BARCELONA - VALLBONA

Europan ES

Ajuntament de Barcelona

consorcibesòs

EUROPAN ESPAÑA

The objective of EUROPAN is to bring to the fore Europe's young architecture and urban design professionals, and to present and develop their ideas.
It is also about helping cities and developers who provided sites to find innovative architectural and urban solutions for the transformation of urban locations and help them to implement.
The open competition is an anonymous and public call for ideas on a European scale.
The aim of EUROPAN Spain is to implement the projects chosen by EUROPAN 15 national jury. In order to facilitate contracting of the proposals by public administrations participating in EUROPAN Spain as the core of the Competition, the Ministry of Development shall call for the Competition in Spain, establishing its Rules by a bidding document that shall comply with the procedure of Juried Design Competitions as provided in section 183 et seq of the LCSP. This will ensure compliance with the conditions established in the EUROPAN Internal Procedures and in the aforementioned Law. Therefore, in case of entering any of the Spanish sites, it is important to get familiar with the "Rules of the EUROPAN 15 Juried Design Competition" by accessing the following link: https://www.europan-europe.eu/en/about/

PRIZES

EUROPAN/España intends to award 7 first prizes and 7 second prizes, in addition to the special mentions. The winner and runner-up teams receive a prize of €12,000 and €6,000 (including tax) respectively. In Spain, the EUROPAN awards are exempt from tax withholding in accordance with the Resolution of April 5, 2006, of the Department of Tax Management of the State Agency of Tax Administration, granting the exemption provided for in Article 7 (1) Royal Legislative Decree 3/2004, of 5 March

LEGAL PROVISIONS

For nationals from EU and EES countries in possession of a diploma in accordance with EU Directive 2005/36/EC and wishing to practice on a provision of services basis (occasional), they must be legally established in a Member State for the purpose of pursuing the same profession in Spain. They must ask for an authorization to the competent authority, the Ministry of Development (Ministerio de Fomento, Subdirección de Normativa y Estudios Técnicos. Secretaría General Técnica. Paseo de la Castellana, 67 – 28071 Madrid).
For nationals in possession of a diploma from other countries, please contact the Ministry of Education.

COMMUNICATION AND PUBLICITY

The Launching of the competition and the Results of EUROPAN 15/Spain will be published in the B.O.E (Official State Gazette) as well as in a national newspaper.
The results of EUROPAN /SPAIN will be published in a catalogue. All the EUROPAN 15 projects awarded and specially mentioned by the Jury will be displayed in a travelling exhibition.
The teams rewarded in EUROPAN Spain will be invited to present their work in forums and workshops, both at national and international level.

EUROPAN/ESPAÑA BOARD

President: Ministry of Development (Ministerio de Fomento)
Members: General Direction of Architecture, Housing and Land, Ministry of Development (Ministerio de Fomento)/ Consejo Superior de Colegios de Arquitectos de España (CSCAE)
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City of Casar de Cáceres/ City of Lasarte-Oria/ City of Oliva / City of Sant Climent de Llobregat/ADIF / FEMP

EUROPAN 15 – PRODUCTIVE CITIES /2: RESOURCES – MOBILITIES – SPATIAL EQUITY

Europan 15 session would like to particularly focus on the issue of the ecological transition related to a vision of the productive city for the future. The ecological productive transition needs to consider synergies between ecosystems, between biotopes and artefacts, between functions and uses, between citizens (etc..) rather than only considering a dualist approach. Creating synergies between these elements is another way of thinking and making the city in order to anticipate and to make the urban authorities more aware of their responsibilities towards the environment and life.
Europan 15 therefore proposes to point out three issues for this challenge on new productive conditions of transformation: **Resources, Mobility and Spatial Equity**.
1- **Resources**–How to minimize consumption and resource contamination (water, air, soil, energy...)? How to share resources? How to imagine social and technical innovations on this subject?
2-**Mobility**– How to integrate mobility and accessibility into productive territories?
3-**Equity**– How can spatial equity contribute to social equity? How to connect social and spatial elements? How to create a productive balance between territories, between urban and rural, between the rich and the poor?
These three categories –Resources, Mobility and Spatial Equity– can be declined on 3 scales: territorial, middle and micro scales.

The territorial scale –**XL**– corresponds to the larger scale, even beyond the city in some cases (inter-cities or rural) from the mutation of uses and practices. For Europan, this means developing, after the competition, strategic studies on larger scales that allow the city to have a guide for urban development.
The middle scale –**L**– is the one of the district or a strategic urban fragment. This type of sites leads to the development of the rewarded ideas into urban projects, in which the teams can also develop a smaller part.
The micro-scale –**S**– is the smaller scale, on which projects can develop and resonate on a larger scale. It is also the scale of fastest production, smallest interventions, sometimes even temporary.
Therefore, the challenge for Europan 15 is to propose a diversity of sites which reconsiders the connection based on synergies between city and productive spaces within 3x2 different issues: Implanting, Creating proximities, Changing metabolism.

I- IMPLANTING

The challenge for cities to be both productive and sustainable is to interlink resources, mobilities and conditions of fairness. There are two aspects to implanting new dynamics or reactivating resources such as urban farming and educational, research or creative forces: productive milieus and productive uses.

I-1 Productive milieus

This is the level where a natural, cultural, social or economic environment is implanted or revitalised symbiotically, by contrast with the architecture of objects or the urbanism of technocracy. So, what is needed is to activate human and nonhuman resources and an ecosystem of partners, while at the same time paying attention to integrative values between nature and culture.
Barcelona (ES) / Bergische Kooperation (DE) / Helsingborg (SE) / **Palma (ES)** / Raufoss (NO) / Rotterdam Bospolder- Tussendijken Visserijplein (NL) / Saint-Omer (FR) / Tuusula (FI)

I-2 Productive uses

Uses can become productive if they go beyond their own functional limitations: productive uses work as a trigger that can initiate dynamics of change in a way that transforms the surrounding environment. They are a response to a situation in which an absence of dynamics has led to a powerful "use-ambition", the demand for a credible programme, a catalyst for change that fits smoothly into the existing context.
Innsbruck (AT) / **Oliva (ES)** / Pays de Dreux (FR) / Rotterdam Groot I Jsselmonde (NL) / Uddevella (SE) / Visby (SE) / Wien (AT)

II- MAKING PROXIMITIES

This is about establishing proximities between living and working, stimulating productive relations both within residential areas and between residential areas and monofunctional production zones, introducing collective activities and work practices into residual spaces that add quality to housing conditions. Secondly, it is about rethinking the transition from high-speed metropolitan mobility to the low speed of neighbourhoods and urban centres. Proximities are made in the physical space of the city, but also at temporal and actorial scales, allowing new exchanges between urban actors and users (humans and nonhumans).

II-1- Third spaces

A third space can be a new space inserted between heterogeneous populations, housing and production spaces. It can catalyse the transformation of current production cycles to create new relations and synergies with urban territories and everyday life. It allows for alternative proximities, between urban actors and users (human and nonhuman), which may often be isolated in their own production cycles or excluded from ongoing urban design and planning practices. The physical location of a third space can be in residual spaces within neighbourhoods, or between existing monofunctional zones. It can accompany new housing or could emerge from recycled urban fabric. Hyvinkää (FI) / La Louvière (BE) / **Lasarte-Oria (ES)** / **Madrid - La Arboleda (ES)** / Rødberg (NO) / Rotterdam Marconiplein Kop Dakpak (NL) / **Sant Climent de Llobregat (ES)** / Villach (AT)

II-2- Interfaces

The creation of interfaces contributes to the transformation of infrastructures of mobility, logistics, commerce or general services, by shortening production cycles. Such interfaces can also generate new kinds of relations between residential and farming activities, between housing and services, between spaces and communities. Interfaces generate a permanent dialogue between uses and users, between scales and functions, between identities and innovations. The interface is not a stable state, but a fluid space. It needs incremental and adaptive processes and open source projects, rejecting comprehensive and predefined master plans.
Auby (FR) / **Casar de Cáceres (ES)** / Floirac (FR) / Halmstad (SE) / Pavia (IT) / Romainville (FR) / Rotterdam Brainpark I (NL) / Selb (DE)

III- CHANGING METABOLISM

This is about working with the relations, processes, flows and multiple forces of the site in order to find a new balance between them. These sites are large in relation to their contexts and contain a wide variety of agents (human and nonhuman) with long- and short-term cycles, and far-reaching ecological, economic and territorial implications.

III-1- From linear to circular

Containing a “linear” component, either a monofunctional element or an obsolete source of income, the site aspires to incorporate other resources and uses that create synergies and new potentials for interaction. These new elements will play an important role in the functioning of the whole as a circular system, because they will be able to catalyse flows and processes more integratively and efficiently.
Charleroi (BE) / Enköping (SE) / Graz (AT) / Karlovac (HR) / Laterza (IT) / Port Jerôme-sur-Seine (FR) / Rochefort Océan (FR) / Warszawa (PL)

III-2- Multiplying agencies

The site aspires to incorporate new agencies, new layers of functions that may lead to balanced growth. It is important to document the sites' future agencies (air, water, soil, flood, programmes, activities and people). The final design will be something more than the sum or multiplication of circular urban economies.
Boras (SE) / Champigny-sur-Marne (FR) / Guovdageaniu (NO) / Marseille (FR) / Nin (HR) / Rotterdam Merwe-Vierhavens Keilekwartier Vierhavensblok (NL) / Täby (SE) / Weiz (AT)

EUROPAN 15 / BARCELONA - VALLBONA

LOCATION: City of Barcelona, Nou Barris District, Vallbona suburb**.**
SCALE: L - urban + architecture
POPULATION: Barcelona, 1,608,746 Nou Barris, 164,881, Vallbona, 1,334
STUDY AREA: 94 ha
PROJECT AREA: 16.5 ha (divided into 2 sectors, split by R3 suburban railway line)
OWNER(S) OF THE SITE: Public / Private.

SITE PROPOSED BY: Barcelona City Council -Urban Ecology Department- Besòs Consortium

SITE REPRESENTATIVE: Jaume Barnada. Coordinador de Projectes de Relacions Internacionals. Direcció d'Estratègia i Cultura de Sostenibilitat. Ecologia Urbana. Ajuntament de Barcelona. Avda. Diagonal, 240, 4ª 08018 Barcelona. http://ajuntament.barcelona.cat/ecologiaurbana

ACTORS INVOLVED: Coordination, Urban Ecology / Barcelona City Council/ Land planning: Besòs Consortium

TEAM REPRESENTATIVE: Architect

RESPONSIBILITIES OF COMPETING TEAMS: We recommend the formation of a multidisciplinary team: architect, urban planner, landscape planner, biologist, environment specialist, etc.

COMMISSION AFTER COMPETITION: Development of planning and/or specific projects defined by the winning proposal in EUROPAN 15.

OUTREACH: After the competition, EUROPAN-Spain will organise an itinerant exhibition and publish a catalogue of the results. The exhibition and catalogue will feature the projects rewarded by the EUROPAN-Spain Jury and those submitted by Spanish teams and rewarded in other EUROPAN 15 participant countries.

JURY: The Barcelona site representatives will participate with speaking and voting rights in the first phase of the EUROPAN-Spain jury.

POST-COMPETITION: Immediately after the competition, EUROPAN-Spain will organise a meeting between the winning teams and the site representatives. This will be a closed-door event where first of all, the teams will present their proposals. Round table discussions will then be held for each site with a view to defining each particular work schedule. Each round table will be moderated by a member of the jury.

Given that this is a public competition, a second stage will involve an unpublicised negotiated procedure with the winner or winning teams with a view to refining the details of their projects to lead into the operational phase

HOW CAN THE SITE CONTRIBUTE TO THE PRODUCTIVE CITY?

The proposed site is part of a desire to define a part of the city as a zone for densification, with new housing complemented with local values, in particular a substantial area of land set aside for equipped urban horticultural plots. In other words, we are defining a project for urban densification and urban production. We regard the city as a diverse, mixed, active territory where production and housing should be complementary and integrate with the surroundings. The availability of areas of land for productive uses in Barcelona's suburbs is a great opportunity to work on their improvement and their residential densification at the same time. Naturalization and production are thus appreciated as the basic thrusts of this urban renewal.

URBAN STRATEGY

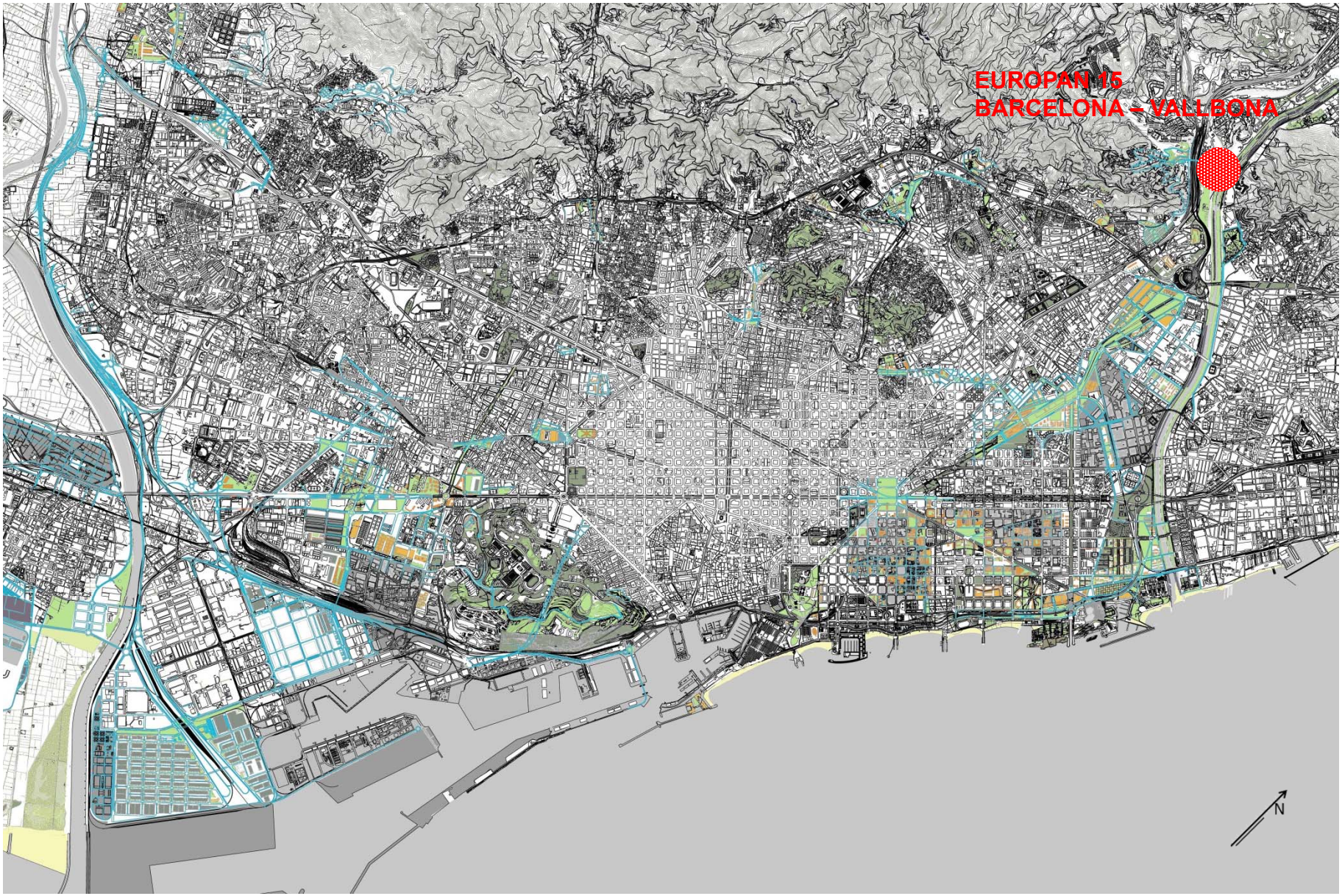
Ideas should be developed to consolidate a mixed zone with residential and equipped urban agricultural uses, as well as energy generation and water management. Proposals should understand the appropriate conditions for sustainability and the timetable for implementation. Ideas for the recovery of natural geographical elements and their complementarity with the city's major infrastructure, the suburb's residential uses and the densification process will be particularly appreciated. Two pre-existing railway lines running parallel to the Besós River (R2 and TGV), currently being placed underground, must also be taken into account. There is another railway line (R3) at the top of an embankment (R3) that splits the territory and the project areas into two sectors.

HOW IS PRODUCTION CONSIDERED IN THE URBAN DIVERSITY PROGRAM?

The project area clearly incorporates production into an urban programme by means of the conservation and improvement of a large property with urban agriculture plots. The project is based on the proposal for a well-equipped, productive city that will encourage agricultural output, with several architectural elements to be built for supplementary facilities, energy generation and good management of the water cycle. A residential densification process that complements the agricultural project and the existing suburb is also envisaged for the project area. In addition, land must be set aside for public facilities. The development of 300 to 350 new dwellings is proposed. This new development could accommodate a population of approx. 650 to 850 inhabitants, adding to the current population of almost 1,400.

OBSERVATIONS ON THE PROJECT AREA

The project area is divided by the elevated R3 suburban railway line. The proposed plan and brief for EUROPAN 15 are for a real situation, which will be developed in a subsequent Master Plan. Some of the considerations and details have emerged from the dialogue between Barcelona City Council and the citizens of Vallbona. The resulting agreements include a preference by local citizens for the densification of Sector (1) to be located on Oristà Street, currently a football field and the 1st Maig Square, and for Sector (2) to be maintained as an agricultural area. We believe that this pre-project decision might be reconsidered in the light of the results and proposals that emerge from the competition. For this reason, we have not restricted the uses in these sectors, in the belief that they are interchangeable and can act in a mutually beneficial way.



Location of Vallbona in Barcelona

VALLBONA

Site description:
https://ajuntament.barcelona.cat/noubarris/es/el-distrito-y-sus-barrios/vallbona

Vallbona is an outer suburb of Barcelona, part of the Nou Barris district. It is located on the northern boundary of the greater municipality of Barcelona, between Ciutat Meridiana, Torre Baró and Trinitat Vella Districts. It is separated from the city of Barcelona by the Girona-France, Manresa and C-17 motorways to the west, and the La Ponderosa agricultural estate to the south. It sits on a plain at the foot of a hill, on the south-eastern side of the Besós River in an area where the Collserola and Marina Hills, part of the Coastal Range, converge. This location is important in planning terms, given that it is used as a strategic transit corridor by the city's large-scale transport infrastructure, which separates the suburb from the rest of the municipality.

It is currently crossed by several railway lines, although work is currently underway to change their alignments. It has a close relationship with the Can Sant Joan suburb, part of the Montcada i Reixac District, on the northern slope of a hill known as Turó de Vallbona. In addition to their proximity, these two suburbs also share the alignment of the Rec Comtal canal, built in the 10th Century to supply water to Barcelona from springs near the Besós River. Today water still flows along the canal from its source down to Vallbona's agricultural area, where the largest open-air sections of the canal can be found.

Statistical details of Vallbona:
http://www.bcn.cat/estadistica/castella/documents/barris/56_NB_Vallbona_2018.pdf

Population: 1,334
Area: 59.80 ha.
Population density: 23 inhab./ha

Videos:
Vallbona
http://ajuntament.barcelona.cat/meridiana/ca/vallbona
Vallbona, Rec Comtal
http://www.noubarris.net/relligantnb/?page_id=1526
Barcelona's last big horticultural plot. "Modernity is all very well, but if concrete ultimately invades all this, what are we going to eat?" (article in Spanish):
https://www.lavanguardia.com/vida/20141125/54420206231/ultimo-gran-huerto-barcelona.html
"El barri aconsegueix entrar dins el projecte del disseny del nou Parc Fluvial del Besòs juntament amb Montcada". "District included in new Besòs River Park design with Montcada" (article in Catalan):
https://beteve.cat/btv-noticies-73/soterrament-vies-vallbona-barcelona-tambe-reclama-ultim-moment/

Aereal view of Vallbona, with Torre Baró neighbourhood in the foreground. Study anf Project sites.

Historic background:

Bounded by Barcelona, Montcada i Reixac and the Besòs River, Vallbona is in a flat area that backs onto the Collserola Range, the Marina district and Montcada Hill. Vallbona was aquired by the Pinós family in the 15th century. The land then passed into the hands of the Marquis of Barberá and the Lords of Sivatte. At the beginning of the 20th century, an unsuccessful project for a garden city was designed. The area then remained little altered by human presence until the post-war period, when modest houses and owner-built constructions began to be built around the Rec Comtal canal and Turó de Vallbona hill.

Road upgrades and new motorways from Barcelona towards the East and West Vallés districts cut off the suburb from the rest of the district, leaving it isolated and lacking in services. Vallbona has remained a low-density area with a somewhat rural character, unaffected by the city's property speculation boom. In recent decades, steps have been taken to improve the quality of life, mainly in the form of new social housing, public facilities, the landscaping of several public spaces and a link between Vallbona and the rest of the suburbs in the district via a bridge that crosses the highways and connects it to Torre Baró and a new Metro line.

Picture of Vallbona taken from Trinitat Vella neighbourhood, 1974

Rec Comtal:

For more than 1,000 years, the Rec Comtal was the major water supply canal for Barcelona. It was built in the Middle Ages, probably in the 10th century, when Count Miró I decided to improve the Roman aqueducts from Collserola and Besòs down to the city.

The Rec Comtal captured water in Montcada i Reixac, ran through the entire ancient city of Barcelona and flowed into the sea. We know that it was cleared regularly and that it was crossed by many bridges along its 12 km length.
The walls were made of stone brought from Montjuïc and the base was natural earth. Its large volume of flowing water irrigated fields and thus improved their productivity. Its force powered 21 water mills and a forge built along the way to Barcelona. One of these watermills was in Vallbona, on a large property owned by a nobleman, Guillem de Argentona, which extended from Torre Baró almost to La Trinidad. The Rec Comtal entered the Barcelona plain through Vallbona, where the only open air section is still preserved. It then crossed the former municipalities of San Andrés and San Martín and entered the city, where it was used by the textile industry in the San Pedro district.

The Rec Comtal lost importance during the late 19th century urban developments, but it continued to irrigate land well into the 20th century. Today, the people who still tend the last horticultural plots orchards in La Ponderosa, Vallbona, are the only remaining users of the water for irrigation before the canal flows into the Besòs River. One of the core themes of the EUROPAN 15 project must therefore be the enhancement of this hydrological infrastructure, which is part of the city's heritage.

Besòs River Park:

https://parcs.diba.cat/web/fluvial/el-parc-fluvial
http://www.rondaverda.cat/ca/tram-parc-fluvial-del-besos.php
https://www.gramenet.cat/ajuntament/arees-municipals/medi-ambient/parc-fluvial-del-besos/

The Besòs River Park is a public space that runs along the last 9 kilometres of the Besòs River, from its confluence with the Ripoll River to its mouth in the Mediterranean Sea. This 115 hectare green belt is one of the most important in the Barcelona metropolitan area, especially considering its location, part of the urban continuum of Barcelona, Santa Coloma de Gramenet, Sant Adrià de Besòs and Montcada i Reixac. The pollution and degradation of the Besòs River and its environs is a problem that began in the 1960s, mostly caused by the massive growth of the towns along the river and their industrialization. The decision to restore the riverine areas was begun in the 1980s by the town councils and the Government of Catalonia, in all cases in collaboration with citizens. This process has made a considerable improvement to the condition of the river. The effectiveness of the steps taken to clean it up, especially those applied in the 1990s, is highly noteworthy. In 1995, with the improvement of the Besòs valley now an indispensable priority, the municipalities of Barcelona, Montcada i Reixac, Sant Adrià de Besòs and Santa Coloma de Gramenet signed a Memorandum of Understanding on its environmental restoration. The "Environmental restoration of the final stretch of the Besòs River" project was implemented by the municipal councils and the Besòs Consortium with an 80% subsidy for the cost of the project provided by European Union cohesion funds. The Besòs River Park as it stands today is the result of this project. The core objectives of this project are:

1. Improved environmental and landscape quality.
2. Improvements to the Montcada i Reixac water treatment plant using tertiary treatments based on the establishment of wetlands to improve the quality of effluent water.
3. Improvement of the river's water carrying capacity.
4. Controlled use of certain areas of the river for citizen leisure activities.

Along the first 3 kilometres of the Park, from the Montcada Bridge to the Pota Nort Bridge on the Ronda de Dalt, B20 ring road in the Santa Coloma de Gramenet municipality, the park includes areas with riverside meadows, beaches, islands, meanders and wetlands. This is the nearest section of the river to Vallbona. Although the Besòs River as such is not the focus of this EUROPAN 15 competition proposal, the submitted projects' capacity to relate to this natural area will be appreciated. Along the next 5 km of the Besòs River Park, from Santa Coloma to the Railway Bridge in Sant Adrià de Besòs, the vegetation on both sides is mostly grass (approx. 22 ha). Users enter this area via ramps and stairs. From these access points, visitors first cross an asphalted path for cyclists, pedestrians and service vehicles and then a broad useable strip of grass before reaching the water. The final area of the Park is the mouth, a strategic space on account of its ecological and scenic interest that covers the last 100 metres of the river, with restricted access.

Besòs river in its way though Vallbona

Besòs river, Montcada i Reixac and Turó de Vallbona in the center of the image

Cartography:

The cartography of Barcelona is free and of free access, it is available in the following links :

Instituto Cartográfico de la Generalitat de Catalunya (VISSIR): http://www.icc.cat/vissir3/

Ayuntamiento de Barcelona (CARTOBCN): http://w20.bcn.cat/cartobcn/

Vallbona, the access point to Barcelona, in the Besós valley

Urban horticulture plots :
https://www.diba.cat/c/document_library/get_file?uuid=d222a48e-c662-4419-9642-7b9b3551533d&groupId=7294824

The goal is to discover examples of city transformation processes that foster alternative development models: models that consider a closer relationship with the city's immediate surroundings and its bio-physical limits. In a city like Barcelona with a high demographic density, whose former agricultural spaces have been reduced, the numerous varieties of urban horticultural plots are one of the few viable alternatives when it comes to obtaining quality food and, using a production model, helping to improve the city's integral sustainability.

Urban horticultural plots involve an insertion of nature into the city, an increase in its green areas, the recovery of vacant land and an increase in biodiversity associated with the revival of local horticultural varieties. They can also play an important role as biological corridors, as in the case of Vallbona's horticultural plots. They are considered to be one of many powerful tools that can reduce a city's ecological footprint. They also help to reduce the consumption of other types of leisure activities that generate ecological footprints, since the users' free time is invested in the plot. They help to eliminate the organic fraction of domestic waste, which is composted and fed back into the cycle as fertilizer. Horticultural plots often reuse many materials that are otherwise regarded as unabsorbable rubbish: drums, timber pallets, bedsteads, bathtubs, etc. Rainwater is often used along with, in some cases, grey water from nearby houses. In Vallbona, the Rec Comtal is a natural water source that can be used.

The La Ponderosa horticultural plot is the last remaining agricultural property in the Barcelona metropolitan area. It is located in Vallbona, part of the Nou Barris district. This roughly 7 ha property is valuable for citizens for many reasons: it sustains an agricultural business activity in the city and an agricultural landscape in the Besós River valley, it increases the city's biodiversity, it generates locally-produced vegetables, etc. In addition, it is the last business activity that uses the water from the Rec Comtal canal. Vallbona's citizens and the Barcelona City Council want to ensure that this farm and its agricultural activity are maintained permanently and remain free of threats from urban development. For EUROPAN 15, proposals are therefore invited for a productive project involving equipped urban horticulture which will become part of the city's network of horticultural plots, maintaining its own particular features.

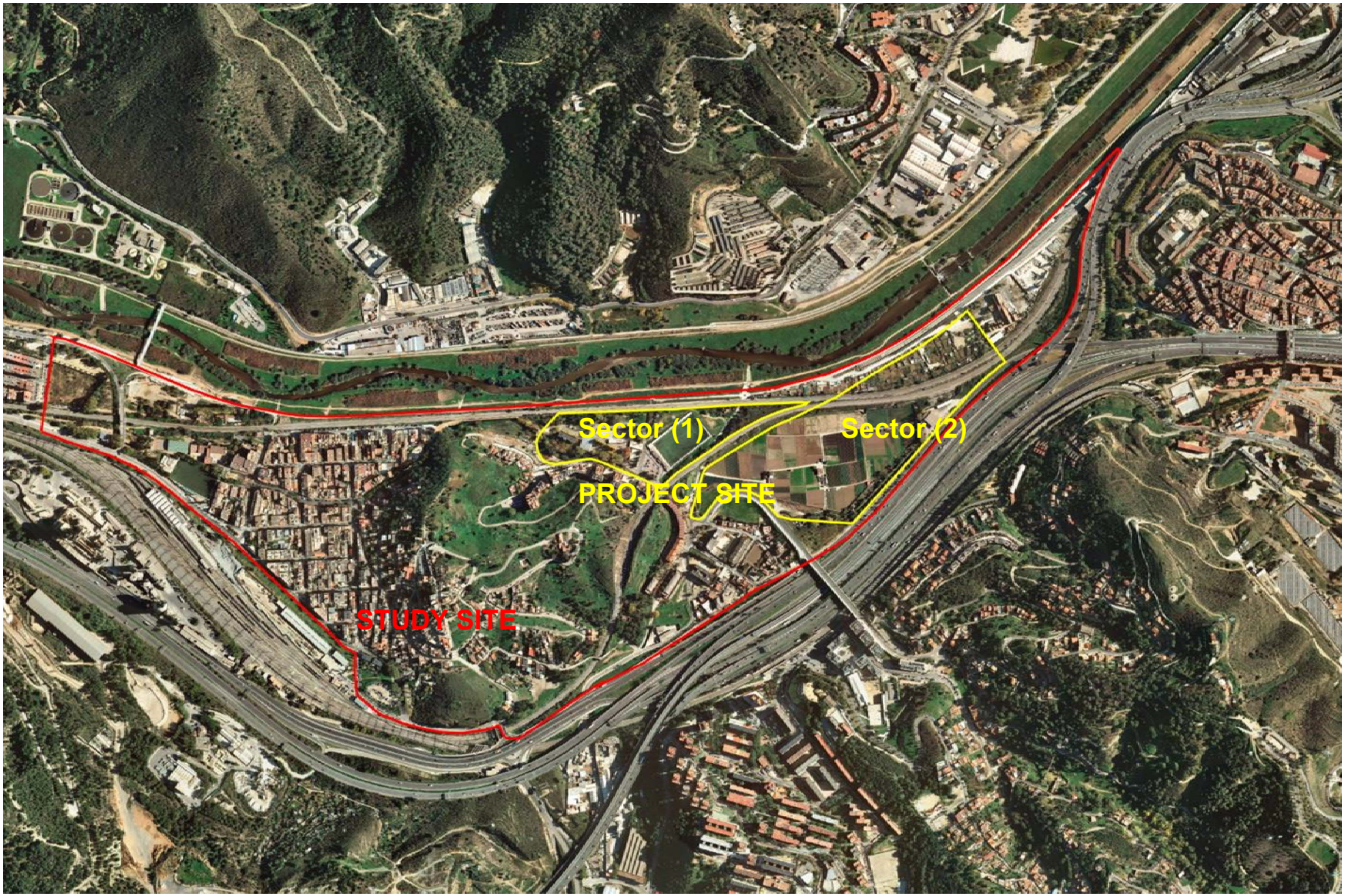
This proposal for equipped urban horticulture in Vallbona should not be approached as just another cluster of urban vegetable plots, since it also raises several specific issues such as its permanence through history and the size of the property. The project should maintain a significant part of the market garden, improving its conditions and highlighting it as one of the values that add character to the suburb. It will be interesting to see how the submitted EUROPAN 15 proposals combine production with residence, employing mixed solutions that increase the complexity of the territory.
An understanding of the city's municipal urban horticultural plot programme is necessary in order to comprehend the complexity of production and the character and social benefits it gives to Barcelona.

The Barcelona Urban Horticultural Plot Network is a public participation programme run by the Urban Ecology Department. It is primarily aimed at the city's senior citizens, who are included in the environmental improvement activities by growing vegetables and employing organic farming principles. The programme began in 1997 with the Can Mestres horticultural plots, although the first operating plot in Barcelona was "Grandpa's Plot" in the Gracia District, in 1986, the result of a request by a group of neighbours. Urban horticultural plots play an important social role for their users, since they occupy their free time, encourage them to weave new interpersonal relations and improve their quality of life by means of positive, healthy physical activity. They also have a high environmental value for the city, as they shape new green public spaces in which the vegetable gardens are the focal point. Other important aspects are their role in environmental education through activities for schoolchildren, who learn about the world of agriculture and the principles of organic farming. They also have a social function through intergenerational co-operation, as the educational activities in these plots facilitate relations between children and senior citizens.

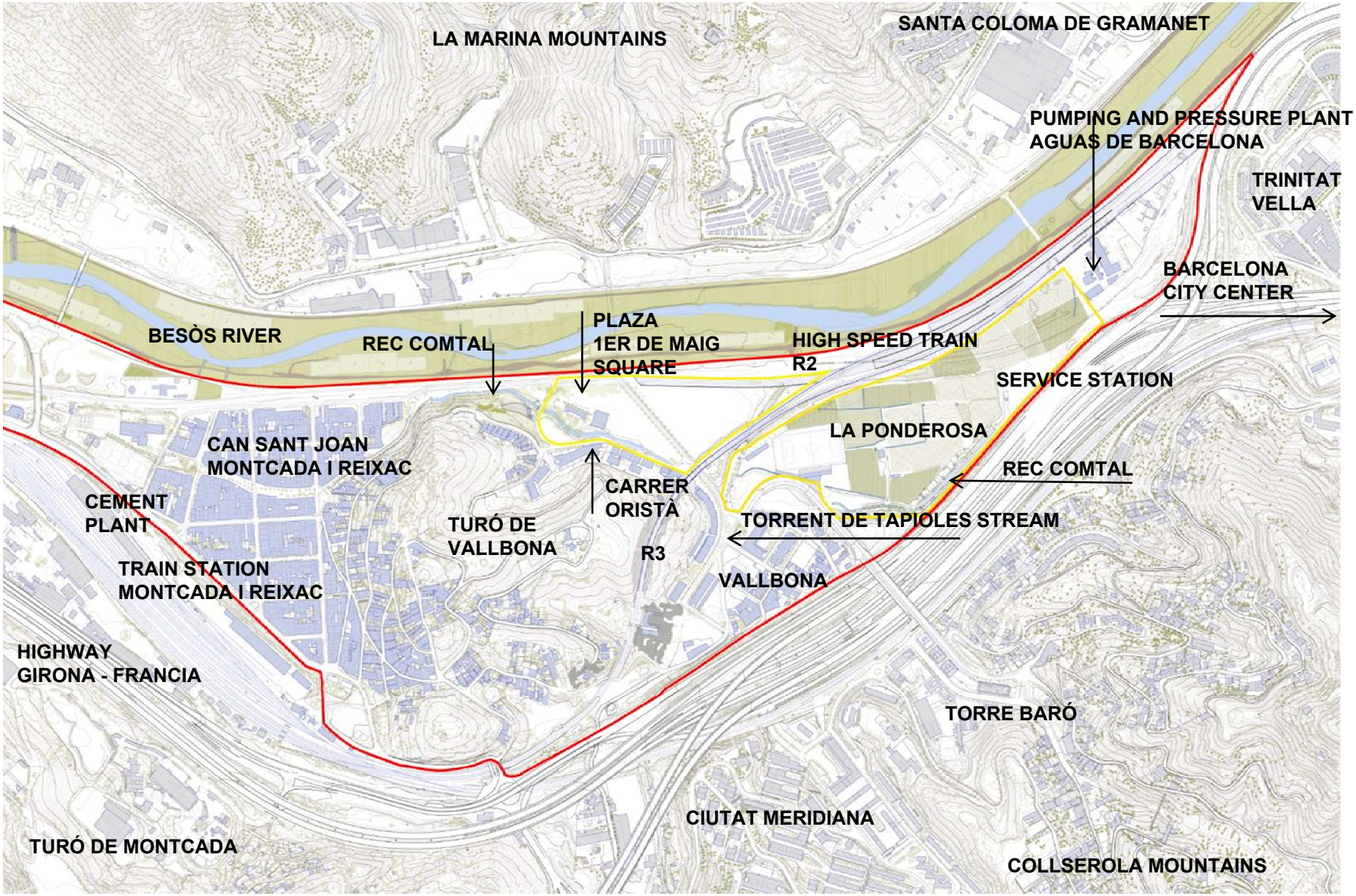
Barcelona's urban horticultural plot programme is implemented in collaboration with the citizens and suburbs of each district.

What are these urban horticultural plots like? They are clusters of small gardens where vegetables, aromatic plants and seasonal flowers are grown. Tomatoes, green beans, potatoes, courgettes, chards, legumes, cabbage, aubergines, garlic, onions, artichokes and lettuce abound. Plantations of species that bloom in different seasons liven up the plots. Aromatic and medicinal plants play an important role in organic gardening, as they help to eliminate pests by repelling or attracting parasites: rosemary, for example, attracts aphids and hinders their attack on vegetables while also attracting pollinating insects.

http://ajuntament.barcelona.cat/ecologiaurbana/ca/serveis/la-ciutat-funciona/manteniment-de-l-espai-public/gestio-del-verd-i-biodiversitat/horts-urbans



Study and Project sites, Sectors (1) and (2)



Situation plan

EUROPAN 15 PROGRAMME – VALLBONA – BARCELONA – STUDY AND PROJECT SITES

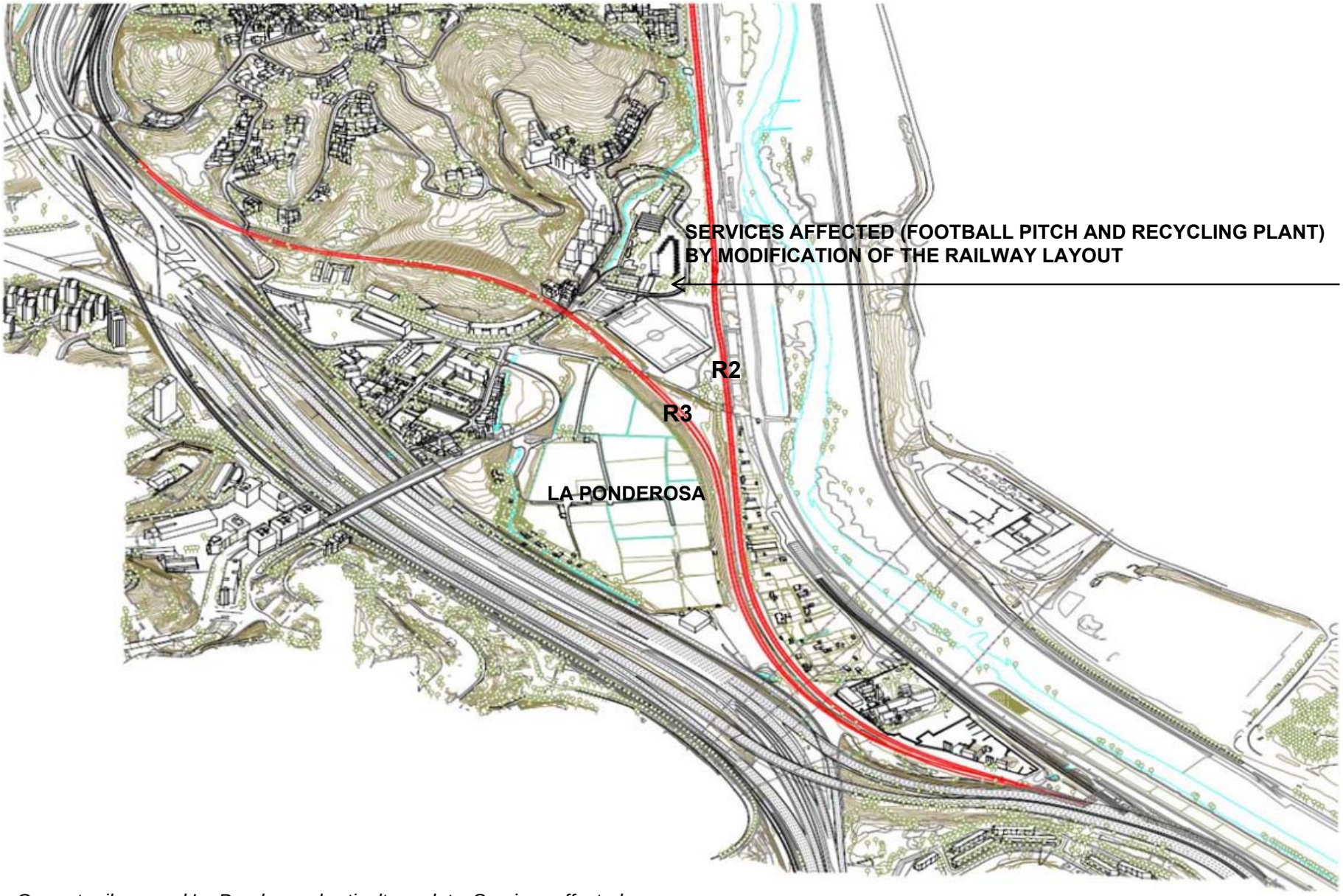
STUDY SITE - Area: 94,0 ha.

Description and type of Project analysis: Vallbona, an outer suburb of Barcelona, is part of the Nou Barris District. It is located near the northern boundary of the municipality. It sits on a plain at the foot of a hill, on the south-east side of the Besós River in an area where the Collserola and Marina Hills, part of the Coastal Range, converge. This area plays a vital role in the Barcelona metropolis: it is a strategic transit corridor for the city's large-scale transport infrastructure, which separates the suburb from the rest of the municipality. It has a close relationship with the Can Sant Joan suburb, part of the Montcada i Reixac District, on the northern slope of a hill known as Turó de Vallbona. Railway lines have a major presence in this area. A high-speed rail line runs through Vallbona (underground immediately before entering the suburb, parallel to the Besòs River) as well as suburban railway lines R2 and R3. It has been decided to bury the section of Line R2 that runs through Montcada. This will require the route the line in Vallbona to be changed. The ramp leading into the tunnel works runs parallel to the Besós River, close to the Vallbona horticultural plots, but it is entirely underground before reaching the most urbanised part of the suburb. The alignment of Line R3 is also being changed by raising the line's two tracks on either side of the tunnel works in order to bridge the precise point of the tunnel mouth and return to the alignment leading to Montcada Bifurcació station, through Vallbona and Turó de Vallbona. This modification will have a major impact on the railway, urban planning and landscape configuration of the suburb. It will produce new transformations in Vallbona and Can Sant Joan.

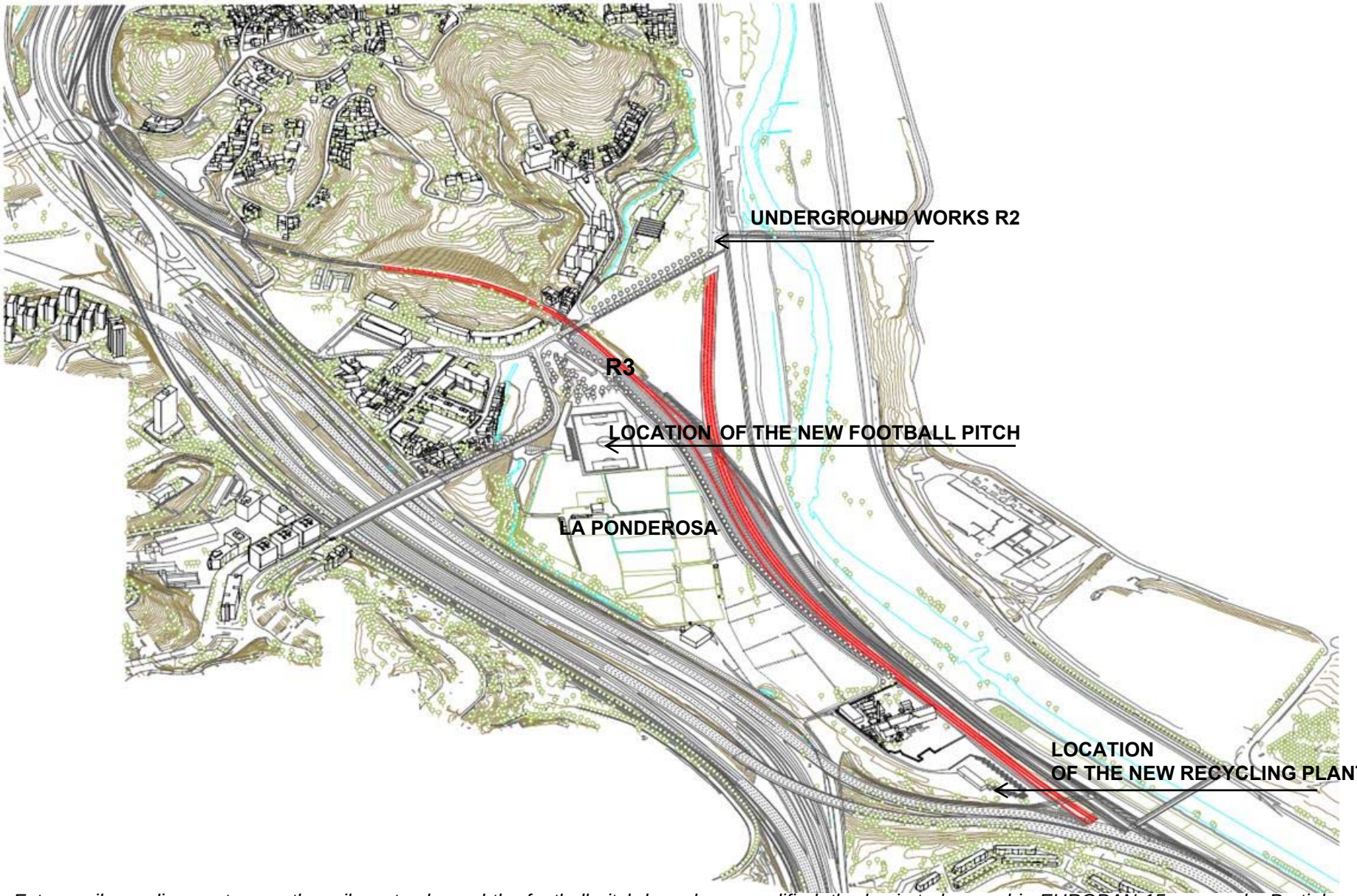
PROJECT SITE - Area: 16,5 ha.

Description and type of Project analysis: The new railway alignment will cause a number of transformations with major repercussions, particularly in two zones split by the new route: Plaça Primer de Maig (4.5 hectares), the triangle bounded by Carrer Oristà, the R3 railway embankment and the river bank, released as a result of the railway line's burial, and the 12 hectare Huerta de la Ponderosa agricultural area where the final open-air section of the Rec Comtal canal is located. These two zones, split by the new railway alignment, jointly form the project area for which EUROPAN 15 proposals will be planned. Facing Primer de Maig Square, on Carrer Oristà, there are a number of homes at the foot of the hill, with an open section of the Rec Comtal canal, built in the 10th century to supply water to Barcelona, on the opposite side. Between Calle Oristà and the riverbank is Primer de Maig Square, designated as a green area on account of the Rec Comtal, where there is another small residential building, a photovoltaic pergola for the suburb and a series of public facilities: a football field, a waste recycling plant and a small public building. These three facilities are affected by the new railway alignment. It is proposed that they be moved to other strategic points in the suburb. A new thoroughfare has been proposed, starting at Oristá de Vallbona Street, then running on top of the buried railway line and linking up with Carril de Can Sant Joan Street. With this context in mind, EUROPAN 15 invites proposals for the area with a focus on two aspects: the consolidation of agricultural activity in this suburb and also its demographic growth.

Vallbona today.



Current railway and La Ponderosa horticulture plots. Services affected



Future railway alignment, once the railway tracks and the football pitch have been modified, the basis to be used in EUROPAN 15 proposals. Partial burial of the R2 suburban railway line and modification of Line R3 on an embankment and enlargement of La Ponderosa

EQUIPPED URBAN HORTICULTURAL PLOT PROGRAMME

Description:

Huerta de la Ponderosa -Sector (2)- is the largest agricultural area in the Barcelona municipality, currently approx. 7 ha, irrigated with water from the Rec Comtal canal. This property is a highlight of the district. Its productive area is to be maintained, enhanced and expanded, making it a major feature and activity of Vallbona and a point of reference for Barcelona. This opportunity has been facilitated by the release of land as a result of the new railway alignment.

Modifications to the current configuration

a) Public facilities
The football pitch, now in Plaza Primer de Maig, will be relocated to occupy part of the current horticultural area: moved from Sector (1) to Sector (2).

b) Urban
Landscaping and renaturalization of the area around the Rec Comtal canal. A pedestrian path on a tangential alignment will facilitate connections with the opposite bank of the river and the suburbs of Trinitat Vella.

The current alignment of the Torrent de Tapioles stream will be corrected with a view to reconciling its outlet into the Besós River and the burial of Line R2.

Action proposal:

- **Reconfiguration of Huerta de la Ponderosa as an agricultural expansion, in the context of solidarity agriculture and cultural facilities.**
- **Provision of a new structure that lends cohesion to the plots: irrigation system, spaces for exchanges and movements, logistics, constructions that provide support for the activity, entrances, relations with the neighbourhood and other tangential elements.**
- **The land freed up by the new railway line will be annexed, generating a total productive area of approx. 7.5 ha.**

RESIDENTIAL DENSIFICATION PROGRAMME

Description:

On a previous occasion, proposals were made to substantially increase the number of inhabitants, which would have almost totally eliminated any agricultural uses in the neighbourhood. This is not the current idea. It is now proposed to increase the suburb's population no more than its current size, which will participate in or at least be compatible with its agricultural character, becoming a highlight of Vallbona. It is estimated that the increase in the number of inhabitants will not exceed 850 people and that agriculture-related lifestyles will be encouraged.

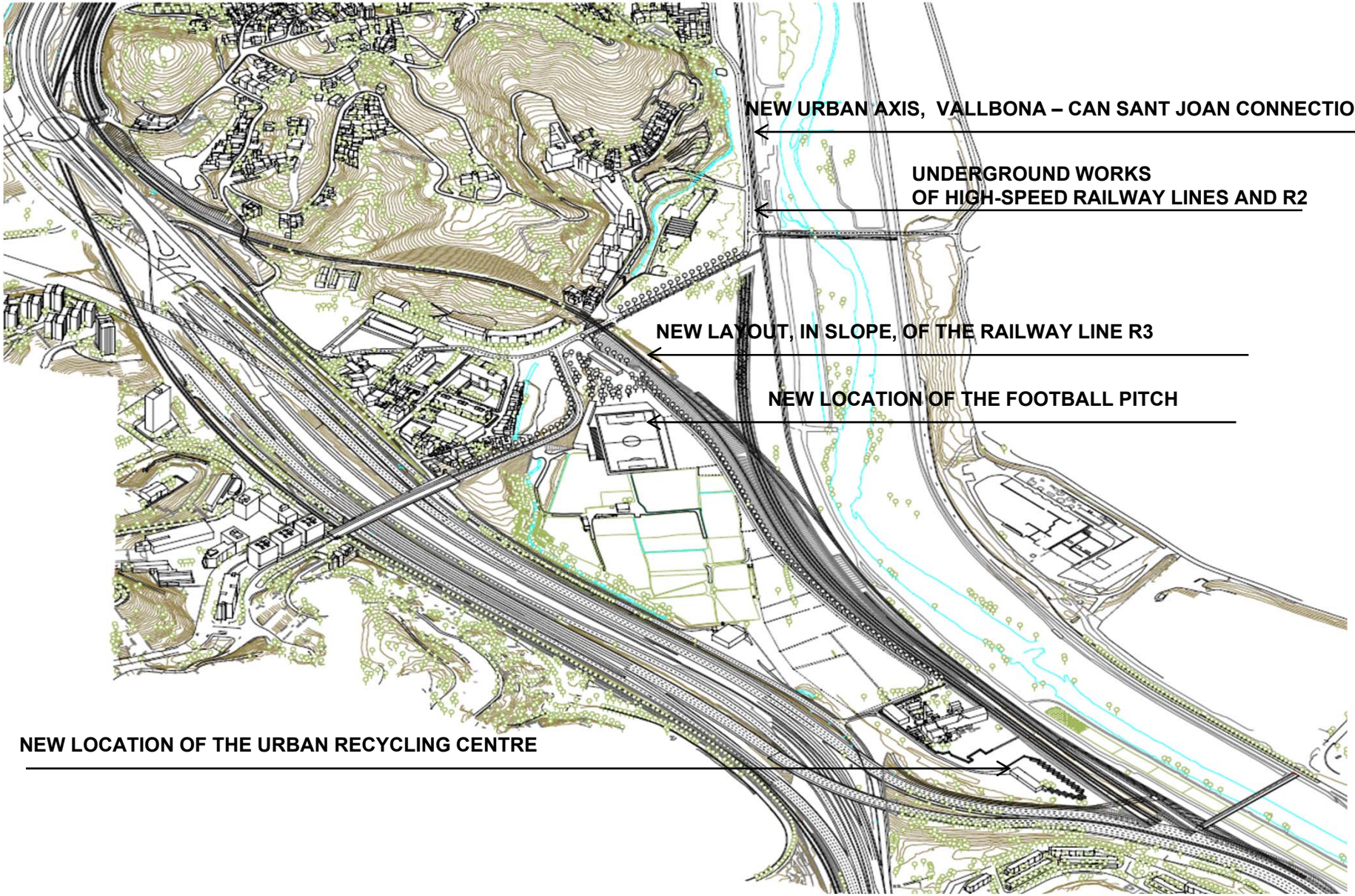
Modifications to the current configuration

a) Facilities
The public facilities affected by the new railway alignment are the football field, the waste recycling plant and a small neighbourhood building. It is proposed that they be moved to other strategic points in Vallbona. The land freed up will enable new uses to be aggregated. These facilities will be moved from Sector (1) to Sector (2), as shown in the following plans.

b) Urban
A new thoroughfare has been proposed, starting at Oristá de Vallbona Street, then running along the top of the buried railway line and linking up with Carril de Can Sant Joan in Montcada i Reixac.

Action proposal:

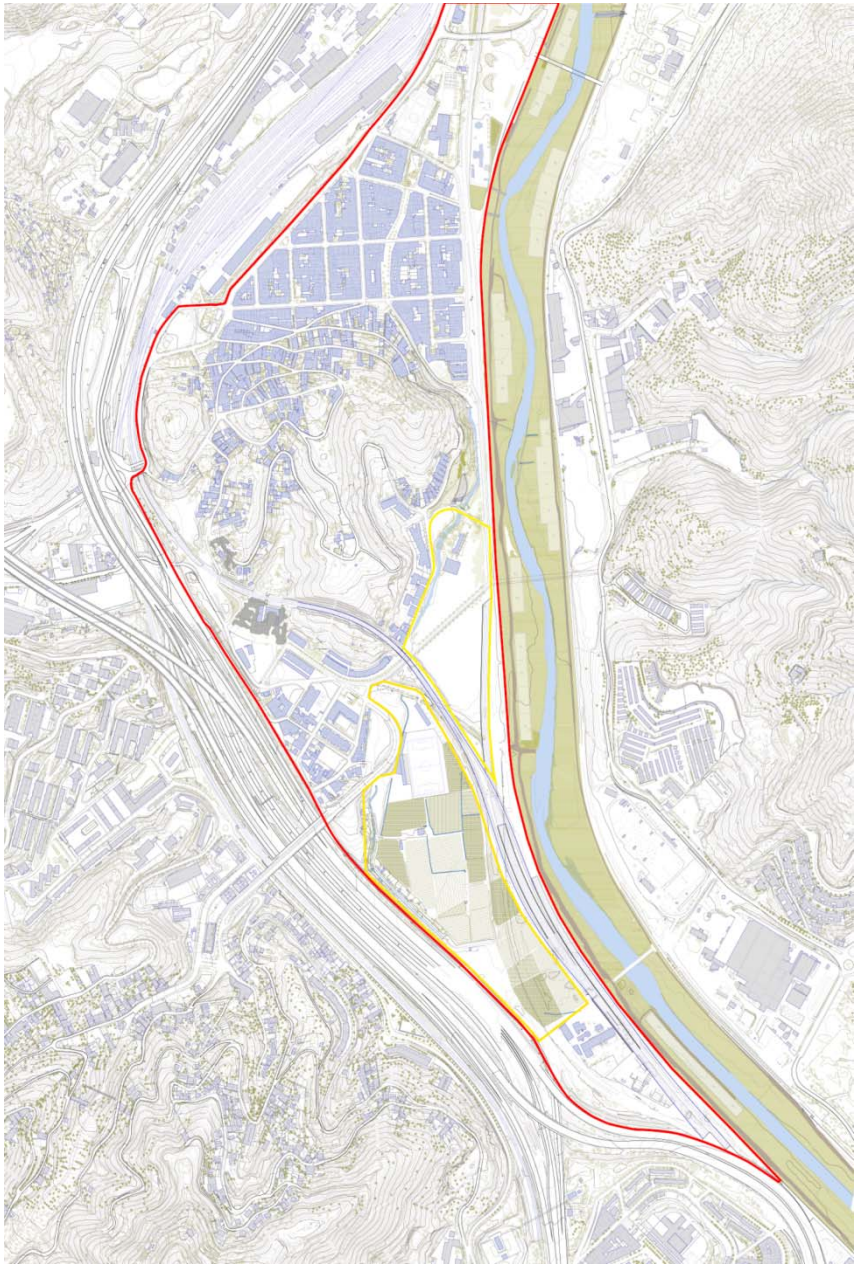
- **Construction of 300-350 homes.**
- **A construction area of 28,000 m2 with approx. 20,000 m2 of floor space is considered.**
- **Point of reference: 40 and 90 m2 dwellings, including the possibility of open typologies possible within the parameters of the competition.**
- **Type of development: a combination of social housing and cooperatives on leased land.**
- **It is possible for a percentage of the dwellings to be linked to the urban horticultural plots, for individual or group use. It is important to establish a coherent relationship between these plots and the large La Ponderosa area.**
- **In no case shall the buildings exceed a height of Grade+5.**
- **Given the local context, grade level can be considered for residential use.**
- **A solution for the parking spaces eliminated by the new thoroughfare can be considered.**



Vallbona with modifications to the railway alignment, the enlargement of the horticultural plot area, the relocation of the football field and the recycling plant and the new Vallbona - Can Sant Joan thoroughfare. This is the base situation for EUROPAN 15.

Ponderosa horticulture plot in Vallbona

Rec Comtal, between the residential área and the orchards



Vallbona map with the changes underway, the base situation for EUROPAN 15

INCLUSION OF SUSTAINABILITY CRITERIA

The inclusion of socio-environmental criteria in the project and the urban strategy drafting process is a complex task with a long-time frame. Projects must promote the inclusion -to a greater or lesser degree- of a socio-environmental perspective with a holistic, systematised, integrated vision.

The inclusion of these criteria should facilitate the inclusion of a socio-environmental perspective from the initial phases of the urban development process and/or the project. These criteria must therefore be continued throughout the planning, project, execution and maintenance process.

The tools we propose employ a multi-criteria analysis system, weighting different aspects, each one with a differentiated relative importance. The adoption of a multi-criteria process is particularly interesting in the Barcelona context: the diverse urban structure of each district and the wide variety of building types make it especially necessary to have an overall view, enabling emphasis to be placed on different aspects in each case and, when analysed as a whole, permit a positive cost-efficient balance that includes socio-environmental criteria. This approach also permits a more flexible overall assessment of the urban planning initiative, adapting it to the specific circumstances and the pre-existing conditions. The sustainability of the action is thus viewed in a holistic way, maximising the aspects that can be incorporated in each case, bearing in mind the diversity of situations. In short, it is a question of finding the best solutions for each case to ensure a maximised inclusion of socio-environmental criteria. This approach avoids the "all or nothing" option which could block certain improvements and penalise the inclusion of an integrated socio-environmental vision. The proposed criteria have been gathered from a range of reference sources, and also from the results of workshops in which many of the Barcelona City Council’s professional technicians have participated.

These criteria are based on transversal objectives :

Mitigate the contribution to climate change and its effects by reducing greenhouse gas emissions.

Adapt to climate change, increasing the city’s resilience to its effects.

Strive to improve citizen health and quality of life, reducing pollution and improving public spaces.

Propose an inclusive city, ensuring equality for all citizens. Transversal inclusion of the gender perspective

The inclusion of the following sustainability criteria will be viewed positively in the projects, provided that, as a whole or in part, they fit the proposal and the requirements of the site. These sustainability criteria contribute to eight different but interrelated spheres of action:

Sphere 1. Transversal governance

With a view to promoting co-working and the necessary synergies of different areas and departments of the City Council with professionals from different technical fields, the drafters of the project and in conjunction with the citizens' shared opinions and co-responsibility: .

Criterion 1.1	Comprehensive, transdisciplinary design

Sphere 2: Sustainable mobility

In order to improve pedestrian mobility and safety and increase the use of other modes of collective, sustainable transport, public transport and cycling:

Criterion 2.1	Priority and convenience for pedestrians
Criterion 2.2	Accessibility for cyclists
Criterion 2.3	Accessible collective public transport
Criterion 2.4	Proximity to electric vehicle recharging points
Criterion 2.5	Reduction of the impact of goods distribution in the urban area

Sphere 3: Quality of public space and mix of uses

Make more open, green areas with trees available to citizens. These areas will be rest, leisure and meeting spaces. Work towards a compact city with diversified uses in which residents have good access to all public services (educational, cultural, social, health, amongst others).

Criterion 3.1	Acces to rest areas
Criterion 3.2	Maintain elements that reinforce the neighbourhood's identity and history
Criterion 3.3	Combined accessibility to public facilities and services
Criterion 3.4	Diversified uses and services
Criterion 3.5	Reduction of motorcycle parking places in public spaces
Criterion 3.6	Protection against light pollution
Criterion 3.7	Protection against noise pollution

Sphere 4: Urban water cycle

Ensure the resilience of the city's water cycle and reduce impacts that occur. Promote sustainable drainage for the city, minimizing the effects of cloudbursts

Criterion 4.1	Retention of stormwater runoff
Criterion 4.2	Rainwater filtration
Criterion 4.3	Protection for steep slopes

Sphere 5: Green and biodiversity

Enhance the value and ensure the conservation of the city's green spaces and their biodiversity. Natural resources are valuable, and the ecosystemic services they provide are limited. Their conservation and improved state are therefore tools that increase their value.

Criterion 5.1	Access to quality green spaces
Criterion 5.2	Shaded public spaces
Criterion 5.3	Conservation and enhancement of the ecological structure and biodiversity

Sphere 6: Heat island effect

Reduce the heat island effect resulting from the urban microclimate generated in big cities like Barcelona. Steps are encouraged to reduce the city's air temperature such as increasing the surface area of shade and the use of materials that reflect the sun's light and heat.

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Criterion 6.1	Pavements that reflect solar radiation
Criterion 6.3	Implementation of productive roofs and walls

Sphere 7: Environmental impact of construction materials

Reduce the carbon footprint of the construction process, with a focus on the materials employed. Although most of a building's footprint occurs after it has been built, the consideration of more sustainable construction materials and techniques is also relevant.

Criterion 7.1	Lower CO_2 footprint of the materials employed
Criterion 7.2	Plan for maintenance, durability and lifetime

Sphere 8: Energy

Improve the energy performance of public spaces and the city's buildings, implementing energy efficiency measures that reduce demand and consumption. Encourage the construction of buildings with a very high energy rating, achieved mainly via passive measures. Increased self-consumption of renewable energy is also encouraged.

Criterion 8.1	High energy rating requirements for new buildings
Criterion 8.2	Optimised solar orientation of buildings
Criterion 8.3	Sun shading
Criterion 8.4	Use of natural ventilation
Criterion 8.5	Use of natural lighting
Criterion 8.6	Renewable energy production

The inclusion of the following sustainability criteria will be viewed positively in the projects, provided that, as a whole or in part, they fit the proposal and the requirements of Barcelona City Council.

http://ajuntament.barcelona.cat/ecologiaurbana/ca
https://consorcibesos.cat/