

Towards More Comprehensive Urban Planning in New Housing Projects

The case of “Residential Altavista” in San Salvador

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Introduction

In last years due to the growing urban developing of land, segregation, seems to be the easy way to make the city grow. Particularly for a lot of new housing projects in El Salvador it has been a social, economical, and physical segregation from the rest of the city. The result are housing areas with social, economic, physical and environmental problems that affect the city as a whole.

To make city is more than to construct a group of houses for shelter. Planners use to forget than housing projects must be considered integrated to the functions of the city in a comprehensive way, which means amenities for recreation, education, health care, traffic, communications, trades places and specially socialization areas etc., so communities can achieve a real quality of life.

Many new housing projects lack the vision on how the city really functions and became sleeping areas empty during the day and many times dangerous for the own residents at night. Access to all the facilities and opportunities of the city should be available for all the inhabitants, even the poor. The negative effects of segregation do not affect only to the inhabitants of new housing areas, it concerns to the whole city and causes degradation of the quality of life that affect all inhabitants.

The paper aims to discuss strategies that may contribute to the planning, the urban design and the implementation of housing projects considering aspects relevant to the needs of the people living in the cities in a comprehensive way.

Strategies for planning and urban design for the development of new housing areas considering the actors involved and their roles, the design of the houses, the environmental conditions and the financial structures will be the central aspect to discuss for a better understanding of the issue. Finally to define and propose general recommendations which can help to find the goals to avoid segregation in housing projects, will be the main objective. The analysis and discuss will be concentrated in “Residential Altavista” as a case study which is a low-middle income housing project actually in the construction process under the direction of a private company named Inversiones Roble and located in the city of San Salvador.

The Context

El Salvador is the smallest country of Central America (see fig.No.1) with 20,040 sq. km., a population of 6,484,000 millions inhabitants (1990) and a density of 308 h/sq. km. consequently one of the highest density in Latin America. The population is distributed 55,6 % in the rural area and 44,4% in urban areas (Landaeta Graciela, Estrategias para el habitat popular 1997, capitulo 11).

In the lately 70s and all decade of 80s it took place a bloody civil war that affected the development of the country in terms of health, education, housing, economic grow etc. The civil war increased the migration from the countryside to the cities, specially to San Salvador, which was not prepared to receive thousands of new inhabitants that want to avoid the war and to search for better living conditions.

During this period was follow of any strategies for housing by the public sector and private investments in housing were almost inexistent. It was until the early 90s, when peace agreements were signed, that the government started to implement a new low-income housing policy. The private sector started to be involve in housing as well.



Figure 1 General location of El Salvador.

The Case Study

Residential Altavista

Residential Altavista is a housing project still under development by “Inversiones Roble”, a private company with a lot of experience in housing projects. In the country (see figure 2).



Figure 2 Air view of the project, Inversiones Roble 1996.

The housing project is located at North East part of the city near Ilopango lake and between other important cities, San Vicente y Cojutepeque. The near location to the city center and to work places are important factors for the project's success (see figure No.3). "Residential Altavista" is now the biggest housing project in Central America and other similar housing developments are under planning in the region by Inversiones Roble.

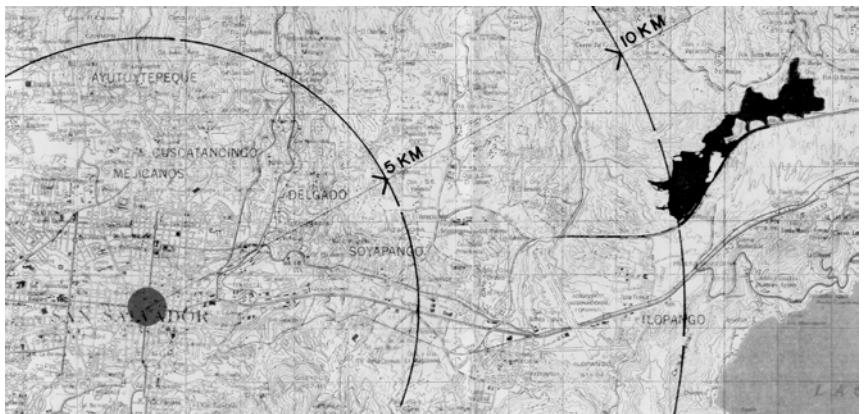


Figure 3 Location of Residential Altavista in the Metropolitan Area. In black the urban land of the project in relation to the city center. Source: Arq. Jorge Vividor Inversiones Roble.

After war and due to the growth of urban development of the city, a Master Plan for the Metropolitan Area of San Salvador was started in the late 90's under the name of PLAMADUR. According to the Master Plan proposed by PLAMADUR, Altavista is one of the last areas available for high density and slow urban development in San Salvador.

Altavista District, according to how it has been called by PLAMADUR, is about 1.7 million sq. m. and it is administratively shared by the municipalities of Ilopango, Tonacatepeque and San Martín. The "Residential Altavista" extends over an area of 1.4 million sq.m., representing 66% of the whole district area.

The project started in the early 90s and was aimed to house for low income people. Right now 8,000 houses have already been constructed and occupied which means an average of 40,000 new inhabitants in this area. The aim is to construct 12,000 more houses in the next 6 years.

Description

It is important to mention that when the project started, nobody knew how big Altavista was going to be. The initial plan was for 2000 units in two years. The huge low-income housing shortage after war and the effective housing and urban land demand by people with higher incomes made possible the extension of the project from 2000 to 20,000 units to be built in the coming ten years.

So the development has been just like a big full scale laboratory and when one walks through it is possible to see and feel the changes in it from the first sector to the on going sector. Those changes are aimed in the size of the recreations areas, the wide of the pedestrian roads, the different types of houses and particularly in the environmental considerations like reforestation, solid waste disposal etc.

For Inversiones Roble to think in an average of 100,000 inhabitants in the next ten years forced to rethink the urban design, the housing design, the environment impacts, the amenities for a better living condition and also the relationship with others actors involved.

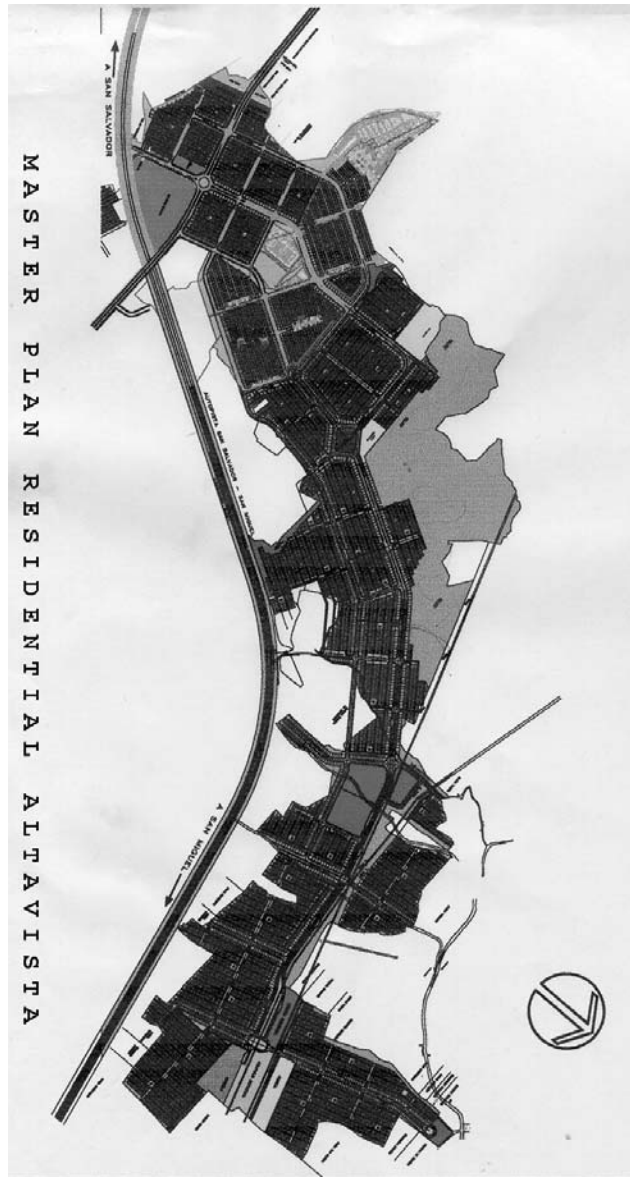


Figure 4 Master Plan Residential Altavista. Source: Inversiones Roble 1999.

Strategies

The description below is about the general strategies considered by Inversiones Roble in the development of “Residential Altavista” since the very beginning.

- To invest in land in terms of to acquire little by little the most of it to keep and consolidate it for the same urban development concept.
- To invest in the development of infrastructure in the whole district which means drinking water, electricity, drains and to improve the existing roads.

- To plan the whole project like an integrate urban developing which means to provide in it the facilities for transportation, tenure, traffic, communications, with development of micro enterprises and small trades, health cares, education, recreation and other services as a whole.
- To obtain an assortment of plots areas and designs for different houses to take a spread base buyers affordable from 6.500 US dollars to 14,200 US dollars.
- To involve the municipalities in the process of development of the project in terms of approvals, use of land consulting, design of social equipment, municipal enabling etc.
- Besides donated land for a future municipal investment in social equipment, Inversiones Roble has started to built the equipment for the school and medical cares services in order to accelerate the investments for the services to the inhabitants.
- To charge the maintenance cost of recreations areas, and general cleaning in principals roads and entrances to keep a good image to the potential clients.
- Big scale production in a serial production of houses.

A comprehensive mitigation plan started in the very beginning in order to reduce the negative impacts under the environment.

Urban Design

Residential Altavista extends between two main existing roads, both running East to West. San Salvador-San Miguel highway at South and an inter municipal road San Martin city-Tonacatepeque city at North. The general urban design were as follows:

- An internal network of roads in different categories: Principal Avenue like a steering column crossing from east to west in two tramways (collector road).
 - Secondary roads like distribution roads.
 - Walking ways (pedestrian) to connect the housing areas.
 - Side walks.
- To mix different types of houses and plots areas to sponsor a social inter relationship and change use of land for small micro enterprises etc.
- To distribute in whole project recreations areas according to the different ages of the future users.
- To distribute different use of land in order to provide to each household the possibility to access to transportation, health cares, education, trades etc.
- To provide infrastructure like drains, clean water, electricity, communications etc.

Housing Design

In order to give access to a different kind of users according to their incomes and to make possible the use of the houses for the development of micro enterprises; houses are divide in three types:

- ❖ Type 1: in walking ways

Plot size: 5x10 m.

Plot area: 50 m²

Constructed area: 27m²

No garage, 2 bedrooms, 1 bathroom, living room and kitchen.

Approx cost: 7,800 US\$

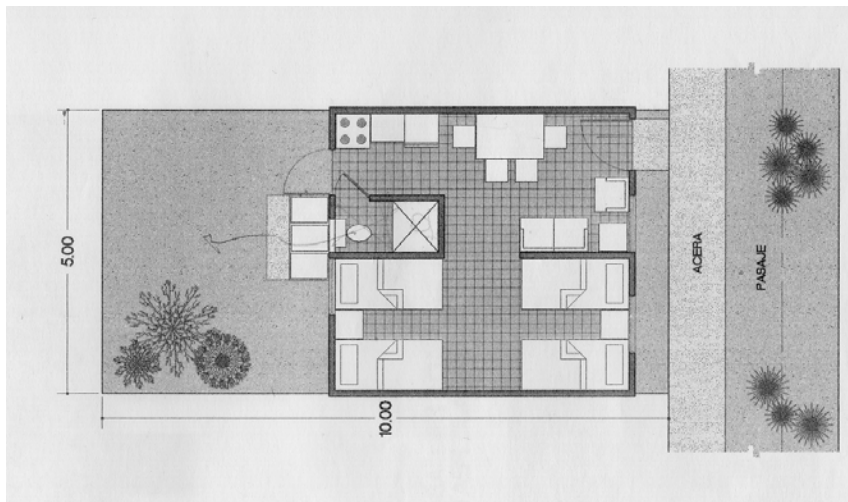


Figure 5 Layout Type 1 house. In pedestrian roads only.

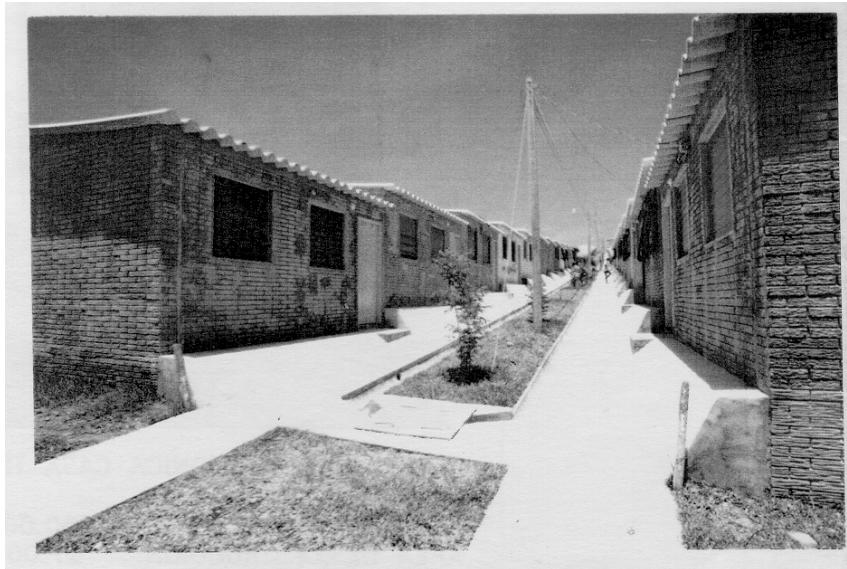


Figure 6 Pedestrian road view. Inversiones Roble 1998.

- ❖ Type 2: in secondary roads
- Plot size: 7.5x10 m.
- Plot area: 75 m²
- Constructed area: 37.45 m²
- Garage, 3 bedrooms, 1 bathroom, living room and kitchen.
- Approx cost: 10,500 US\$

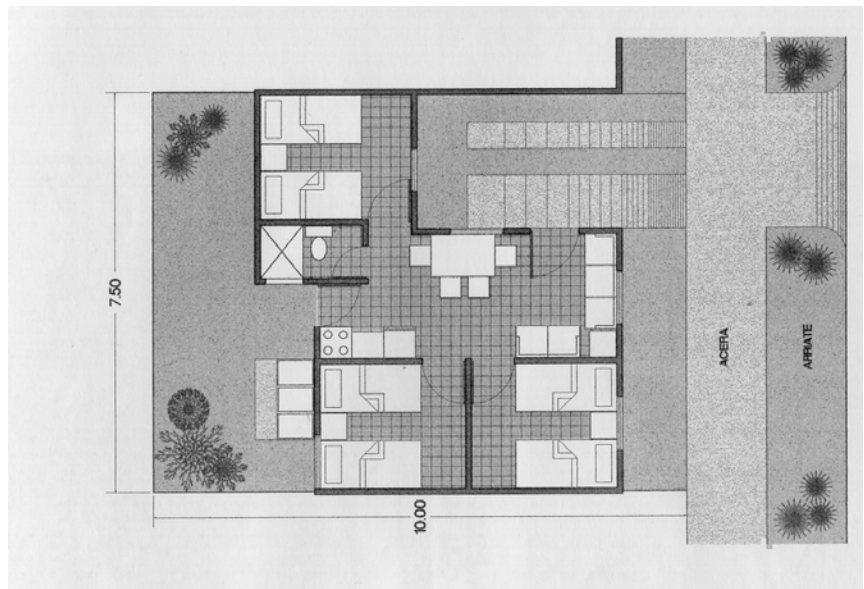


Figure 7 Layout Type 2 House In secondary roads

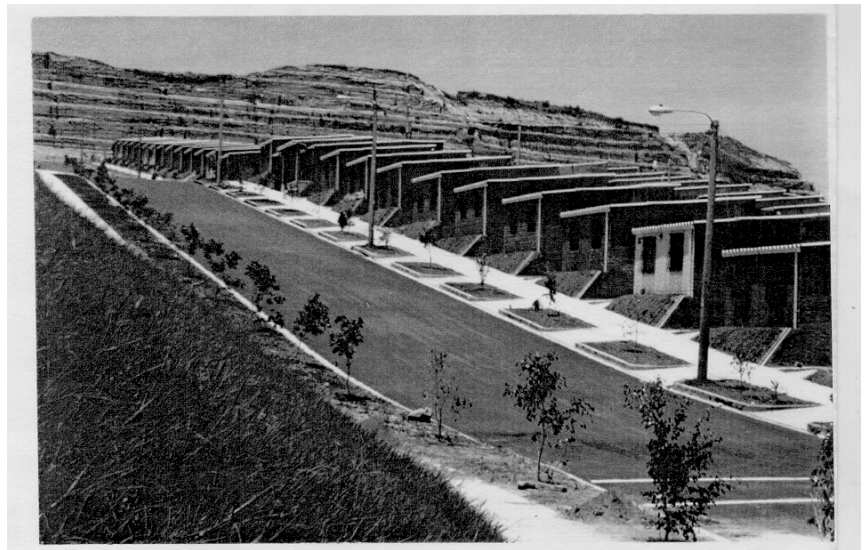


Figure 8 The secondary road. Source: Inversiones Roble 1998.

❖ Type 3: in principal avenue

Plot size: 10x12 m.

Plot area: 120 m²

Constructed area: 45 m²

Garage, 3 bedrooms, 1 bathroom, living room, dinning room and kitchen.

Approx cost. 14,200 US\$

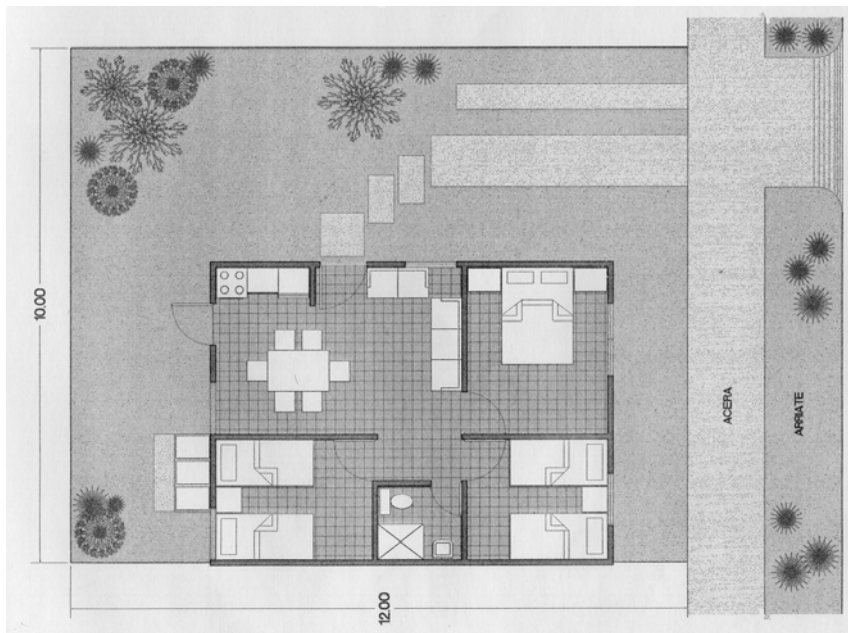


Figure 9 Layout Type 3 house Only in principal avenue. Design make possible the use of the house for the development of micro interprises.

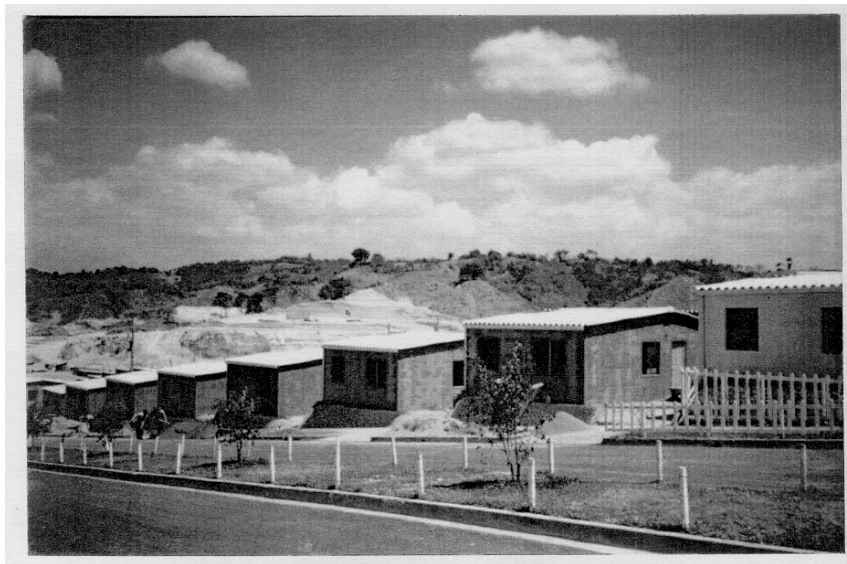


Figure 10 Exterior view in principal avenue. Inversiones Roble 1998.

All the types are constructed in shared concrete walls, roof in fluted fibrocement lamina and cement floor.

It is important to mention that the housing design is actually changing according to the new requirements of the target group. Twelve different design of houses are now in the construction process. Type 1 house represent the 70% of the total project and 30% is for the other types.

It is a daily challenge to improve the housing design for Inversiones Roble, but the low costs are the condition to considerate in the process.

Community Facilities

The project has considered areas for community facilities in terms of recreation, health care, trade in different scales, education, municipal services, religious services, security, and transportation. About 25 % of the total area of the project is located for the development of those facilities (see table No.1). The municipality should be the main responsible for the maintenance of those facilities and most of it

are donated to the municipality involve but lack of resources the constructor are oblige to built the minimum necessary of constructed area according to the size of the whole project.

Table No.1 Distribution of Community facilities.

Use of land	Description	Plot area	Owner	Constructed area
Recreation	Playgrounds Parks Soccer fields	10% Sell area	Municipality	
Health Care	Health units (2)	20,000.0 sq.m	Municipality	400.0 sq.m each
Education	School (2) Kindergarten (2)	35,000.0 sq.m	Municipality and State	1,200.0 sq.m each 400.0 sq.m each
Municipal service	Municipal District (1)	10,000.0 sq.m	Municipality	120.0 sq.m each
Religious service	Catholic church (1)	20,000.0 sq.m		450.0 sq.m each
Traffic and Transportation	Bus station (1)	10,000.0 sq.m	Municipality and Private company	100.0 sq.m each
Trade	Traditional market (2) Mall (1) Small shopping building	10,000.0 sq.m Variable Variable	Municipality Private company Private company	500.0 sq.m each
Security	Police station (2)	2,000.0 sq.m	Civil National Police	250.0 sq.m each

Actors Involved

Private Company: Inversiones Roble (IR)

Inversiones Roble is one of the biggest private companies of Central America, it was founded 30 years ago and since its establishment it has been involved in the development of housing projects for middle and low-income groups in El Salvador and also in all Central American countries.

The actual role in Residential Altavista is as a developer, in all mean of concept. The work starts with an exhaustive research of the tendencies of the use of the land and its vocation for urban development. Checking the possibility of develop in terms of available infrastructure, government permissions, codes, environmental conditions, investment possibilities etc. After a comprehensive analysis the process goes to planning and buying the land, the urban design, the housing design and to get all the government permissions. IR constructs the internal infrastructure, the houses and some social equipment. Finally the enterprise sells the houses by themselves.

Municipalities

Due to the extension of the project three municipalities are involved in it, Tonacatepeque, Ilopango y San Martín. Taxes from housing projects are their source of income. The Management of the territory and the provision of basic infrastructure is their principal role. Their principal role in Residential Altavista is the control of the urban development with the consideration of the community facilities for the inhabitants.

As local government Municipalities has the empowerment to approve or disapprove any development project.

Environmental Department (ED)

Recently created by the government, in the late 90s, It has play an important role in the development of urban land. Their principal role in the urban projects is to control developers so can be avoided or at least mitigated negative environmental impact of

urban grow. Particularly in Residential Altavista has an enormous influence and the process can be stopped if the company do not take care about the mitigation plan.

A new environmental law support to ED and has become one of the most inflexible department to negotiate with.

Planning Office of San Salvador Metropolitan Area (OPAMSS).

Created in the late 80s by the whole municipalities who are part of Metropolitan area of San Salvador. The planning, regulation, supervision and checking of the fulfilment of building codes for urban development it is their principal role. It was created to control and facilitate the adequate urban grow of the city, so that is their principal role in Residential Altavista.

Water and Drains Office (ANDA)

Distribution and manage of drinking water and drains are a centralized system in El Salvador. ANDA is an institution created by government to provide drinking water and drainage and to cash the service is their principal role. Particularly in Residential Altavista is the institution encharge to provide this two services, drinking water and drainage in partnership with Inversiones Roble.

Housing National Fund (FNV)

It is a government institution created in the early 70s to facilitate the access to housing to the low-income people through the formal housing sector by the availability of affordable loans.

Their principal role is to finance housing acquire for low-income people according own rules function. It is a vital author due to it is who provide the loans to the future user of the project. The 80% of householders obtain their loans through Housing National Fund.

Private Banks

Is part of the formal financial market. Banks are to facilitate loans to every one who can fulfil their requirements. In the project private banks provide only a 15% of the loans for the buyers.

The Clients

Finally are the users of the housing project and the ones who must live and development the sense of community in it.

Environmental Considerations

Any natural environmental modification can produce a negative or positive impact over the natural environment. A housing project as big as Altavista of course can imply a negative environmental impact on the existing forest, animal life, water infiltration and land movements; but also means a positive impact in terms of quality of life through services to everybody living in the area, jobs, educations, health cares and others facilities for all.

Residential Altavista required, according to ED, to elaborate four different Environmental Impact Studies (EIS), each one for each phase of development. The principal goal was to identify the negative impacts and the adequate actions for mitigating them. A lot of changes were made to the original planning in order to reduce the negative environmental impact.

Finally a complete plan to mitigate the negative environmental impact of the project is going on.

Financial Structure

There are three basic ways to get a new house in Altavista. One is for these people who has the money to get it cash by their own, which by the way are the least. The other one is through the private formal sector bank that by the moment has two alternatives 30 years at interest rate of 15% annually or 15 years at interest rate of 17% annually. Not too many people can access to this kind of loans because there are many requirements to fill for it and also because it takes to long time. The most common way to get the house is through the FSV (Housing National Fund). This is a governmental institution created in the early 70s focus in to provide housing to the

lowest income people. Each Salvadorians worker, even in private or public sector, is deducter in pay 2.5% of their own salary monthly since the beginning of their working life for FSV that means that all Salvadorians workers have the right to access to the loans at 11% interest rates for housing according their income until 14,200.00 US\$ maximum amount for 15 or 20 years. A complete internal regulations guarantee access for all the ones who fulfil the requirements. That is why the Altavista houses do not exceed 14,200 US\$.

Analysis

It seems to me that Residential Altavista is a good example for an integrate urban development in terms of the considerations taken in the project to provide to the inhabitants the amenities that make possible a better quality of life. The functions of a city have been taken into consideration in the urban design concept. Environment and financial structure have been considered also. However some other issues could be improve in different levels of the project:

Strategies

- It seems to me that land has been the main unit of planning without taking in to consideration the availability of drinking water as principal mean for urban development in terms of the scarce of it specially when the scarcity of drinking water is affecting the Eastern part of San Salvador. This has actually been a problem not solved and has been increasing with the on going stages of the project.
- There are not planning for an efficient partnership strategy, considering all the actors involved and the increase of costs when one of them do not have the same point of view.
- Altavista produces a high impact over the surrounding areas, which are small agricultural communities, especially in the North part. Big part of that land is now protected by the Environmental law, but there are not proposed strategies or incentives to avoid the urban pressure over it.
- There are not clear strategies for a better use of urban land by constructing multy stores building for densification of the housing area, specially considering the scarcity of available urban land for urban development in the city.

Urban Design

- The urban design gives priority to car traffic without consideration other possibility of transportation like bikes.
- There are not enough recreation areas for all, considering that when project will be finished more than 100,000 inhabitants will be living there. Moreover are too concentrating in basically two big ones in the extremes.
- Altavista is an extended project in terms of it is for 20,000 houses one store only, which is hard to think in a city with no more urban land and considering it is already high.
- More and better quality socialization areas are required for a project as big as AltaVista where young families from everywhere start a new life in a society divide for twelve years of civil war.

Housing Design

- Type one house, 27 square meters constructed area, doesn't have the possibility to grow up in 50 square meters size plot.
- Facades type one units look too monotonous and flat.
- Housing design must be improve according to the climatic conditions to avoid high heating inside.

Community Facilities

According to the current regulations plots for social equipment are calculated in function of the whole project developing area and donated to the municipalities without the real consideration of their economic capacity to develop it. Consequently these ones became garbage collectors, meeting place for gangs with a high cost for the whole community in social, economic and environmental terms.

Actors Involved

- There is no involvement of householders at all in the design process, even though it is an on going project and a lot of people is now living there. They can give comments and recommendations as users in order to improve the project further.
- Actually there are not an efficient relationship between OPAMSS and the constructor. The constructor used to moan for the time that OPAMSS take to check and approve the used changes in the on going project. And the times cost a lot of money for the investors.
- Environmental Department (ED) is one of the harder institutions to carry out with.

Environment Considerations

- There is not following of all mitigation recommendations specially in the construction process, which means cost increases in the environmental recovery in the final process of conditioning.
- Mitigations actions are focus in animal life and forest recuperation. Management of solid waste is in second plan.
- Actions oriented to rein filtration rainwater are have not taken.

Financial Structure

Others alternatives of financial must be rethinking in order to facilitate to the poorest access to good quality houses.

Conclusions and Recommendations

I believe than Urban Planning must be developed by an interdisciplinary professional team, where architects, urban planers, economist, sociologist, environmentalist, and other disciplines can give their approaches and points of views around the issue in a holistic way. The urban planning is not a question of use of land or design, is also a question of quality of life, environmental considerations and social development.

Considering all actors involve in the urban development process a strategy around partnership must be planned in the very beginning specially between the constructor and the institutions in charge of permission and approvals in order to reduce the economical cost of loosing time. Otherwise the poorest can never get access to an adequate housing for better quality life.

It is indispensable to evaluate the impact of any project in the surrounding areas in terms of environmental, social, economics, transportation and the pressure of land use. Projects cannot be considered like islands in the middle of the sea; new housing projects are necessary part of a whole, "the city".

Actually it seems to me that design unit for planners are land, I mean square meters or hectares are the units, just in function of land but for the coming days planners must think in terms of the hydrographical valley due to is water and the possibility to access to clean water the resource who will define the urban development in the closely future specially for housing projects. Otherwise the cost of to supply clean water will make housing projects very expensive and consequently impossible to get for the poorest.

Target group for a particular housing project must be involved in a participatory design since the very beginning. It is the better way to know the expectative of the householders, which must be considerate in the urban and housing design.

For the housing design the consideration of culture aspects are indispensable in order to respect them as a part of the national identity.

Use of land must to be reoriented in terms of density, multi store buildings must to be proposed taking in consideration other relevant aspects: culture, building costs, environment, infrastructure etc.

The socialization areas must be improved in order to facilitate the relationship between the householders. These areas must be separated in the project.

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