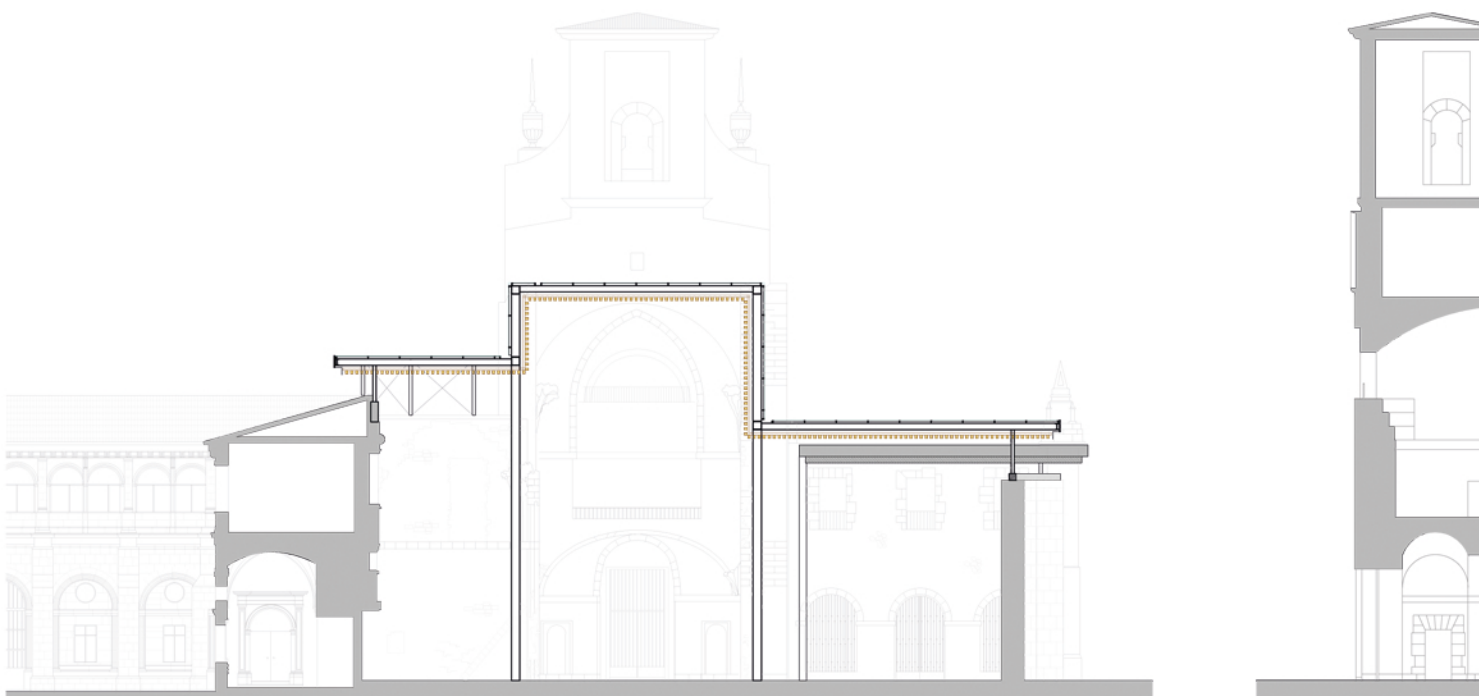
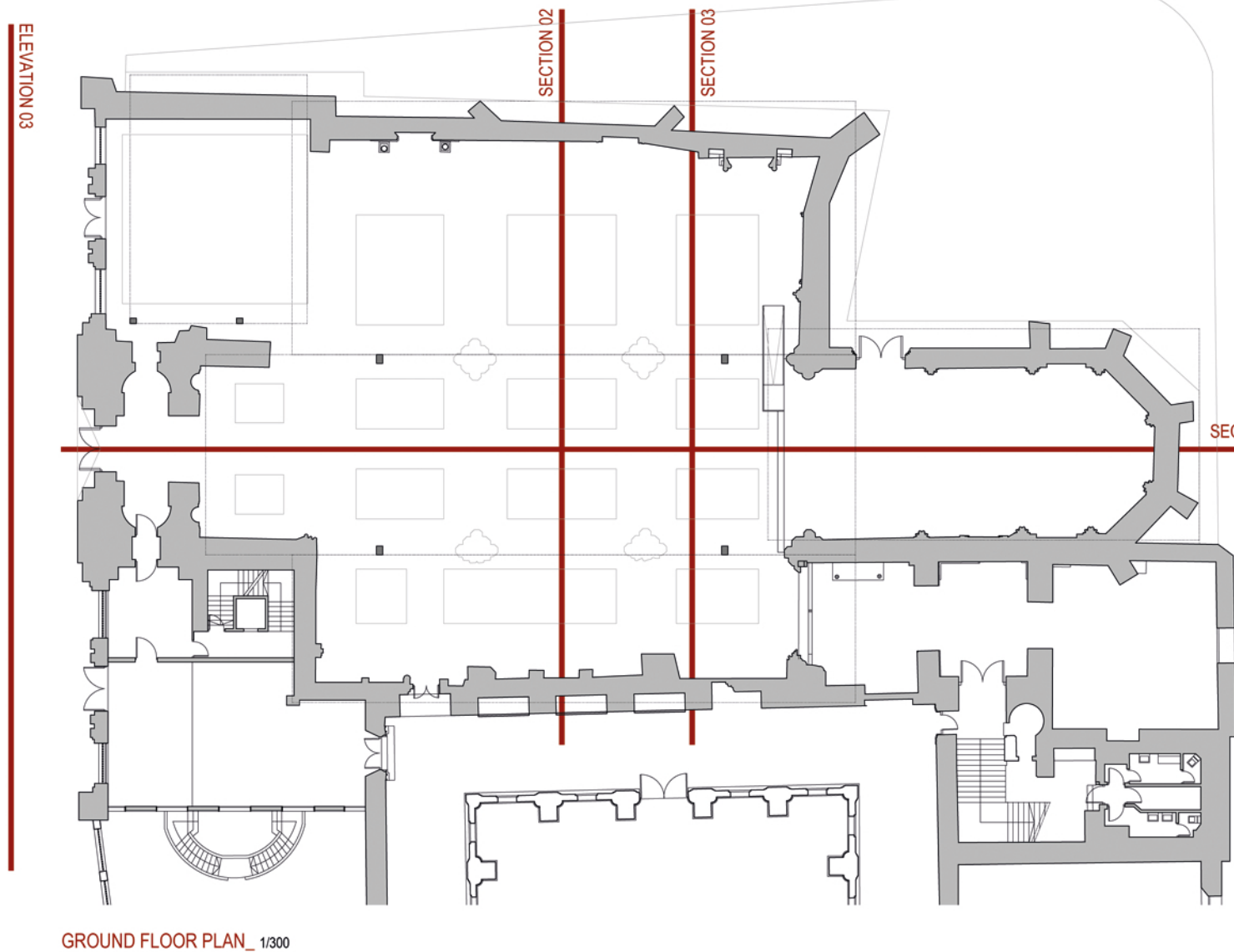
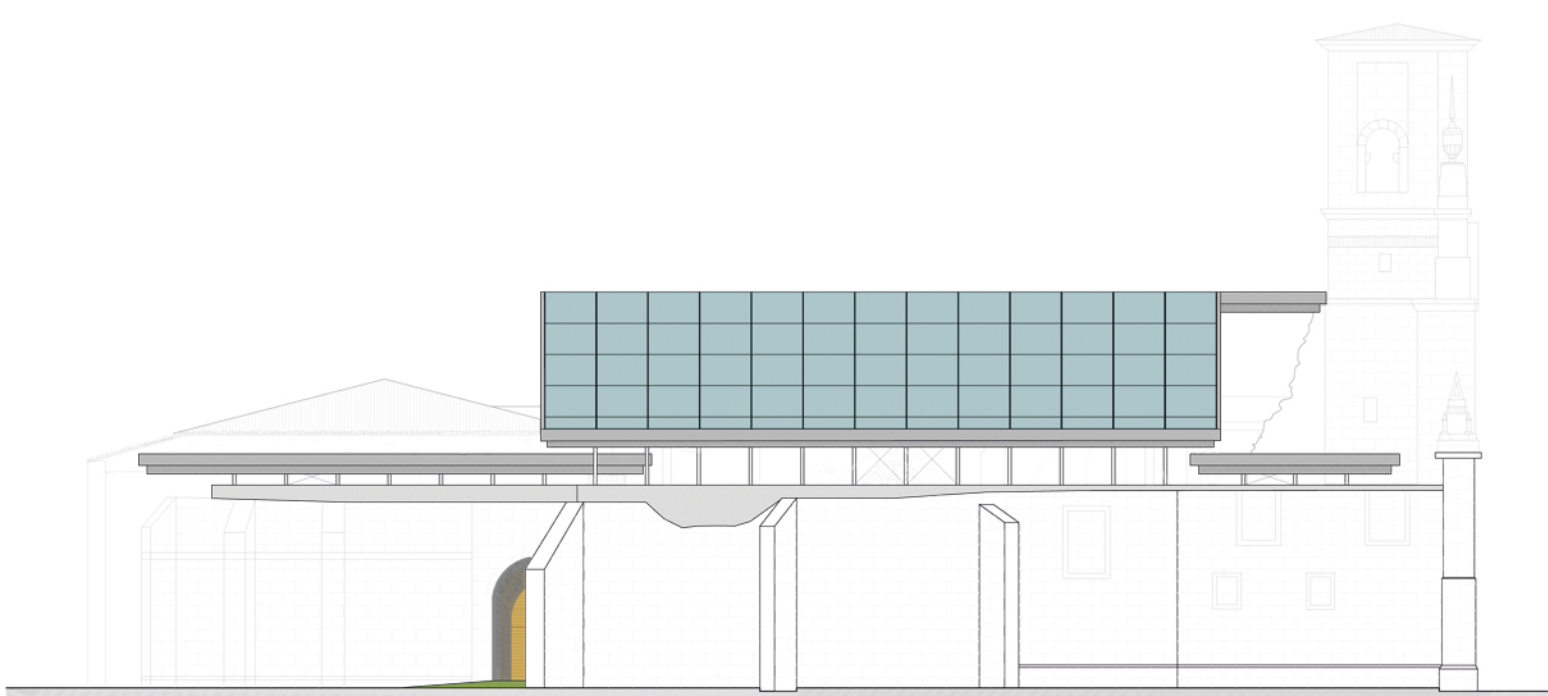
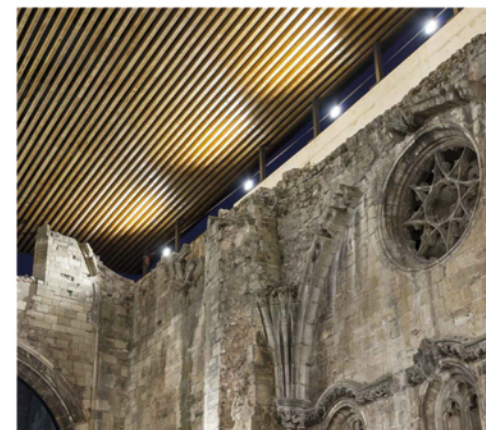
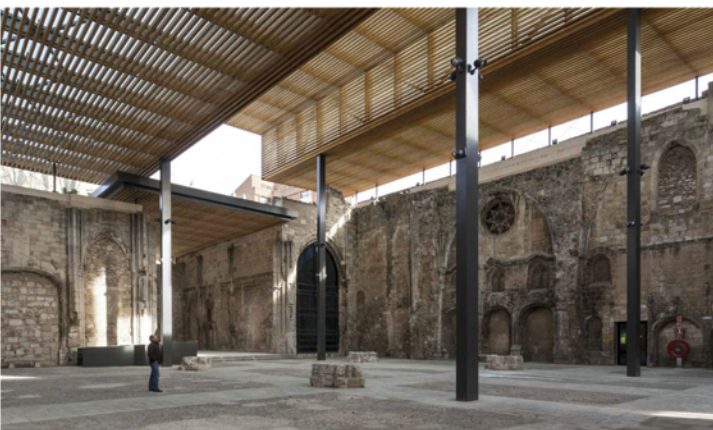


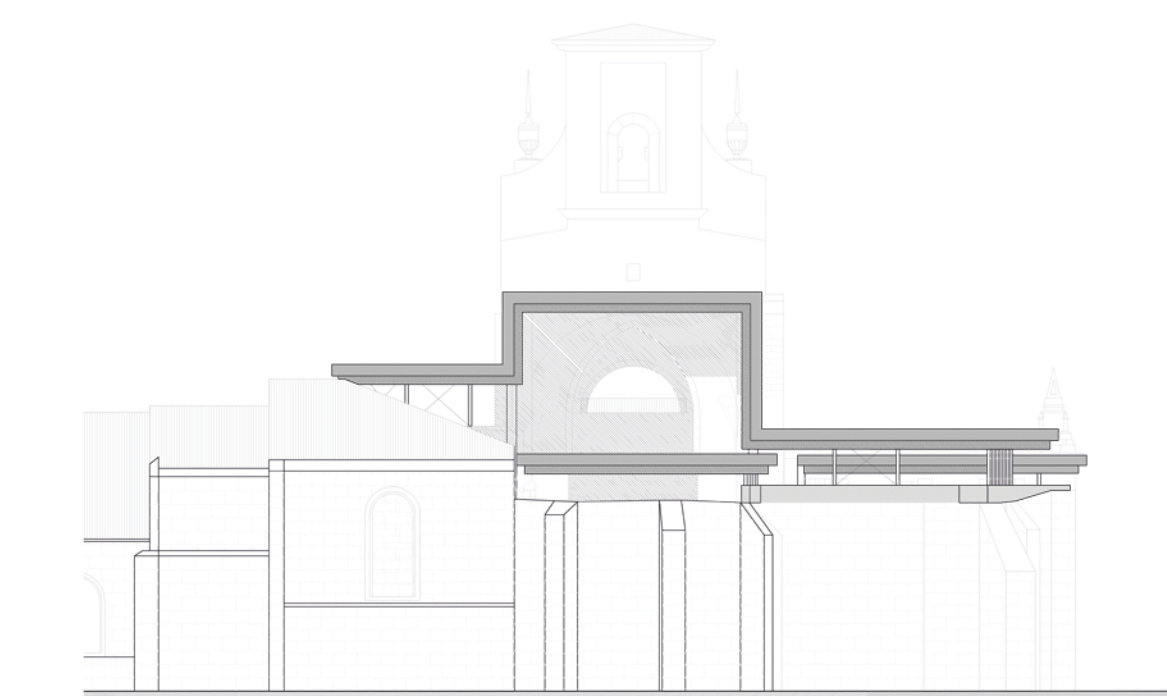
ELEVATION 01



SECTION 01\_1300



ELEVATION 01\_1300



ELEVATION 02\_1300

**LOCATION** Plaza de San Juan, Burgos, Spain.  
**CUSTOMER** Burgos City Council  
**OWNERSHIP OF THE WORK** Burgos City Council  
**TIME LINE OF THE WORK**  
From May 2015 to December 2015

**BSA CONSULT\_** design team  
**ADDRESS** C/ CALERUEGA 53 1º, 09001 BURGOS (SPAIN)  
**TLFN** +34 947 208 140 / FAX +34 947 201 194  
**WEB** www.bsaconsult.com

**TEAM**  
Main architects: José Manuel Barrio Eguiluz and Alberto Sainz de Aja del Moral  
Collaborating architects: Andrés del Río Salto, Lucía Sainz Nieto, Christian Bragado González, Miguel Peña Domínguez  
Quantity Surveyor: Silvia Saiz Camarero  
Administration: Silvia Martín Camarero  
The history of BSA is linked to the professional career of its founding partners, Alberto Sainz de Aja del Moral and José Manuel Barrio Eguiluz, architects of ETSA University of Navarre (1981). Through the BSA Projects brand, architectural and engineering services have been developed at this time. Being conscious of the difficulties in the architecture and building market and the questioning of traditional models of architecture and engineering services, BSA Consult was born, seeking to adapt to this change to provide service to its clients in real estate consulting.  
Since 1991, BSA has developed its commercial activity providing all kinds of professional technical services in architecture, engineering and real estate consulting.  
As a result of this extensive experience, BSA is currently focusing its efforts on offering its clients a comprehensive consulting service, providing qualified and independent advice in each of the development phases.  
Wide experience, integrating vision, creativity and search for excellence, values all applied to each year, these are the tools that BSA has to meet the needs of its customers. 2017 marks the 25th anniversary of BSA.  
**MOST IMPORTANT CONTESTS AND PRIZES**  
2017\_ Grand Prix Europa Nostra 2017, Monastery of San Juan Roof, Burgos 2015  
2016\_ Selected work FAD Awards, Monastery of San Juan Roof, Burgos.  
2015\_ IX Architecture and Urbanism Prizes of Castilla y León, Access to Monasterio de San Juan, Burgos.  
2012\_ Best Public Building Award of the College of Architects of Castilla y León Este (Burgos).  
2009\_ 1st Prize for the Central Competition of pneumatic collection of urban waste from Burgos; 1st Prize Conc. Of class Urbanization of the surroundings of the National Museum of Energy and Park of the Ribera del Sil in Ponferrada (León).  
2007\_ 1st Interior Architecture Award of the College of Architects of Castilla y León Este (Burgos).  
2007\_ 1st Prize Conc. 39 VPO Flex in Burgos. 2004; 1st Prize Conc. 91 VPO in Aranda de Duero.

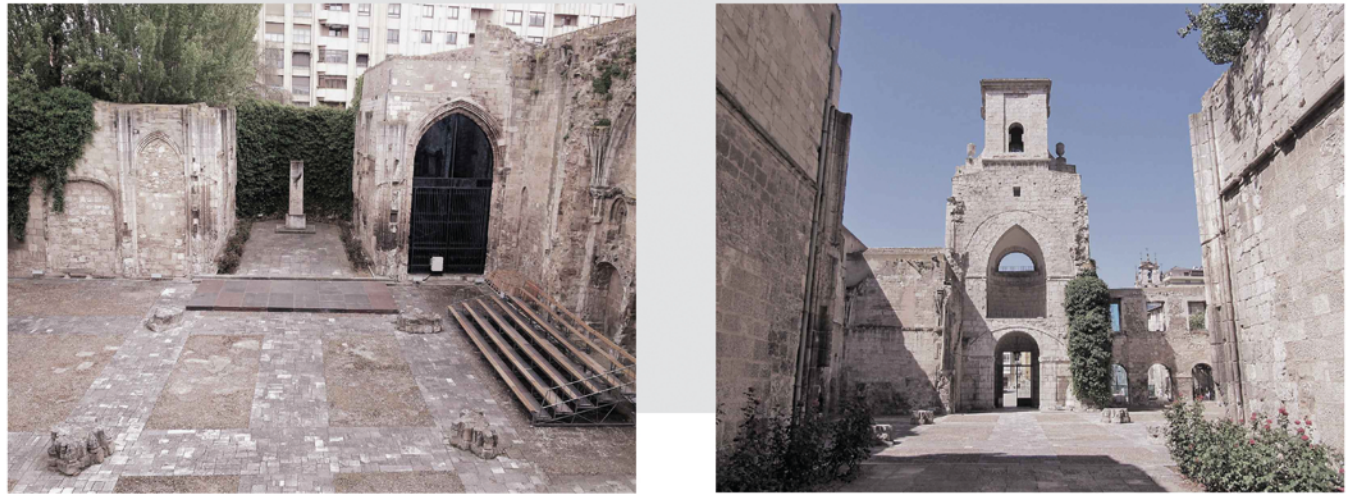


**FCC\_** contractor company

FCC has developed the construction activity since 1900, initially through Fomento de Obras y Construcciones (FOCSA) and since the mid-fifties as Construcciones y Contratas, S.A (CYCSA), although each company acted separately.  
The company initially operated in Catalonia, mainly developing its activity in the construction sector. The hiring in 1911 of the services of cleaning and conservation of the sewage system of Barcelona, constitutes a transcendental milestone in the trajectory of the company, configuring itself as a pioneer in the policy of diversification.  
In the fifties, the Fomento de Construcciones y Contratas group occupies a prominent position among construction companies.  
FCC Construcción is the current heir to the construction experience accumulated by a business group, which has been an exceptional witness for more than a century. With accumulated experience of over 100 years, FCC Construcción is the Infrastructure Department of the FCC Group, a global environmental services, water and infrastructure group.  
Its activities cover construction and engineering within civil works and building. It was a pioneer in developing its own business model in a profitable and sustainable manner, banking on local development and contributing to the improvement of local people's quality of life.  
Increasing investments in the protection of cataloged historical heritage and in some cases, the need for public administrations and private initiative, to rehabilitate and restore representative buildings to transform them into their headquarters, constitute a guarantee of safeguarding the cultural legacy.  
FCC Construcción has a long tradition in the rehabilitation, reform and restoration of buildings and has specialized personnel in this type of work, able to apply the most appropriate treatment in each case and aware of the responsibility assumed by the company to take charge of this type of actions, whether it is to solve a structural pathology or to restore a facade respecting its primitive architectural pattern or adapt an old building to a new use.  
**SOME HISTORICAL HERITAGE INTERVENTIONS**  
\_Replacing the roofs in the Prado Museum and the Casón del Buen Retiro in Madrid  
\_Rehabilitation of the National Museum of Art of Catalonia, Spain  
\_Rehabilitation of the Communications Palace for the City Hall of Madrid  
\_Rehabilitation of the Bulding of Las Ventas, Madrid  
\_Madrid Río: Conditioning of the Malabrero environment, Madrid



PHOTOGRAPHS BEFORE THE INTERVENTION

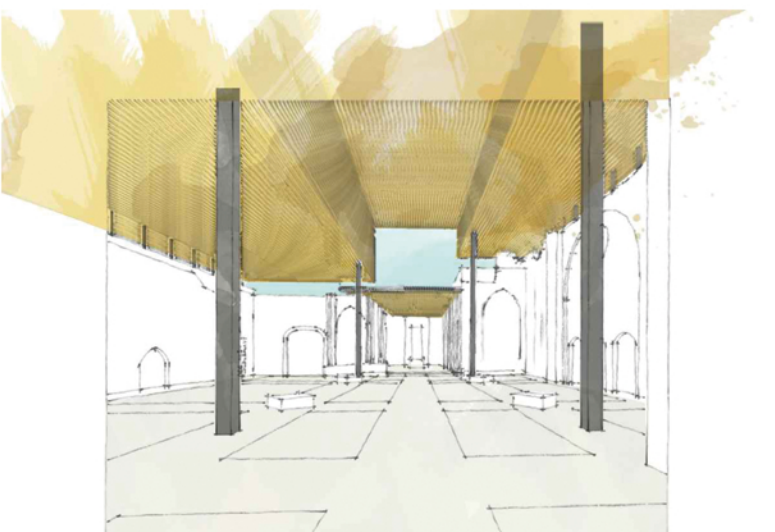


**BACKGROUND**

The urgent necessity to intervene in the Monastery of San Juan to protect and consolidate the ruin of the old church makes it a priority for Burgos City Council during the last years.  
In 2014 the European Urban Plan Burgos City Council has subsidy from the European Urban Funds, after that Burgos City Council decided to use these funds to promote a new roof to cover the ruins of the Monastery of San Juan.

There are two main objectives for this project. The city council of Burgos tries to rehabilitate and consolidate the ruin to obtain at the same time a new space isolated from the climatological conditions to celebrate different types of events for the city of Burgos. Patrimonio Cultural imposes the necessity to protect as much as possible the remains of the ruin and also to try to affect in the least possible way is the archaeological substrate.  
The architectural firm BSA CONSULT draws up the project attending to Burgos City Council, Patrimonio Cultural and JCyL requirements.

Previously to the drafting of the new cover a historical study of the Monastery of San Juan was commissioned to Fabiola Monzón Moya archeology. In this study the whole historical evolution of the monastery is collected from construction to this day.



**SHORT HISTORICAL REVIEW**

The remains that are currently known as Monasterio de San Juan belong to an architectural set that is the result of a mix of constructions and transformations projected over the centuries since it emerged as a Benedictine monastery, back in the eleventh century.  
The first phase of project development of the works consisted in the consolidation of ruin by removing plant elements that deteriorate the ancient walls. After removing the plant surface proceeded to review and, if necessary, restore parts of the walls most affected.  
During the works, the project leader found it necessary to analyze the stability and the strength of the ancient walls. The University of Burgos was commissioned to do this work. Different resistance tests were made at different points of ruin. The study concluded that ancient walls had strength enough to withstand the demands of the new cover.  
Only the perimeter walls of the church are preserved, leaving the interior as a large empty space devoid of buildings and with hardly any remains, except for the base of some pillars. Those ancient remains make it possible to initiate the design of the many chapels that were built there between the fifteenth and sixteenth centuries. Two serious fires devastated the monastery in 1436 and 1537, but it was definitely the French Napoleonic troops in their withdrawal with the explosion of the castle which ended up tearing down the church of the monastery of San Juan.



PHOTOGRAPHS DURING THE INTERVENTION



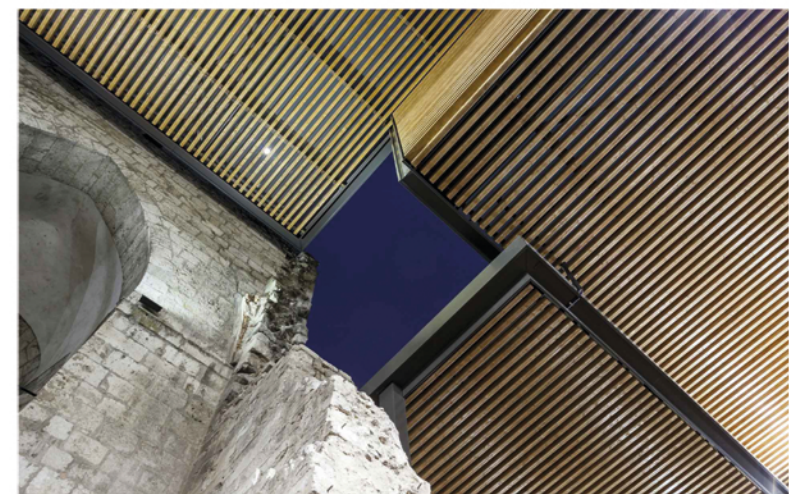
**THE PROJECT**

The new roof takes the shape of a large folded plane that evokes and takes us from its essence to the ecclesiastical typology of the three-apsed temple that originally existed. Two horizontal planes have been added to the folded surface in order to cover the apse and the northwest area. This set of plans, blending the contemporary vision with the respect for the remains of the church, seems to "float" above the ruin as an independent structure keeping the perception of architectural remains unaltered.  
From a construction point of view, this proposal is strongly respectful towards the architectural remains.

The planes of the cover are extended beyond the limits of the ruins, above walls, in order to ensure that the ancient architecture is protected. So as to affect as little as possible the archaeological substrate the cover support is reduced to a minimum with pillars located in the central nave. Limiting the number of pillars inside the church gives a clean and clear understanding view resulting from the absence of elements that could hide details of original plasters or wall fronts.

The project tries to give different cover with respect to ruins perceptions according to each point of view. The size of the cover was a very important point to consider from the beginning of the project to evidence the contemporary character and depth of the proposal while keeping the value of the historical remains. In this regard, very special care was taken to minimize the visual impact from the Arco de San Juan as it is the historic entrance to the old town. From this spot there is no perception of the cover and that is because the cover has been adapted to the different facade heights, lower and roofs to situate it in a clear background with regard to the architectural remains of the main facade in San Juan Square. On the contrary, if we look at the Monastery of San Juan from behind (Avar Garcia street or Calzadas street), where the city and urbanism change radically into a contemporary environment, the set of planes play a major role by being seen through a screen of trees surrounding the back ruins of the monastery.

Lighting is key in the intervention. Inside, the natural light filtered through the wood lattice accentuates the covered/uncovered split of the proposal and highlights the value of the ruins. However, at night a careful spot lighting of the architectural remains and an indirectly projected general lighting of the wood lining gives to the monumental space a suggestive enhancement. From the outside, the translucent glass folding plane illuminated from inside acts as a lantern that reveals the intense inner cultural activity.



**WORK PROCESS**

The first part of the work process consisted to consolidate the existing ruin. The removal of the vegetable mass that covered the ancient walls of the church of the Monastery of San Juan was the first work carried out.  
Once the architectural remains were consolidated proceeds to the implementation of the new cover.

The foundation was designed to affect as little as possible the archaeological substrate. It has implemented a micropile foundation system. This type of foundation minimally affects the protected ground. The excavation is reduced considerably.  
During foundation works, an archeologist was supervising the works and categorizing the remains of major importance obtained from the excavation. Some of these remains were donated to the Museo de Burgos to conserve them properly.

The aspects that were considered important when adopting the structural system are mainly mechanical strength and stability, safety, durability, slenderness and constructive ease. The structure of the roof has been resolved with a metal structure made of laminated steel.

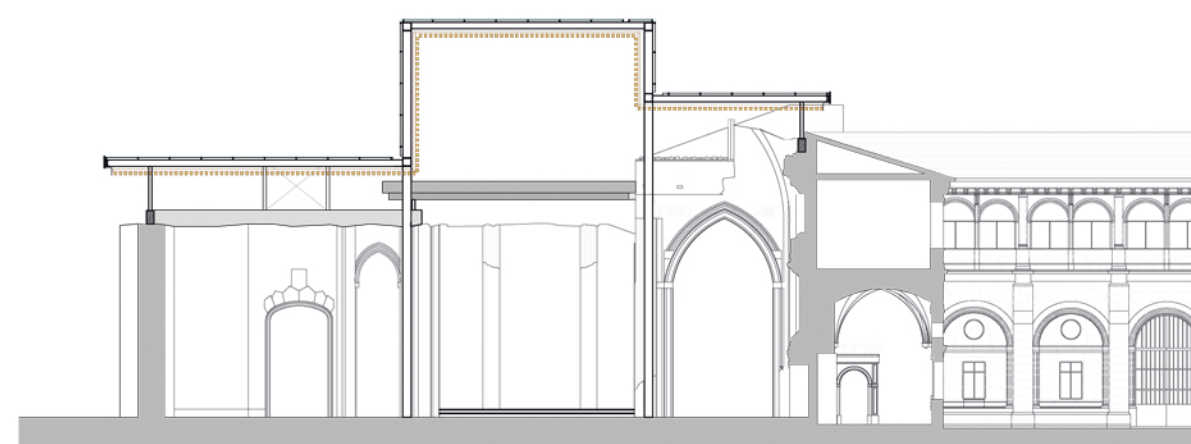
The structure was designed and calculated by specialized engineers in singular solutions. During the works, engineers redesigned and recalculated the structure to affect as less as possible to ancient walls. The structural design was conditioned by presence of only 4 pillars of 12 to 15 meters of height that sustain the entire central space. In order to avoid the push of the wind in the large vertical planes of the new roof, the ancient walls were used as a support. A band made of white concrete was designed over and along the walls. Over this band, a small laminated steel supports join the new roof with the ancient walls, working at traction-compression.  
The foundations of the four main central pillars are solved by a system of micropiles executed in-situ with a maximum length of 17.50 meters and a diameter of 160 mm. This foundation system was chosen to avoid the archaeological substrate damage. The large vertical planes were solved by two big trusses of 4 and 7 meters high and 31 meters long.  
The assembly of the structure was especially careful since it was a very difficult access space and surrounded by elements of high artistic value. The four main pillars are made up of HEB-500 profiles and covered with 10-millimeter plates and a weight of 4100 kg each one. The two large beams were moved in two halves each, joined by screws in the San Juan's Place before being elevated and moved into the interior of the ruin for its placement. The main beam has 37 meters of length and 7 meters of height and a weight of 14000 kg. Pillars and beams were lifted with a 700-tonne crane, not because of the weight but because of the height of the belly that had to be saved. The rest of the structure was assembled with the construction crane because it was completely bolted.  
After assembling the structure the following steps were the installation of the glass exterior cladding and the interior wooden false ceiling. Outside, the steel structure is covered with a singular system of steel cladding and facade, Viss TVS Vertical Facade and Cladding of Jansen. All the used glasses are a security glasses (8 + 8 mm). Inside, the new roof is covered with a false ceiling of laminated Wood slats (100 x 160 mm of section). This false wooden ceiling gives the interior of the new space a warmer look that talks in a better way with the historical remains of the ruin of the monastery.

During the works, the installation of an anti-bird mesh was necessary to prevent birds can nest in the new cover. This item was not provided in the Project.  
After the new cover was finished and all auxiliary construction elements were removed, a deep cleaning of the exterior walls of the ruin and some interior details that needed urgent action were occurred. The system used to clean the ancient walls was carried out by a specialist using traditional techniques.  
Finally a series of ramps are installed to remove any architectural barriers the building and make it accessible to people with disabilities.

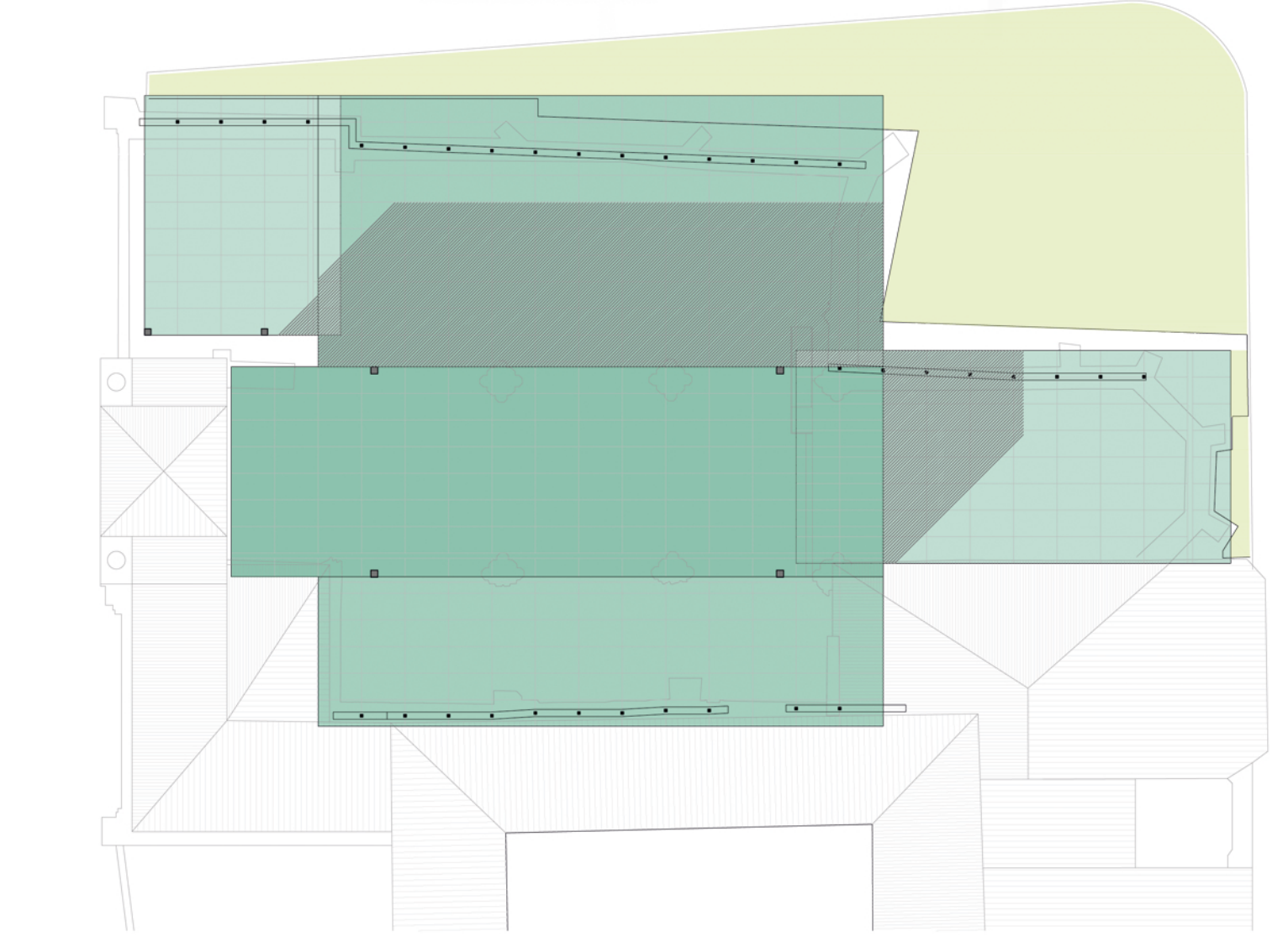
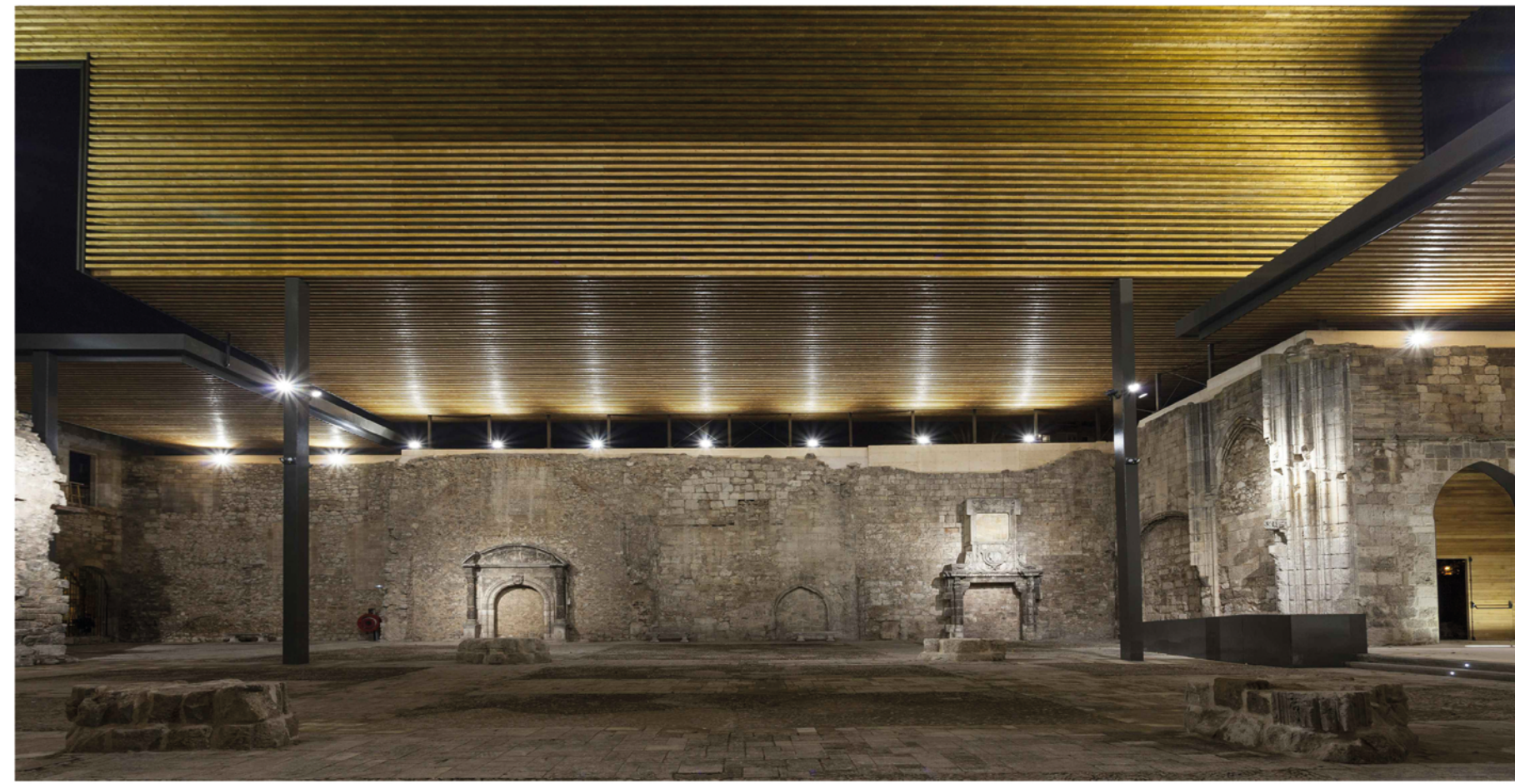
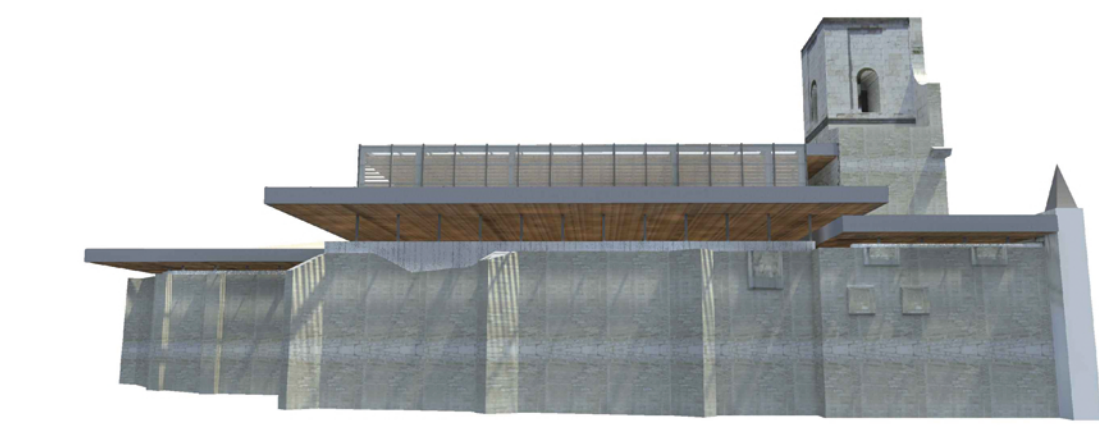
Also a maintenance plan for the new roof and the installation of a security system to carry out such maintenance, were required.  
Some maintenance stairs were installed between the different planes of the new roof. In the maintenance plan deadlines roof cleaning, maintenance under adverse weather conditions (wind, snow...) and the periods for review of the structural elements are described.  
The project has finished completing everything required.



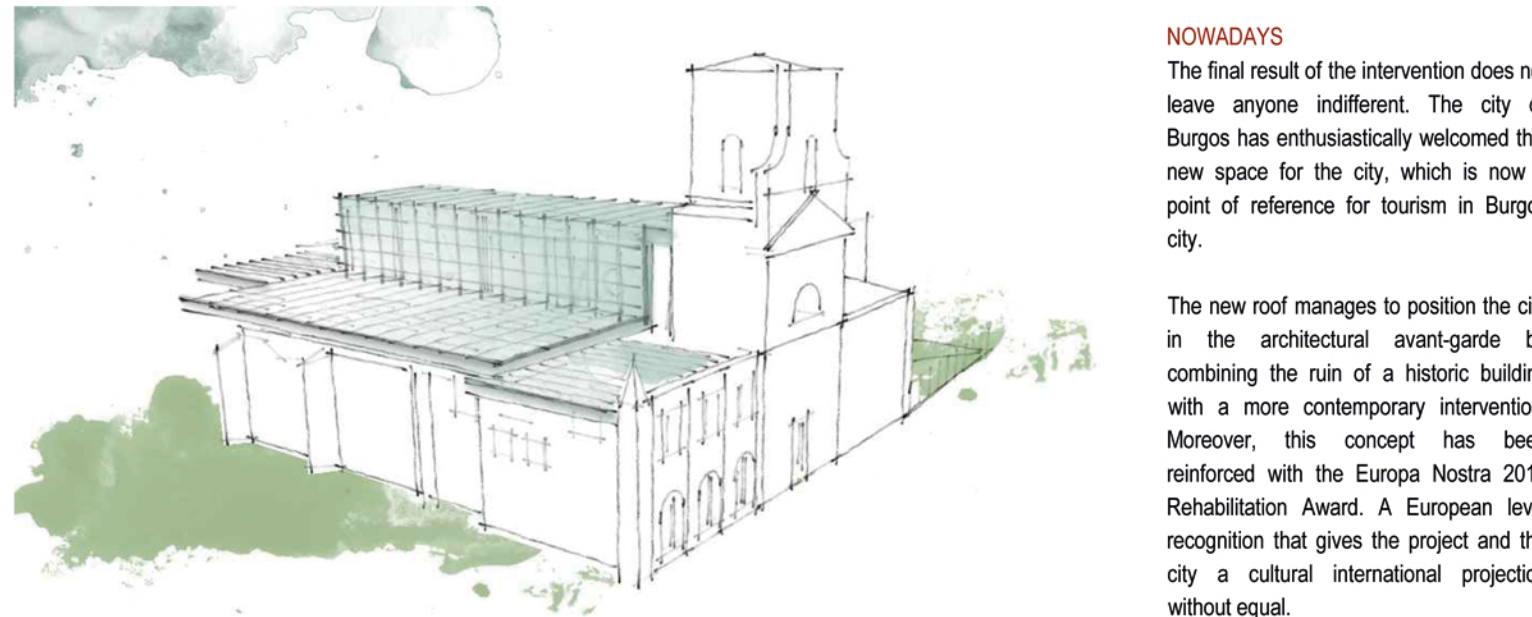
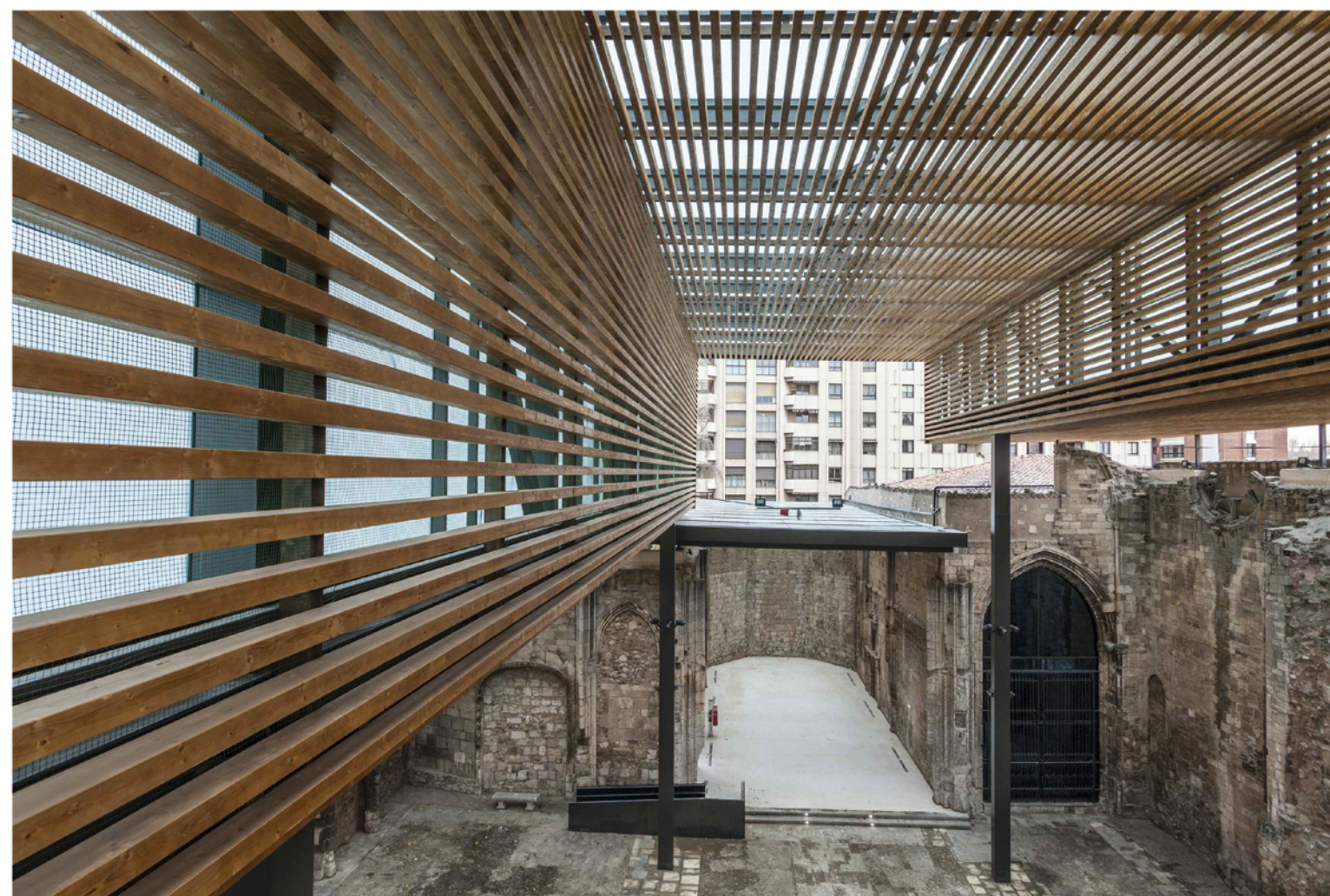
ELEVATION 03\_1300



SECTION 03\_1300



ROOF PLAN\_1300



**NOWADAYS**  
The final result of the intervention does not leave anyone indifferent. The city of Burgos has enthusiastically welcomed this new space for the city, which is now a point of reference for tourism in Burgos city.

The new roof manages to position the city in the architectural avant-garde by combining the ruin of a historic building with a more contemporary intervention. Moreover, this concept has been reinforced with the Europa Nostra 2017 Rehabilitation Award. A European level recognition that gives the project and the city a cultural international projection without equal.