

Vitrolles

South District



Living scapes



STUDY REQUESTED BY *COMMUNE DE VITROLLES*

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Master 2 - Urbanisme et Aménagement - Urban Design
2013 - 2014

Workshop Communication
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INTRODUCTION

Avenue Jean Monnet is a primary link for the south of Vitrolles, both a southern town gateway and a point of entrance into the southern neighbourhoods of Vitrolles. It is considered as a potential backbone for the creation of a South district.

During our analysis, we will describe the urban fabric using specific terms: the term ‘neighbourhood’ refers to the smaller urban entities such as *Les Pinchinades*, *La Frescoule*, *Ferme de Croze* or *La Tullière*. The term South district refers to a larger entity comprising all these smaller neighbourhoods.

Our contract requires an assessment of the southern sector as a district, calling into question its urban character and the links between the different neighbourhoods it is composed of.

Our second point of analysis is the southern gateway to Vitrolles. The boundaries between *Les Pennes-Mirabeau* and Vitrolles are not clearly delineated, so that the residents are not quite certain which town they belong to. This questions Vitrolles’ identity markers in this area.

This first step, this preliminary study, will allow us to identify and reveal the passage points between the southern neighbourhoods and a greater South district.

TABLE OF CONTENTS

INTRODUCTION	2
I. FROM A UNIQUE SITE TO A MULTIPLICITY OF SPACES	4
1. Site location in the Marseilles metropolitan area	4
2. A unique site topography	5
3. How the site was shaped by several phases of urbanization	6
II. A SEGREGATED REALITY IN CONTRAST WITH THE <i>VILLE NOUVELLE</i> IDEAL	8
1. Residential areas	8
2. Public spaces	9
III. IS THE SOUTHERN DISTRICT A COHERENT ENTITY?	10
1. An aggregation of small neighbourhoods	10
2. Social disparities	11
3. A car-oriented way of life	12
IV. <i>AVENUE JEAN MONNET</i> : A DUAL CHALLENGE	14
1. Serial vision analysis	14
2. The gateway to the town	16
3. Distributing flows through the South district	17
STUDY CONCLUSION	17
V. CONCEPT PLAN	18
1. Reclaiming the land	20
2. <i>Avenue Jean Monnet</i> – a backbone for redevelopment	21
3. How to recreate life for residents in a redesigned scape	22
VI. DETAILED PROJECT	23
1. Reviving the landscaping assets of the South district	24
2. Functional diversity and housing	26
3. Redesigning <i>Avenue Jean Monnet</i>	28
GENERAL CONCLUSION	30
TABLE OF ILLUSTRATIONS	30

I. FROM A UNIQUE SITE TO A MULTIPLICITY OF SPACES

I.1. Site location in the Marseilles metropolitan area

The city of Vitrolles, with its 36 117 residents, is located on the eastern border of *Etang de Berre*, in the *département* of *Bouches-du-Rhône*.

Vitrolles is connected to the other cities of the metropolitan area by a dense road network. From Vitrolles, Marseilles, Aix-en-Provence and Salon-de-Provence can be reached in around 25 minutes.

The city is criss-crossed by multiple thoroughfares like:

- The A7 connecting Marseilles to Lyons,
- The D9 connecting Aix-en-Provence to Martigues
- The D20 connecting Coudoux to Saint-Victoret

The south of the city is near the A55 that crosses *Les Pennes-Mirabeau* and connects Martigues to Marseilles. The city occupies a strategic location, in close proximity to major transportation infrastructures such as the Marseilles-Provence airport and the Aix-en-Provence TGV train station (Fig. 1).

Vitrolles is a part of the *Communauté du Pays d'Aix* (CPA). Its northern border is connected to the *Agglomération Provence* through Rognac and the southern border is connected to *Marseilles-Provence-Métropole* through Marignane and Saint-Victoret.

Massive urbanization during the 1970's, changed the small *Provençal* village into a *ville nouvelle*. This urbanization process is geographically restricted by *Etang de Berre* to the west, the transportation network, and *plateau de l'Arbois* to the east. The city is structured around the following centres: the old village, the urban centre, the shopping centre and the South district (Fig.2).

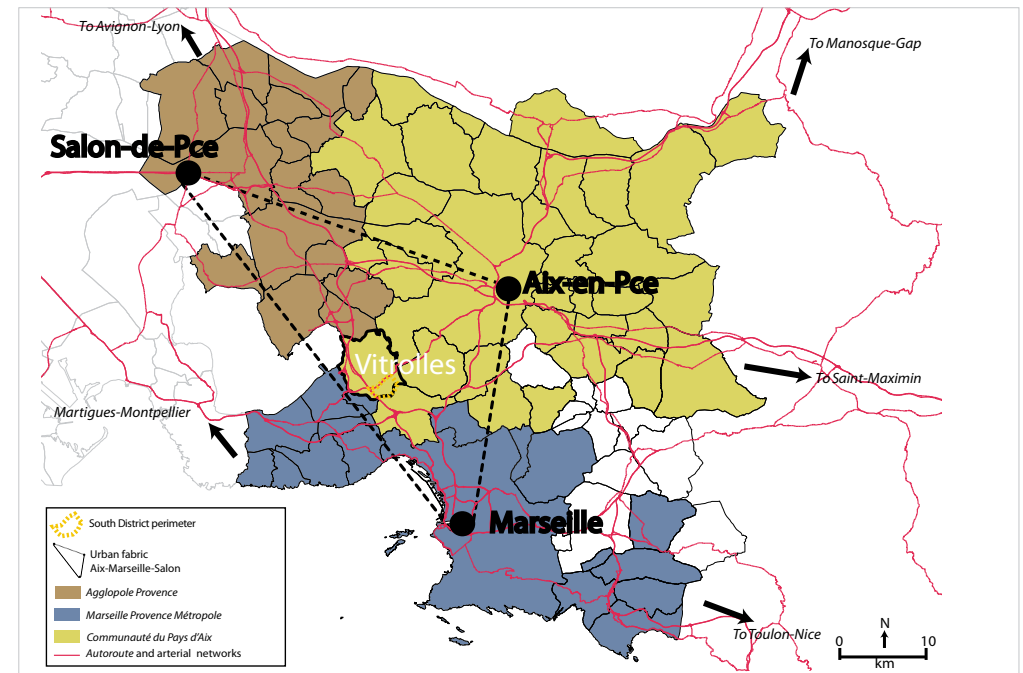


Fig 1. Vitrolles in the metropolitan fabric

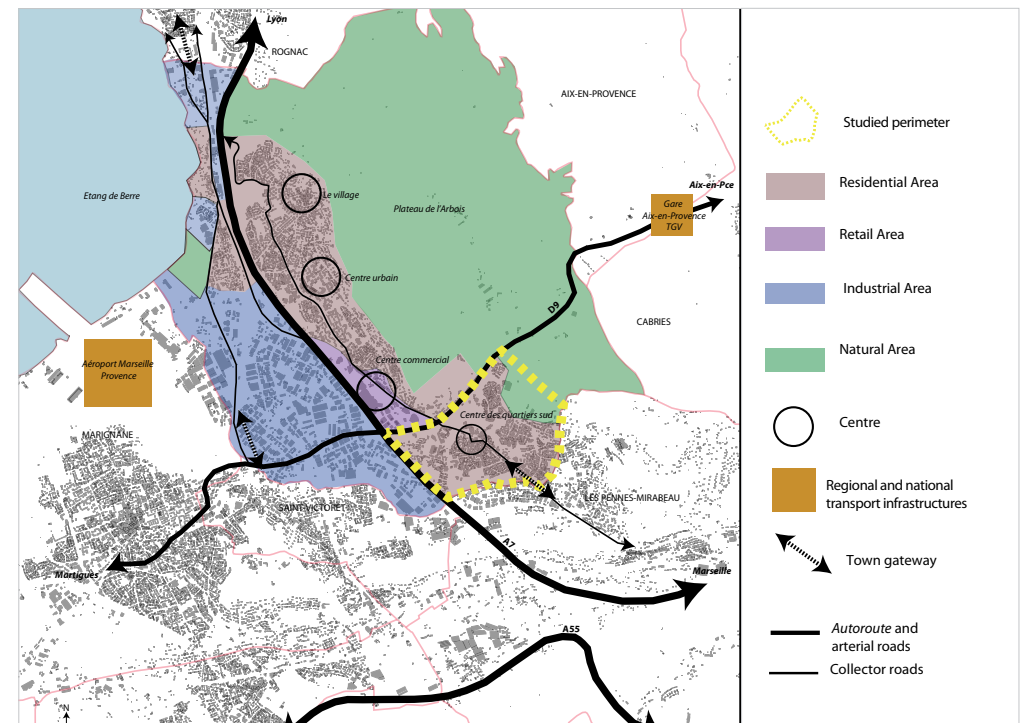


Fig 2. The southern neighbourhoods in Vitrolles

1. 2. A unique site topography

The Griffon interchange, or *échangeur du Griffon*, is the main access to the South district when arriving from the other centres of Vitrolles. From there, *avenue Jean Monnet* crosses through the whole district up to *Les Pennes-Mirabeau*. This avenue is also the main gateway into Vitrolles when coming from *Les Pennes-Mirabeau*.

The South district has both natural and anthropogenic delineations. In the west, the A7 and the D9 that provide an easy access to the district can also be considered as barriers disconnecting this area from the rest of the city. In the north, the red clay hills create a topographic barrier limiting urbanization. Finally, the *la Cadière* river is the natural and administrative border between Vitrolles and *Les Pennes-Mirabeau* (Fig. 3).

Various landscape entities depending on the topography and the presence of water compose the site: green wild spaces, red cliffs, agricultural fields, residential areas, Mediterranean woods, a lake... (Fig. 4 and 5)

Fig 4. The major landscape entities

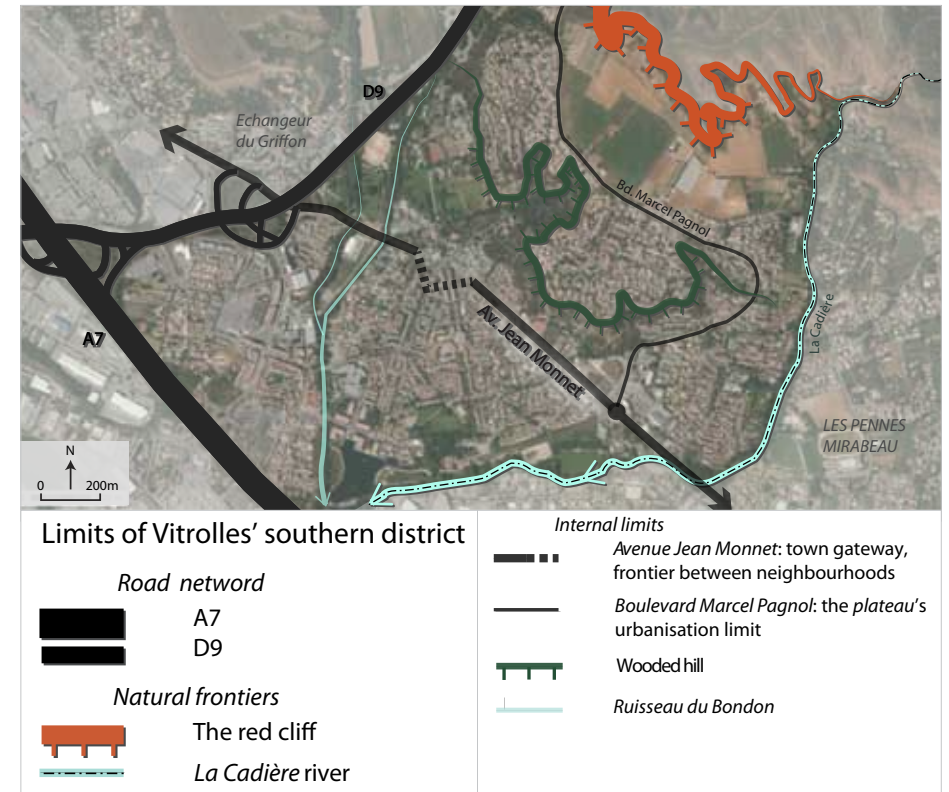
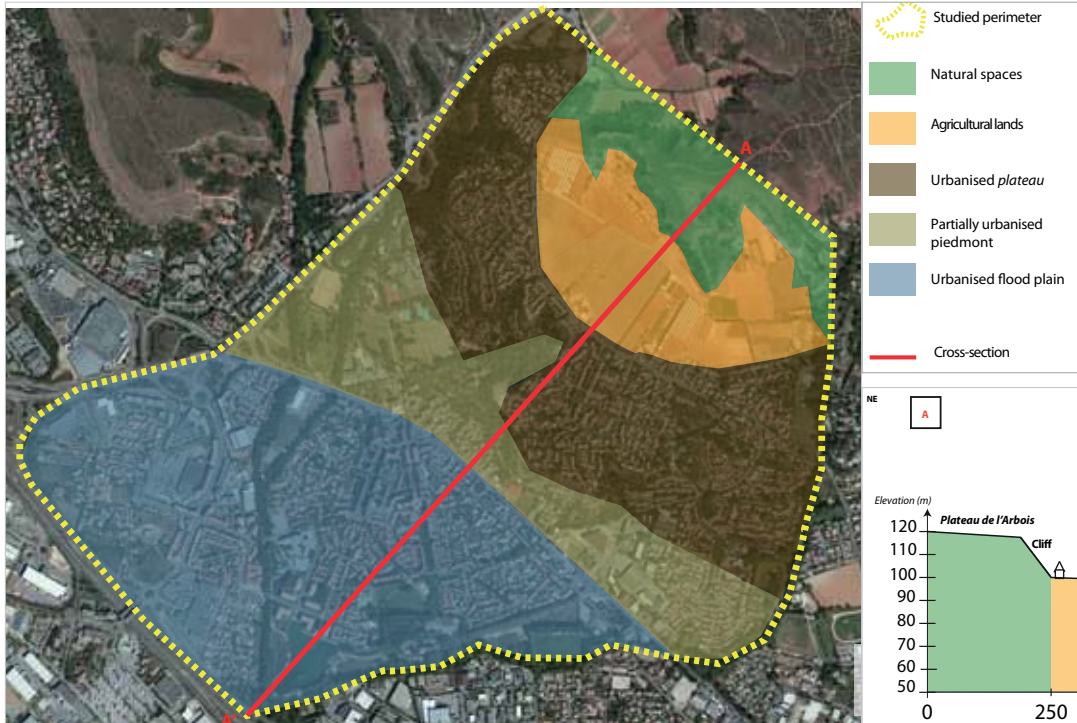
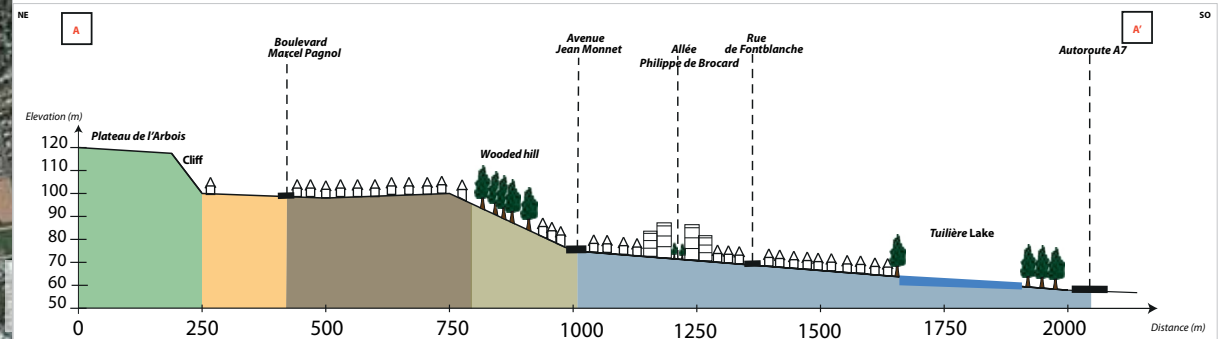


Fig 3. Limits to the South district

Fig 5. Cross-section



1.3. How the site was shaped by several phases of urbanization

According to the Cassini map of 1778 and the *Etat Major* map of 1860, the South district has been known as a crossroad for a long time.

Most of the current names of the internal neighbourhoods of the district already exist in those maps. They also show that the South district was mainly composed of agricultural fields. Very few heritage elements remain, such as *le Pigeonnier* which is in fact an old windmill or the *Bastide de Fontblanche*, now a theatre (Fig. 6).

The analysis of aerial pictures (Fig.7) gives clear information on the fast

urbanization of the site during the 20th century. In the 1960's, *Avenue Jean Monnet* was already visible, the A7 was under construction and a few warehouses were already built.

From the 1970's onward, most of the detached houses programmes were launched. The South district began to look like a small city inside the city with its own road networks and public amenities (schools, clinic, parks).

Besides natural elements, few signs of the agricultural heritage of the site were preserved.

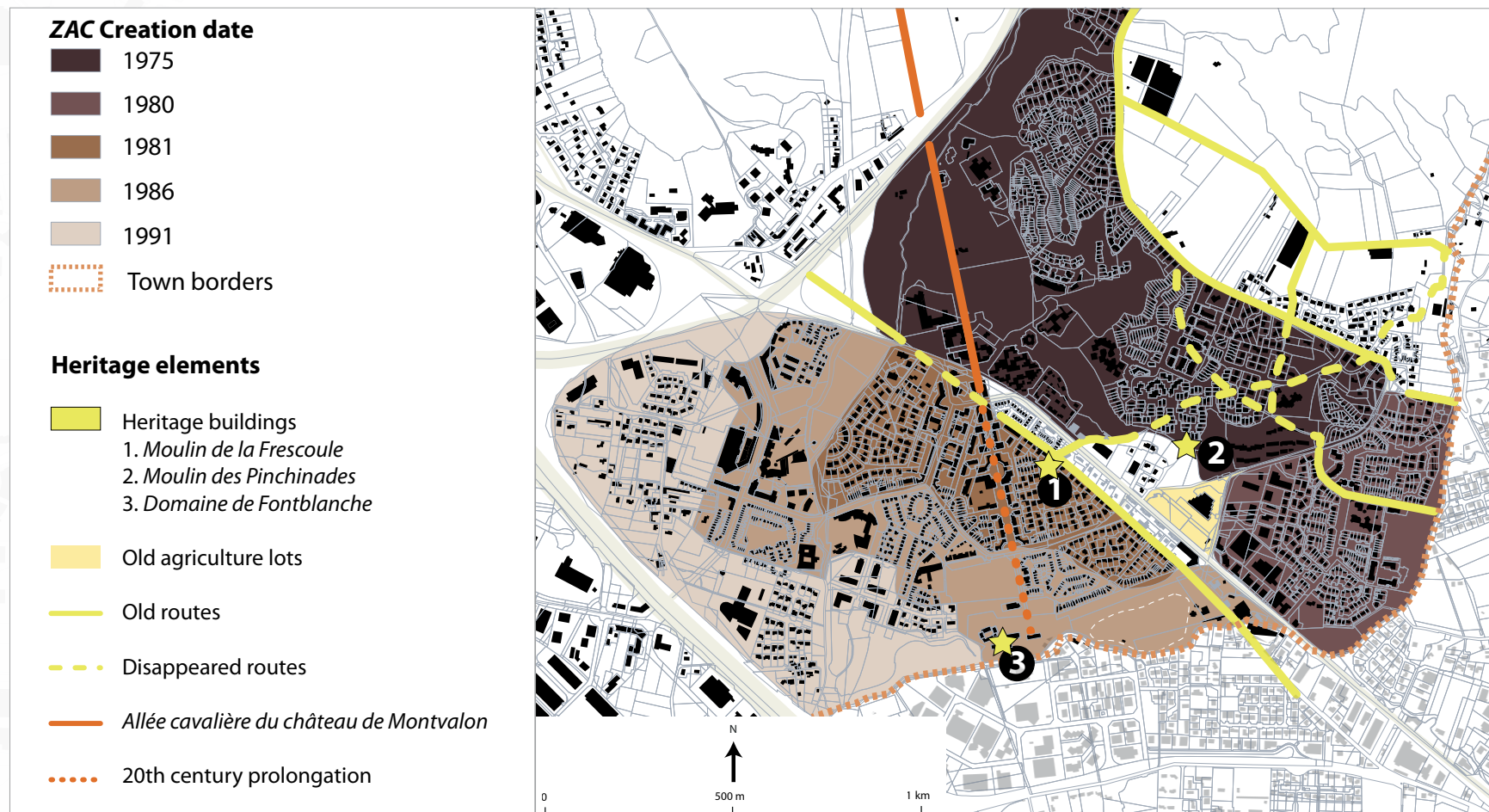


Fig 6. Heritage elements in the South district

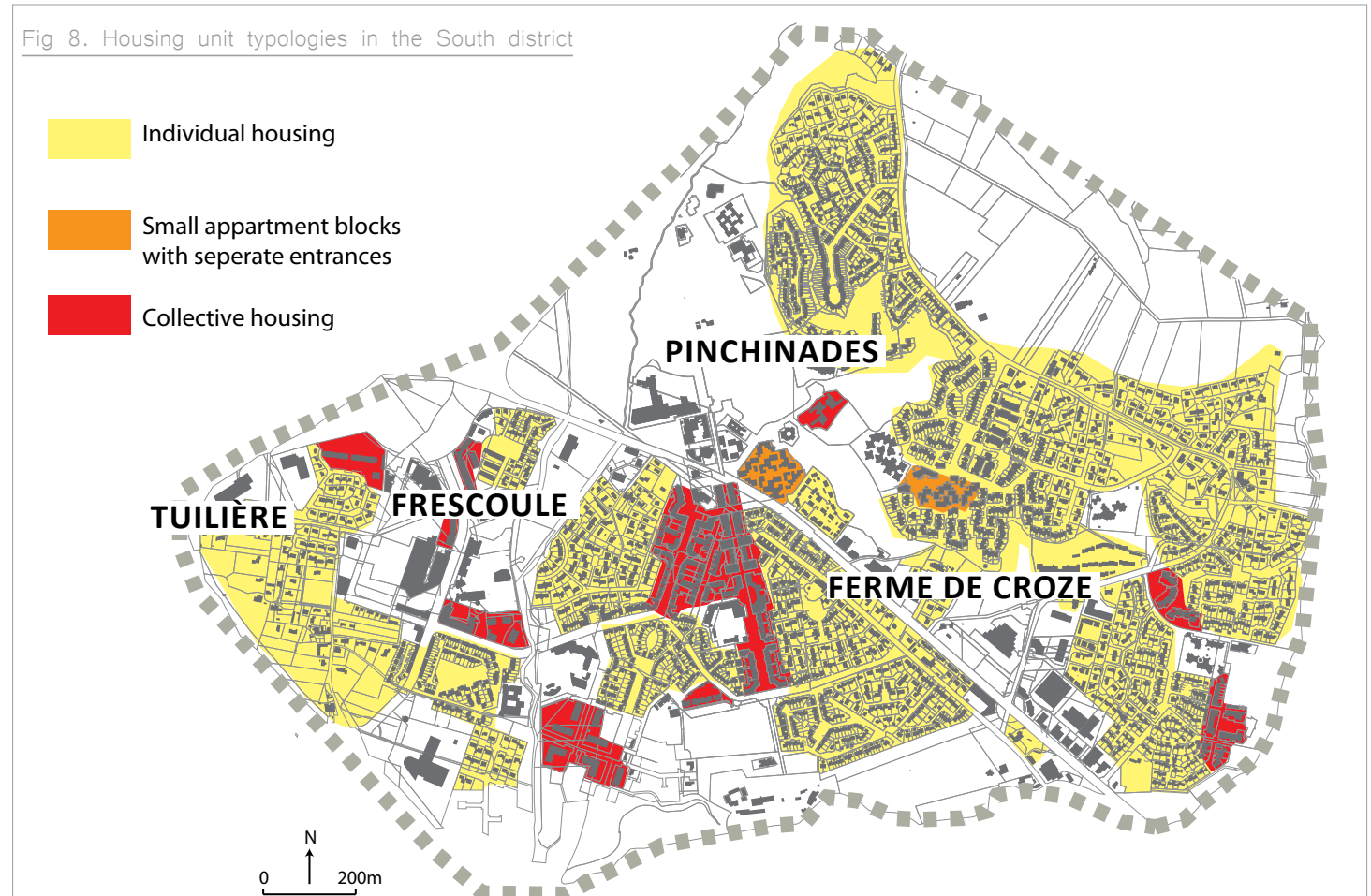
II. A SEGREGATED REALITY IN CONTRAST WITH THE *VILLE NOUVELLE* IDEAL

II.1. Residential areas

The study area breaks down into 5 residential neighbourhoods. Attached multi-unit housing is mostly located on the plain (*La Frescoule* and *La Tuilière* neighbourhoods) (Fig. 8). 4-storey-high buildings contrast with lower houses on small-sized lots whereas semi-detached and detached single-unit housing is located on the *plateau* (*Les Pinchinades*) or at the eastern side of the district (*Ferme de Croze*). Larger houses and private gardens sit on larger lots.



Fig 8. Housing unit typologies in the South district



II. 2. Public spaces

Many public spaces structure and link the different neighbourhoods (Fig. 9). They can be both natural or mineral. *Parc du Griffon* is the main park of the district. It runs from the *Pinchinades* neighbourhood to the urban centre where the town hall annex and a small post office are located. It is very well known by the inhabitants and by outsiders; people practice sports, take a walk, children play there... Parks and natural spaces form a green belt that could be reinforced at some breaking points, where it crosses a road for example.

Mail de la Frescoule is a pedestrian mall that sits on a historical cavalry path. It looks abandoned and nobody stays there even if it is in between dwelling units. Many squares are used as carparks and do not welcome socializing activities.



Fig 9. Distribution of public spaces in the South district



III. IS THE SOUTHERN DISTRICT A COHERENT ENTITY?

III. 1. An aggregation of small neighbourhoods

Les Pinchinades, la Ferme de Croze, la Frescoule and la Tuilière have been developed as self-sufficient neighbourhoods according to *ville nouvelle* principles. The idea was to provide all of them with their own centrality (Fig. 10). Shops, a bakery, medical services and a *maison de quartier*, or local community centre, are available in each neighbourhood. Public amenities like kindergartens and primary schools are also well distributed in the whole area. The inhabitants are encouraged to spend more time in their own neighbourhood and to develop local relationships, few opportunities allow them to interact with residents from other neighbourhoods. However, some opportunities are provided to interact and gather with residents of the whole district, such as sharing the same schools which has been identified as the main opportunity for parents and children to meet and socialize.

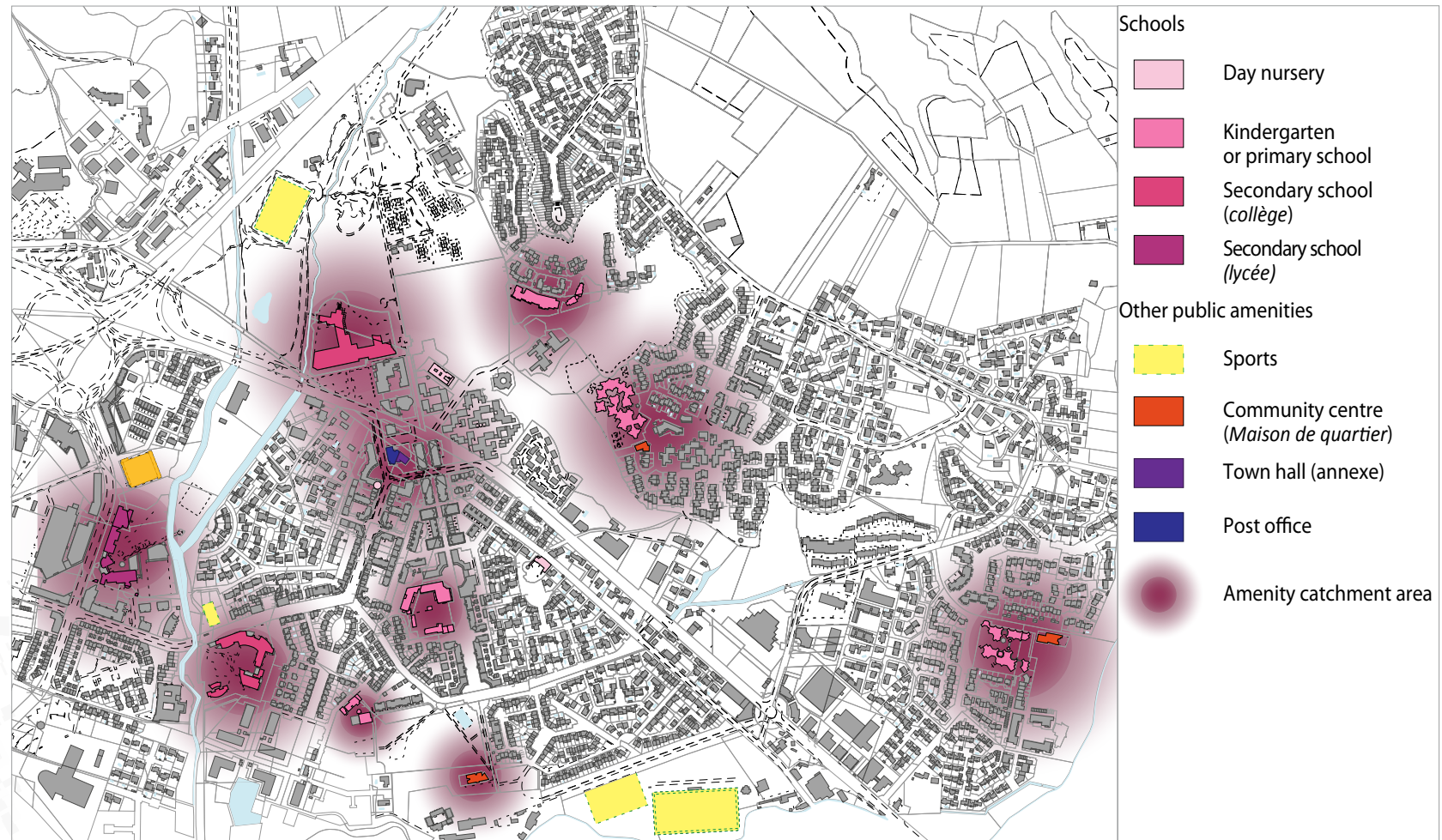


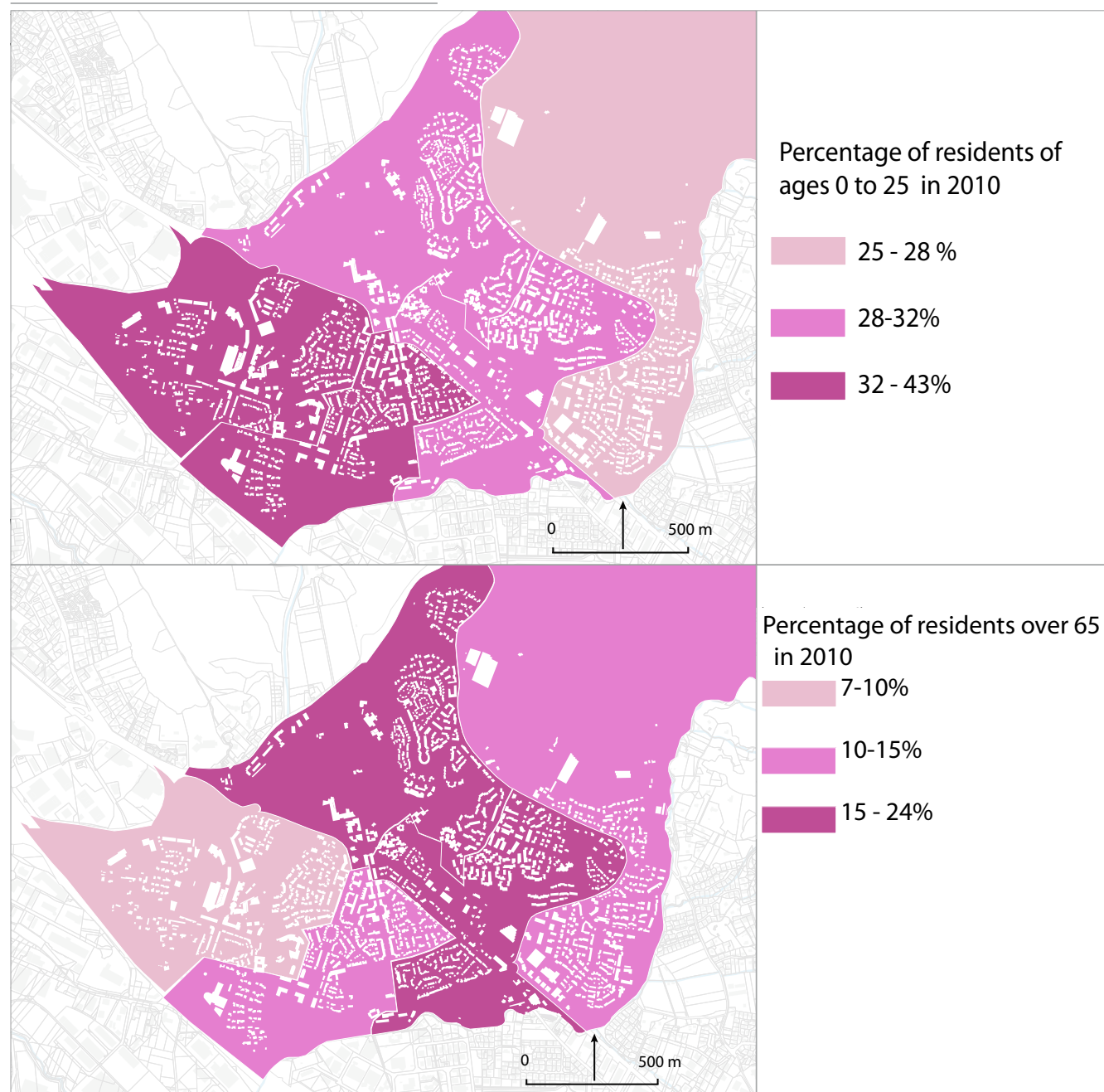
Fig 10. Distribution of public aménities in the South district

III.2. Social disparities

The links between plain and *plateau* in the southern area of Vitrolles remain thin. There is actually a deep social fragmentation between *La Frescoule* and *La Tuilière*'s populations and those living in *Les Pinchinades* and *Ferme de Croze*. First of all, *La Frescoule* and *La Tuilière*'s inhabitants are younger. The share of the total population that was under 25 years old in 2010 reached 41% in *La Frescoule*. On the contrary, the young counted for less than 30% in *Ferme de Croze* (Fig. 11).

Moreover, the median income of *Ferme de Croze*'s inhabitants is 37% higher than the median income in *La Frescoule*. *La Frescoule* is actually the poorest southern neighbourhood of Vitrolles and concentrates a high share of the town's social housing. These social disparities add an obstacle to the already limited relationships between plains and *plateau*.

Fig 11. Age distribution in the South district

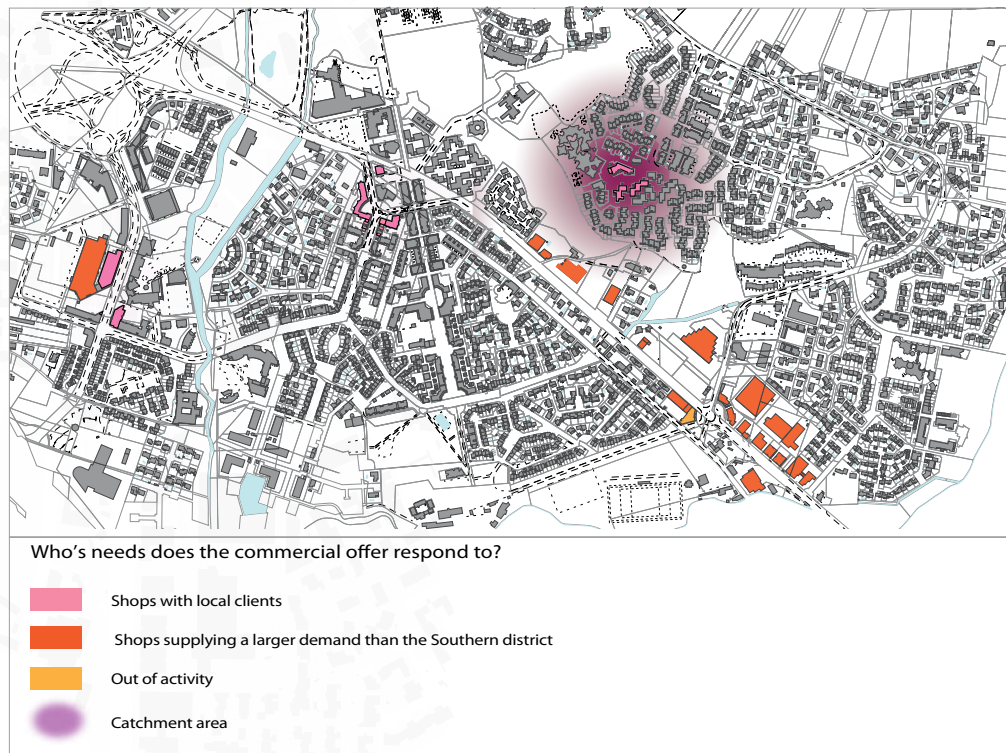


III. 3. A car-oriented way of life

The southern area of Vitrolles is mainly residential. The inhabitants have to reach different premises to work, to shop, to enjoy their leisure time. For this reason, 97% of those living in *Les Pinchinades* own a car and half of them own two cars.

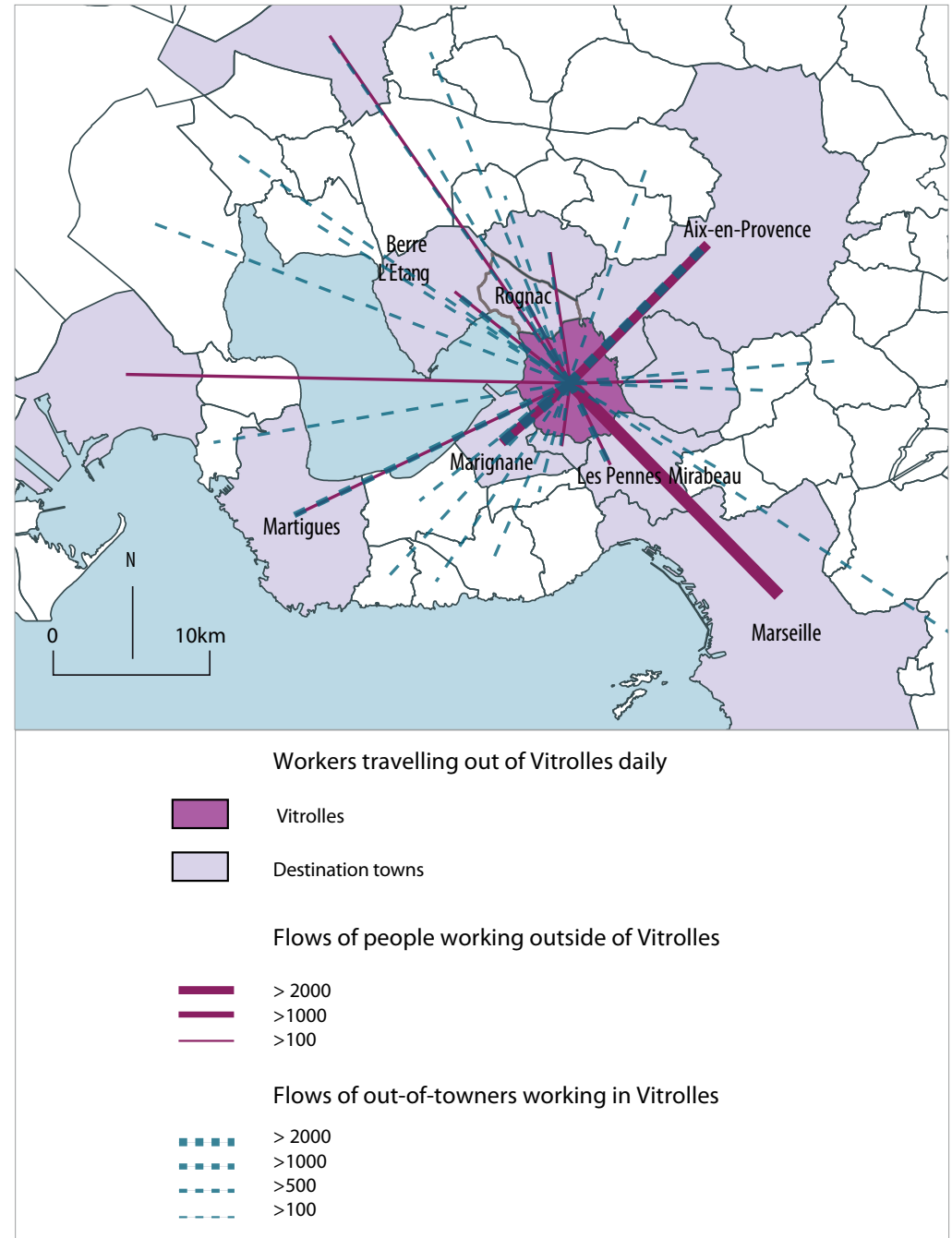
According to the metropolitan dynamic of the territory, people do not necessarily live in the town they work in. This implies many daily traffic flows (Fig.13). Economic activities are organised according to the same principles. Along *Avenue Jean Monnet*, retail shops and offices are not very well linked to the district. Customers come mainly from *Les Pennes-Mirabeau*, the nearest town, and from other districts of Vitrolles (Fig. 12).

Fig 12. Retail activity in the South district



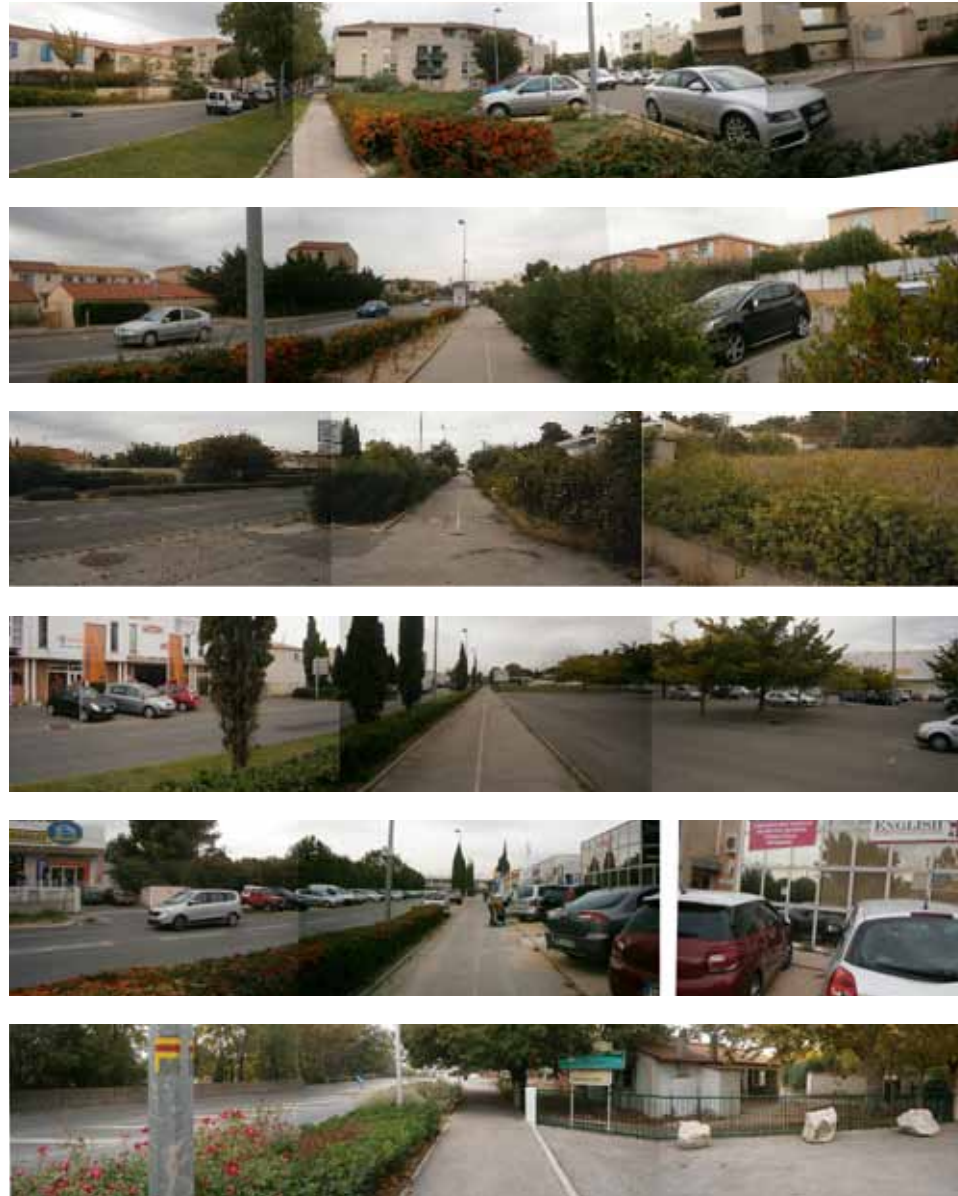
These are the reasons why the South district is not perceived as a neighbourhood as the inhabitants have not yet claimed it as their own.

Fig 13. A car-oriented way of life



IV. AVENUE JEAN MONNET: A DUAL CHALLENGE

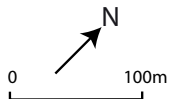
IV. 1. Serial vision analysis

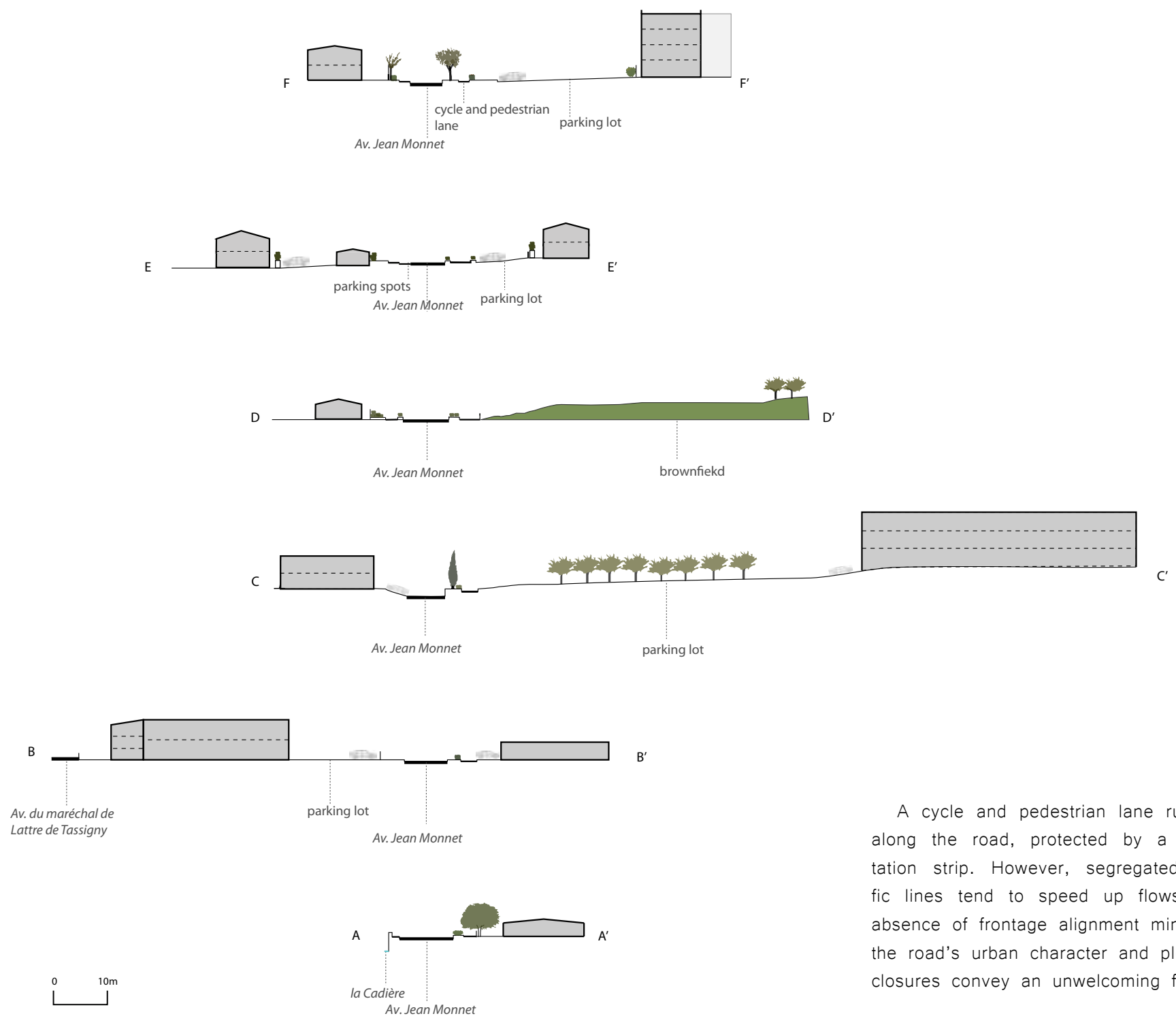


When entering Vitrolles from *Les Pennes-Mirabeau* on *Avenue Jean Monnet*, a riparian tree-strip underlines the gateway between the two municipalities. After a first tiny roundabout, a supermarket, sheds, ground floor office spaces are irregularly aligned on the road, depending on the size of parking space on their frontage (Fig. 14 - section A-B).

After the second and larger roundabout, vacant open spaces alternate with warehouses and small housing estates (section C-E). The segment suffers from a serious lack of coherence. Diverse enclosure strategies such as high hedges and concrete block walls separate detached houses from the avenue. Then the road dents towards *La Frescoule*'s urban centre (section F), where housing types get more diverse, with combinations of individual and collective types (blocks of flats). This dent was designed as a traffic calming measure and results in an intersection regulated by traffic-lights. Finally, the road falls back in line to feed into *le Griffon* interchange.

Fig 14. Serial analysis of avenue Jean Monnet





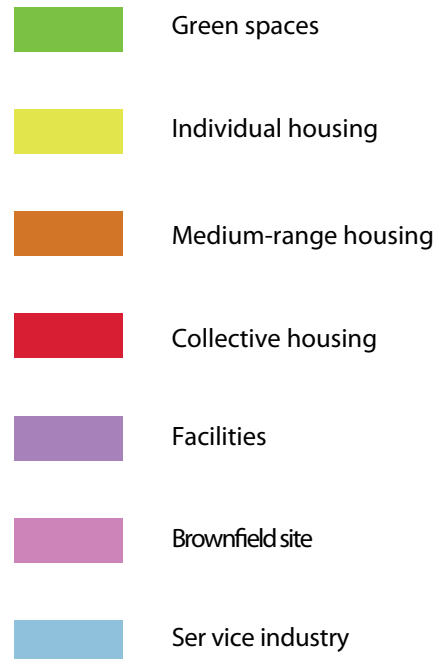
A cycle and pedestrian lane runs all along the road, protected by a vegetation strip. However, segregated traffic lines tend to speed up flows. The absence of frontage alignment minimizes the road's urban character and plot enclosures convey an unwelcoming feeling.

IV.2. The gateway to the town

The urban continuum between Vitrolles and *Les Pennes-Mirabeau* makes it difficult to perceive their delineation. Road signs and the riparian vegetation are the only two elements that make the transition visible. Soon, advertising boards get the upper hand on nature, in the way of many other town gateways. Vitrolles' entrance suffers from a lack of distinguishing features. Urban patterns tend to be similar on both sides of the delineation, a mix of detached houses and hangars.

The low architectural value of the commercial area has a negative impact on the town image. Car use prevails over the avenue's other functions; a great part of the land is dedicated to parking spaces. Many of the businesses set up in the area meet demands which are not directly anchored in the South district (Fig.15). They are thus easily transferable. Fallow lands, unoccupied office spaces or under-utilized plots provide real estate opportunities to upgrade landscape quality.

Fig 15. Land use along Avenue Jean Monnet



IV. 3. 3. Distributing flows through the South district

Most of the avenue gives the impression of running through a peripheral area, excepting when it dents into *La Frescoule* collective housing neighbourhood (Fig. 16).

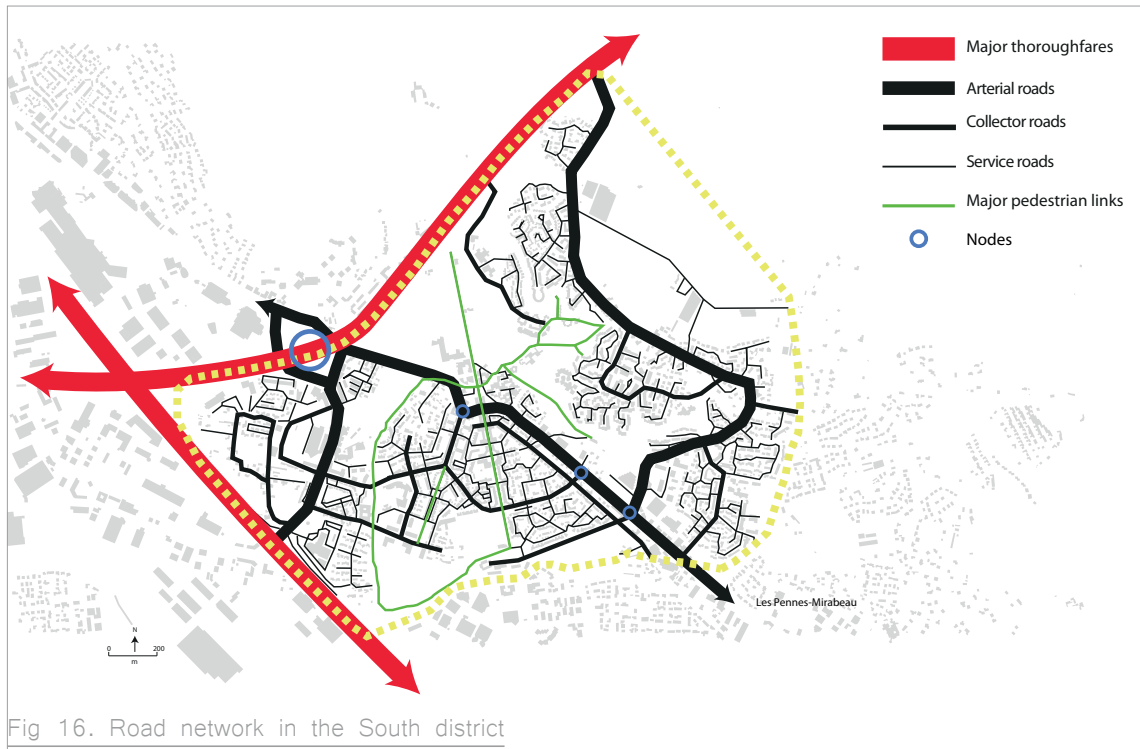


Fig 16. Road network in the South district

Three traffic nodes on the avenue enable to access the other three main neighbourhoods of the South district (*Ferme de Croze*, Fontblanche, *Les Pinchinades*). *Avenue Jean Monnet* forms the backbone which interconnects the various neighbourhoods, and leads to the city centre. Several local and metropolitan bus lines stop over at *le Griffon*, *La Frescoule* and Fontblanche. The South district is quite well connected with *Aix-en-Provence* and Marseilles. As to cross-way circulations, some daily pedestrian routes cross the avenue but the number of residents using them remains very low. The area also holds several pleasant pedestrian ways, small remembrances of some of the former rural pathways.

STUDY CONCLUSION

The most significant strengths and weaknesses of the studied area, and the way they impact the town gateway and southern district issues, have been identified through this study.

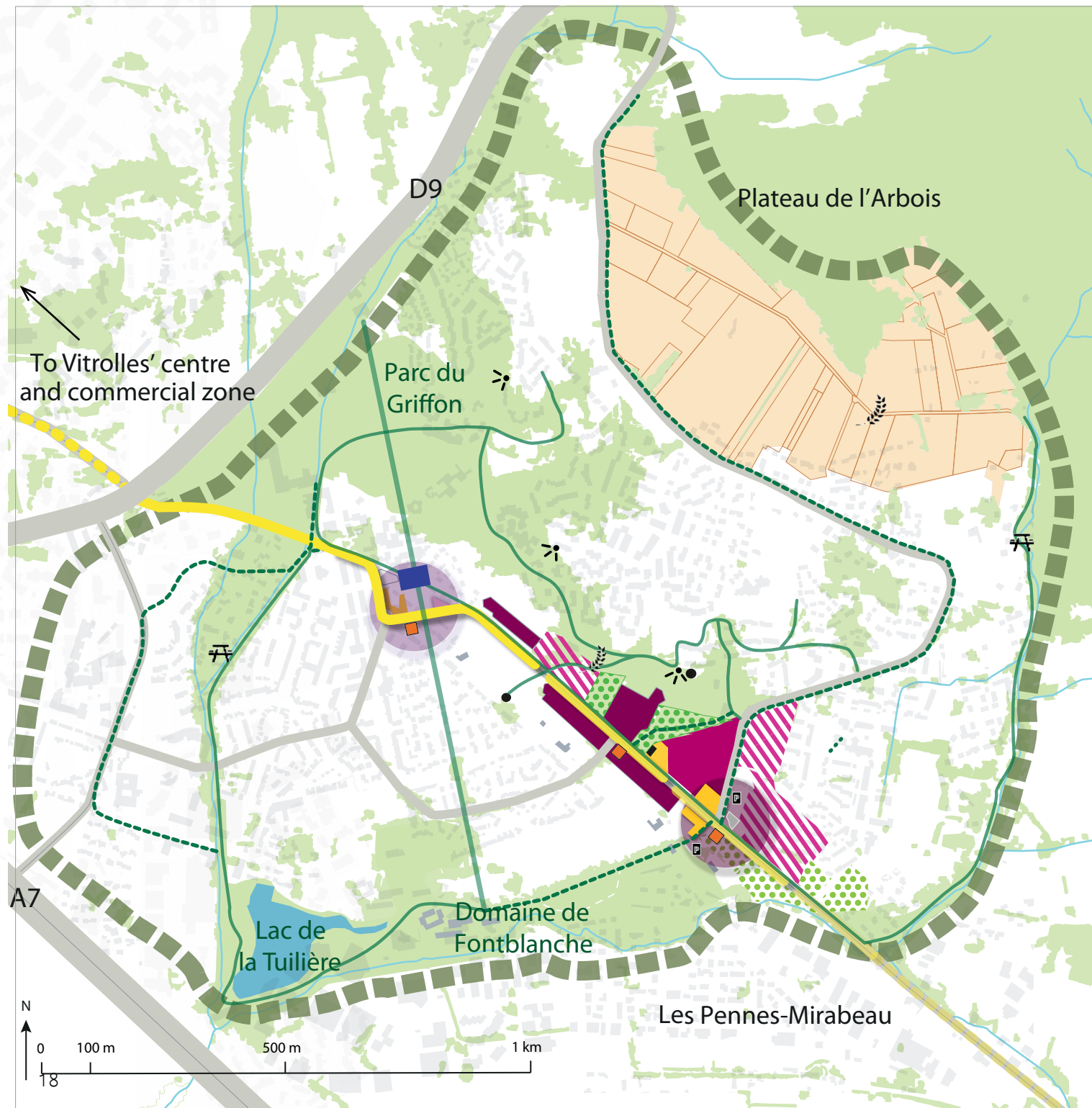
The geographical characteristics of the site, emphasized in certain areas by a high quality of landscaping, are specific features of the South district and constitute a key element of its unity. Behind the apparent monotony of the sector lie a variety of housing types as well as many different ways of life.

The quick succession of urbanization stages and the grouping of similar social profiles within each neighbourhood lead us to consider the study area as a mosaic of southern neighbourhoods rather than one large district.

Despite their organisation as autonomous entities, some physical links exist between the southern neighbourhoods, particularly in the shape of pedestrian paths. However, these are not sufficiently developed.

The South district, based on the *ville nouvelle* model, is characterised by its multitude of public spaces. However, the fact that there are so many renders their maintenance problematic. What is more, there seems to be a disconnect between the initial aspiration for these public spaces to support social diversity and cohesion and reality of this ageing and undervalued network of public spaces.

Avenue Jean Monnet appears to be a promising artery for successfully connecting the different neighbourhoods thanks to its location and the availability of land on its surroundings.



V. CONCEPT PLAN

Fig. 16. Concept plan

Reclaiming the land

- Highlighting the greater southern district by a green belt
- Preserving agricultural land
- Creating green strips
 - Preventing risks and opening *Avenue Jean Monnet* to its landscape
 - Urban agriculture activities

Reinforcing greenways

- Finalising pedestrian and cycle ways
- Multiplying green permeabilities between green spaces and neighbourhoods

Making legible and vibrant pathways

- Living up pathways with recreational areas and vistas
- Developing activities linked to local agriculture
- Putting forth heritage elements
- Creating a vista point around '*Le Pigeonnier*'
- Maintaining commercial activities in the old petrol station



Redesigning the gateway to the city

- Thickening the 'greenbelt'
- Organising a secondary hub around Fontblanche
- Reducing the roundabout's footprint

Remodeling Avenue Jean Monnet's streetscape

- Alignment on Avenue Jean Monnet
- Recomposing green alignments
- Giving rhythm to Avenue Jean Monnet

Recomposing the public realm

- Acces by side lanes for motorized traffic
- BHNS stop
- Allowing more crossing points on Avenue Jean Monnet
- Reorganising the Frescoule hotspot
- Pedestrian square

Adapting housing types to smaller households

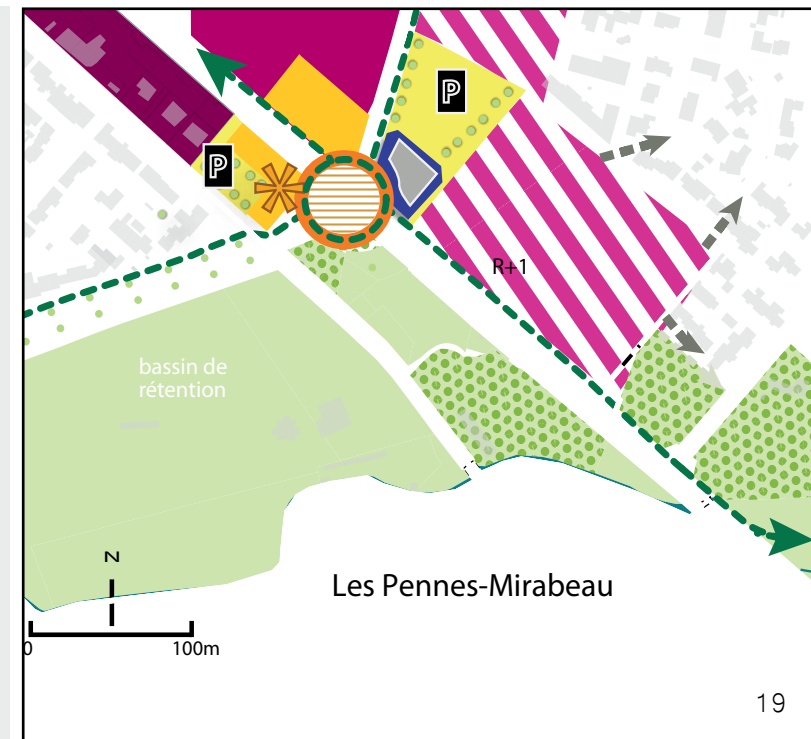
- Phase 1
- Phase 2
- Long term densification

Mixing functions at the local level

- Retail activities and services on the ground floor
- Putting forth local productions
- Encouraging BHNS use with a park and ride facility
- Creating new permeabilities in residential areas

Defining housing in relation to open spaces

- Pedestrian access
- Collective spaces and landscape openings
- Green space



V. 1. Reclaiming the land

Reclaiming the land deals with a reinforcement of the existing green belt and the development of greenways crossing the South district. Those elements should affirm the identity of the South district *via* its landscape, claimed both by inhabitants and visitors.

REVIVING THE LANDSCAPING ASSETS OF THE SOUTH DISTRICT

The South district is now sharply delineated by the road network (A7 and D9). The project aims to redefine the boundaries of the district by a green belt, based on the landscape continuities of the neighbourhood. This would have a role in asserting the identity of the South district. This green belt could be developed as an enjoyable, travelled and shared continuum (Fig.17).

Agricultural lands present at the northern edge of the district are the last productive lands of Vitrolles and so they should be protected and considered as a part of the green belt.

A goal is also to reconsider the balance between urbanization and respect for the land. For this, open areas on the landscape with a role on the prevention of natural risks will be defined. Moreover, as a reminder of the agricultural heritage of the project site, an urban agricultural activity will be introduced.

ENSURING THE GREEN PERMEABILITIES CROSSING THE DISTRICT

Green permeabilities are circulation spaces reserved for cyclists and pedestrians. These paths should also be considered as leisure areas allowing transversalities between the plain and the *plateau*. The project aims to highlight the existing green paths and to extend the ones connecting landscaped areas with the neighbourhoods.

MORE LEGIBLE AND VIBRANT PATHWAYS

The greenways associated with a topographically marked site reveal several remarkable spots that should be rediscovered by inhabitants and visitors. Landmarks and vistas will animate the greenways. For example, a belvedere



Fig. 17. Green trail reference, Tegeval-Villecresnes

will be built at *Le Pigeonnier* (Fig.18). The petrol station and the beginning of *Chemin de la Nine* will be preserved to indicate the greenway leading to this area.

Some activities related to agriculture will be developed to maintain the fields of *plateau de l'Arbois* as a part of the heritage of the South district.

Fig. 18. Belvedere reference, Anglet - Phytolab 2010



V 2. Avenue Jean Monnet – a backbone for redevelopment

Avenue Jean Monnet has been identified as a strong potential backbone for the redevelopment of the district. It is a link that articulates the different neighbourhoods we have identified during our study. However, it is very unwelcoming, favouring car-users rather than pedestrians. Its width and length do not correspond to any human scale. The organisation of the housing units on each side is quite hazardous, which limits its legibility for the pedestrian.

Our action on *Avenue Jean Monnet* follows a serial organisation (Fig. 19)

REDESIGNING THE GATEWAY TO THE CITY

The initial contract was to work on the gateway to the city, barely perceived as such due to a confusing perception of the environment.

The lack of distinction between *Les Pennes-Mirabeau* and Vitrolles, due to urban sprawl, has thinned the natural green belt formed by *La Cadière*. We wish to give back some substance to this natural border by thickening the green gateway.

The Fontblanche area is an intersection between many different automobile and pedestrian flows. It is also a point of dispersed commercial activity which induces heavy car traffic. Designing a secondary hub around Fontblanche seems to be a solution to channel and reorganise activities on *Avenue Jean Monnet*.

This secondary hub offers commercial activities (local shops as well as local products) and an important intermodal transit point with a park and ride facility to give users an incentive to rely on the new BHNS (*Bus à haut niveau de service*).

REMODELING AVENUE JEAN MONNET'S STREETSCAPE

We have identified the confusing organisation of *avenue Jean Monnet* as one of its weakest points. An alignment of the buildings on each side of the road with a small setback will help to frame the road and give it better structure. Some of the largest setbacks are difficult to undo, especially in cases where access to some housing units is allowed through side lanes, in these cases a band of trees will structure the streetscape.

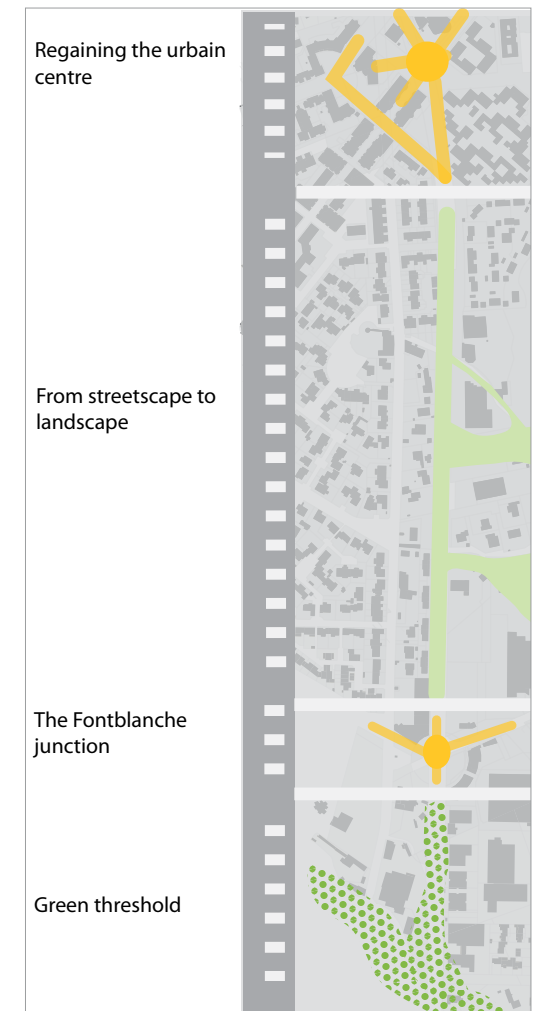
Avenue Jean Monnet's very monotonous character will be reversed thanks to sequencing. According to its surroundings and some specific focal points, pavement size, organisation and treatment will vary.

RECOMPOSING THE PUBLIC REALM

Due to the programming of a large number of new constructions, we have chosen to prioritise rear or side accesses to the new housing units for motorised vehicles so as to avoid having to deal with too many private entrances on *avenue Jean Monnet*.

Avenue Jean Monnet's dent in *La Frescoule* is also a very strategic point to redesign. It is the district's primary hub where commercial and administrative functions are gathered. However, the three-part organisation of the routes converging towards the dent makes this area difficult to understand, leaving a lot of residual spaces where car parks tend to take over free space. Our idea is to reorganise the area and the converging routes, making them all flow into a central public space. Administrative and commercial functions will both be accessible through this new pedestrian public space and through the Jean Monnet side. An arch architecture will allow visual and physical connexions between *Avenue Jean Monnet*, *Avenue du 8 mai 1945* and the public space. Car parking issues will be dealt with thanks to a multi-level parking space.

Fig. 19. Serial design of the avenue



V. 3. How to recreate life for residents in a redesigned scape

ADAPTING HOUSING TYPES TO SMALL HOUSEHOLDS

Most of the southern district's housing stock dates from the 1980's, and does not match with current housing needs. Actually, the structure of households has been evolving over the past thirty years with a growing proportion of small households (elderly persons, single-parent families, young people moving out of the parental home, etc.). New housing operations should provide a larger range of small dwellings in order to meet these demands. Such dwellings are to be two-family housing units with separate entrances and small apartment blocks rather than detached houses.

Given the extent of the zone open for regeneration, new developments will be phased in. Firstly, developers should favour *Avenue Jean Monnet's* surroundings, in order to structure the town gateway. Plots that look onto *Boulevard Marcel Pagnol* are to be redeveloped in a second phase. In the long term, a reorganization of plots of land may help densify existing sets of detached houses in the zone (for instance, with incentives like in the BIMBY approach).

MIXING FUNCTIONS AT THE LOCAL LEVEL

Avenue Jean Monnet already supports a mix of functions with housing, retail, services and public amenities. However, such activities have been designed as being car-centric. With the avenue's redevelopment, the aim is to recompose this mix for acceptable walking distances. New housing developments (up to 500 new dwellings) will call for new convenience stores. The idea is also to differentiate the future offer from the offer of existing retail centres, in particular by promoting the local agricultural production. A market hall would provide some fresh food from *Plateau des Pinchinades* and other nearby production units.

The current lack of permeability between some of the residential neighbourhoods makes it difficult to promote walkability. Some dead-ends will be converted into proper thoroughfares – running from one street to another – and new housing developments should avoid any «lollipop on a stick» pattern. Another change in



Fig. 20. Housing type reference, ZAC Les Pierrins – Cesson-Sévigné

travel patterns will be introduced by the new high frequency bus service (BHNS) between Marignane and *les Pennes-Mirabeau* which is planned for 2016. BHNS infrastructures should be integrated in *Avenue Jean Monnet's* regeneration.

DEFINING HOUSING IN RELATION TO OPEN SPACE

Another element that should be considered when designing new neighbourhoods is the relation to the landscape (Fig.20) . Pedestrian ways will link existing paths while calming traffic in residential areas. A certain proportion of private collective spaces may enable some openings on the pine hill landscape and foster socializing opportunities. Finally, the creation of an open park along the new housing estate may serve a dual goal, namely landscaping and risk prevention. Actually, the fire hazard over the pine hill imposes a 10m buffer zone between trees and buildings. Besides, widening the non-built zone around a specific ravine would also protect dwellings from flood risks.

VI. DETAILED PROJECT

WHY THIS PROJECT SITE?

After the preliminary study of the South district, some spaces were identified as concentrating major issues. It is the case of the Frescoule dent, which is a hotspot of the South district and of the Fontblanche roundabout as a secondary hub to reinforce.

However, these spaces don't have the same projectual dimensions. The Fontblanche roundabout is a key space of the town gateway but with an unclear design although the landscape setting around it remains an asset.

The great potential of the project site is that it offers a fairly flat topography and large areas of unused spaces. Our project will densify and bring functional diversity to the area in accordance with the planning rules edicted by the PLU (*Plan Local d'Urbanisme* – local urban planning rules). This area is located at the articulation of various residential areas (*Les Pinchinades*, *Ferme de Croze*, Fontblanche) which is why the project can provide the missing links between their urban forms, their topography and their inhabitants. This intersection is a structuring element at the southern district's scale, as it is a crossing point for *Avenue Jean Monnet*, *Boulevard Marcel Pagnol*, and *Allée des Artistes*. It can be considered as a node marking the city entrance.

In the continuity of the site analysis and of the concept plan, this detailed project will refer to the three major orientations on a site of about 8 hectares (Fig. 21).

Fig. 21. Masterplan



VI. 1. Reviving the landscaping assets of the South district

The studied site is marked by the presence of different types of landscape features that can organise the general area's redevelopment:

TURNING A BROWNFIELD INTO A GREENFIELD LAND

A plot formerly occupied by an auto mechanic shop, located below the hill is currently fallow. This 5000 sq. m field on the outskirts of *Avenue Jean Monnet* is left to an untamed vegetation and is currently covered with grass and shrub species. Directly connected to the *Chemin de la Nine* and offering a view on the *Pigeonnier* and the hill, this land could become a place of local agricultural production recalling the heritage of the district. Taking advantage of its direct connection with *Avenue Jean Monnet*, this land will be much more visible in its new assignment.

In terms of management, several solutions are possible: management by a farmer, associations shared gardens, community gardens ...

A GREEN CORRIDOR

Avenue Jean Monnet is now a thoroughfare inheriting its aspect from its former function as a national road (*Route Nationale*). More than a lively and welcoming space, this axis mainly has a circulatory function. Based on the presence of a landscape opening on the hill next to the *Chemin de la Nine*, the development of a green corridor will highlight this green strip. It will become a natural link between *Avenue Jean Monnet* and a new green space promoting biodiversity.

More than a green space, it will correspond to a buffer zone protecting the new residential areas from fire and flood risks. Its width should be at least 10 metres to meet with the recommendations relating to fire hazards. The entrance of this green space on *Avenue Jean Monnet* could be marked by the petrol station, as a reminder of the avenue's past as a national road. It could mark a renewal of the avenue by sheltering an activity related to local production or land resources (Fig. 23).



Fig. 22. Activities in the cultivated field



Fig. 23. Green corridors livening up trajectories on the avenue

VISTA POINT AND ANIMATED TRAIL

The current path winding through the wooded hill is underused because of its steepness and the lack of animation. The *Chemin de la Nine*, linked to this path, is the legacy of an old farm road that connected agricultural lands of the plain and the plateau. The wasteland transformed into a shared garden could be a main entry path leading to the *Pigeonnier* by the *Chemin de la Nine*. This trail is currently too steep on the last metres leading to the *plateau des Pinchinades*. Some light fittings (wooded steps) could be installed to facilitate the accessibility of the plateau by green permeabilities. A belvedere will provide entertainment on the path and offer a view on the South district as a whole (Fig. 24).

LIVING THE LAND, AVENUE JEAN MONNET AS A FUNCTIONAL INTERFACE

To provide links between the populations of different residential areas in the South district, activities related to local resources should be promoted. Composting and rainwater harvesting networks will be developed. On the new gardening plots, animations exploring urban agriculture can be developed with farmers and schools. In fact, *Avenue Jean Monnet* should become an indicator of the agricultural potential of the South district.

A new public amenity will assert the Fontblanche roundabout as a hub. It will encourage inter-generational activities providing the coexistence of various organizations in the same building. To bring forward the landscape identity of the South district, this new building could propose educational activities related to landscape and could be an incubator for the fore-mentioned networking initiatives.



Fig. 24. A vista point, *Le Pigeonnier* Belvedere

VI. 2. Functional diversity and housing

THE SUPERMARKET

A Lidl supermarket is currently positioned in the project area; the commercial building it is located in is too big for its actual need. A new commercial area, on the other side of the road, has been planned to welcome the facility on the avenue.

THE MARKET HALL

A new building (of approximately 200 sq m) will assert the central position of the roundabout and will link *Avenue Jean Monnet* to the agricultural plateau, selling local produce (Fig. 25-26).

This market hall will act as a showcase for Vitrolles, at the town gateway, promoting local agriculture and anchoring commercial activity to its territory.

The building's rooftop can welcome urban agriculture in the form of an aquaponic farm, urban beekeeping, or greenhouses. These light infrastructures will be economically sustainable and will initiate new patterns of consumption, bringing supply closer to the consumer.

Pedestrian permeability will be enhanced with an access to the north and a gallery binding the market to the supermarket. These will link the parking lot behind the commercial spaces to *Avenue Jean Monnet* and the BHNS bus stop.

To meet the need for parking spaces created by these new activities, thirty parking spots will be positioned at the rear of the plot allowing the building to frame the street and thus promote pedestrian practices on the street frontage. Nevertheless, a landscaped design will provide easy access for deliveries as well as a welcoming environment for customers.

RETAIL ACTIVITIES AS AN ANIMATION

To encourage a functional diversity in the new urban forms, ground floor retail activities will be integrated on approximately 500 sq m. They should



Fig. 25. The market hall



Fig. 26. The market hall, a reference, Marly-le-Roi – SOA 2011



Fig. 27. Space composition for the residential area

meet the demands of new residents and enjoy an advantageous position at the town gateway.

The urban composition of the new district will be based on structuring internal routes (Fig. 27). One-way shared streets will allow residents to reach their homes and should promote green permeabilities. Their design will also prevent avoidance strategies of the Fontblanche roundabout.

THE HOUSING ISSUE

New intermediary housing with distinctive architecture will create a framing on this portion of the *Avenue Jean Monnet* starting at the roundabout. The new units will accommodate a variety of household types, especially for small households targeting young families as well as elderly people. The building heights will be limited to approximately 9 metres. A 7.50 metres wide pedestrian mall will make the link between the roundabout and the wooded hill. Its orientation will offer a view on the *Pigeonnier*, a real landmark and heritage element referring to the agricultural history of the site. Along the mall, building heights will be limited to 6 metres. In terms of urban design, the path will be parallel to the existing pedestrian path of *La Frescoule*.

Resident parking will be partially dealt with inside the blocks and on the newly created streets. In the blocks, parking lots will remain along the buildings to preserve collective open spaces and views. The objective is to remove parking on *Avenue Jean Monnet* to free up more space for pedestrians and cyclists.

Collective spaces in the core of the blocks will allow visual openings on the hill and should become flexible socializing areas (children playgrounds, sports courts...).



Fig. 28. Internal routes, a reference, Manchester – Urban solutions Team

VI. 3. Redesigning *Avenue Jean Monnet*

Avenue Jean Monnet is a very monotonous road; redesigning it according to different sequences will allow the avenue to offer interesting rhythms.

The first and fourth sequences frame our project perimeter. On the one hand, a green threshold is created by the landscaping of the riparian vegetation of *La Cadière* at the town gateway. On the other hand, the redesigning of the *ville nouvelle* forms around the Frescoule dent will highlight its neo-baroque composition.

The second and third sequences are at the heart of our project perimeter and are linked to the redevelopment of the *Zone d'Activité Croze-Frescoule* into a residential neighbourhood. This change in land use implies an adaptation of the urban fabric. The BHNS line, planned for 2016 on *avenue Jean Monnet* presupposes adjustments to encourage its use.

THE FONTBLANCHE ROUNDABOUT

The Fontblanche roundabout opens the second sequence and includes its surroundings. The idea is to symbolically highlight traffic and pedestrian flows in this hub of the southern district. This secondary hub is a complementary hotspot to the Frescoule dent. The roundabout is both a commercial hub, an intermodal pivot and a marker of the town entrance.

The central island will be reduced in size and height to allow visual connections from one side of the roundabout to another.

Surrounding buildings' façades will be turned towards the roundabout. Different setbacks create different types of public spaces on the roundabout's surroundings. Tree alignments will define the space.

On the northwestern quarter, 5 metres of setback cleared in front of ground-floor retail activities encourage terraces and other activities to overflow on public space.

On the southwestern quarter, an 80 cm difference of level between the pavement and current office spaces, which are to be replaced by the market hall, will be leveled by a series of steps, in continuity of the roundabout's radius. These large steps will lead to the *Allée des artistes'* wooden walkway.

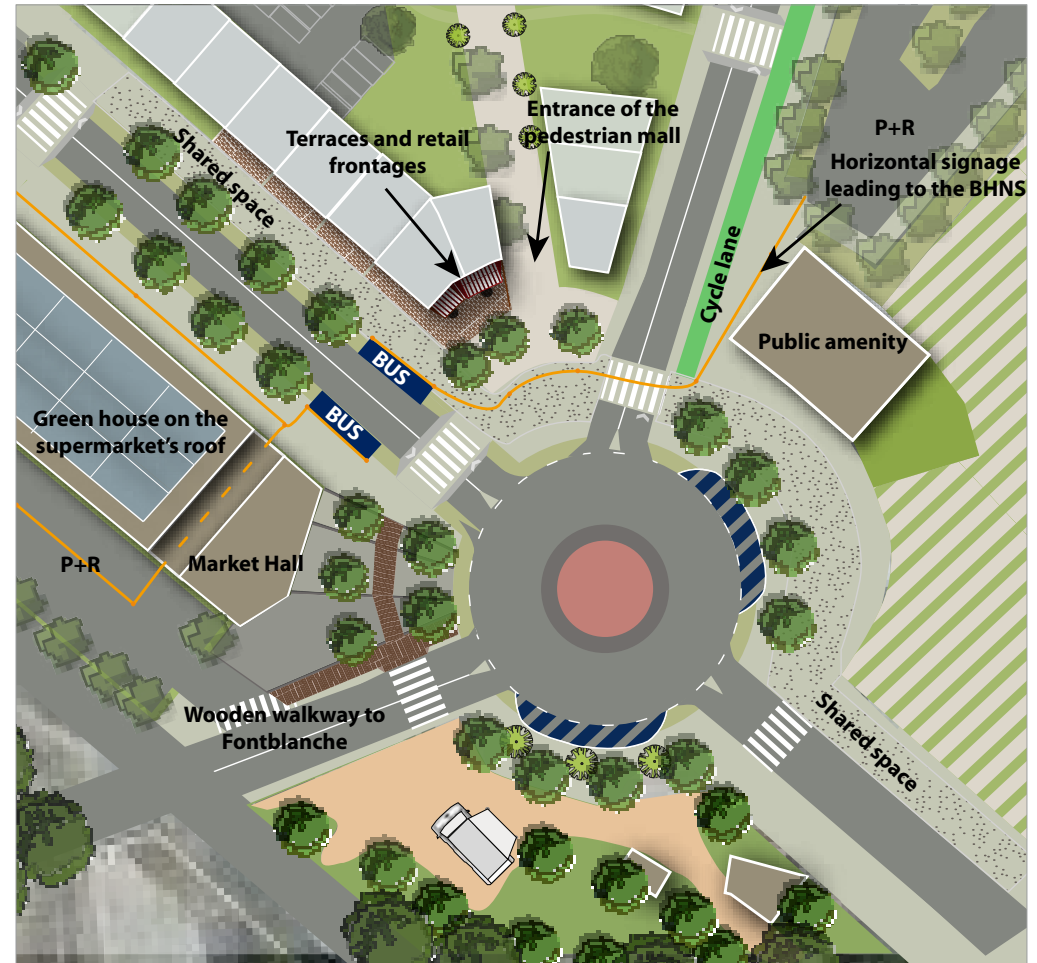


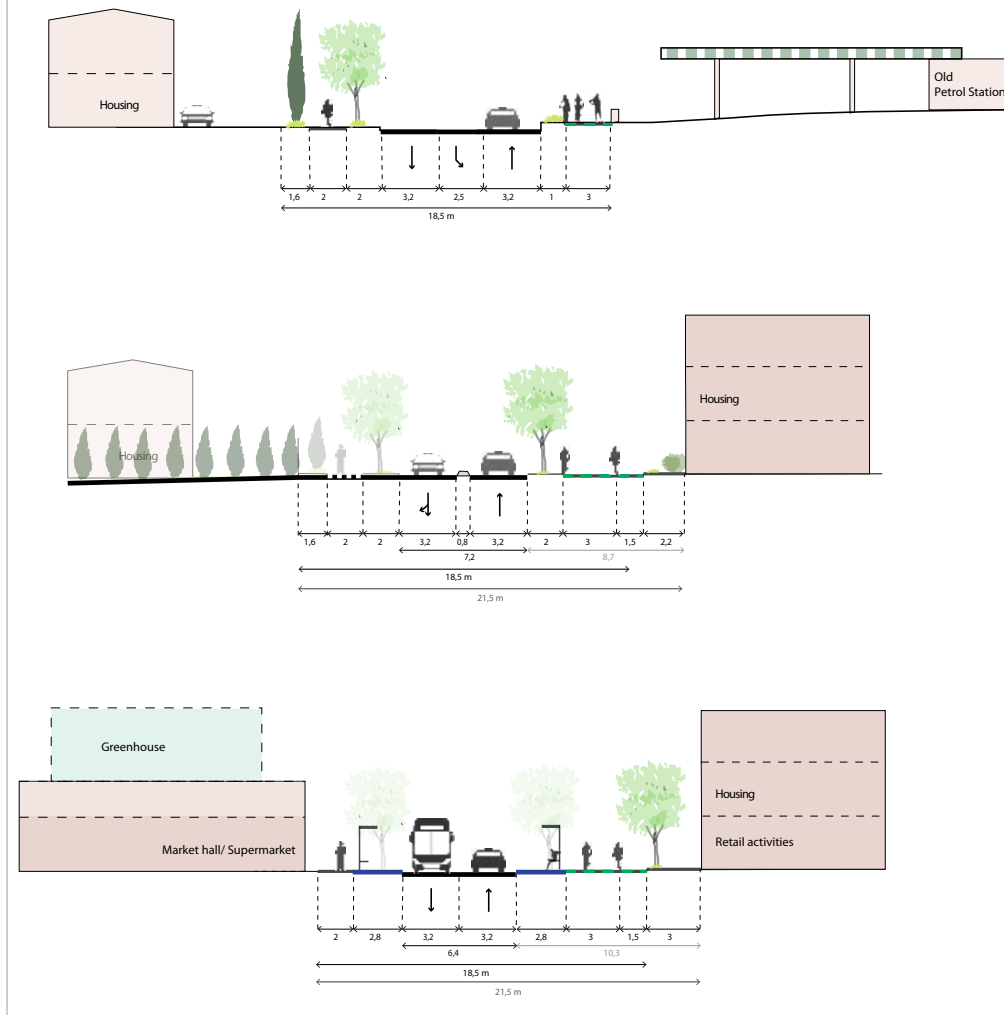
Fig. 29. Redesigning the Fontblanche roundabout

A public amenity will be implanted in the northeastern quarter of the roundabout. Both a community amenity and environment house, it is an exchange platform for services between neighbourhood residents (gardening, composting, DIY and construction techniques).

Current activities will be maintained in the southeastern quarter of the roundabout (flower shop and foodtruck) or can be relocated in the retail area across the roundabout. In both cases, this space will be maintained as a green space, in continuity of the green town gateway.

A park and ride facility of 150 spots will encourage intermodal practices. A

Fig. 30. Avenue Jean Monnet's new streetscape



particular landscaping quality should be attained in order to reduce its negative visual impact as well as to increase permeability and limit flood risks.

Visual links between the park and ride facility and the BHNS bus stop as well as a horizontal signage will bring light to the possible links between these services. This land-art type of signage will raise curiosity and possibly make inhabitants sensitive to new transport solutions (Fig. 29).

TRANSFORMING JEAN MONNET INTO A PROPER AVENUE

The third sequence is characterized by the diversity of land uses: residential areas as well as green strips (collective spaces, linear park, cultivated field and *Chemin de la Nine*).

Two car lanes will be maintained, one in each direction and their width will be around 3.20 metres at least to allow the BHNS's passage.

To avoid too many comings and goings from the different residences, new constructions will not have access lanes for motorised vehicles directly on the avenue.

Much more space is allocated to pedestrians and cycles, a shared space of 4.5 metres on the northern side of *Avenue Jean Monnet* will give these vulnerable users a safer environment.

Crossways will be placed on platforms close to intersections as well as close to activities generating a lot of pedestrian movement (retail activities, parks, bus stops). One of the major stakes of the redesigning of *Avenue Jean Monnet* is giving new comfort to pedestrians, especially for elderly residents. The promenade will be punctuated by a series of resting spots with benches and trees.

The tree alignment will frame the avenue, protecting and giving shade to pedestrians and bicycles. It will be interrupted in some strategic points, especially to maintain visual openings on the surroundings. The green alignment can take a different form in this situation, such as cultivated cases in front of the cultivated field, making reference to its productive function as well as making these activities accessible to disabled people.

The alignment effect is also provided by the continuity of frontages along the avenue. A 3 metre setback on landlots will give a certain intimacy to house frontages on the avenue. Vegetation and small boundary walls will both provide this intimacy as well as avoiding to cut off these constructions from the streets. They constitute a transition between public and private spaces (Fig. 30).

GENERAL CONCLUSION

As an answer to the different stakes identified through the course of our work, the project we developed has led us to offer landscape as a real solution to the lack of legibility of the South district. It is a common identity marker, a recurring element in the South district's scape and is a thread to pull on to bring populations together in practice, by the means of different greenways and symbolically by preserving views on the red-clay hill and links to the plateau's agricultural production. Through this desire to reassert a common identity thanks to landscape, agriculture has come to be a cross-way element of our project both in making reference the district's past as an agricultural land and trying to improve its future, avoiding difficulties caused by the urbanization processes of the last 30 years. This means reintroducing agriculture in the urban fabric as a way of rendering these neighbourhoods more ecologically sustainable as well as of providing functional diversity in urban forms designed at a human scale.

TABLE OF ILLUSTRATIONS

Fig 1. Vitrolles in the metropolitan fabric	4
Fig 2. The southern neighbourhoods in Vitrolles	4
Fig 4. The major landscape entities	5
Fig 5. Cross-section	5
Fig 3. Limits to the South district	5
Fig 6. Heritage elements in the South district	6
Fig 7. The evolution of land use - ancient maps and aerial photographs of the South district	7
Fig 8. Housing unit typologies in the South district	8
Fig 9. Distribution of public spaces in the South district	9
Fig 10. Distribution of public aménités in the South district	10
Fig 11. Age distribution in the South district	11
Fig 12. Retail activity in the South district	12
Fig 13. A car-oriented way of life	12
Fig 14. Serial analysis of <i>avenue Jean Monnet</i>	14
Fig 15. Land use along <i>avenue Jean Monnet</i>	16
Fig 16. Road network in the South district	17
Fig. 16. Concept plan	18
Fig. 17. Green trail reference, Tegeval-Villecresnes	20
Fig. 18. Belvedere reference, Anglet - Phytolab 2010	20
Fig. 19. Serial design of the avenue	21
Fig. 20. Housing type reference, ZAC Les Pierrins	22
Fig. 21. Masterplan	23
Fig. 22. Activities in the cultivated field	24
Fig. 23. Green corridors livening up trajectories on the avenue	24
Fig. 24. A vista point, <i>Le Pigeonnier</i> Belvedere	25
Fig. 25. The market hall	26
Fig. 26. The market hall, a reference, Marly-le-Roi - SOA 2011	26
Fig. 27. Space composition for the residential area	27
Fig. 28. Internal routes, a reference, Manchester - Urban solutions Team	27
Fig. 29. Redesigning the Fontblanche roundabout	28
Fig. 30. <i>Avenue Jean Monnet's</i> new streetscape	29

