

GENOVA MERAVIGLIOSA rigenerare geNOVA | 2019



GENOVA
HENNEBIQUE

AGENZIA DELLE DISCIPLINE
E DEI MONOPOLI

SILOS di GENOVA

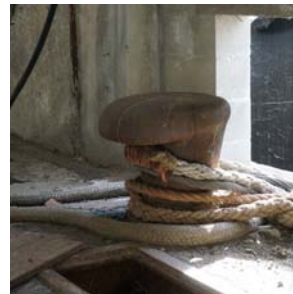
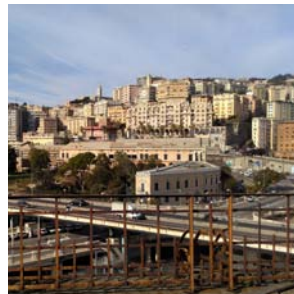
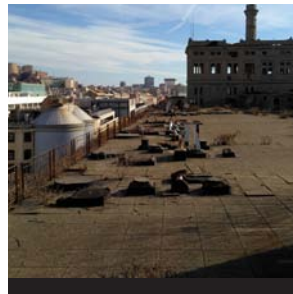
GENOVA HENNEBIQUE

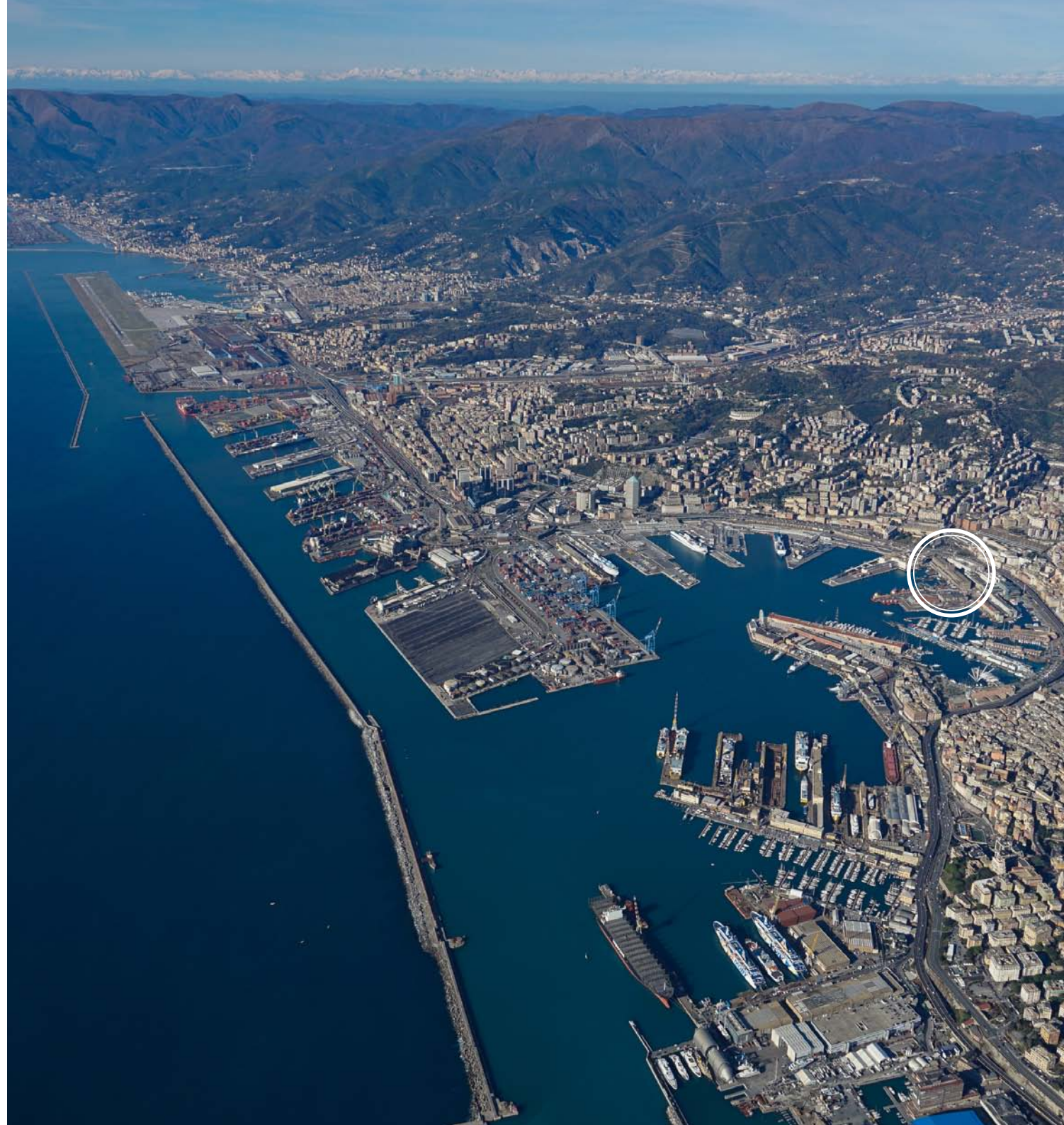
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“HENNEBIQUE” SILOS

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Cover photo @Stefano Anzni

“HENNEBIQUE” SILOS

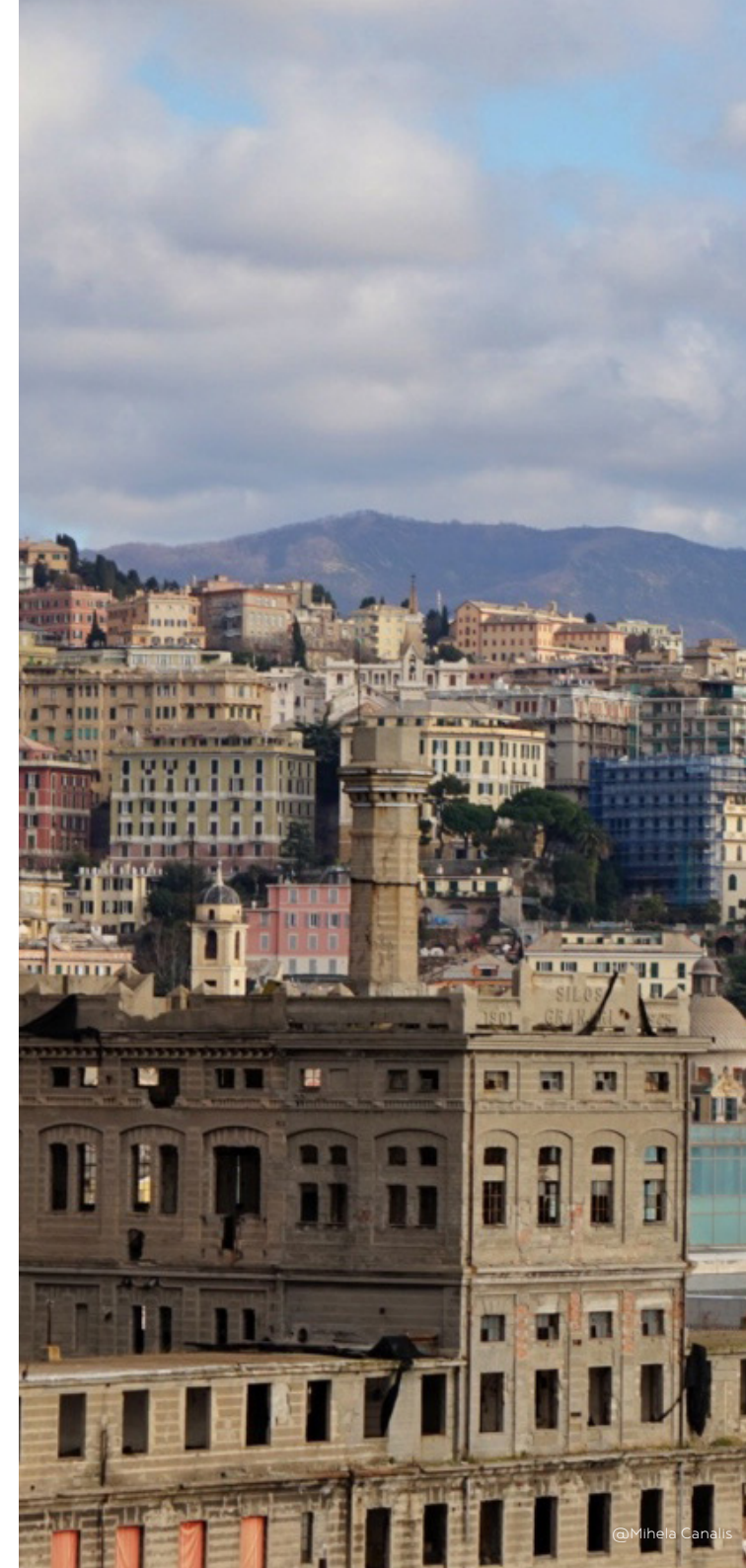


INTRODUCTION

The Hennebique grain silos is considered one of the most striking reinforced-concrete buildings of the 20th century. Strategically located on the waterfront of Genoa's Old Port, it looks the sea and the city's historical centre, the building sits adjacent to Genoa's Cruise and Ferry Terminals and close to Piazza Principe railway station.

In disuse since the 1980s, today these silos have received full planning permission for the conversion, preserving the structure's historical and technical features, with the objective of integrating the building seamlessly in the highly successful large-scale redevelopment of Genoa's old port. The plan is set to transform the building into a multi-service hub, to cater for cruise & tourist activities, and to host urban and cultural events.

The concession of the property will be awarded by the Port Authority of the Western Ligurian Sea (Ports of Genoa) via a public tender, and will call for the renovation and reuse of the building in the context of surrounding urban space (and naturally respecting the guidelines regulating the conservation and protection of listed buildings). The Hennebique grain silos project represents the final step in the completion of the redevelopment of the old port and constitutes the central element of a promenade that crosses the entire basin of the district.





“HENNEBIQUE” SILOS

URBAN CONTEXT





Principe Station

Prè-Visioni

Galata Museum

HENNEBIQUE

Cruise Terminal

Aquarium

Porto Antico

Palazzo San Giorgio

Bigo

Magazzini Di Cotone

Palazzo Ducale

“HENNEBIQUE” SILOS

CONTEXT

The Hennebique Silos are set in a highly urbanised context. The building, which represents the final step in the completion of the urban redevelopment of the Old Port, close to principal cultural heritage sites and architectural attractions, has the potential to become the central key link in the pedestrian promenade that crosses the entire old port district.

The building is located adjacent to the Port of Genoa’s art deco Cruise Terminal, which ranks as one of the leading cruise facilities in the Mediterranean. In addition, Genoa has successfully capitalised upon its strategic geographical position to operate an extensive range of daily scheduled ferry services to Sardinia, Sicily, Corsica, Spain, Malta and North Africa. Over 3 million passengers use Genoa’s Cruise and Ferry Terminals yearly.

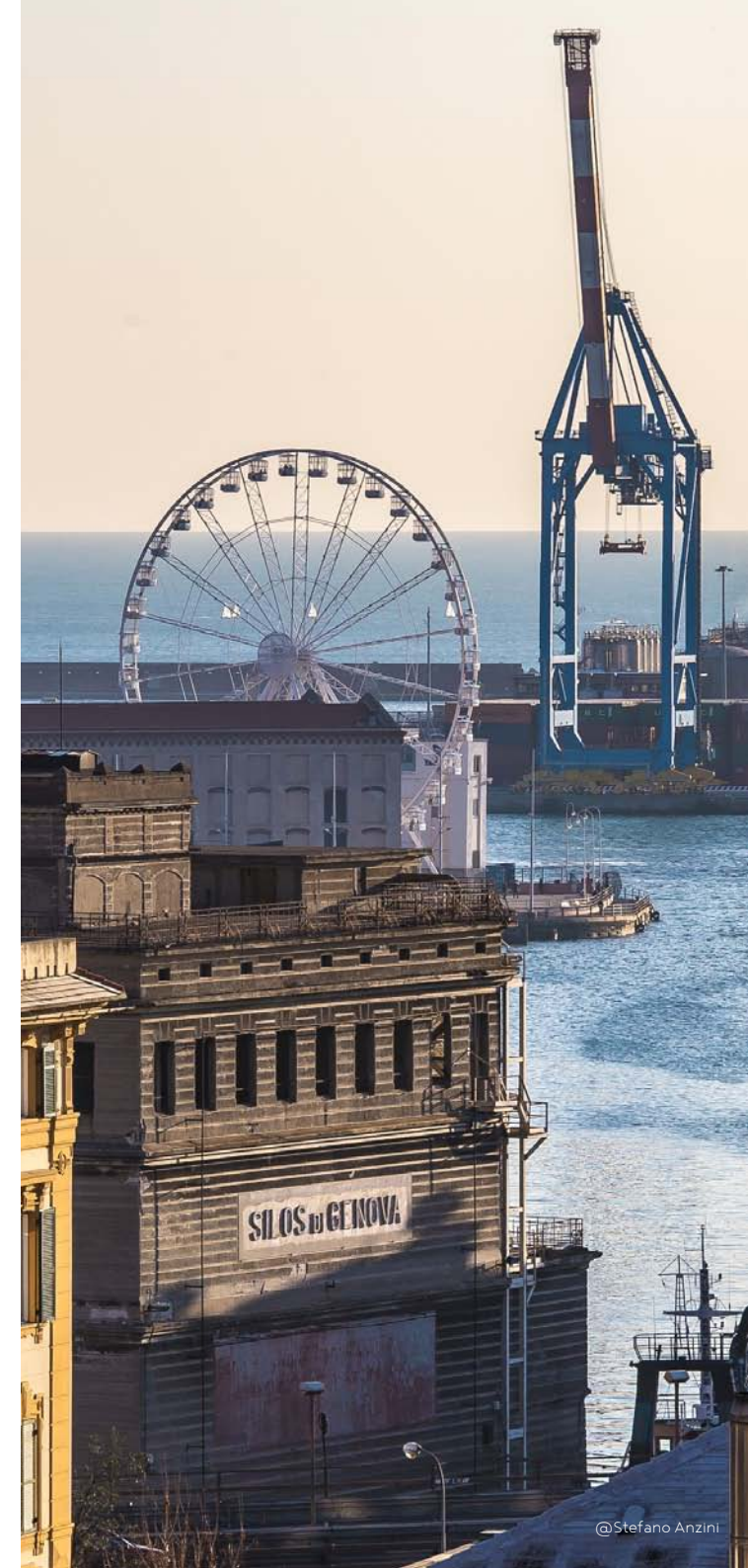
The Hennebique Silos sits close to Piazza Principe railway and underground stations, in an area which is well connected to the integrated public transport network.

The surrounding urban fabric is characterised by a diversity of uses, consequently the silos building can successfully accommodate a wide variety of activities. The property is located close to parts of the university (the Faculty of Economics in the Darsena area, Departments of the Faculty of Arts in Via Balbi) and to popular cultural attractions and museums: for

instance, the 17th century Palazzo Reale (Royal Palace) Museum, one of a number of magnificent landmarks lining Via Balbi and registered as “Palazzi dei Rolli”, a designated UNESCO World Heritage Site. In addition, the Hennebique Silos looks onto the Romanesque Commenda di Prè, a magnificent medieval building, which today operates as a venue for exhibitions and multimedia art installations.

A two minute stroll takes you to the elegant complex which is the Mu.MA (Museums of the Sea and Migration) Hub which brings together the Galata Museo del Mare (Maritime Museum) in Darsena, and the 16th century Lanterna (the Lighthouse), both located on Genoa’s waterfront.

The neighbouring area features public and private residential buildings, shops (located primarily along Via Gramsci, Via Prè and Via Balbi), hotels and a wide selection of privately rented accommodation (in particular close to the railway station).

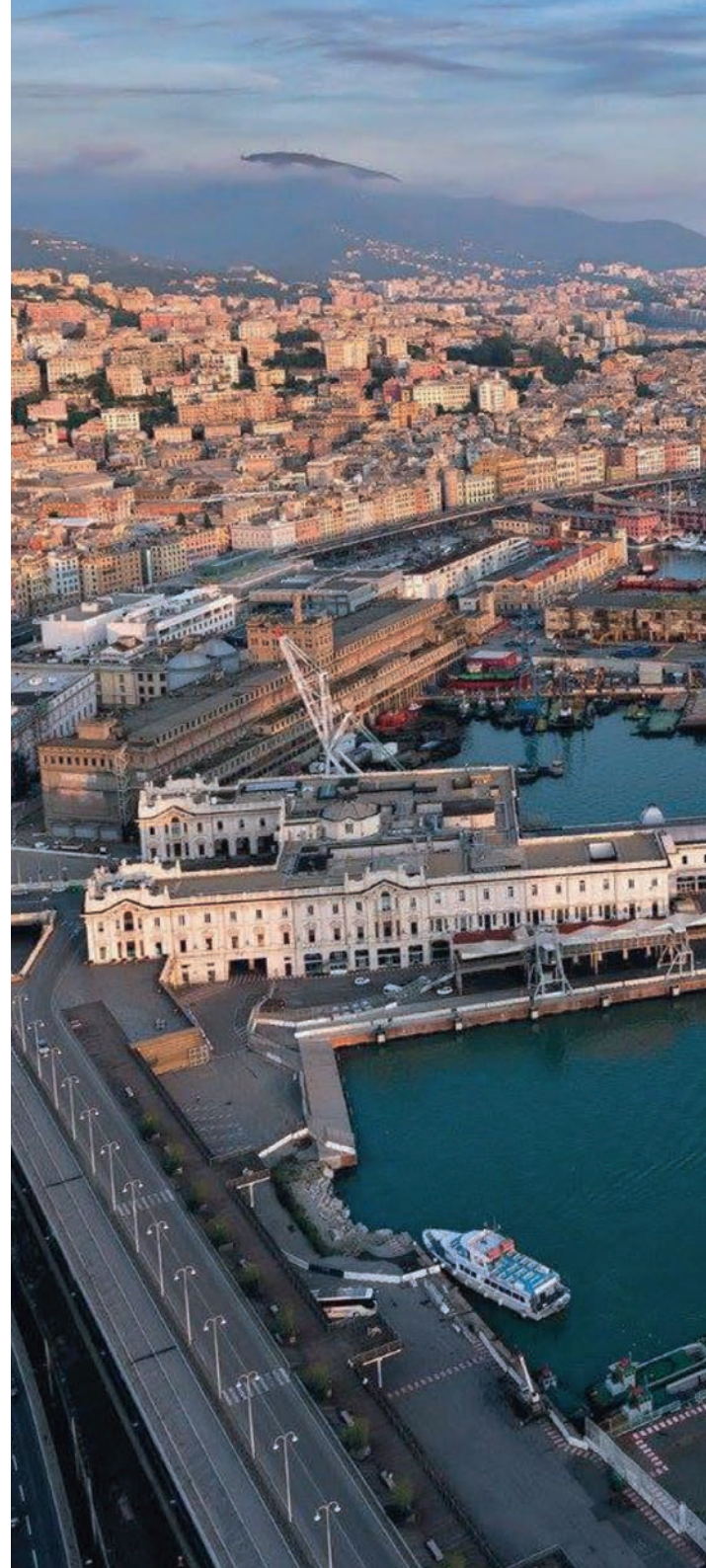




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“HENNEBIQUE” SILOS

THE PAST

The structure of the building, which was conceived and functioned effectively as an industrial “machine”, was inspired by the mechanical systems deployed for unloading grain; in fact, the first information leaflet on the new plant illustrated a schematic diagram of the handling of grain.

Built between 1899 and 1901, the reinforced-concrete structure came into operation in 1901, at that time it consisted of only the central body (where the machines for the suction of the grain were installed) and the first two storeys of the wings. In the following years, two major extensions were built (1911 and 1929) by the company Ferrobeton, but structural modifications and extensions continued until the Second World War. Even the suction machines were replaced and a new pier was built over the existing pier, after the war, subsequently demolished in 1999.

The Art Deco building is a striking example of industrial architecture. It remains one of the greatest achievements of the engineer Giovanni Antonio Porcheddu, holder of the Hennebique patent in Italy, the only manufacturer at the time able to handle such complex architectural themes, whilst simultaneously preserving the monumental quality sought by the engineers Carissimo, Crotti and De Cristoforis.

Given its exceptional structural characteristics, on 4th April 2007 the Italian Ministry of Cultural Heritage and Activities declared the Hennebique Grain Silos to be “Site of Historic and Artistic Interest,” and “an important example of industrial architecture in Genoa.”





“HENNEBIQUE” SILOS

▼
TODAY

Dimensions

The building measures approximately 212 x 39 metres, the core building is 30 metres high, the central body 40 metres and the central tower at its highest point is 50 metres tall.

Building Classification

A reinforced-concrete construction, built for industrial purposes, of monumental dimensions, over 200 metres in length in the longitudinal direction along Calata Santa Limbania in the Old Port.

In terms of its composition, the construction presents a substantially symmetrical central structure, highlighted by the axial position of the chimney, whilst the details of the façade enhance the engineers' choice to celebrate the spectacular monumental dimensions of the building, rather than drawing attention merely to the industrial vocation of the site (moulded stringers, rusticated, flat arches, bass relief etc.). The section of the building overlooking the sea is divided into six storeys, mostly windowed panoramic areas, whilst the section facing inland is largely windowless, with the exception of the last two storeys and the central body.

Internally, much of the space was conceived as a grain storage facility. The imposing central tower was equipped to unload, process, distribute and store the grain.

Layout

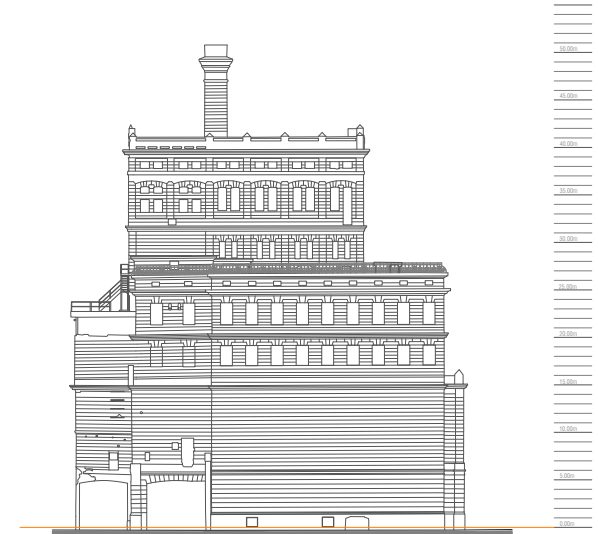
The construction, effectively conceived as a “building-machine”, is divided into a central body primarily dedicated to suction rooms, a tower which accommodated grain elevators and the two side wings containing the actual grain silos.

Conservation status

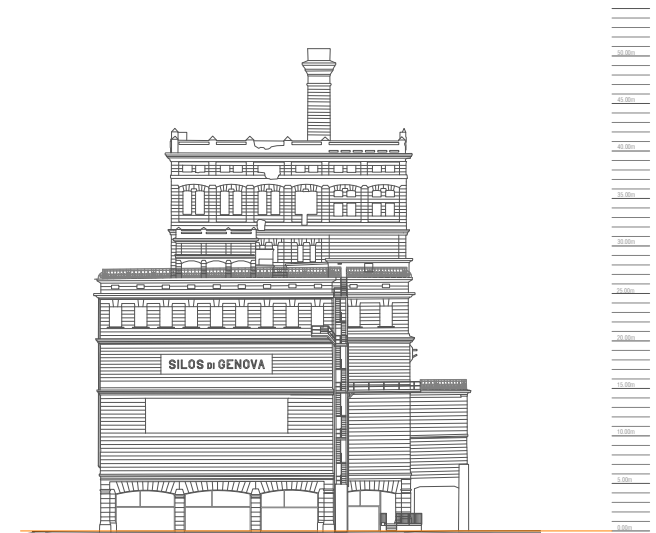
Operational until the end of the 20th century, the building is now in a state of neglect, even if structurally it does not show any significant signs of fragility. With reference to the conservation of the structures in concrete, the deterioration can be attributed to two factors: intrinsic characteristics of the material and environmental conditions.

Survey Updated 2018

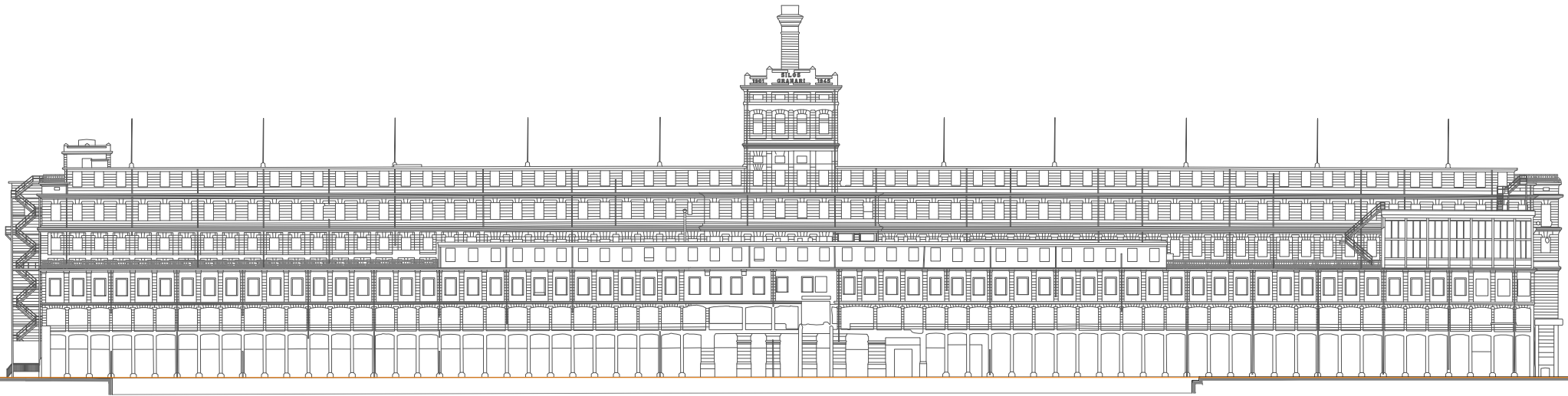
In 2018, the Western Ligurian Sea Port Authority commissioned a comprehensive site survey which provided detailed data of the state of conservation of the property.



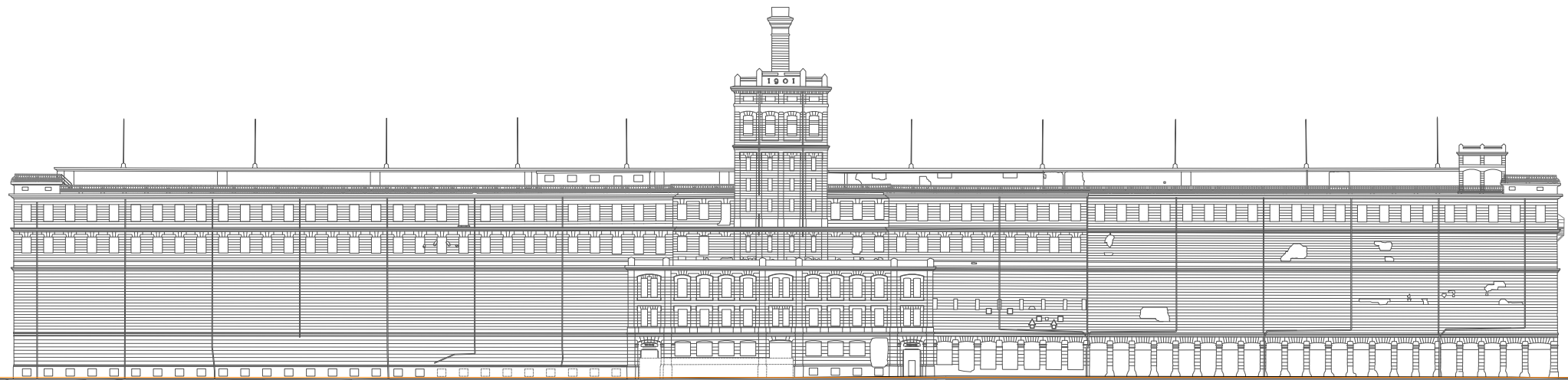
EAST ELEVATION



WEST ELEVATION



SOUTH ELEVATION



NORTH ELEVATION

“HENNEBIQUE” SILOS

▼
TODAY

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The survey of the architectural structure was carried out using topographic instruments, laser scanners and 360 panoramic cameras to capture panoramic images. With the aid of the detailed photographs taken, a dynamic virtual path was created across the building that provides immersive panoramas of the property. The plans, facade and sections produced are an important source of data of the building that will be made available to those who submit an expression of interest in the concession.

Structural Study Updated 2018

In 2018 a structural study was carried out to evaluate the building, considering both the minimum necessary and maximum allowed demolition. This study also contains an assessment of the compliance of the building with the currently applicable building regulations regarding seismic requirements. This material will also be made available to companies who submit an expression of interest in the concession.

DIMENSIONS OF THE BUILDING

212X39
M

HEIGHT CORE BUILDING

APPROX.
30 M



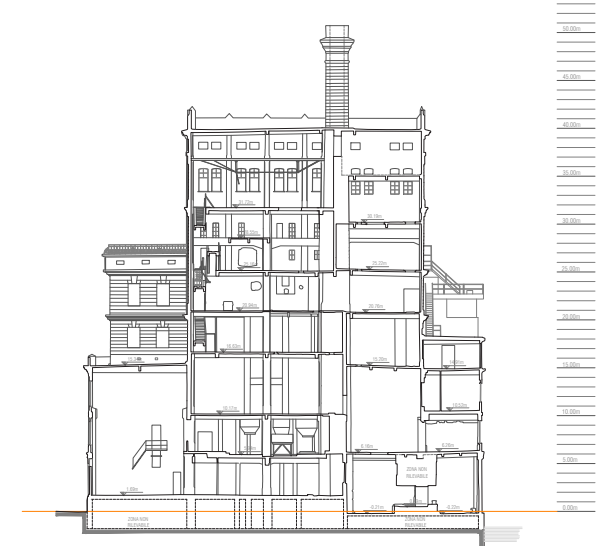
HEIGHT CENTRAL BODY

APPROX.
40 M

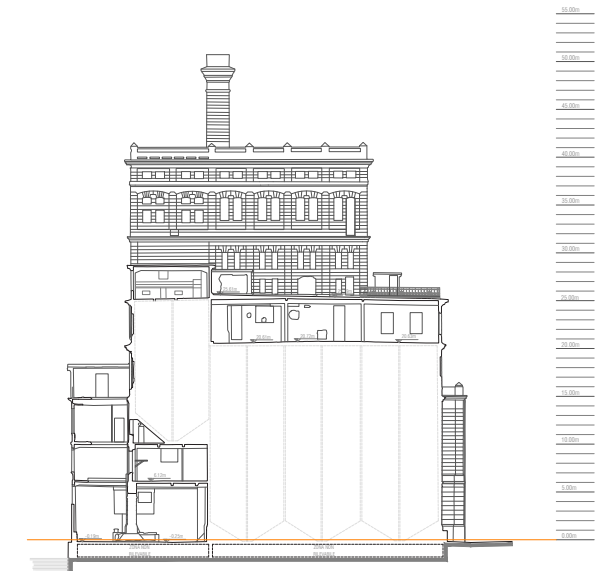


HEIGHT CENTRAL TOWER

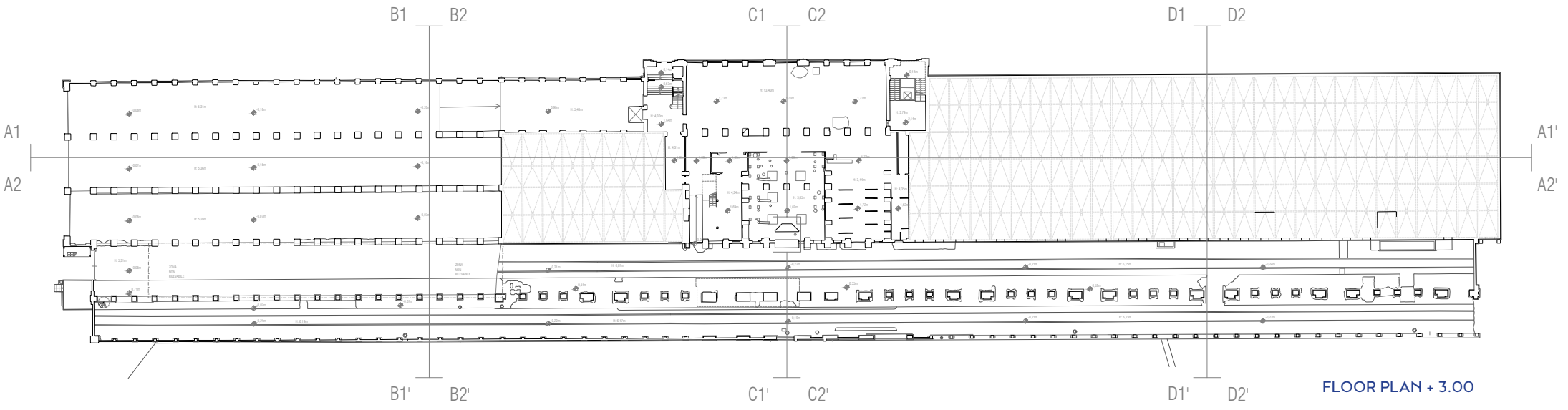
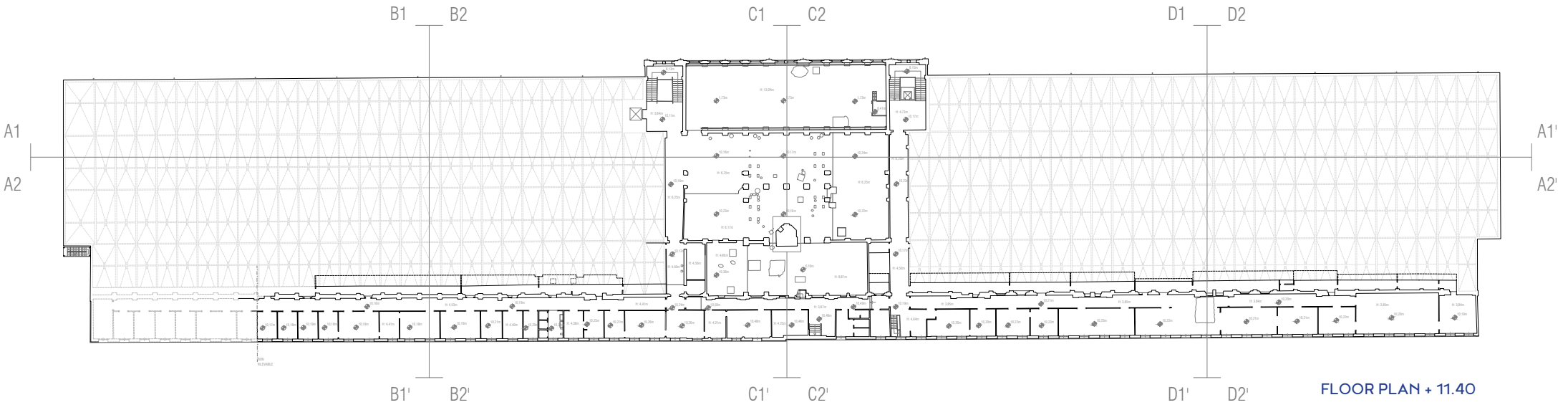
OVER
50 M



SECTION C2 - C2'



SECTION D1 - D1'



“HENNEBIQUE” SILOS

THE NEW REDEVELOPMENT PROJECT

The Hennebique Silos is strategically located in the heart of the Old Port (pedestrianised area along the Genoese waterfront, overlooking the historic city centre, site of the aquarium, conference centre, cinema, retail outlets, bars and restaurants etc.) and connected to the city centre.

Given the urban context of the Hennebique Silos, the objective is to integrate the property seamlessly in the highly successful large-scale redevelopment of Genoa’s Old Port and to use the building to bridge the gap between the urban fabric and the cruise and tourist activities which characterise the area.

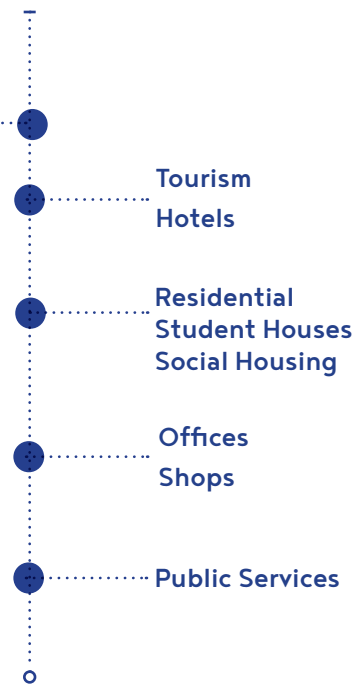
Recent changes to legislation have expanded the range of possible alternative uses, to include residential, tourist, hotels, tertiary, research centres, retail outlets and corporate functions, with the exclusion of industrial uses.

The property owner has allocated 10 million euros for the possible purchase of a section of the building, currently estimated at 4,000 square meters, for institutional uses.

Although it is important to underline that the building is subject to restrictions by the Superintendence, nevertheless the guidelines drafted together with

the Superintendence has introduced ample margin for redevelopment and demolition of the building, allowing great planning flexibility, whilst preserving and enhancing its value as a fine example of industrial archaeology

USES



GENERAL INFORMATION

LOT AREA

APPROX
8,250
SQM

NUMBER OF STOREYS

6 + 1

(BASEMENT)

TOTAL VOLUME

APPROX
220,000
M3

INCLUDING THE VOLUME OCCUPIED BY
THE GRAIN STORE (GRAIN CELLS)



EXISTING WALKABLE
SURFACE AREA

APPROX
26,300
SQM

GRAIN CELLS
(17 M AVERAGE HEIGHT)

APPROX.
14,700
SMQ

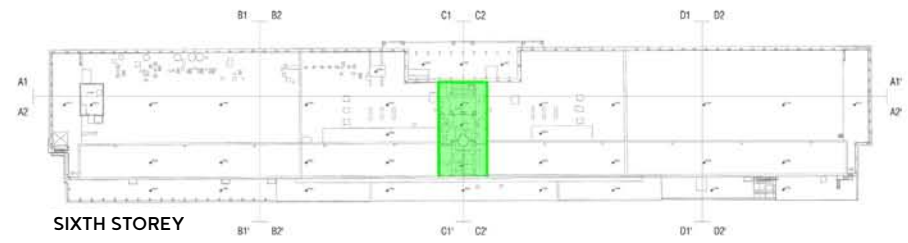
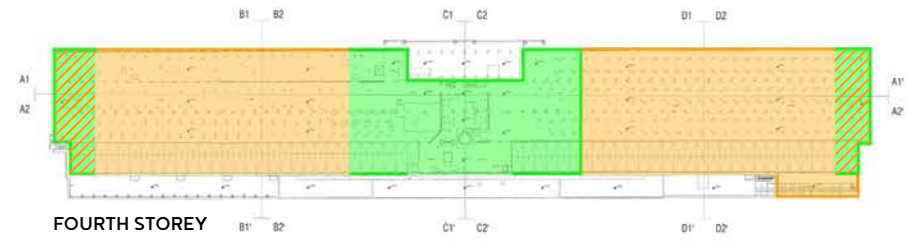
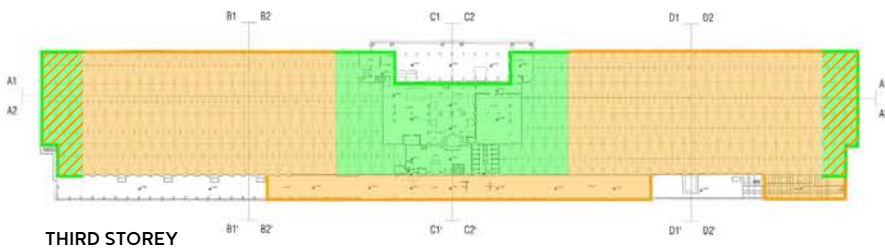
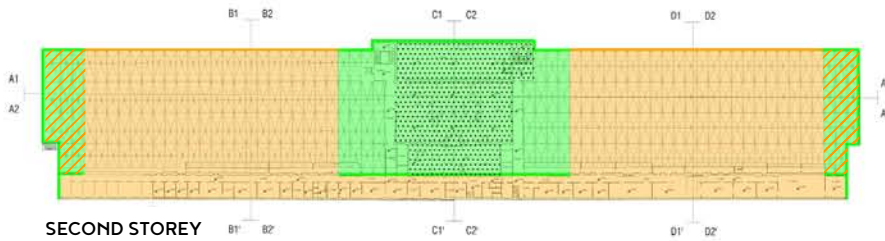
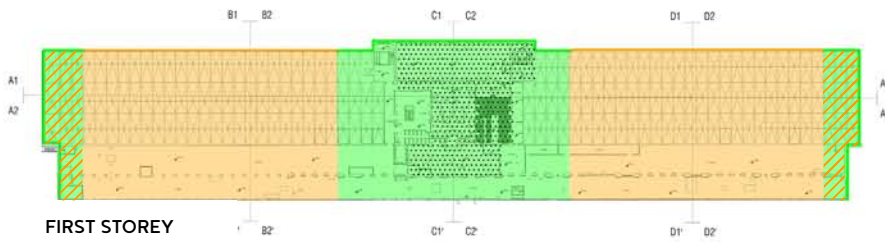
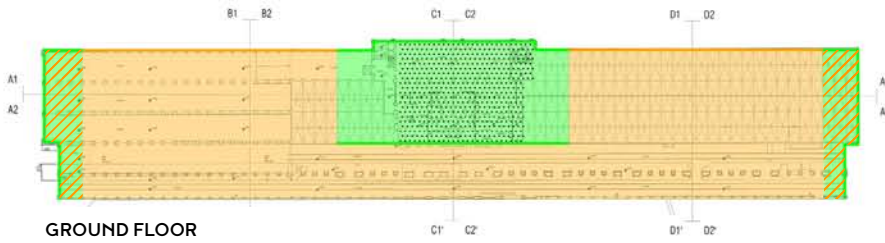
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
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POTENTIAL TOTAL WALKABLE
SURFACE AREA

OVER
41,000
SQM



KEY

-  Section to be preserved
-  Possible demolition area
-  Section of the building of historic heritage
-  The east and west side elevations can be opened up and connected to the exterior.

“HENNEBIQUE” SILOS



CONCESSION CONTRACT AWARD PROCEDURE

DATES FOR CALL TO TENDER

- 30th March 2019** ■ Call for tender for the concession, with an indication of the deadline for submission of offers (60 days) and a specification of the tender evaluation criteria;

- 30th May 2019** ■ Receipt of offers and the publication of an abstract of each offer for public consultation;

- Evaluation of the offers submitted and presentation of the concession award notice.

ALL PARTICIPANTS WILL BE SUPPLIED WITH THE FOLLOWING DOCUMENTS:

- A detailed and comprehensive survey of the entire building;

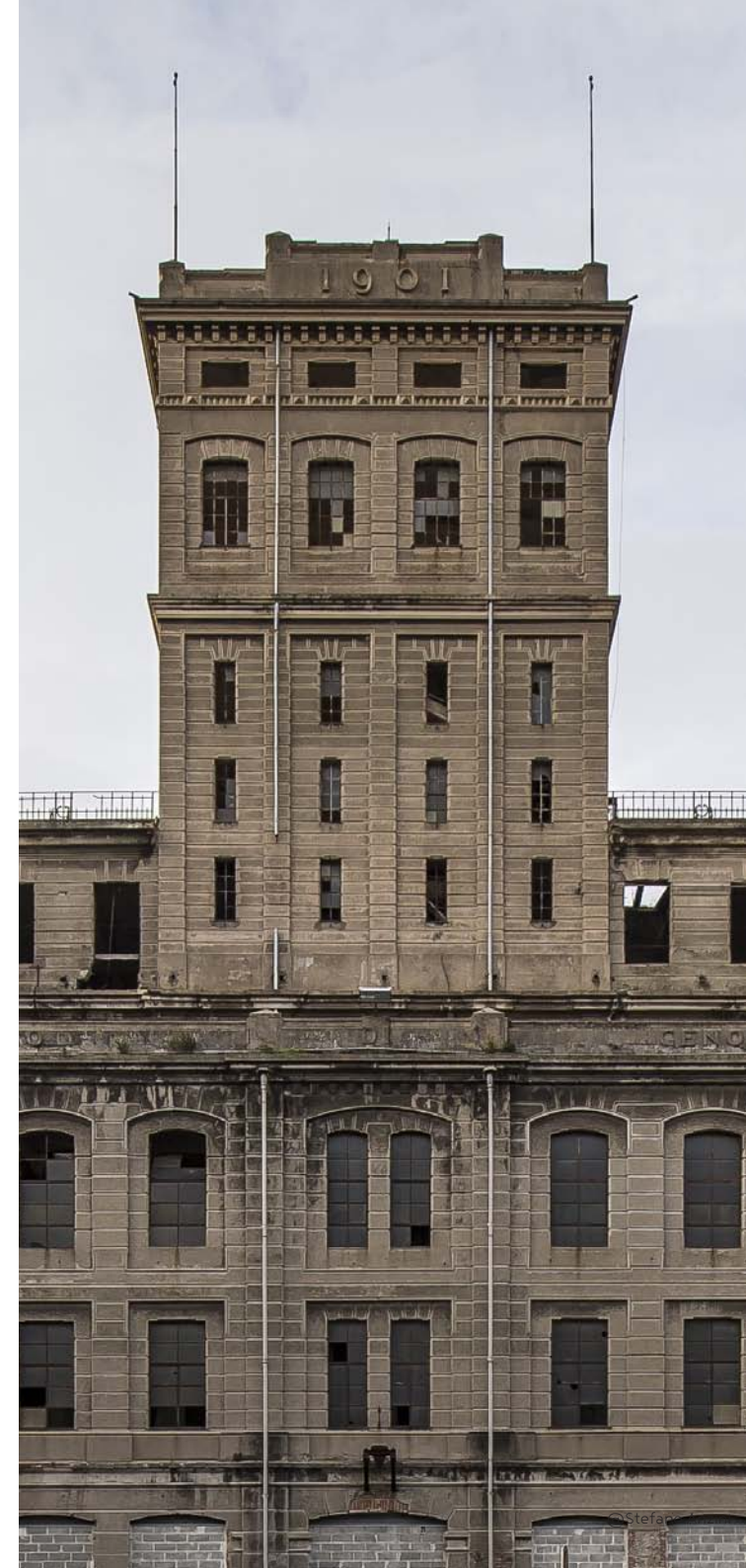
- A virtual tour inside the building and interactive panoramic photographs;

- A structural study and analysis of current static conditions and simulations based on possible demolition works on the building;

- Min./max. estimate of demolition costs;

- Building Information Modelling (BIM) of the building;

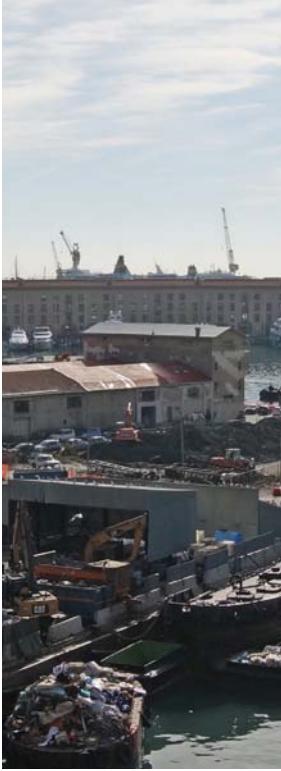
- Guidelines of the building already approved by the Superintendence, with an indication of the approved options for construction works on the building.





AGENZIA DELLE SICUREZZE
E DEI MONOPOLI

SILOS di GENOVA





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COMUNE DI GENOVA





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