

## **PROGRAMMATIC REFERENCES**

The Cagliari Airport's Master Plan assigns to the area already occupied by the Elmas Airport Detachment a destination for aeronautical activities not related to the movement of passengers.

In particular, the following functions are assigned to this area:

- 1. Technical maintenance base, consisting of the hangar system in front of the aircraft's apron;
- 2. Directional Services, consisting of the central lot of buildings with cultural and non-cultural value;
- 3. Receptive services, consisting of peripheral buildings with cultural and non-cultural value, outside the current airport fence.



The end use of the buildings are included in the configuration proposed by the Master Plan definitively approved by ENAC in April 2017 following the issue of:

- ✓ Ministerial Decree N° 162 of 13 June 2014 which established the environmental compatibility of the interventions.
- ✓ MIT Decree published on the second part of the GURI n° 8 of 19 January 2017 which ratified the urban conformity of the interventions.



In compliance with the provisions of Ministerial Decree 162/2014 (VIA of the Cagliari Airport Master Plan), is drawing to a close the verification procedure of the cultural interest of the properties in accordance with the art. 12 of Legislative Decree 42/2004. (prescription n° B11).

The buildings will be subject to conservative restructuring, with the limitations resulting from the restrictions imposed by the Regional Directorate for the Cultural and Landscape Heritage of Sardinia.

Furthermore, conservative restoration interventions must be aimed at limiting energy consumption in accordance with Directive 2010/31/EU (prescription  $n^{\circ}$  A11).



The "Mario Mameli" former Military Airport complex is located in the municipality of Elmas (CA), about 7 kilometers from the capital.

The compendium is adjacent to the Santa Gilla Nature Reserve area, as defined by the Regional Law n. 31/89 "Rules for the establishment and management of parks, reserves and natural monuments, as well as areas of particular naturalistic and environmental importance".

Moreover, the area partially falls within the Site of Community Interest "Cagliari Pond, Macchiareddu Salt pans, Santa Gilla Lagoon" (code ITB000023) and interferes marginally with the ZPS established under the "Habitats Directive".

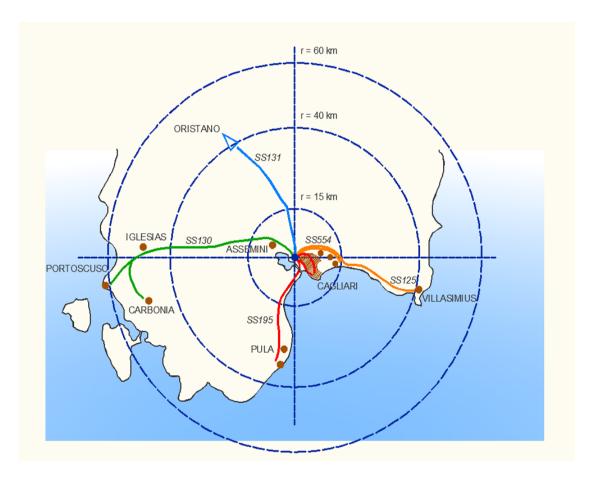
It is a settlement system composed of a set of buildings of different functional nature already destined for military purposes including also the rooms intended for guest quarters. The building complex is the real airport, a former water-terminal, organized according to a rigorous infrastructural mesh, developed around a central axis that originates in the so-called 'winged entrance'.



Compared to the first and second level traffic system, the airport has a tangential position to one of the radials of this system, in particular the SS 130, and considering its proximity to the SS 554, the access infrastructure to the airport it's directly connected to all the other routes of the territorial and urban level.

This favorable condition places Cagliari Airport in a central position with respect to all the territorial quadrants, thus contributing decisively to the definition of the catchment area.

With the center of the airport area, within a radius of less than 15 kilometers, in addition to the urban area of Cagliari, which is actually about 7 kilometers away, the urban centers along the SS130 road, can be reached those of the eastern urban crown (Pirri, Monserrato, Selargius, Quartucciu and Quartu Sant'Elena), as well as the industrial port.



Within a radius of 40 kilometers from the airport are also included the centers of the coastal tourist system of the Cagliari area, including Pula, to the south, and Villasimius, to the east.

Within about 60 kilometers from the area, fall the main urban centers of the Sulcis-Iglesiente (Iglesias and Carbonia) and the coastal ones (Portoscuso). Finally, with a distance of more than 60 kilometers, is present the urban center of Oristano.





Territorial framework and primary road network





Airport ground







General plan of the western section of the area. Buildings not available in red



The site now contains over 50 buildings, to which must be added infrastructures and artifacts still connected to military functions, divided into the following broad categories:

1) Housing, barracks and staff support environments; 2) warehouses and storage locations; 3) laboratories, workshops and plants; 4) bunkers and shelters; 5) hangar.

The description and analysis of the individual properties, as regards the expression of interest, has been divided, for a simpler organization of information, into five compartments (A-E), which include adjoining buildings, characterized by different morphological and functional nature and different interest historical or artistic. However, in the definition of the perimeters, we tried to respect a certain aggregative consistency, avoiding the interruption of the continuity of open and common spaces and paying particular attention to the chronologies and functions historically carried out by individual buildings.



The buildings, mainly referred to the first seaplane base plant, show numerous similarities linked to the adhesion to the formal canons of the Italian rationalist architecture.

The unity of the artefacts emerges both from the historical-artistic point of view and from the technical-constructive point of view, making the almost totality of the compartment of considerable cultural interest and therefore worthy of protection.

These are generally characterized by planimetric systems consisting of the unification of several simple, cylindrical or parallelepiped volumes, with different projections and heights, large shelters and often with rounded corners.

From the structural point of view they have foundations consisting of plinths and beams in reinforced concrete or reinforced concrete plinths and concrete slabs.

The supporting structure of the elevators is in reinforced concrete with plastering of the building envelope in solid bricks for an average thickness of 40 cm and plaster finish in mortar of 'lime, cement and sand', externally painted with plastic quartz paints. Alternatively, the solution of plastered brick infill panels is adopted.

The partitions are of a variable thickness of 10-20 cm in perforated bricks, with an embossed and dull finish and washable and semi-washable tints.



The slabs are generally made of plastered concrete, with a reinforced concrete structure - in view where they are not obliterated by subsequent false ceilings - with the widespread use of the characteristic profile of attachment to the perimeter curb of the 'dovetail' type. Occasionally, the presence of full reinforced concrete slabs, the use of large portals in r.c. and 'coffered' structures, with crossed beams or 'radial beams'.

The roofs are always of the type mixed-structure floor, bricks and reinforced concrete, with waterproofing in bituminous sheaths with frequent recourse to the solution of the staggered on different altitudes.

Of notable architectural interest are the staircases, made with mixed structure in reinforced concrete and bricks, particularly cured under the formal profile and in the choice of finishing materials, equipped with staircases and masonry parapet or railing in shaped iron tubular with sinuous movement.

The material most used in the treads is the 'Bardiglio' type of marble in 3-5 cm slabs, which is combined with slate for the risers and / or the skirting board; in other cases, the steps of the internal stairs are made of travertine slabs, polished and polished granite slabs or slabs of cement grit.



Also interesting are the external solutions to overcome the differences in height, solved through entrance stairs to the buildings, geometrically shaped with curvilinear profiles in adaptation to the different elevations, generally covered in travertine or, more frequently, in slabs of rough granite.

Although widely compromised, it is still possible to identify a copious representation of historic windows, both exterior and interior, made of pre-painted iron and glass, whose design varies according to the formal methods of the building and the functional needs of the rooms (with doors) fixed, movable or transoms, with different scores and obscuration mechanisms). For the interior fixtures, beyond the iron, the wooden window is naturally adopted (with blind door, glazed door, with or without transom window, up to the large frames with modular panels).

As for the interior finishes, many of the pavements still in work in stoneware tiles (monochromatic, red, or bichrome) are to be considered of historical-constructive interest. In particular, we note the use of the alternation 'red-black' and 'red-ochre', laid with a herringbone pattern or curtain to create different geometric decorative patterns. The thresholds and sills are generally in marble.



Consistent with the rationalist imprint of the site, the decoration of the architecture is evident from the formal care of some functional and furnishing elements such as the railings in tubular metal elements, which follow the characteristic curvilinear profile of the buildings and the systems for covering and plinthing the buildings., predominantly resolved with travertine slabs.

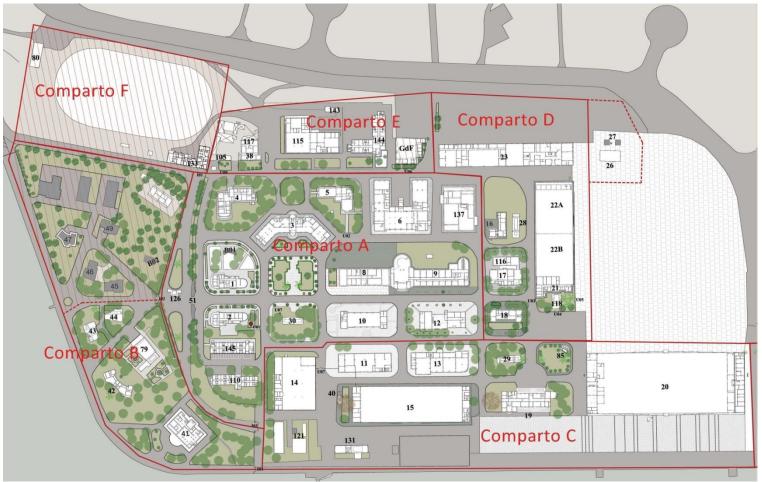
The anti-bomb shelters are also part of the compendium, two of which were made under the Second World Conflict (not in the object of the expression of interest) and one at the end of the Cold War (PG137).

All the buildings and artefacts mentioned, with their architectural, infrastructural appurtenances and the green spaces with the relative trees (pines, palms, hedges, autochthonous essences, etc.) are to be considered as material evidence of the 'big enterprise' of infrastructures started in the thirties of the twentieth century by the nascent Italian Air Force, or 'Arma Azzurra' and therefore to be preserved in the aspects not only architectural and material, but also in their urban layout, together with the contemporary and contiguous emergencies of the other sectors.



Planimetric scheme of the site divided by compartments.

The data provided are taken from the study for the verification of cultural interest pursuant to Article 12 of Legislative Decree 42/2004 of the real estate assets included in the former Elmas military airport, drafted with the advice of the Department of Civil, Environmental and Architectural Engineering (DICAAR) of the University of Cagliari.





TOTAL AREAS AND BUILDING VOLUMES							
PG	NAME	TOTAL AREA (mq)	VOLUME (mc)				
	COMPARTMENT A						
1	GUARD HOUSE	527,09	2.564,00				
2	DEFENSE GROUP COMMAND	483,19	2.223,00				
3	STANDARD COMMAND AND ADMINISTRATIVE SERVICE	4.457,03	9.648,00				
4	AIRPORT INFERMERY	754,28	3.620,00				
5	TROOP CONVENTION ROOM	625,95	3.100,00				
6	TROOP CANTEEN - FOOD STORAGE - 205° DOLD - CINEMA	3.297,07	17.263,54				
8	SUBSTANDARD HOUSING – WAREHOUSE M.O.	2.551,42	13.226,00				
9	AIRMEN BARRACKS	5.118,14	32.670,00				
10	ATLANTIC MATERIAL WAREHOUSE	434,06	5.327,00				
12	ARMORY AND PARACHUTE ROOM	761,43	5.707,38				
110	OFFICERS HOUSING AND MARSHALS	949,10	3.378,80				
137	BUNKER S.P.B.F.	1.870,55	8.153,03				
145	NEW OFFICIAL HOUSING	1.421,76	5.421,63				
	TOTAL 23.251,07 112.302,38						
COMPARTMENT B							
41	CLUB AND OFFICERS CANTEEN	1.665,36	6.257,54				
43	OFFICERS ACCOMMODATIONS WITH FAMILY	438,88	1.426,07				
44	OFFICERS ACCOMMODATIONS WITH FAMILY	438,88	1.426,07				
79	CHURCH	380,93	5.070,00				
	TOTAL	2.924,05	14.179,68				

	T OF THE EXPRESSION OF INTEREST							
PG	NAME	TOTAL AREA (mq)	VOLUME (mc)					
	COMPARTMENT C							
11	WAREHOUSE M.S.A.	1.938,80	8.937,00					
13	AIRPORT WORKSHOP	1.140,61	6.843,66					
14	HANGAR "S52"	2.111,20	15.170,43					
15	HANGAR "S100"	4.126,80	45.394,80					
19	WEATHER AND TLC MANAGEMENT ROOM	3.137,48	14.200,00					
20	HANGAR "S136"	12.179,80	135.998,50					
40	CAR REFUELLING STATION	-	-					
131	PAINTING ROOM FOR VEHICLES	247,50	1.410,75					
TOTAL 24.882,19 2								
COMPARTMENT D								
18	PHOTOGRAPHIC LABORATORY	313,44	1.253,76					
21	APPENDAGE HANGAR "S100"	265,52	1.123,24					
22	HANGAR "S100"	3.600,00	43.920,00					
118	PREFABRICATED S.P.E.C.I	46,86	196,81					
	TOTAL	4.225,82	46.493,81					
COMPARTMENT E								
38	PLANT SERVICE	354,40	1.701,52					
115	115 NON-COMMISSIONED CLUB AND CANTEEN		5.910,30					
117	117 WAREHOUSE, MINUTE MAINTENANCE OF PLANT SERVICES		389,45					
144	NEW NON-COMMISSIONED LODGINGS	3.077,68	11.553,10					
	TOTAL	4.959,47	19.554,37					
	GRAND TOTAL	60.242,60	420.485,38					



# **COMPARTMENT A**

**The Compartment A**, to which the Master Plan of the Cagliari airport assigns a destination for "Directional and Services" activities, includes a large part of the planting area; it consists of a total of twelve buildings, of which nine are related to the phase of planting the former seaplane base, one is a testimony of the Cold War (bunker PG137), two are newly built.

These are buildings that were once used to carry out all activities connected to military life, from purely logistical and garrison-like, for example, barracks, housing, guard rooms or the armory - to health-related ones - like the infirmary - or even recreational - like the canteen or the cinema.

Specifically it includes the following properties:





PG01\_Guard House (F.13, part. 78)





PG02\_Administrative service (ex Mail and telegraph) (F.13, part. 82)





PG03\_Wing Comand and Administrative service (F.13, part. 98)





PG04\_Airport infirmary (F.13, part. 79)





PG05\_Troop conference hall (F.13, part. 99)





PG06\_Troop canteen – Food storage - 205° dold– cinema (F.13, part. 100)





PG08\_Substandard housing – warehouse M.O. (F. 13, part. 95) PG09\_Airmen barracks (F. 13, part. 96 e 97)





PG 10\_Atlantic material warehouse (F. 13, part. 93)





PG12\_Armory and parachute room (F.13, part. 94)





PG137\_Bunker S.P.B.F. (F.13, part. 101)





PG110\_Officers housing and marshals (F.13, part. 84)





PG145\_New officers housing (F.13, part. 83)



# **COMPARTMENT A – FACTS & FIGURES**

COMPARTMENT "A"					
PG	NAME	PROJECTION SURFACE (mq)	TOTAL AREA (mq)	VOLUME (mc)	DESCRIPTION
1	GUARD HOUSE	386,73	527,09	2 564,00	2-storey building consisting of 15 rooms and 4 toilets
2	DEFENSE GROUP COMMAND	356,69	483,19	2 223,00	2-storey building consisting of 22 rooms and 2 toilets
3	STANDARD COMMAND AND ADMINISTRATIVE SERVICE	1 130,28	4 457,03	19 648,00	3-storey building plus basement floor with 105 rooms and 7 toilets
4	AIRPORT INFERMERY	551,28	754,28	3 620,00	2-storey building consisting of 35 rooms and 5 toilets
5	TROOP CONVENTION ROOM	445,59	625,95	3 100,00	2-storey building consisting of 7 rooms and 2 toilets
6	TROOP CANTEEN – FOOD STORAGE - 205° DOLD - CINEMA	2 014,08	3 297,07	17 263,54	2-storey building consisting of 36 rooms including a canteen, kitchen, storage rooms and 8 toilets



#### **COMPARTMENT A - FACTS & FIGURES**

COMPARTMENT "A"					
PG	NAME	PROJECTION SURFACE (mq)	TOTAL AREA (mq)	VOLUME (mc)	DESCRIPTION
8	SUBSTANDARD HOUSING – WAREHOUSE M.O.	729,65	2 551,42	13 226,00	4-storey building consisting of 51 rooms and 5 toilets
9	AIRMEN BARRACKS	1 686,50	5 118,14	32 670,00	4-storey building whose interiors have been adapted by the Ministry of the Interior to accommodate asylum seekers
10	ATLANTIC MATERIAL WAREHOUSE	316,14	434,06	5 327,00	2-storey building consisting of 12 rooms and 2 toilets
12	ARMORY AND PARACHUTE ROOM	731,99	761,43	5 707,38	single-level building consisting of 4 rooms and bathroom
137	BUNKER S.P.B.F.	1 334,51	1 870,55	8 153,03	rectangular reinforced concrete structure with offices, halls and laboratories
110	OFFICERS HOUSING AND MARSHALS	474,55	949,10	3 378,80	two-storey building consisting of 32 rooms a utility room and 18 toilets
145	NEW OFFICERS HOUSING	473,92	1 421,76	5 421,63	rectangular-shaped building is articulated on ground floor plus 2 floors above it composed of accommodation and toilets



# **COMPARTMENT B**

<u>The Compartment B</u> in which the Cagliari Airport Master Plan assigns a destination for "Accommodation and Services" includes the area outside the customs fence.

On the portion of sediments granted to Sogaer there are five buildings of which three are related to the first phase of planting (PG41, 43, 44) two buildings built in the post-war period and in any case by the '60s of the 20<sup>th</sup> century (PG79 and PG42) the latter already used from the Management Company for airport services.

In general, these are mostly residential buildings, once used for housing and recreational services.

Specifically, the B section includes the following properties:





PG41\_Club and officers canteen (F.13, part. 124; F.1 Cagliari part. 85)





PG43\_Officers accommodations with family

(F.13, part. 127; F.1 Cagliari part. 87)





PG44\_Officers accommodations with family (F.13, part. 85)





PG79\_Airport Church dedicated to the Madonna of Loreto (F.13, part. 86)



# **COMPARTMENT B - FACTS & FIGURES**

	COMPARTMENT "B"						
PG	NAME	PROJECTION SURFACE (mq)	TOTAL AREA (mq)	VOLUME (mc)	DESCRIPTION		
41	CLUB AND OFFICERS CANTEEN	639,20	1 665,36	6 257,54	2-storey building plus basement complete with toilets		
43	OFFICERS ACCOMMODATIONS WITH FAMILY	188,76	438,88	1 426,07	2-storey building plus basement floor divided into 2 units		
44	OFFICERS ACCOMMODATIONS WITH FAMILY	188,76	438,88	1 426,07	2-storey building plus basement floor composed of a single unit		
79	CHURCH	380,93	380,93	5 070,00	single-storey building consisting of 7 rooms and a toilet		



## **COMPARTMENT C**

<u>The Compartment C</u>, to which the Master Plan of Cagliari airport assigns a destination for "Technical Base and Maintenance" activities, includes the area closest to the lagoon.

It consists of nine artifacts, most of which date back to the original plant. These are buildings originally intended for activities related to the exercise of flight - such as workshops and hangars - and the maintenance of vehicles - fuel distribution system, paint shop vehicles and special warehouses.

This section also includes a waste water treatment plant which is managed by the Airport Management Company.

Specifically it includes the following products:





PG11\_Warehouse M.S.A. (F.13, part. 91)





PG13\_Airport workshop (F.13, part. 92)





PG14\_Hangar S.52 (F.13, part. 87)





PG15\_Hangar S.100 (F.13, part. 90)





PG19\_Weather and TLC Management Room (F.13, part. 120)



**PG20\_Hangar S.136 (F.13, part. 121)** 





PG20\_Hangar S.136 (F.13, part. 121) indoor





PG131\_Painting room for vehicles (F.13, part. 89)





PG40\_Car Refuelling Station (NC)



# **COMPARTMENT C - FACTS & FIGURES**

	COMPARTMENT "C"						
PG	NAME	PROJECTION SURFACE (mq)	TOTAL AREA (mq)	VOLUME (mc)	DESCRIPTION		
11	WAREHOUSE M.S.A.	969,40	1 938,80	8 937,00	2-storey building consisting of 26 offices, warehouse and 2 toilets		
13	AIRPORT WORKSHOP	1 140,61	1 140,61	6 843,66	single-level building composed of toilets and laboratories		
14	HANGAR "S52"	2 111,20	2 111,20	15 170,43	single-level building for vehicles, offices and toilets		
15	HANGAR "S100"	4 126,80	4 126,80	45 394,80	artifact consisting of maintenance hangar and 3-storey appendix for locker rooms and offices		
19	WEATHER AND TLC MANAGEMENT ROOM	813,49	3 137,48	14 200,00	artifact with three floors with offices and toilets		
20	HANGAR "S136"	9 415,28	12 179,80	135 998,50	artifact consisting of hangar for the maintenance of aircraft and 2 side appendices of 3 floors with a total of 85 rooms total used as laboratories and offices and 10 toilets		
131	PAINTING ROOM FOR VEHICLES	247,50	247,50	1 410,75	single-storey rectangular-shaped building, composed of 6 rooms and a toilet		
40	CAR REFUELLING STATION	/	/	/	made up of a single-level room used as a framework for fuel distributor and nr. 3 columns		



## **COMPARTMENT D**

The Compartment D, to which the Master Plan of Cagliari airport assigns a destination for "Technical and Maintenance Base" activities, includes the area facing the aircraft apron; it includes four buildings, most of which predate the Second World Conflict. These are properties originally intended to support military logistic activities, such as telephone and power plants - whose management is headed by the Airport Management Company, the photographic laboratory, as well as purely aeronautical ones such as hangars, dating back to the planting phase of the airport (1930-1935), reorganized in some cases with the addition of new volumes.

Specifically, section D includes the following products:





PG18\_Photographic laboratory (F.13, part. 104)





PG21\_Hangar S.100 and offices (F.13, part. 118)





PG22\_Hangar S.100 (F.13, part. 118)





PG118\_Prefabricated S.P.E.C.I. (F.13, part. 119)



# **COMPARTMENT D - FACTS & FIGURES**

	COMPARTMENT "D"							
PG	NAME	PROJECTION SURFACE (mq)	TOTAL AREA (mq)	VOLUME (mc)	DESCRIPTION			
18	PHOTOGRAPHIC LABORATORY	313,44	313,44	1 253,76	single-storey building consisting of 13 rooms and bathroom			
21	APPENDAGE HANGAR "S100"	265,52	265,52	1 123,24	artifact made up of offices and laboratories to service aircraft maintenance and a toilet			
22	HANGAR "S100"	3 600,00	3 600,00	43 920,00	artifact consisting of 4 laboratories and a hangar			
118	PREFABRICATED S.P.E.C.I.	46,86	46,86	196,81	prefabricated building			



## **COMPARTMENT E**

The Compartment E, to which the Master Plan of Cagliari airport assigns a destination for "Directional and Services" activities, includes four products referable to the last phase of expansion of the airport infrastructure, which took place in the '70s of the 20th century. The only three buildings referable to the phase of planting the seaplane base (PG105,117,38) have in fact been widely reorganized in recent times.

Next to the buildings used for military, logistic and defense activities, there are those used for electrical installations (PG143) whose management is headed by the Airport Management Company, as well as those reserved for housing and recreational activities of the armed forces. Specifically, this section includes:





PG117\_ Warehouse, minute maintenance of plant services (F.13, part. 77)





PG38\_ Plant service (F.13, part. 77)





PG115\_ Non-commissioned club and canteen (F.13, part. 105)





PG144\_ New non-commissioned lodgings (F.13, part. 107)



# **COMPARTMENT E – FACTS & FIGURES**

COMPARTMENT "E"						
PG	NAME	PROJECTION SURFACE (mq)	TOTAL AREA (mq)	VOLUME (mc)	DESCRIPTION	
117	WAREHOUSE, MINUTE MAINTENANCE OF PLANT SERVICES	117,27	117,27	389,45	single-level building with irregular shape used as a nucleus and hydrothermal workshop.	
38	PLANT SERVICE	354,40	354,40	1 701,52	single-storey building no longer used consisting of 20 rooms and 1 toilet	
115	NON-COMMISSIONED CLUB AND CANTEEN	1 410,12	1 410,12	5 910,30	single-level building consisting of 24 rooms and 7 toilets.	
144	NEW NON-COMMISSIONED LODGINGS	769,42	3 077,68	11 553,10	L-shaped structure is articulated on the ground floor plus 3 floors above it consisting of accommodation and toilets.	

