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University / School
Academic year
Title of the project
Authors

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Universitat Politècnica de Catalunya
2016
WATER: a modulator of relations
Melanie Theodosopoulou Giannetaki





PERFORMATIVE NATURE

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SCHOOL PRIZE

X International Landscape Architecture Biennial

Máster d'Arquitectura del Paisatge -DUOT - UPC

ETSAB- Escola Tècnica Superior

d'Arquitectura de Barcelona

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TECHNICAL DOSSIER

Title of the project WATER: a modulator of relations
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Title of the course Trabajo Final de Master
Academic year 2016
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Department/Section/Program of belonging Escola Tècnica Superior d'Arquitectura de Barcelona, MBLandArch
University/School Universitat Politècnica de Catalunya

The purpose of this project is to investigate the criteria that can form a proposal on the landscape integration of the new industrial complex that will be installed in the sector of Can Sabadell, in Viladecans. The objectives that have been considered as a guide in this study are: to minimize the impact of the implementation of the new industrial / tertiary zone, generating new relationships between current and future landscapes, while facing problems that are already detected in the area, like the floods and the lack of connectivity between the natural spaces. In addition, to respect, as much as possible, the current dynamics that have been found in the project area and its surroundings.

The project takes place in the deltaic area of Llobregat, where water, undoubtedly, corresponds to the fundamental element in the formation and the established dynamics of the landscape itself. Likewise, water has the capacity, according to its function (conduction, retention, infiltration), its state (in motion, stagnant) and its environment (urban, natural) to generate different types of landscape.

With respect to these considerations, this proposal uses water as the main means through which it is attempted to establish a balance between the current landscape and the future.

For further information

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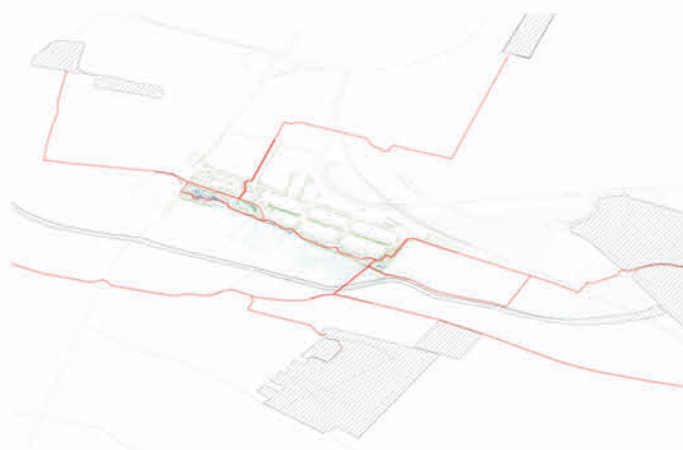
Consult the web page <http://landscape.coac.net/>



Masterplan of strategies



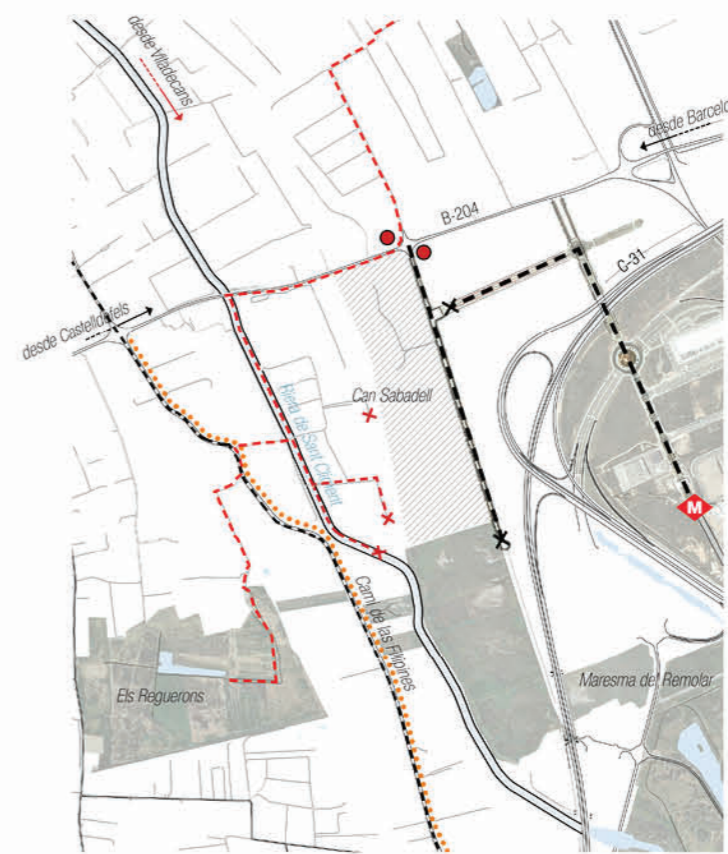
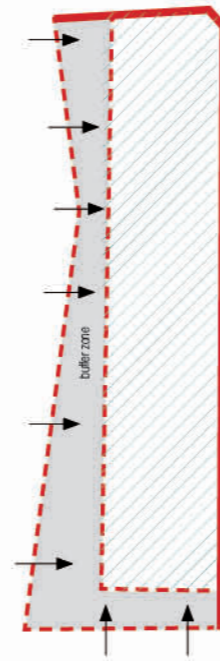
Connection diagram of natural areas



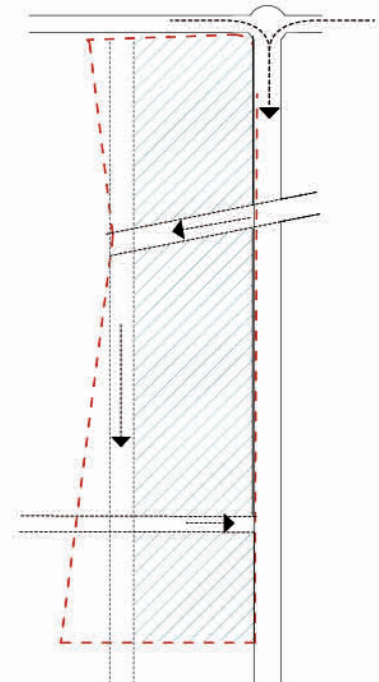
Connection diagram between areas of interest



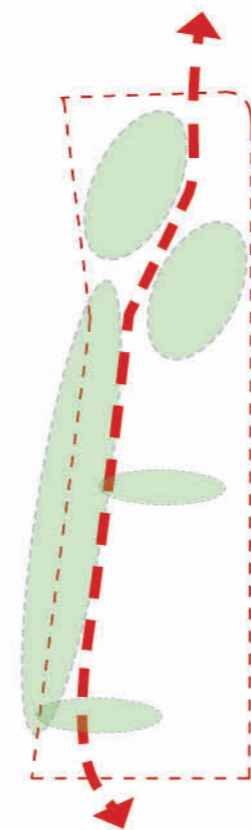
ESTRATEGIA DE LIMITES



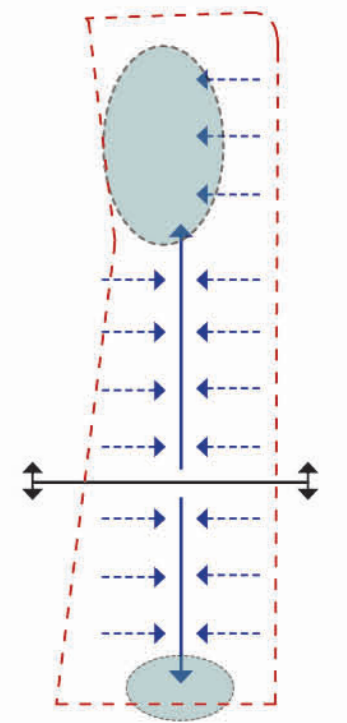
ESTRATEGIA DE CIRCULACIÓN



ESTRATEGIA DE VEGETACIÓN

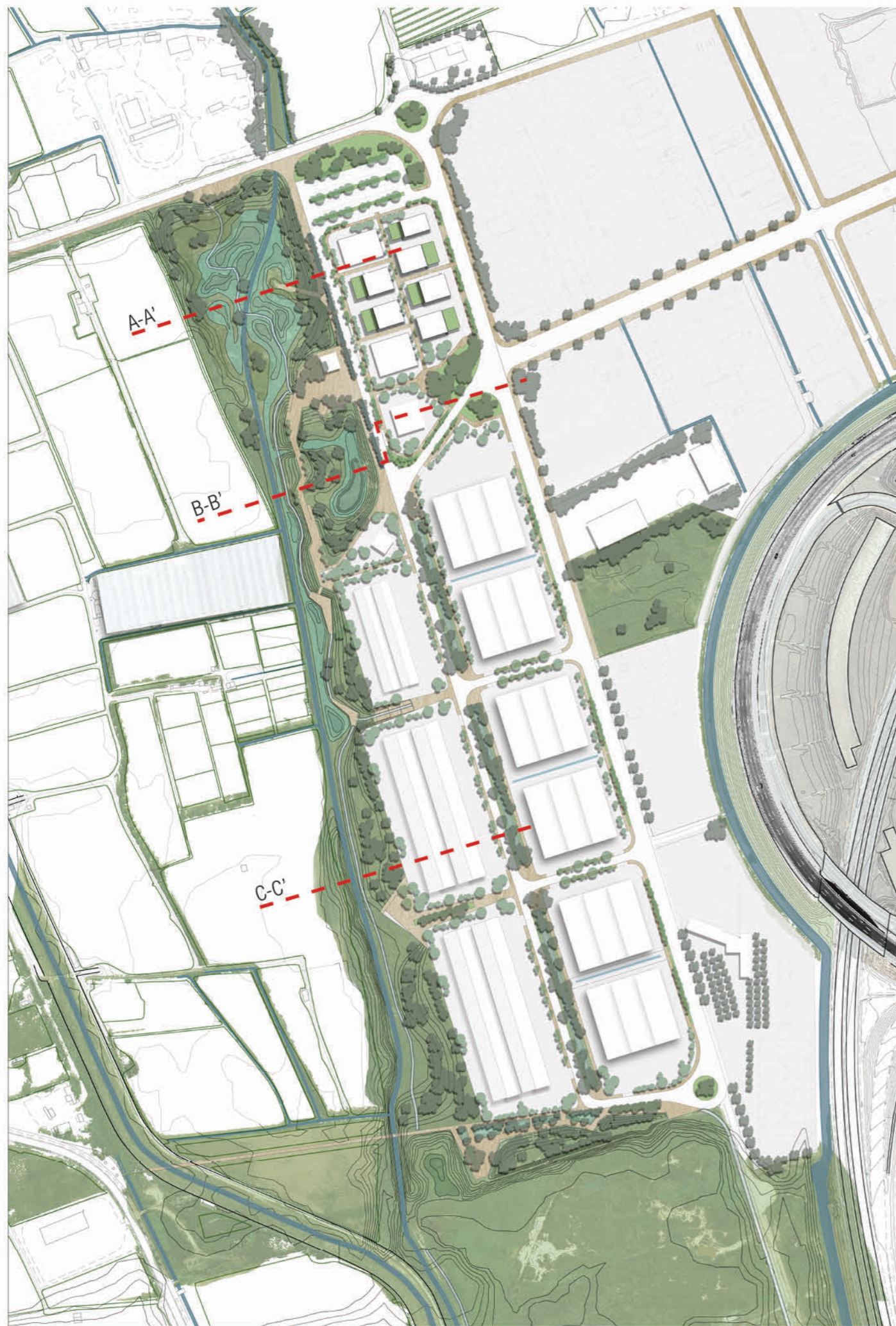


ESTRATEGIA DE AGUA

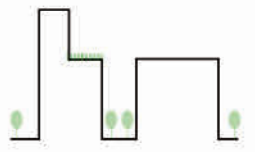


STRATEGIES

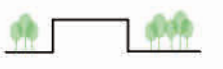
- Connect natural spaces favoring ecological flows.
- Complement the road network in order to improve the connections between areas of interest.
- Establish wide spaces where water can infiltrate, compensating the permeable and impermeable floor.



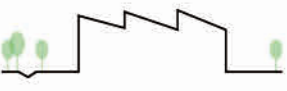
SECTOR DE SERVICIOS (39.871m²):
 - 2 edificios de oficinas de max. altura 16m.
 - 6 edificios de oficinas de max. altura 25m.



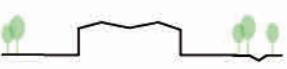
EQUIPAMIENTOS COMUNITARIOS:
 - 3 edificios de max. altura 12m.
 - Corresponden a usos de servicios complementarios como restaurantes, gimnasio, café



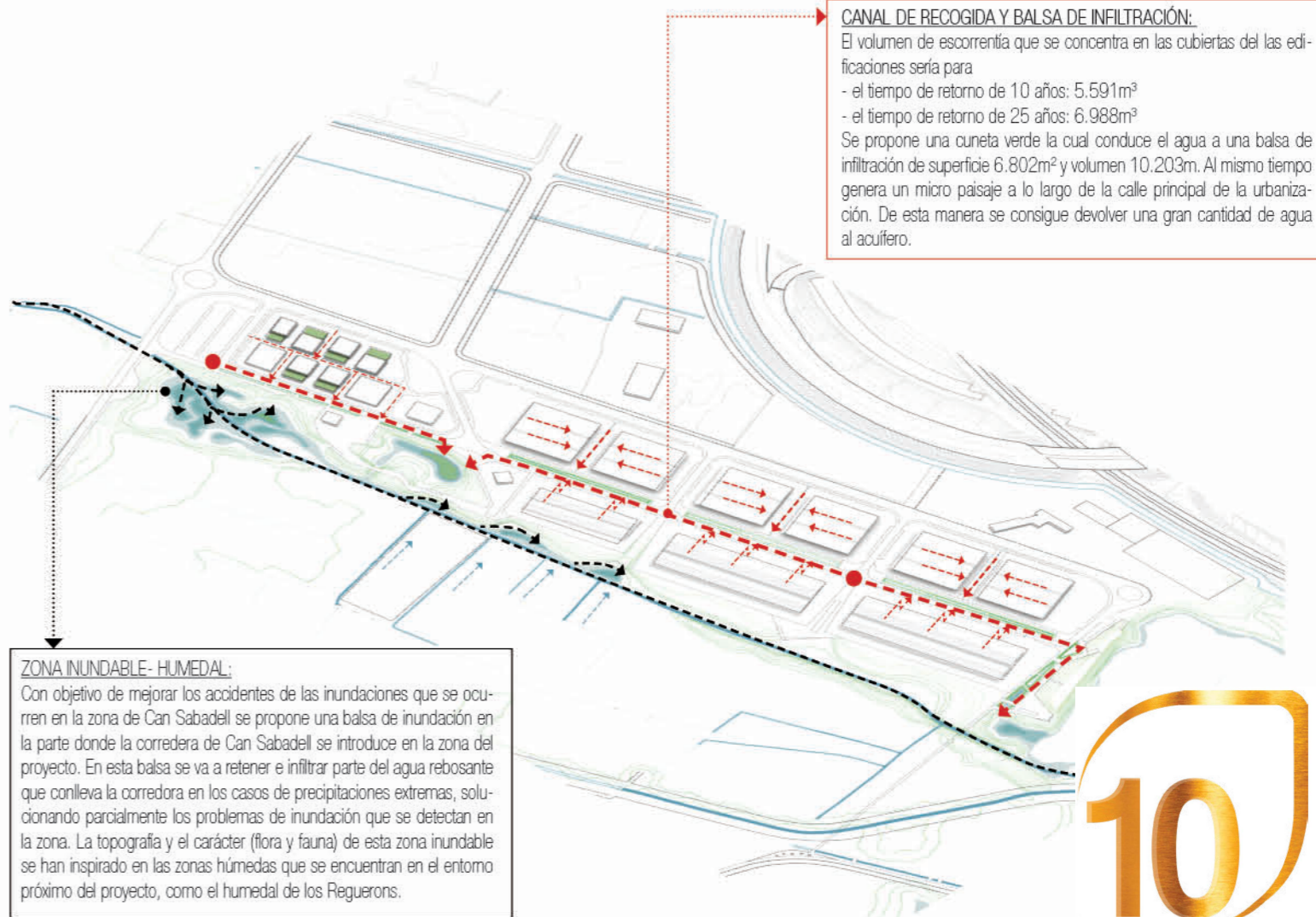
SECTOR DE MOVIMIENTO DE MERCANCIAS (76.473m²):
 - 6 edificios de logística de max altura 15m.



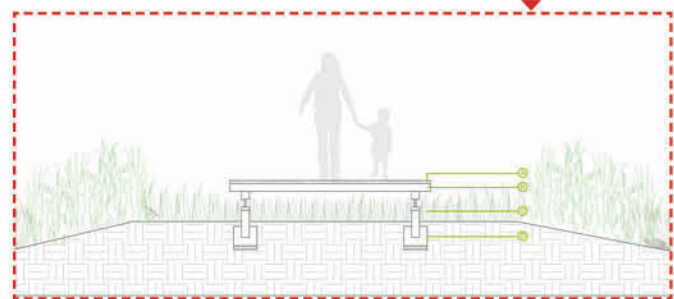
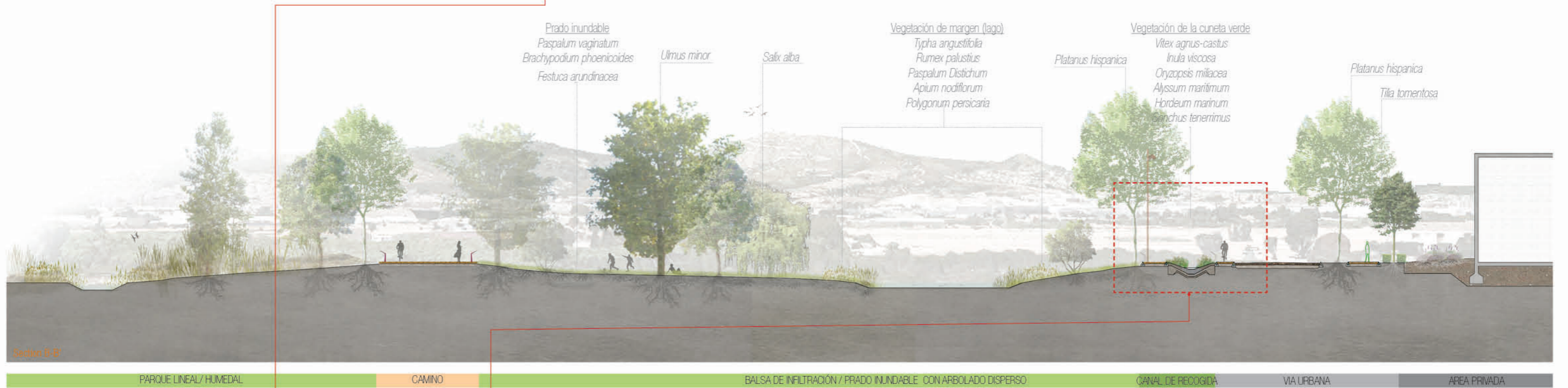
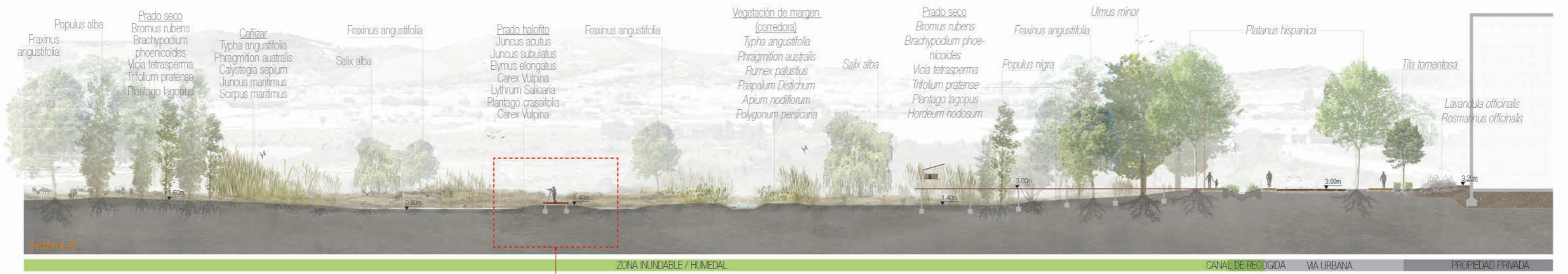
SECTOR DE TRANSFORMACIÓN MATERIALES (19.750m²):
 - 3 naves industriales de max altura 10m.



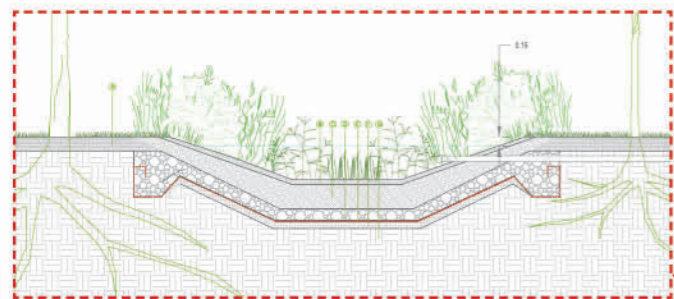
CANAL DE RECOGIDA Y Balsa DE INFILTRACIÓN:
 El volumen de escorrentía que se concentra en las cubiertas de las edificaciones sería para
 - el tiempo de retorno de 10 años: 5.591m³
 - el tiempo de retorno de 25 años: 6.988m³
 Se propone una cuneta verde la cual conduce el agua a una balsa de infiltración de superficie 6.802m² y volumen 10.203m³. Al mismo tiempo genera un micro paisaje a lo largo de la calle principal de la urbanización. De esta manera se consigue devolver una gran cantidad de agua al acuífero.



ZONA INUNDABLE- HUMEDAL:
 Con objetivo de mejorar los accidentes de las inundaciones que se ocurren en la zona de Can Sabadell se propone una balsa de inundación en la parte donde la corredera de Can Sabadell se introduce en la zona del proyecto. En esta balsa se va a retener e infiltrar parte del agua rebosante que conlleva la corredera en los casos de precipitaciones extremas, solucionando parcialmente los problemas de inundación que se detectan en la zona. La topografía y el carácter (flora y fauna) de esta zona inundable se han inspirado en las zonas húmedas que se encuentran en el entorno próximo del proyecto, como el humedal de los Reguerons.



- A. TABLONES DE MADERA
- B. VIGA DE MADERA
- C. TUBO DE d10cm
- D. DADO DE CIMENTACIÓN



- A. TIERRA VEGETAL
- B. CAPA DE MULCH
- C. GRAVAS DE DRENAJE MEZCLADOS CON TIERRA
- D. GRAVAS DE DRENAJE DE MAYOR TAMAÑO,
- E. GEOTEXTIL
- F. CAPA DE ARCILLA
- G. TERRENO EXISTENTE

