



PLANNING OF THE URBAN AND PERI-URBAN WETLANDS SYSTEM OF VALDIVIA AS AN URBAN LANDSCAPE SHAPER

Country / City	Chile
University / School	Universidad Central de Chile / Architecture, Urbanism and Landscape Faculty
Academic year	2017
Title of the project	"Planning of the urban and peri-urban wetlands system of Valdivia as an urban landscape shaper"
Authors	Jacinta Arroyo Molt



PERFORMATIVE NATURE

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Máster d'Arquitectura del Paisatge -DUOT - UPC
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TECHNICAL DOSSIER

Title of the project	"Planning of the urban and peri-urban wetlands system of Valdivia as an urban landscape shaper"
Authors	Jacinta Arroyo Molt
Title of the course	Final degree project
Academic year	2017
Teaching Staff	Claudia Márquez
Department/Section/Program of belonging	Landscape Architecture School
University/School	Universidad Central de Chile / Architecture, Urbanism and Landscape Faculty

Written statement, short description of the project in English, no more than 250 words

Throughout history, the city of Valdivia has been exposed innumerable times to natural disturbances that have resulted in the modification of the surrounding landscape, including the largest earthquake known on the planet, allowing the emergence of new ecological structures, such as the Carlos Anwandter Nature Sanctuary, and what we know today as "Valdivia urban wetlands".

The vulnerability and the transformation capacity of the territory in short periods, given mainly by the instability of its soils and the presence of complex networks of subterranean and superficial waters, have determined the way of living of the Valdivian citizen, consolidating the "water landscape", composed of rivers and wetlands, as an indissoluble element in the collective imagination, aware and also unconscious within the population.

In this context, understanding that the wetland system is fully inserted in the city, it is possible to identify the existence of a permanent conflict between the wetlands urban and the natural matrix, the latter being threatened by the continuous progress of the urbanization. From this, the proposal seeks to reinforce the recognition of urban wetlands as "intrinsic elements of the identity and structure of the city", consolidating a city-image closely linked to its natural heritage, based on three major strategies: Strategy 1: Citizen proposal / Strategy 2: Structural-functional proposal / Strategy 3: Normative proposal

For further information

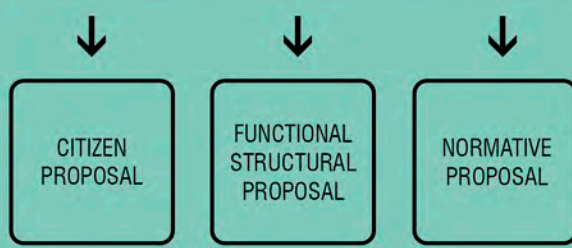
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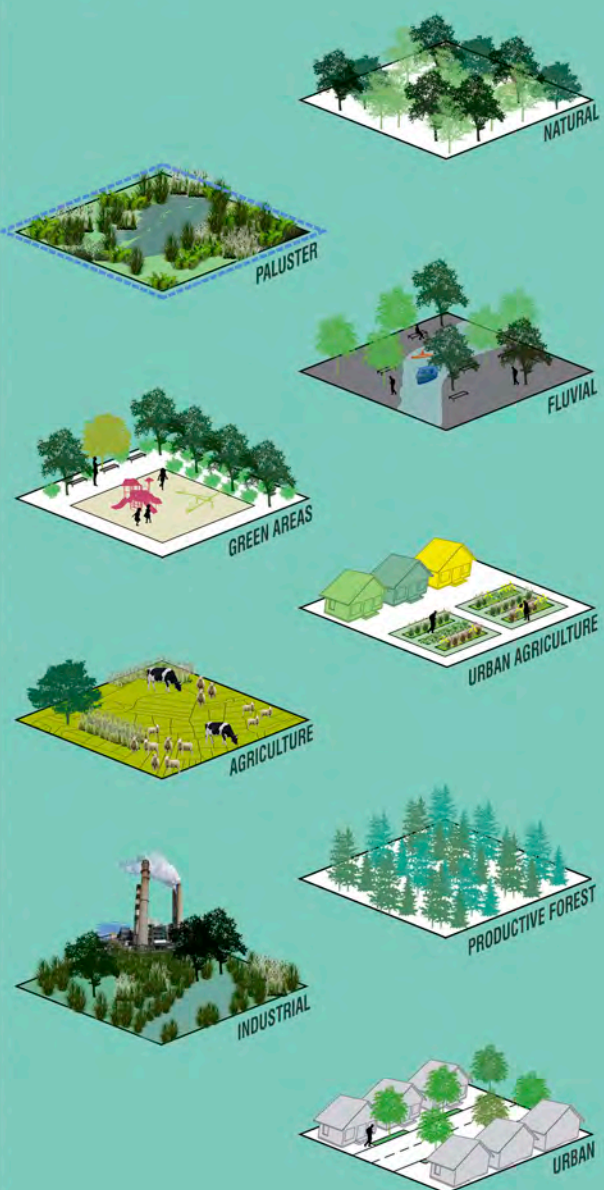
Consult the web page <http://landscape.coac.net/>

STRATEGIES

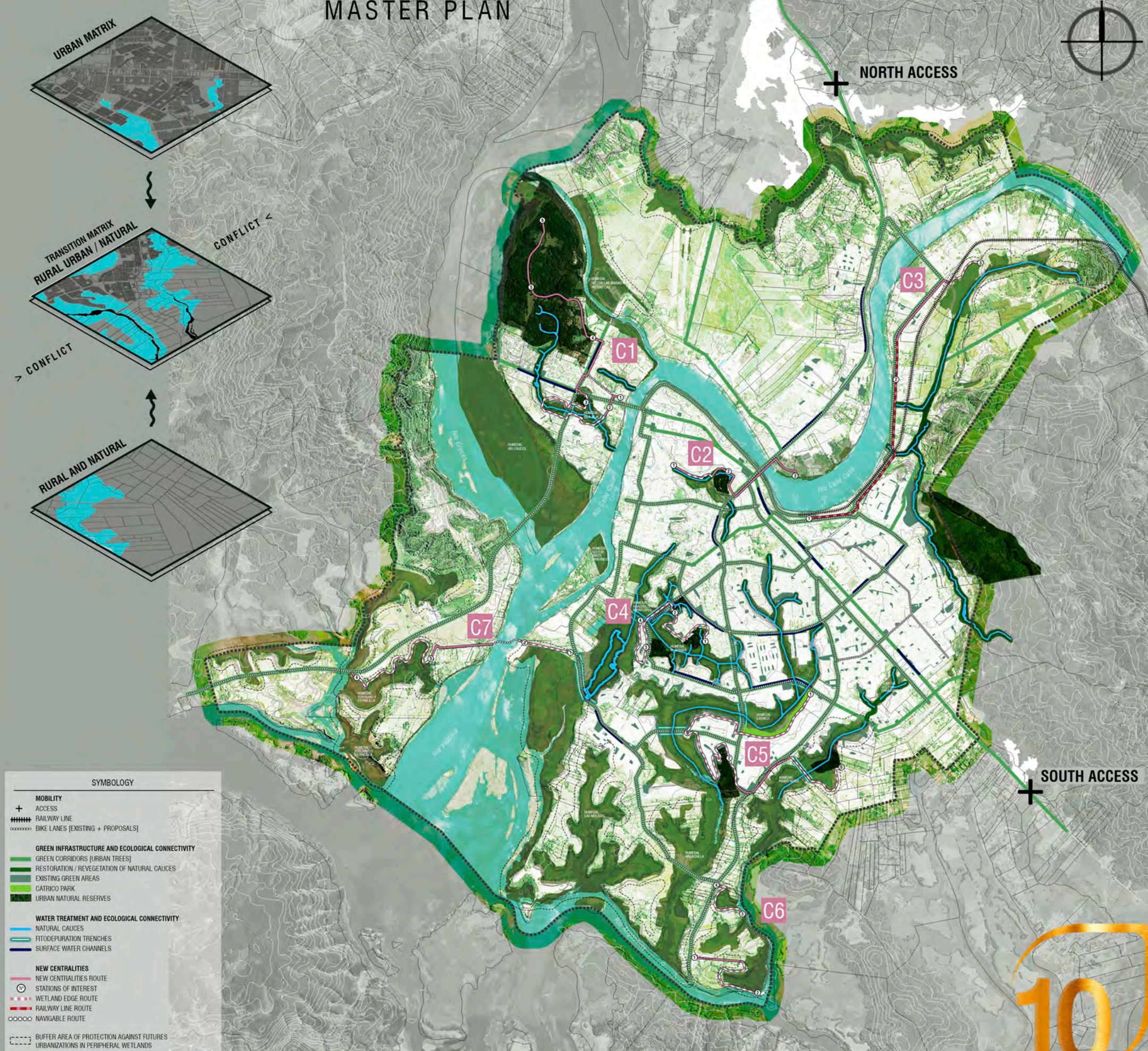


LANDSCAPE DIVERSIFICATION

WITHIN THE VALDIVIAN MACRO LANDSCAPE (TERRITORY) COEXIST DIVERSE MICRO-LANDSCAPES THAT ARE PART OF THE NATURAL, PRODUCTIVE, RURAL AND URBAN MATRIX OF THE CITY. THE NEED ARISES TO ADDRESS THE HETEROGENEITY OF THE MACRO LANDSCAPE THROUGH THE TREATMENT OF DIFFERENT TYPES OF LANDSCAPES THAT COMPOSES IT (MICRO LANDSCAPES), THUS PROMOTING THE INCREASE OF THE ENVIRONMENTAL QUALITY OF THE CITY IN AN INTEGRAL MANNER. THIS, IN THE LONG TERM, WOULD BE A BENEFICIAL ACTION FOR THE CITY QUALITY, WHILE IMPACTING POSITIVELY ON THE URBAN WETLANDS SYSTEM, WHICH TODAY ARE INSERTED IN A HOSTILE AND UNFRIENDLY MATRIX.



MASTER PLAN



SYMBOLY	
MOBILITY	
+	ACCESS
————	RAILWAY LINE
⋯⋯⋯⋯	BIKE LANES [EXISTING + PROPOSALS]
GREEN INFRASTRUCTURE AND ECOLOGICAL CONNECTIVITY	
———	GREEN CORRIDORS (URBAN TREES)
———	RESTORATION / REVEGETATION OF NATURAL CAUCES
———	EXISTING GREEN AREAS
———	CATRICO PARK
———	URBAN NATURAL RESERVES
WATER TREATMENT AND ECOLOGICAL CONNECTIVITY	
———	NATURAL CAUCES
———	FITODEPURATION TRENCHES
———	SURFACE WATER CHANNELS
NEW CENTRALITIES	
———	NEW CENTRALITIES ROUTE
○	STATIONS OF INTEREST
———	WETLAND EDGE ROUTE
———	RAILWAY LINE ROUTE
○	NAVIGABLE ROUTE
———	BUFFER AREA OF PROTECTION AGAINST FUTURES URBANIZATIONS IN PERIPHERAL WETLANDS



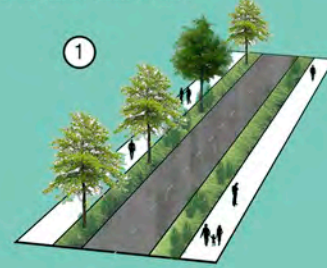
MOBILITY



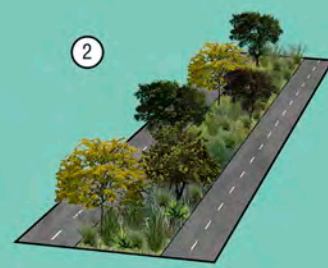
GREEN INFRASTRUCTURE



GREEN INFRASTRUCTURE

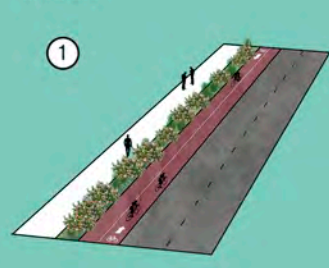


GENERAL ROAD TREES
IT IS COMPOSED OF INTRODUCED AND NATIVE TREE SPECIES. THEY PRESENT A DENSITY FROM LOW TO MEDIUM. HOWEVER, CONTINUITY IS MAINTAINED ALLOWING THE MOBILITY OF CERTAIN SPECIES.

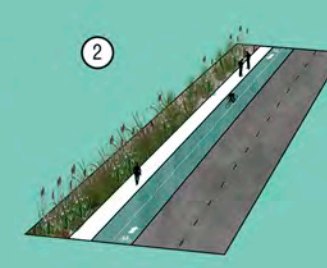


MEDIAN STRIP TREES
TAKING ADVANTAGE OF THE AVAILABLE SPACES IN MEDIAN STRIPS, THE AIM IS TO EVOKE THE WETLANDS LANDSCAPE, THROUGH NATIVE VEGETATION AND TYPICAL SPECIES OF THESE ENVIRONMENTS. ENHANCING THE IDEA OF THE WETLAND AS AN IMAGE OF THE CITY.

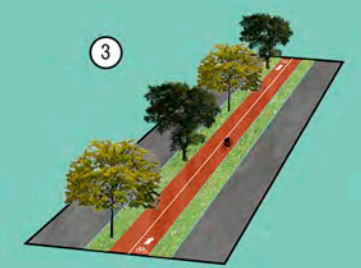
MOBILITY



CICLOVÍA GENERAL
DUAL-LANE ROADWAY WITH SHRUBBERY EDGE THAT ACTS AS A SEPARATING ELEMENT OF PEDESTRIAN TRAFFIC.



SECONDARY CYCLEWAY
DOUBLE TRANSIT CICLEWAY IT IS PART OF THE TOURIST CIRCUITS, PRESENTING A SECONDARY HIERARCHY THAT BORDER THE WETLAND. IN THIS SECTION, THE PEDESTRIAN PAVEMENT PRESENTS A DIFFERENT TREATMENT THAT WORKS AS A USER GUIDE.

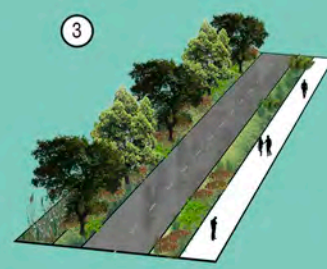


MEDIAN STRIP CYCLEWAY
WE PROPOSE THE USE OF BICYCLE LANES FOR LARGE CENTRAL DECKS (FROM 4M AND MORE), ACCOMPANIED BY A LANDSCAPE PROPOSAL THAT RESEMBLES THE WETLAND HABITAT, THROUGH NATIVE VEGETATION TYPICAL OF THESE ENVIRONMENTS.

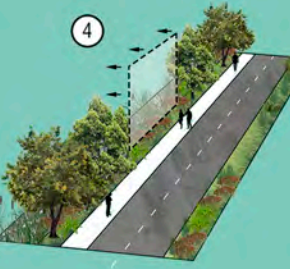
WATER TREATMENT



CENTRALITIES



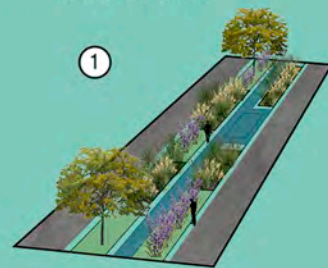
FRAGILE WETLANDS ROAD TREES
IT IS COMPOSED OF EXCLUSIVELY NATIVE VEGETATION, IN ITS DIFFERENT STRATA. IT IS USED IN THOSE WETLANDS THAT PRESENT A HIGH DEGREE OF FRAGILITY FOR WHICH THE TREES ARE PRESENTED IN A DENSE WAY WITH THE PURPOSE OF GENERATING A PROTECTIVE BARRIER FOR THE ECOSYSTEM.



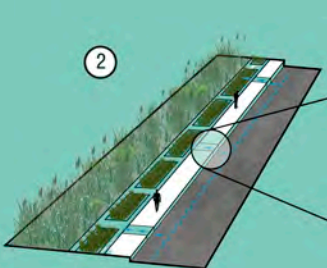
VISUAL INTEREST WETLANDS ROAD TREES
IT IS COMPOSED OF EXCLUSIVELY NATIVE VEGETATION, IN ITS DIFFERENT STRATA. IT PRESENTS A HIGH DENSITY, ALTERNATING WITH "WINDOWS" WITHOUT VEGETATION THAT ALLOW THE OBSERVATION OF THE WETLAND IN CERTAIN LANDSCAPE VALUE STRATEGIC POINTS.



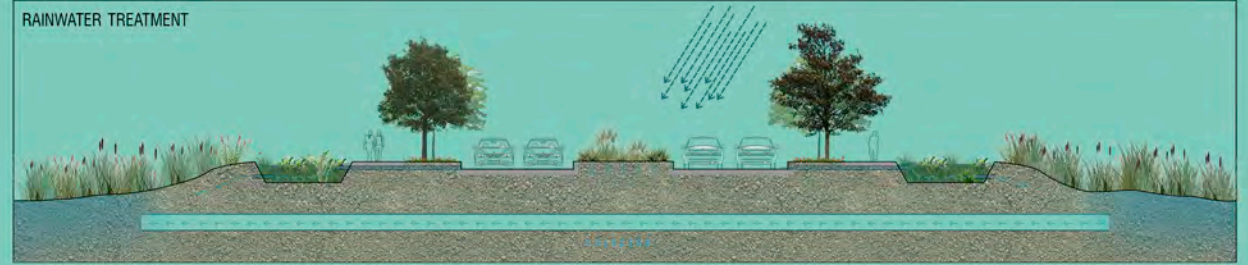
WATER TREATMENT



MEDIAN STRIP CHANNEL
IN ORDER TO VISUALIZE THE NATURAL PROCESSES LINKED TO WATER FLOWS, SUPERFICIAL CHANNELS ARE PROPOSED FOR LANDSCAPING PURPOSE THAT, ASSOCIATED WITH THE WETLAND VEGETATION, ANNOUNCES THE APPROACH OF THESE.



FITODEPURACIÓN "TRENCH"
TO REDUCE THE WATER POLLUTION PROBLEM, WE PROPOSE THE PROVISION OF PHYTODEPURACIÓN DITCHES THAT ACT AS A FILTER BEFORE THE RAINWATER FLOWS FROM THE ROAD TO THE WETLAND.



RAINWATER TREATMENT



NORTH ACCESS

INDUSTRIAL MATRIX WETLANDS



RURAL PERIPHERAL WETLANDS



RIVERSIDE PERIPHERAL WETLANDS



