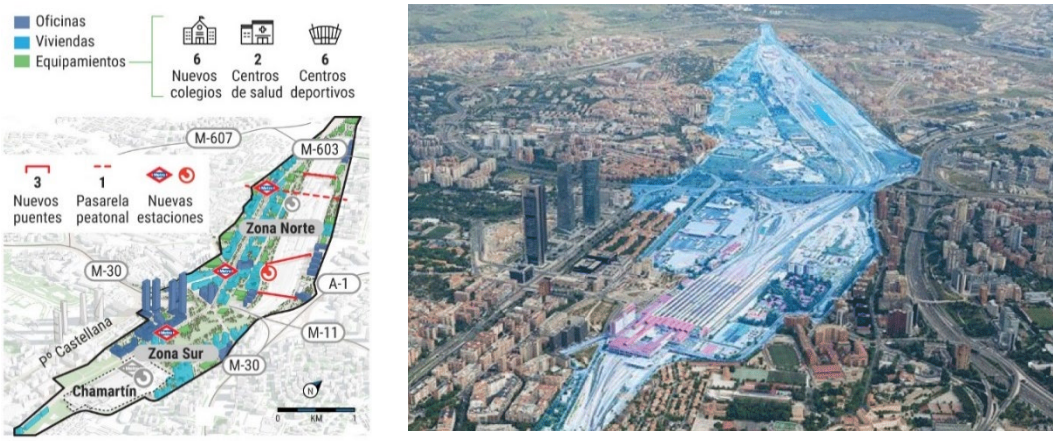


Figure 8: 3D Visualizations of the Madrid Nuevo Norte Regeneration Project.

This "Smart City" pilot is committed to the UN Sustainable Development Goals (SDGs), integrating innovative water management, energy-efficient buildings that exceed nearly-zero energy standards, and inclusive public spaces designed for accessibility and safety. With a planned 10,500 new homes (20% of which are reserved for public housing), it serves as a future-proof laboratory for healthy, resilient urban living.

OBJECTIVE OF THE PROJECT

The objective of the contest is to be structured into three main components that must be understood as a unified whole. This approach ensures global coherence of the proposal and achieves an optimal integration between the new development of MNN and the existing city. These three components are:

1. New Construction

The purpose of the new construction scope is to design a **mixed-use building for healthcare and senior living residence**. The project should feature integrated open spaces, promoting universal accessibility, programmatic synergy, and a strong urban connection between the consolidated city and the new Madrid Nuevo Norte development.

2. Renovation

The renovation scope focuses on defining a **sustainable and replicable renovation model** for the **Colonia de San Cristóbal** (historic social housing complex). The goal is to preserve its architectural, urban, and social value while modernizing the buildings' façade and public spaces, establishing a benchmark for collective housing linked to Madrid Nuevo Norte.

3. Green Connection Axis

The proposal is completed by the creation of a **green axis** that articulates both scopes of the contest. This axis should configure a replicable strategy for connecting Madrid Nuevo Norte with the established city, while simultaneously activating, enhancing, and providing identity to spaces that are currently undefined.

Challenges and opportunities that might impact the design proposal:

- **Balancing modern** development with the **historical** context of the site.
- Addressing **environmental concerns** related to the adaptation to climate change.[7]
- Creating **accessible and inclusive spaces**.
- **Integrating** the project with the existing urban fabric and transportation networks.

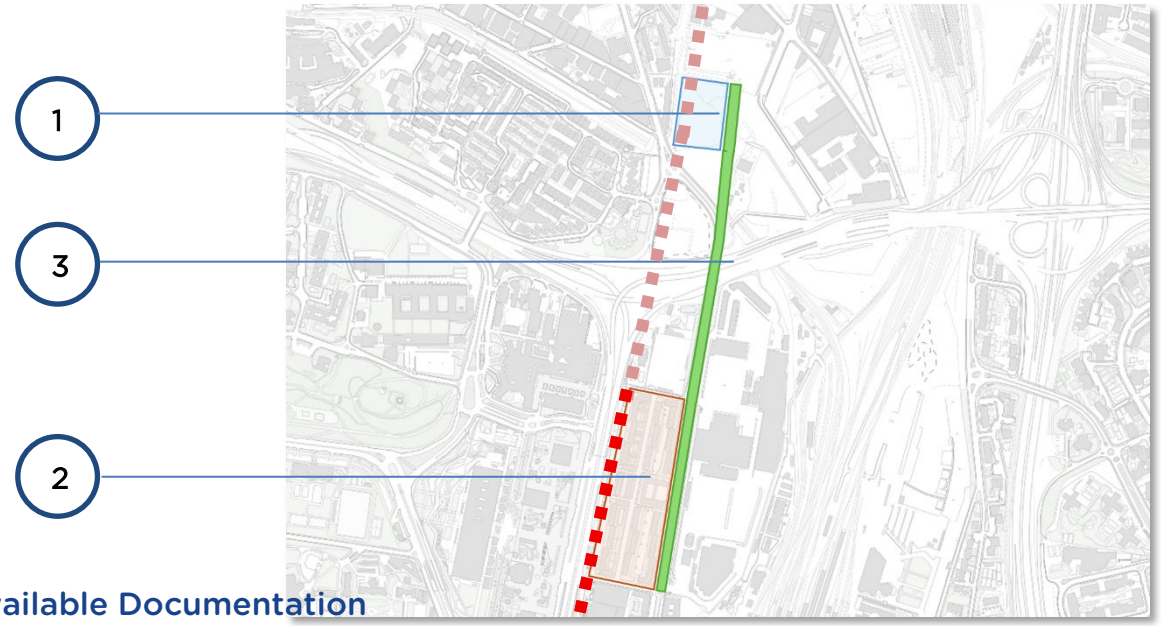


Figure 9 (Contest Task): (1) New construction, (2) Renovation, (3) green connection axis

Available Documentation

- New Building and General Site Information.

[7] Joint report with ARUP on Adapting Buildings to Climate Change : https://www.saint-gobain.com/en/adapting-buildings-climate-change

- Graphic documentation of the area in its current state:
  CAD drawing (.dwg format).
  Source:
  https://servpub.madrid.es/IDEAM_WBGEOPORTAL/visor_din.iam?clave=VSURB
  CAD documentation including the plot
  Urban zoning and planned land use (image and PDF)

- Existing Building – Colonia de San Cristóbal
  - Graphic documentation of existing buildings:
    Overall site plans (.dwg format).
    Floor plan of the existing building module (only image available).
    Elevations of the existing building module (only image available).

  - Program of areas (see page 19).

For any unaddressed or unclear aspects of the Contest Task, students are encouraged to submit questions through the **FAQ section of the Architecture Student Contest website**. Given that this is an idea-based competition, participants are expected to make reasonable assumptions based on the information provided to develop their proposals.

Project video presentation and 360 view

The goal of the Architecture Student Contest is to provide students with a unique experience closely related to a "real" client request. To complete information shared in this document, you can have a look at the **two following videos**, available on the Architecture Student Contest YouTube channel.

a) A general presentation of the Contest Task with drone views of the site: here.

b) 360° view of the plot for an immersive experience "on the field". Click on the screen and move to see the 360 views: here

NEW BUILDING: HEALTHCARE AND SENIOR LIVING RESIDENCE[8]

General information

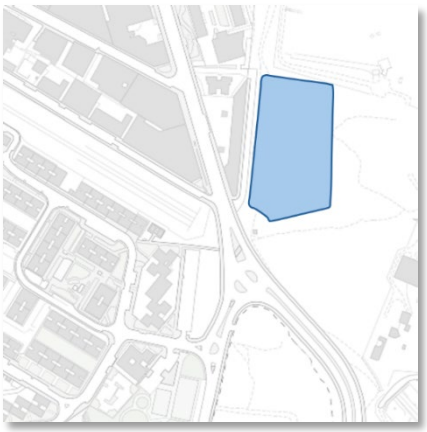


Figure 10 New construction stie location at the start of the MNN development

At present, the site is undeveloped and consists of a vacant plot with spontaneous vegetation. It is partially used as an informal parking area and, in some sections, as a dumping ground for construction waste. The site is bounded to the west by a high-rise residential building with ground-floor premises accommodating commercial activities and municipal services. To the south, it is bordered by a relatively busy roadway, while its northern and eastern boundaries are not currently clearly defined. The total site area is 10,532 m², comprising **two plots** already defined within the Madrid Nuevo Norte planning framework. **Block 69** (6,657 m²) is classified as Common Services (SC) and allocated for development, accommodating primary healthcare facilities and assisted senior living uses. The adjoining plot is **Block 70** (3,875 m²) is designated as a non-buildable Basic Green Zone (VB) for

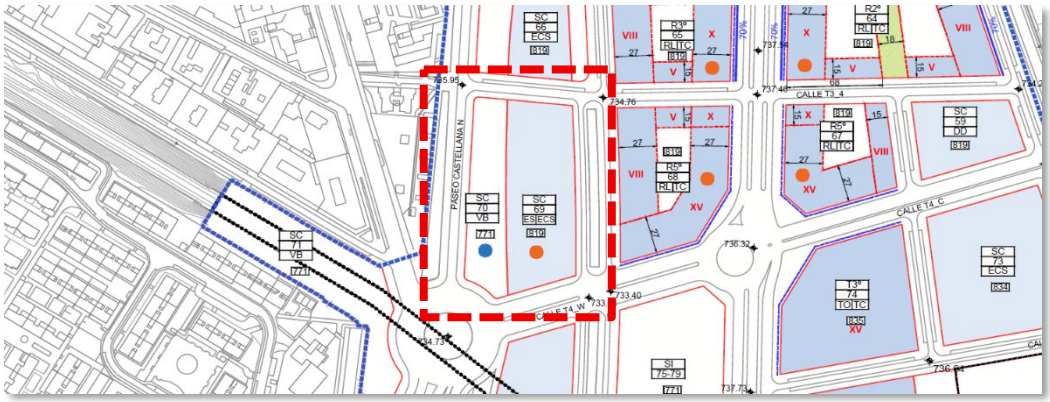


Figure 11 Urban plan for new construction site with Plots 69 and 70.

neighbourhood and district-level public open space.

Students' Task

In this area, students are required to first propose a spatial and functional organization of the built environment, integrating a mix-used building of healthcare facilities (3,000 – 3,500 m²) with assisted residential use 75-80 units (6,500 – 7,000 m²). For a detailed program, please refer to page new building details and program section of this document.

Opportunities

This mixed-use block embodies a strategic opportunity to weave together healthcare and assisted living within a unified urban landscape. Rather than a simple coexistence of functions, the proposal should aim to construct a meaningful dialogue between complementary uses, fostering synergies that enhance both the quality of care and the lived experience for senior residents.

[8] Google Maps link

Challenges

This intervention serves as a vital bridge between the historic city and the emerging Madrid Nuevo Norte development. Anchored by the new green axis, the space has the potential to evolve as a civic and environmental catalyst—enhancing continuity, accessibility, and shared identity across the evolving metropolitan landscape. Also, consider comfort levels given the proximity to road and the train station.

EXISTING BUILDING: COLONIA DE SAN CRISTÓBAL

General Information

On the northern end of Paseo de la Castellana, standing quietly across the imposing Four Towers, stretches a series of elongated, low-rise buildings, distinguished by a striking succession of arches in the galleries that shape their façades. Modest in appearance, the **San Cristóbal social housing**, also known as "*Las Ochocientas*" (The 800s) due to the number of dwellings, constitutes one of the most celebrated examples of social housing architecture in Madrid. Once a small urban oasis, it is now enclosed between the Four Towers and the future Madrid Nuevo Norte development. Its construction began in 1948, and the first units were delivered in 1954. The initiative was promoted by the Municipal Transport Company (EMT), who deemed it appropriate to create a housing estate for company employees close to the facilities, where the Fuencarral depots are still located today. The estate is currently included as Level 2 protection in the City of Madrid's Catalogue of Protected Buildings.

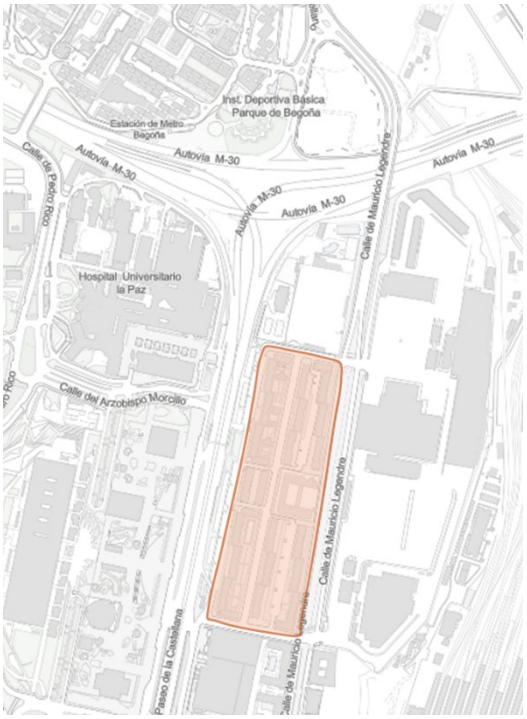


Figure 12: location of Colonia de San Cristobal between the Four Towers and the train station

Figure 13 View of San Cristobal Social Housing with its arch façade

Students' Task

The intervention in the San Cristóbal estate should focus on the upgrade and enhancement of the existing building envelope, preserving its original use and architectural identity while improving its overall appearance and performance.

The strategy is therefore based on **developing a proposal for a single building module** as a minimum intervention unit, establishing a replicable model for the systematic upgrading of the estate through improved envelope systems.

Opportunities

The San Cristóbal housing estate offers a compelling opportunity to explore innovative façade rehabilitation strategies within a sensitive heritage context. Students can address the upgrade of the building envelope through high-performance, low-impact solutions that improve energy efficiency, indoor comfort, and durability, while respecting the architectural identity of the original design. This includes the integration of insulation systems, passive design strategies, aligned with current sustainability national requirements. At the same time, the project invites the application of circular economy principles, promoting reusable materials, reversible construction systems, and life-cycle optimization.

Challenges

"Architecturally, it is a very successful estate," notes Sigfrido Herráez, Dean of the Official College of Architects of Madrid. "From today's perspective, it could be improved with better materials and insulation systems; however, any intervention must be undertaken with great sensitivity, as it is the work of a distinguished architect."

The San Cristóbal estate presents the challenge of rethinking its building envelope through innovative, sustainable rehabilitation strategies. Students are asked to improve energy performance and comfort while preserving architectural identity, integrating solutions that comply with current CTE sustainability standards and promoting circularity through reversible systems, durable materials, and life-cycle efficiency.

CONNECTION AXIS: LINEAR URBAN PARK

General Information

The Green Axis represents a key structuring element within the Madrid Nuevo Norte development, conceived as a continuous linear landscape that connects the new and existing urban fabrics. It acts as both an ecological corridor and a public space, integrating mobility, biodiversity, and social interaction. It spans across all the MNN project starting from San Cristobal Social Housing and along the new construction site.

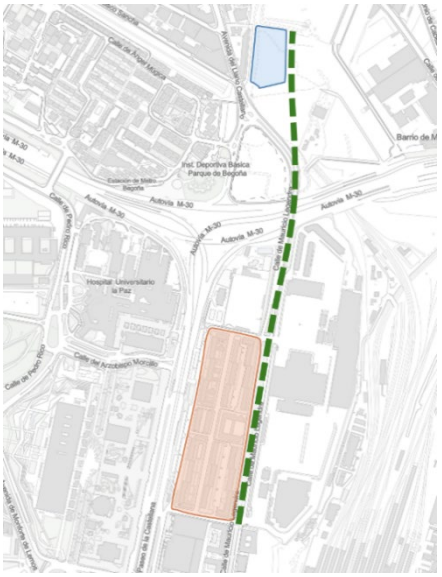


Figure 14: green axis to serve as a linear urban park

Students' Task

Students are asked to design a proposal that transforms the Green Axis into a continuous, climate-responsive urban landscape, capable of connecting existing neighbourhoods with new developments. The project should integrate public space, sustainable mobility, and ecological systems, enhancing urban biodiversity and resilience. The task is to create a coherent spatial and environmental strategy that combines architecture and landscape, ensuring accessibility, social interaction, and identity, while positioning the axis as a structuring element for future urban growth.

Opportunities

For participants, it offers an opportunity to explore how architecture can engage with landscape, promoting sustainable urban living and enhancing environmental performance. The axis is not only an infrastructure but also a catalyst for regeneration, reinforcing continuity, accessibility, and identity across different scales of the city. The aspects of the conceptual design should allow for its replicability along the linear urban park throughout the MNN project.

Challenges

The challenge of the Green Axis for students is to reinterpret it not only as a public space, but as a multilayered urban infrastructure that integrates landscape, mobility, and social life.

Participants should design proposals that connect different urban spaces, overall existing and new development in this border, enhance environmental performance, and create inclusive, human-scale spaces. The key lies in transforming the axis into a living system, capable of linking existing neighbourhoods with new developments while generating identity, continuity, and resilience within the evolving city.

Figure 15: view of the linear urban green axis from Colonia de San Cristobal to MNN

1. NEW BUILDING: DETAILS AND PROGRAM

Detailed information

The new building, located on Plot 69, must integrate two distinct yet complementary uses: a primary healthcare facility and an assisted senior resident space.

The first challenge is to design a building, or a group of buildings, that accommodates the program for the two uses described: **primary healthcare and assisted senior residential**.

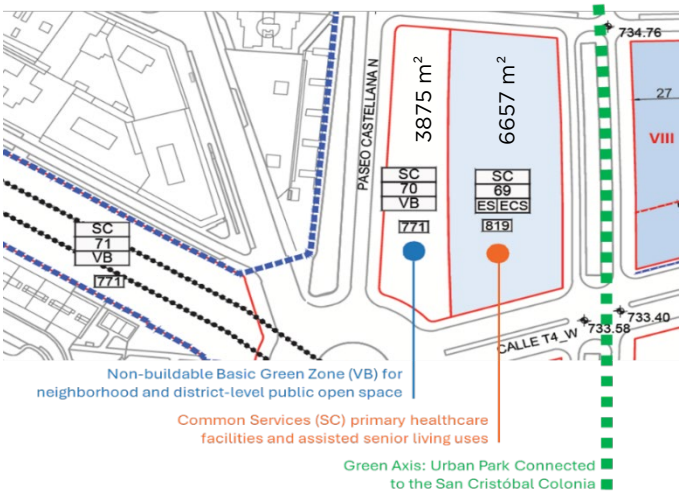


Figure 16: area for the new construction with the green axis along the east side of Plot 69

The second challenge is to provide a coherent integration of these two functions while simultaneously responding to the surrounding urban open space, in relation to the adjacent open block, Plot 70, designated as an urban green area. The green axis should follow the eastern edge of Plot 69, as it continues north into the MNN development. Students are free to move the green axis to cover a portion of Plot 69.

Program

The primary healthcare component must have a total area of **3,000–3,500 m²**, providing a comprehensive facility capable of meeting the needs of the local community. The spatial distribution is structured as follows:

- **Clinical, Medical, and Nursing Care Area (55–60%):** The core of the facility, accommodating **30–35 consulting rooms** dedicated to family medicine, nursing care, paediatrics, and specialized consultations. This space must also integrate dedicated zones for **health prevention, promotion, and community care** (e.g., vaccination rooms, health education spaces, and community outreach offices).
- **Emergency / Out-of-Hours Care (10–12%):** A fast-track treatment area containing **5 consulting/treatment rooms** designed for continuous, immediate medical response.
- **Basic Diagnostic Area (5–7%):** Accommodating **3 specialized rooms** for diagnostic tests, imaging, and sampling.
- **Administration and Patient Care Services (8–10%):** The main point of entry, featuring an open entrance lobby, reception and admissions desks, patient service counters, and administrative management offices.
- **Staff, Teaching, and Training Area (6–8%):** Dedicated zones for healthcare professionals that double as an active academic environment. This includes coordination offices, changing facilities, and specialized **teaching/training spaces** for medical residents, ongoing staff education, and research.
- **Clinical Support and General Services (23–30%):** > * *Support:* Storage, pharmacy, clean/dirty utility supply rooms.
    - *Circulation & Facilities:* Generous, accessible circulation corridors, waiting zones with natural light, and public sanitary facilities.

The **assisted senior residential** use is conceived as a facility of 6,500–7,000 m², accommodating a residential program of 80–85 units, structured according to three levels of care:

Care Level	Text Description	Spatial Allocation	Target Unit Count (Total: 80–85)	Estimated Total Area Allocation
High-Care ***(25%)***	Intensive medical support, nursing care, hospital room layout.	**25m² Medicalized Rooms** (Intensively assisted living)	~20–21 units	~500–525 m² *(pure net unit area)*
Medium-Care ***(30%)***	Compact, self-contained dwellings, nursing support.	**50m² Private Apartments** (1 resident or compact 2-person)	~24–25 units	~1,200–1,250 m² *(pure net unit area)*
Low-Care ***(30%)***	Fully independent units, basic shared services.	**70m² Private Apartments** (Spacious 2 residents)	~24–25 units	~1,680–1,750 m² *(pure net unit area)*
Ground Floor & Day Care ***(15% + remaining)***	Shared amenities, social spaces, interaction zones. Also accounts for building circulation (corridors, lifts, technical shafts, and structural thick walls)	**Day-Care spaces (non-overnight stays), non-medical care, community hubs.**	Centralized facilities	~350–500 m² *(plus circulation and structural margins)*

Surfaces are approximative and can vary depending on student proposals.

Additionally, the project must include a total of 250 underground parking spaces, with access provided from within the plot, either integrated into the building or through entrances via the open space.

Site Alignment and Plot Regulations

When designing the new mixed-use healthcare and senior residential facility on the assigned plot, students must adhere to the mandatory urban alignment percentages indicated on the site plan. These percentages dictate the building's footprint and facade relationship with the property boundaries:

- 100% Alignment (North and South Boundaries): The building's exterior facade must occupy the total linear length of these perimeters. No setbacks, open plazas, or gaps are permitted along these fronts; the architectural volume must form a continuous edge from corner to corner.

- 70% Alignment (East Boundary): The facade tracking this perimeter must maintain direct alignment with the property line for a minimum of 70% of its total length. Students are encouraged to use the remaining 30% of this boundary flexibly to create architectural setbacks, such as main entrance plazas, emergency vehicle drop-off zones, or landscaped transitions.

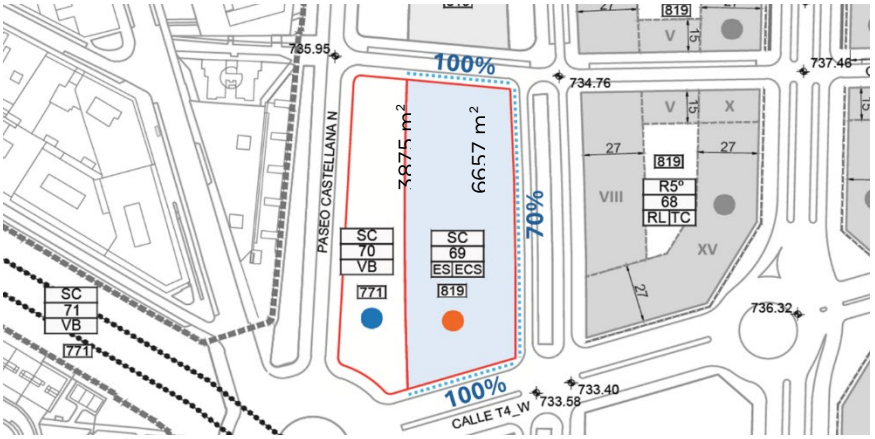


Figure 17 Plot alignment and boundary regulations. The percentages (100% and 70%) indicate the mandatory linear coverage required for the building facades along the respective property lines.

2. RENOVATION: COLONIA DE SAN CRISTOBAL

Detailed information

The intervention in the Colonia de San Cristóbal shifts the focus from urban massing to the deep architectural rehabilitation and technical modernization of Madrid's mid-century social housing heritage. Designed by the visionary architect Secundino Suazo Ugalde, this historic working-class neighbourhood stands as a low-density, rationalist brick "island" now directly confronted by the ultra-modern, high-density skyscrapers of Madrid Nuevo Norte (MNN).

The buildings are structurally sound but thermally and acoustically obsolete, lacking modern insulation, high-performance glazing, and centralized climate systems. Architecturally, the most defining element of the colony is the ground-floor arched porticos along the main galleries. Because the neighbourhood holds a Level 2 heritage protection status, the main facade and its signature arches must be strictly preserved. Any modernization must happen without altering the external visual DNA of the buildings.

Each building block has a ground floor and 4 floors (5 in total) with 8 apartments per floor between 55m2 and 68m2.

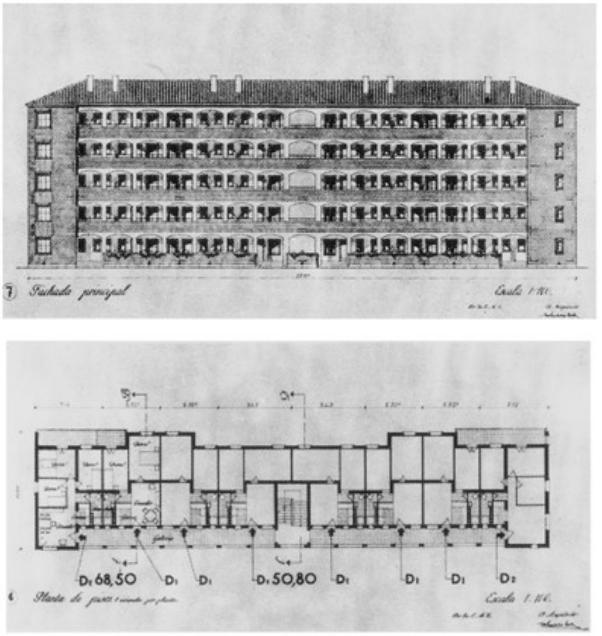


Figure 18 Façade and plan of the San Cristobal Social Housing

Program & Replicable Module Approach

To make this massive urban challenge manageable and scalable, students are not required to redesign all 28 residential blocks. Instead, the task is to analyse and transform one representative building module (a single block). Because the housing blocks share an identical structural distribution, orientation rules, and spatial layout, the student's design will serve as a technical, replicable "blueprint." The solution should be capable of being systematically deployed across the entire estate to improve the comfort of nearly 900 residents of families.

The rehabilitation program must target two main areas of the block:

- **The Building Envelope (Exterior Performance):** Complete energetic retrofitting of the brick facade, optimizing thermal resistance (U-values) and decibel insulation (dB) while leaving the arched geometric profiles completely intact.

Key Technical Challenges for Students

- **The Acoustic Shielding Challenge:** The Colonia de San Cristóbal is physically boxed in by the heavy traffic of Paseo de la Castellana and the massive, multi-decade construction site of Madrid Nuevo Norte. The building envelope, originally built in an era of low traffic, must be retrofitted to act as a high-performance acoustic barrier to shield residents from severe urban noise pollution.

- **Thermal Bridging at the Arches:** The concrete and masonry arches on the ground floor function as massive thermal bridges where energy escapes rapidly. Students must propose highly precise insulation detailing that wraps or lines these complex curves internally or via specialized material applications without diminishing their historic architectural silhouette.

- **Lightweight Circularity:** Because these are mid-century masonry buildings, adding excessive dead load is structurally prohibited. All interventions should prioritize lightweight, reversible, and circular construction systems that optimize the building's life-cycle carbon footprint.

- **Mitigating Energy Poverty:** Proposals must be economically viable, minimizing construction waste and keeping maintenance low, ensuring that the retrofitted systems drastically reduce monthly energy utility bills for the current aging community.

Rehabilitation Performance Targets

Main Facade & Arches (Level 2 Protection): * **Constraint:** Absolute visual preservation required; no external structural or aesthetic alterations are permitted	**Technical Focus:** Eradication of thermal bridging around the curved geometry of the historic ground-floor porticos while fully maintaining the original masonry silhouette.
Window Openings & Glazing: * **Constraint:** The original frame alignments, proportions, and visual rhythm across the facade must be respected.	**Technical Focus:** Upgrading openings to provide simultaneous solar heat gain control, winter thermal retention, and high-performance acoustic dampening.
Interior Layouts & Partitions: * **Constraint:** The primary structural layout consists of fixed mid-century masonry load-bearing walls that cannot be altered.	**Technical Focus:** Reconfiguring non-structural internal partitions to maximize internal spatial efficiency, optimize indoor air quality (IAQ), and elevate acoustic isolation between neighbouring units.

3. GREEN AXIS – LINEAR URBAN PARK

General Information

The Green Axis represents the ecological spine and primary organizing landscape feature of the Madrid Nuevo Norte (MNN) development. Conceived as a continuous, linear urban park, this green infrastructure stretches across the northern territory of Madrid, physically and socially weaving together neighbourhoods. The park starts directly adjacent to the mid-century social housing of Colonia de San Cristóbal, bridges across a transited highway, and runs up the eastern boundary of the New Construction zone (Plot 69). Far from a passive decorative lawn, the Green Axis is engineered to function as an active bioclimatic corridor, a sustainable mobility pathway, and a vibrant public space framework that enhances urban biodiversity.

Students' Task

Students must provide a conceptual design and spatial strategy that transforms this linear axis into a continuous, climate-responsive environment. The proposal must be developed through **two strategic cross-sections**:

1. **Section 1 (The Expansion Boundary):** Focused on the integration of the park with the New Construction site (Plot 69), showing how the public landscape transitions into the institutional programs of healthcare and senior living.

2. **Section 2 (The Heritage Boundary):** Focused on the park's relationship with the low-rise historic fabric of Colonia de San Cristóbal and its interaction with the adjacent infrastructure.

The design must establish a clear vocabulary of **materials, textures, and nature-based solutions** that can serve as a modular, replicable model throughout the remaining expanses of the linear urban park across the entire MNN masterplan.

Landscape Intervention Ideas

- **Urban Connectivity & Mobility:** Seamlessly stitching old and new urban fabrics, between micro-mobility lanes (bicycles, scooters) and pedestrian promenades, creating safe spaces for interaction between senior residents, patients, and the public.

- **Materiality & Texture:** Utilizing sustainable, low-carbon, and highly durable surface treatments. permeable technical soils to maximize groundwater infiltration, and textural transitions

- **Climate Adaptation & Resilience:** Designing for extreme continental microclimates (severe summer heat waves and dry winters) common to central Spain.

Opportunities

The Linear Urban Park offers a premium testing ground to showcase how landscape architecture acts as a primary tool for **urban climate adaptation**. Rather than treating the park as an edge boundary, students can treat it as a living extension of their building architecture. Proposals can explore passive environmental cooling, urban drainage networks, and rich biodiversity links that reconnect Madrid to the regional ecosystem. By designing modular, flexible park components (such as seating arrangements, shading

pergolas, or sustainable drainage modules), students can provide a direct blueprint for replication throughout the municipal masterplan.

Challenges

The main challenge lies in balancing the ecological engineering of a large-scale park with the human scale required for vulnerable user groups. The axis must handle heavy transit paths while offering quiet, protected, and therapeutic pockets for senior residents and recovering clinic patients. Furthermore, students must address severe environmental constraints, including mitigating traffic noise pollution from the neighbouring roadways and overcoming the heat island effect through sensitive, shaded, and well-ventilated spatial planning.

Local Context Reference

When developing design solutions, students are highly encouraged to analyse and draw inspiration from modern, successful landscape interventions within the capital, such as **Madrid[9] Río** (for linear park continuity and water integration) and the **Pasillo Verde Ferroviario[10]** (for the reclamation of industrial railway lands into community assets). Evaluate climate adaptive idea from other sources.[11]

Figure 19: Strategic Cross-Section Locations for the Linear Urban Park. > The highlighted yellow zones indicate the approximate boundaries where students must develop detailed green-axis landscape proposals (Section 1: Expansion Boundary, Section 2: Heritage Boundary;)

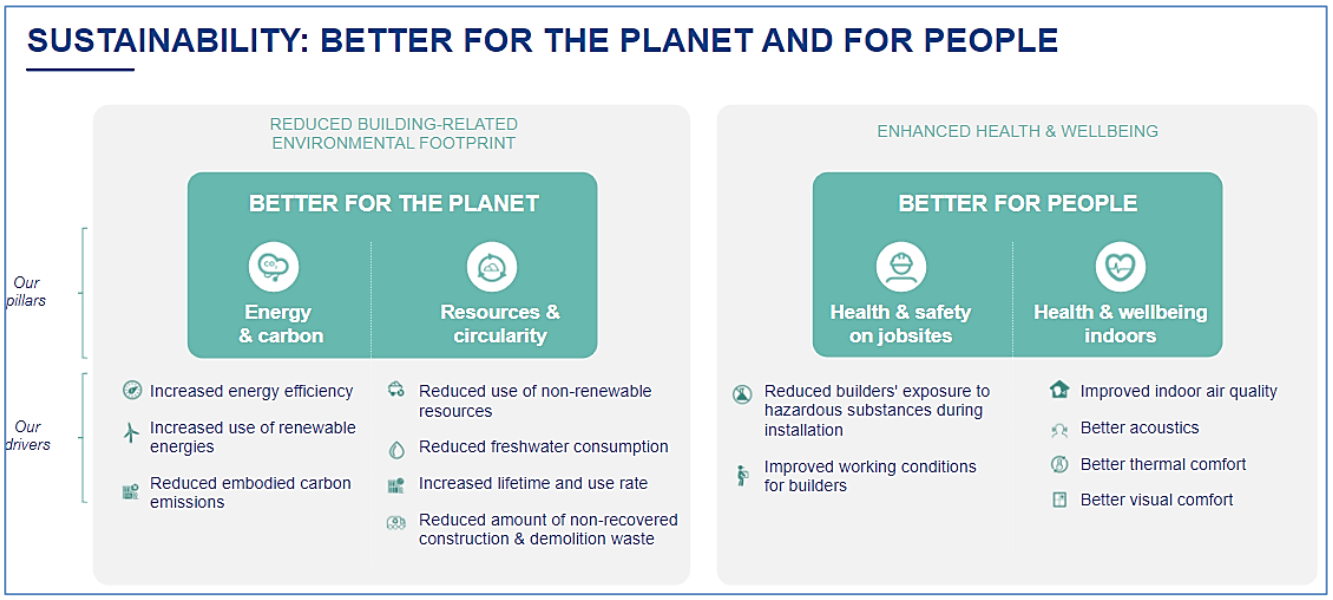
[9] https://madrides.es/en/madrid-rio/

[10] https://creamadridnuevonorte.com/noticia/el-pasillo-verde-ferroviario-como-cambio-un-barrio-de-madrid-al-soterrar-las-vias-del-tren/

[11] Joint report with ARUP on Adapting Buildings to Climate Change for ideas on solutions : https://www.saint-gobain.com/en/adapting-buildings-climate-change

4. TECHNICAL PERFORMANCE TARGETS

The technical parameters for sustainability are based on Saint-Gobain's Sustainable Construction Guidelines, which address contributions that are Better for the Planet (energy & carbon, and resources & circularity), and Better for the People (health and well-being of installer and occupants).



THERMAL COMFORT

The project should maintain a good internal environment; the proposed project sure ensure comfort around the year, i.e. winter 21°C and summer 8°C. A sound bioclimatic approach with passive strategies can server as a good foundation to optimize thermal comfort. To achieve this, students will integrate both passive measures (e.g., sun shading, light colours for exterior surfaces, green roofs and facades[12]…) and active measures (e.g., ventilation).

To supply the energy needed teams can propose renewable energy and heating systems that fit the city strategy. Also, project can mention how they propose the building and energy consumption/production of the building could be monitored.

INDOOR AIR QUALITY

To provide the best indoor conditions for the inhabitants, low levels of CO_2 concentrations (maximum 1000 ppm) inside the rooms should be achieved. To reach this low CO_2 concentration, the design should guarantee a minimum ventilation rate of $30m^3$ per hour per person. Also, propose a strategy to achieve an excellent indoor air quality, e.g., air renewal with mechanical or natural ventilation (e.g., night cooling), selection of low emissive products, active products to capture VOCs and formaldehyde, moisture management.

ACOUSTIC COMFORT

Noise is extremely damaging to human health. Providing a good indoor environment from the acoustic point of view is crucial for human wellbeing. Sleep deprivation, because of high levels of noise, has adverse effects on humans' health. The sound sources that bother, annoy,

[12] Recommended to check the document Innovative Saint-Gobain products, system and solution for green roofs and facades

or disturb the most in residential functions are road traffic and neighbours. Technical parameters – selected partitions (as examples) should be designed in line with requirement of local regulations. the building envelope assembly must achieve a minimum sound attenuation rating of $D_{nT,w}$ ≥ 40 to 45 dBA along exposed perimeters.

Partition	Factor	Performance Target Value
Wall between units (airborne noise)	$D_{nT,w}$ (Standardized airborne sound insulation, including flanking transmission)	≥ 53 dB
Ceiling between floors (airborne noise)	$D_{nT,w}$ (Standardized airborne sound insulation, including flanking transmission)	≥ 53 dB
Ceiling between floors (impact noise)	$L'_{nT,w}+$ (ie. Standardized impact sound pressure level, including flanking transmission)	$L'_{nT,w} \leq$ 58 dB

FIRE SAFETY

All products in the façades and the roof should be made of non-combustible materials. Consider, for example, evacuation paths, fire barriers, material selection (reaction to fire), system selection (fire resistance), etc. Fire sections between stories and apartments shall fulfil **EI 90 to EI 120 requirements**[13].

NATURAL DAYLIGHT

A minimum level of natural light is necessary to achieve a good quality of life. Therefore, a natural daylight autonomy of 60% should be achieved. The windows/floor surface ratio should **not be lower than 1/7**. Consider size and orientation of windows, high performance glazing products (solar factor). Calculations should support the assumptions taken.[14]

CARBON EMISSIONS & ENERGY CONSUMPTION

The building shall be designed to be highly energy efficient. At least, the following levels of performance shall be achieved (passive house standard [15]):

- Annual energy demand for heating < 15 kWh/m² (passive house standard)
- Average U-value for all opaque constructions (roof, external wall, floors on the ground) < 0,15 W/(m²K) (passive house standard)
- U value for windows < 0,8 W/(m²K), with g-value around 50%
- Air tightness: q4 < 0,6 m³/ (h m²)

A particular attention shall be paid to energy simulation [16] and the embodied carbon [17].

[13] Usually coordinated with the project
[14] Recommended to check the document Innovative Saint-Gobain products, system and solution glass solutions
[15] https://passiv.de/en/02_informations/02_passive-house-requirements/02_passive-house-requirements.htm
[16] For the energy simulation students can use any software (EnergyPlus, Design Builder, PHPP, etc). Saint Gobain makes available a specific plug in for OpenStudio SketchUp, SAVE International. More information on obtaining the plugin will be available in the contest website.
[17] Carbon emissions associated with materials and construction processes throughout the whole lifecycle of a building or infrastructure. Calculations should include all phases as available within the OneClick LCA tool.

1) Strategy to achieve thermal comfort, e.g.: performance of the building envelope (insulation and airtightness), sun shading measures, ventilation, etc.

2) A calculation of the energy demand should be done for one year (Jan-Dec). Students will explain how they were able to reduce and optimize the energy performance of their project design. Student can research and propose low carbon energy supply (e.g., solutions such as locally produced renewable energies (geothermal, photovoltaic) or heat pump might be appreciated).

3) A calculation of the carbon emissions over the whole building life cycle shall be carried out with the tool provided for free during the competition by OneClick LCA. Students will explain how they have been able to reduce/optimize the embodied carbon while progressing in their project design, e.g., lightweight constructions, wood construction, product reuse.

RESOURCES & CIRCULARITY

Over its whole life cycle, a circular building minimizes the use of primary non-renewable raw materials and the generation of non-valorised waste. To achieve those two overarching goals on primary raw materials and valorised waste, the following five points shall be considered:

1) A circular building shall be **designed for longevity**: it shall be flexible in use and easily adaptable over time, possibly allowing for usage reorientation; and it shall be made of durable and resource efficient materials, products, and systems, easy to repair, maintain or replace and to reuse or recycle at their end of life; thus, prefabrication could be an option depending on the context.

2) Resource efficient materials, products, systems are made with a minimum use of non-renewable primary raw materials; they shall incorporate a maximum share of recycled or renewable raw materials; their installation shall generate a minimum amount of waste; regarding the valorisation at their end of life, reuse shall be the preferred option followed by recycling; to be easy to reuse or recycle, systems shall be easy to dismantle and components easy to sort out; and products and materials shouldn't reduce exposure to hazardous substances to avoid their further dissemination in the built environment [18].

3) Renovation and extension of existing buildings shall be preferred over demolition/deconstruction and new built.

4) Selective deconstruction shall always be preferred over demolition at buildings' end of life; to facilitate the deconstruction and the valorisation of the waste, a detailed inventory shall be kept over time of all materials, products and systems used to build, maintain, and renovate the building, and of their composition.

5) To support the choice of alternative options, decisions shall be based according to their actual environmental impacts at building level; those impacts shall be calculated over the entire life cycle of the building (LCA at building level).

[18] Off-site prefabricated building elements, modular construction and lightweight systems (in particular for facades and internal partitions) belong to the solutions that allow to meet these criteria. Students can further propose products with high recycled content.

5. COMPETITION REQUIREMENTS

Participants must read the "Rules, Organization and Legal Terms" document on the Architecture Student Contest website for all required International Stage materials and requirements.

Participants are advised to choose appropriate scales for all drawings, design ideas and directions to allow appropriate detail and clarity to be reviewed by the judges. Also, teams should include in their submittal (project presentation in PDF) a complete description of their project following the respective guidelines.

MASTER PLAN AND GREEN AXIS

- Clear representation of the zones, at scale 1:500, providing the understanding of general organization of the Project proposal.
- Relevant details of specific areas should be provided.
- Visualization of the experience of living in the analysed areas - Views, 3D perspectives and/or photographs of physical models as seen fit by the participants to better explain their proposal.
- Relation and link to nearby areas.
- 2 sections for the green axis, within the (between scale 1:50 and 1:100) and include elements that can be replicated along the axis.

ZONE A – NEW CONSTRUCTION: HEALTHCARE AND SENIOR LIVING RESIDENCE

- Floor plans, elevations, relevant sections that can allow to understand the proposal, at scale 1:200.
- Technical details at scale 1:20 or otherwise convenient for adequate understanding.
- 3D views to help the understanding of design proposal, and the surrounding volumetry of other campus buildings.
- Calculations for energy efficiency, that can be done with any energy simulation tool. (If student use SketchUp students can use the Saint-Gobain developed plug-in SAVE-I)[19]. A life cycle analysis should be done at building level, using available tool (One Click LCA).

ZONE B – RENOVATION: COLONIA DE SAN CRISTOBAL

- Development of architectural proposal, at the level of draft, for the proposed design program for the intended use.
- Floor plans, elevations, relevant sections that can allow to understand the proposal, at scale 1:200.
- Short description of project options and renovation solutions to be implemented, with focus on the specific technical solutions for the specific services.
- Few 3D views to help the understanding of design proposal.

Roll-Up

For the International Stage of the Saint-Gobain Architecture Student Contest, teams should synthetize their project presentation into a poster format, called Roll-Up. This format should be clear in the following aspects:

- A brief description of their concept proposal
- A 3D view of the master plan

[19] For energy efficiency, students can use any energy modelling software. Teams can use Saint-Gobain's Plug-In SG SAVE International that includes a Saint-Gobain material database. The weather data to use for calculations should be the one for Madrid. A whole life carbon calculation will be made using the OneClick LCA tool: tool and trainings will be provided for free. Recommendations to use the LCA according to international standards.

- Provide between 2-4 3D views of both buildings (renovation, new construction and green axis)
- Provide elements of how they addressed sustainability criteria.
- Brief synthesis of main assumptions and results from the energy and LCA calculations.

See the "Rules, Organization and Legal Terms" document for more information on how to build your Roll-Up.

6. JUDGING CRITERIA

GENERAL JUDGING CRITERIA

There are various aspects which are key and unique to the Architecture Student Contest.

- The first aspect is that the Contest Task addresses the design proposal for the new building, the renovation and its link to the urban context.
- The second aspect are the sustainability considerations.
- Lastly, the respect of minimum requirements, correct usage of Saint-Gobain solutions in the project, and the quality and consistency of the proposed construction details with regards to building physics.

Tackling these aspects are important and will be considered by the jury during the National Stage and to pass to the international stage, under the criteria below:

NEW CONSTRUCTION 60%	RENOVATION 40%	CRITERIA OF EVALUATION
ARCHITECTURE (30%)	ARCHITECTURE (20%)	• Desing excellence that considers local identify and cultural context. • Efficient functional concept that responds to program needs, providing clear building information. • Provides a master plan with connection of buildings to the exterior public spaces, and nearby buildings. • Embrace connectivity with existing adjacent areas (e.g. pedestrian, bike path)
SUSTAINABLE CONSTRUCTION (30%)	SUSTAINABLE CONSTRUCTION (20%)	• Design clearly addresses sustainability criteria: passive design, carbon & energy, resources & circularity, and health & wellbeing. • Shows quality in several construction details with regards to building physics (thermal and acoustic bridges, airtightness, and moisture management). • Correct usage and mentioning of Saint-Gobain products and solutions in the project.

Important: Indications on the judging criteria to be assessed during the National and the International Stages are available in the "Rules, Organization and Legal Terms" document[20].

[20] The document includes roles and responsibilities at the National Stage (e.g., projects must comply with minimum requirements), judging roles and responsibilities for the International Stage, jury methodology for pre-selection

7. SAINT-GOBAIN PRESENCE IN SPAIN

SAINT-GOBAIN IN SPAIN[21]

Since 1905, Saint-Gobain has maintained a presence in Spain, when it established Cristalería Española in the town of Arija (Burgos), with the aim of producing flat glass for construction on an industrial scale for the first time. Today, Saint-Gobain Spain—formerly known as Cristalería Española—leads the Group's operations across the Iberian Peninsula.

The strong expansion achieved by Saint-Gobain over the years has earned it solid recognition and deep expertise across the residential, non-residential, and infrastructure segments.

Its integrated solutions for the renovation of both public and private buildings, for sustainable construction, and for the decarbonization of both construction and industry have been developed through continuous innovation. These solutions contribute to sustainability while simultaneously delivering high performance.

In Spain, Saint-Gobain brings together a portfolio of well-known brands synonymous with innovation and quality, including ACH, Adfors, Arlita®, Chryso, CLIMALIT PLUS®, Distriplac, Ecophon, Eurocoustic, Gabelex, Glass, Glassolutions, Incusa, Isover, Norton, PAM, Placo®, Weber, Sekurit, Sekurit Service, and Glassdrive, serving construction professionals.

Saint-Gobain employs more than 4,000 people in Spain and operates over 30 manufacturing facilities, more than 60 building materials distribution centres, over 260 automotive glass repair and replacement workshops, as well as a dedicated R&D centre located in Avilés.

SAINT-GOBAIN SOLUTIONS IN SPAIN

As part of the Architecture Student Contest documentation, participants can access Saint-Gobain Spain's website with solutions and brands.

Core Sustainable Initiatives & Product Portfolios in Spain

To guide your design choices, students are highly encouraged to explore and utilize Saint-Gobain Spain's specialized sustainability and performance lines:

- futuRE Initiative: Saint-Gobain's pioneering range of solutions with a drastically reduced carbon footprint, incorporating a high percentage of recycled content and optimized life-cycle parameters.
- Unified Brand Portal: **Saint-Gobain Spain Brands**
- Advanced High-Performance Glazing: **Climalit España**
- Building Envelope & Facade Engineering: **Saint-Gobain Fachadas**
- Circular Economy & Recycled Materials: **Saint-Gobain REcircula**
- Enveo Systems: **https://www.saint-gobain.es/fachadas/enveo**

Students can explore the complete technical datasheets, system configurations, and environmental product declarations (EPDs).

prior to the international stage, methodology for finalist selection, communication of projects at international stage, and type of prizes.

[21] https://www.saint-gobain.es/

ARCHITECTURE STUDENT CONTEST

SAINT-GOBAIN