CHAPTER 2 - SITE AND PROJECT DESCRIPTION

2.1 Introduction

The project consists mainly of a subdivision of land into one hundred and three (103) distinct plots targeting residential developments. The project proponent and members associated with the project have extensive experience in this type of development since they carried out similar projects before under the Voluntary Retirement Schemes (VRS) whereby land were attributed to workers in the sugarcane industry as part of their retirement dues. In that respect the promoter has again entrusted *Sagiterre Ltee* with the responsibility to develop it in line with local planning requirements and best engineering practices. The subdivision of land has been designed in such a manner that they would be accessed from an existing morcellement road network that was purposely designed to cater for the present one. There is no direct access on the Savanne A9 road.

2.1.1 Ownership

As mentioned earlier the land to be developed forms part of a large estate. An extent of 8 ha 4,135.69 m^2 is required for the present undertaking. The whole land is a freehold property that has traditionally been under sugar cane cultivation activity and adjoining a residential development. The project promoters undertake to parcel the land for the sole purpose of developing it into a morcellement. A copy of the Title Deed showing proof of ownership is shown in *Annex 1*.

2.1.2 Zoning

The site in question is located on the rim of the limits of permitted development as per the present Grand Port Savanne District Outline Scheme as shown in *Figure 1*. The site in question forms part of a vast extent of sugar cane fields belonging to the promoter. The reform brought in the sugar sector has witnessed the conversion of sugar cane fields into morcellements for the purpose of compensating the workers in that sector under the VRS regime and also to finance the VRS projects. The proponent has adopted the VRS and is now in the process of implementation within that reform. The promoter has sought the change of zoning identity of this land at the Ministry of Agro-Industry. The request is under process at the Ministry of Agriculture.

2.1.3 Site Characteristics

The subdivision of land would be carried out on a site that adjoins developments of similar nature on its Southern and Western boundaries. It is also adjacent to a morcellement that leads to the coastal strip of Gris-Gris as well as the inner village areas. Shops, commercial units, school are located within close proximity of this site. The village of Souillac has a historical and cultural importance in Mauritius. The Batelage is the legacy of French occupation and the shady Telfair garden is an undisputable relaxation point with its old trees. The “La Nef”, once owned by Robert Edwart Hart, has been converted into a museum as a memorial to him. This village has known unprecedented infrastructural progress during the last decade and all

services are available. The village has a now a new hospital. Similar trends have been observed at the neighbouring villages of Chemin Grenier and Riviere des Anguilles. Commercial trades have expanded significantly in these villages and they are only a few minutes away from the proposed development. The constructions of new functional buildings are but a few examples of an expanding village. This site in question is strategically located within this built up Village.

As mentioned earlier the land to be developed forms part of a large estate and the extent to be developed has an area of 8ha 4,135.69 m^2. The project promoters undertake to parcel the land for the sole purpose of developing it into a residential morcellement.

The schedule of areas as provided by the project developer for this undertaking is as follows:-

103 lots	6 ha 3,110.43m^2
Green areas	4,046.45 m^2
Roads/accesses	8,677.36m^2
Road reserves	8,301.25m^2
Total	8ha 4,135.69 m^2 (0.084 km^2)

The present setting of the site is illustrated in the photographic plates hereunder.

Perspective View of site looking South towards Gris-Gris public beach

General view of site looking East

(Note presence of irrigation hydrants)

View of site looking North East

(Note presence of Centre pivot)

View of site looking South West

(Note Existing residences on adjacent morcellement)

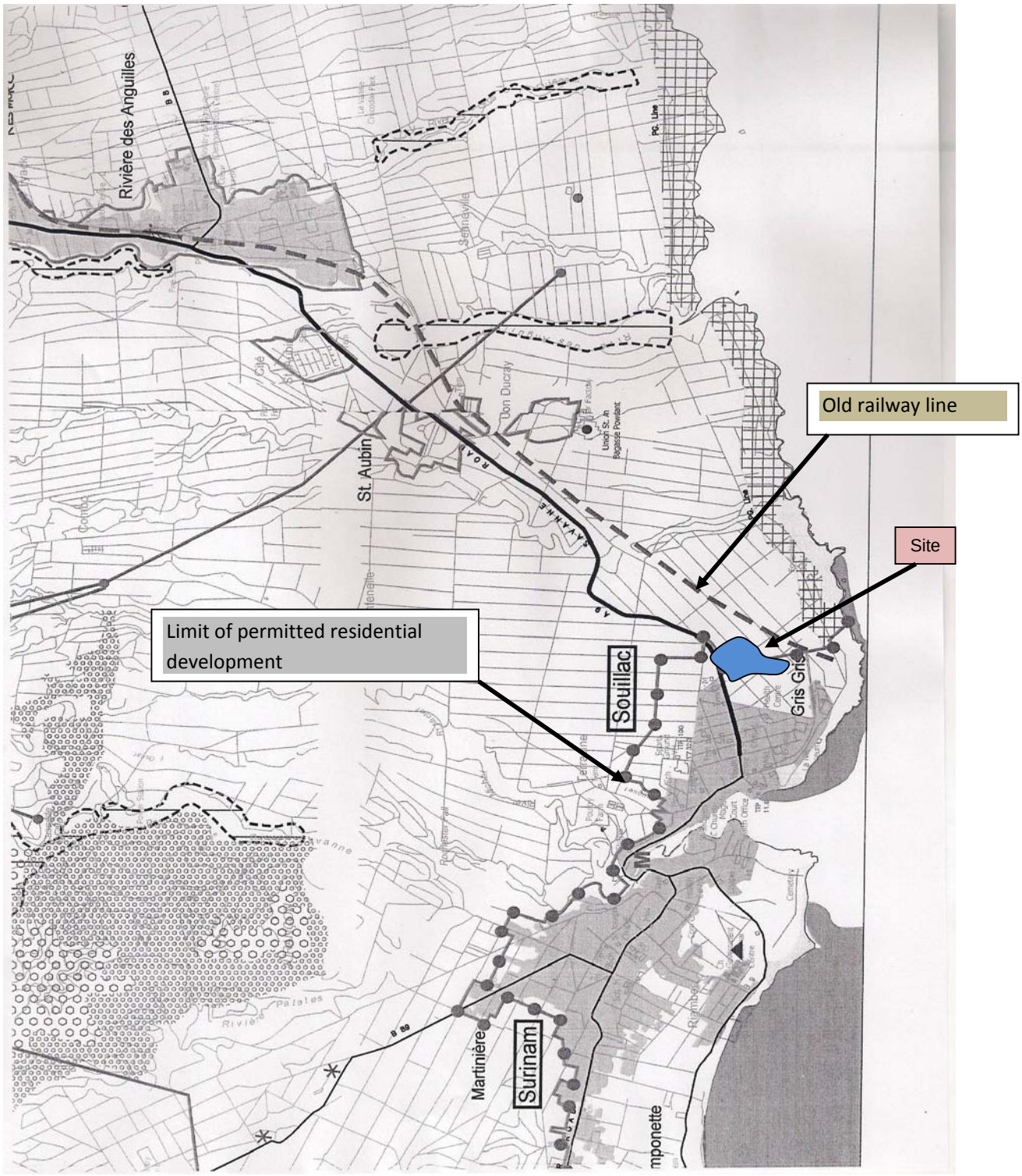

Figure 1 Context Map

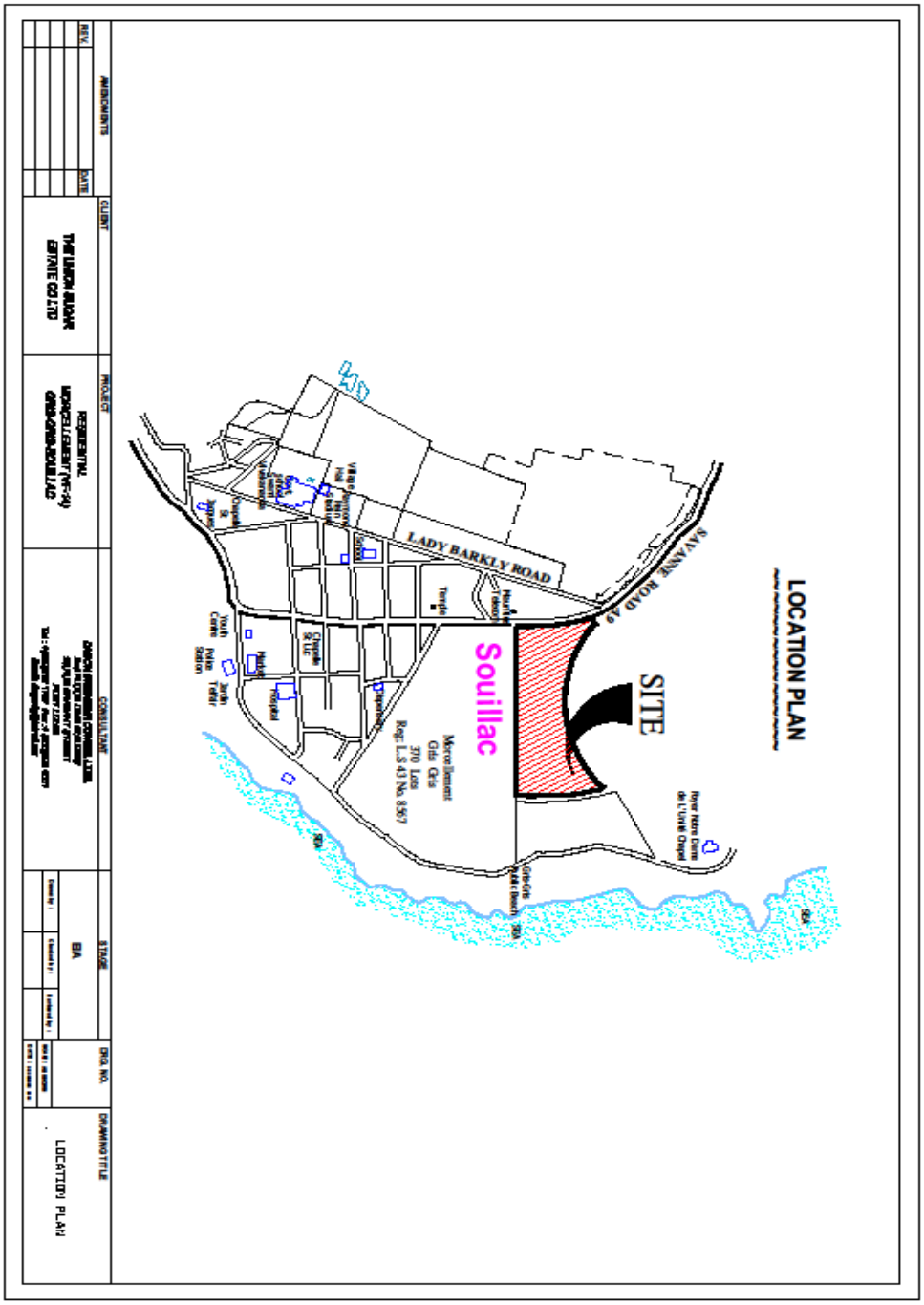

Figure 2 Location Plan

2.1.4 Planning and policies

The instrument presently available for land planning is the National Development Physical Plan prepared by the Ministry of Housing and Lands and the Outline Schemes prepared by the respective local authorities. In addition to that the District Councils have prepared guidelines that would regulate in a fashionable manner development within their areas of jurisdictions.

In designing the undertaking the proponent has taken into consideration the set of planning guidelines that have been published at National level and Local Authority Level. These comprise the minimum plot sizes requirements, percentage of green areas, set-backs, roads dimensions and roads reserves, drains, utilities, safety and security.

Policies in the rational use of land have been reinforced with the restructuring of the sugar sector. The SIE act was amended to allow conversion of sugar cane fields that would be parceled so as to compensate sugar estates workers as part of the VRS II deal. This process of conversion is exempted of conversion taxes. Moreover this process allowed the reconversion of larger plots of agricultural land on sugar estates that would be built up and sold to owners as a means to finance the VRS II.

Policy H7 – Morcellements states that "Residential developments by way of morcellements will be required to conform to the provisions of summary policy guidance for residential morcellement forming part of the National Development Strategy and revised Local Plans". It further states that new morcellements should be appropriately planned and designed so that all amenities are provided as detailed in the Policy and Planning Guidance Note for Residential Development.

The general guidance for developing a morcellement has been defined in the set of guidelines prepared by the Ministry of Housing and Lands in their "Planning Policy Guidance – November 2004; revised in September 2006". The District Council has on the other hand established guidelines for residential developments.

The guidelines define the array of instruments that need to be complied with in order to implement the projects. The instruments that need to be referred to are mainly, the minimum plot size allowable, plot coverage, setbacks and heights, road dimensions, radius of curvatures and other items that are consolidated in the Planning Policy Guidance.

The proposed subdivision of land has been designed to comply with the prevailing guidelines. It is presently an agricultural land located on the edge of permitted limits of developments. The division would thus have no such bearing in terms of compliance with the requirements for physical developments.

More land is becoming available as a result of the political reform brought in sugar sector. According to the Mauritius Sugar Authority's Sugar Sector Strategic Plan 2001-2005, less land would be required for sugar cane production and there would be fewer factories. The long term strategy is that some 14-19,000 ha of land redundant for sugar cane cultivation would have to be released to meet social

purposes and also to diversify into other agro-economic activities. Moreover reforms brought previously in the sugar industry released some 800 A under the Blue print. Some 1000A was made available under the VRS1 and a similar would be generated under VRS2. 150 A has already been developed in the Ebene Triangle. The sugarcane cultivation in the vicinity of Highlands would soon be transformed into a new City under the SLDC programme. The State would additionally obtain 2000A of land under the present reform. Therefore there is much focus in developing land traditionally put under sugarcane cultivation. The recent budget speech has also given much consideration to reengineer land development on agriculture land having poor yields.

2.1.5 Site characteristics and landform

The project site has a sloping topography. The mean height of the site above mean sea level varies between 114.0m and 91.5m Above Mean Sea Level (AMSL). The project site slopes towards the South i.e. in the direction of the Sea. The slope of the overall terrain from North to South is estimated as 5.0%. This slope is ideal for overland flow evacuation. The topographic survey conducted by Sagiterre Ltee is attached in *Annex III***.**

Though the site is located within proximity of the Gris-Gris beach no water table has been identified in the trial pits. There are neither wetlands, irrigation canals, water basins, open reservoirs nor any water bodies on the site. However, the sea is located at about half a kilometre South of the site boundary. The land between the Southern boundary and the Gris-Gris public beach is already a functional morcellement.

There is also an irrigation network used for irrigating sugar cane fields on the eastern boundary. Irrigation is carried out by the Centre Pivot system. This explains the circular boundary layout on the eastern boundary of this development. The limit of irrigation as well as the locus of the centre pivot has been shown in *Annex II*. The promoter has retained a reserve of 10.87m from the limit of the centre pivot locus.

There are no wetlands, perennial or intermittent drains on the site or crossing it.

There are no objects of cultural or historical importance on or within close proximity of the site. The site does not form part of any “patrimoine”.

However the site borders the remnant of the Old Railway line which is a public domain and is subject to conservation. The promoter has maintained a building restriction zone of 15.0 from the edge of the railway alignment. The land owners adjoining this alignment would not be allowed to develop permanent or temporary structures on this zone.

2.1.6 Physical environment

The project site is presently a vast extent of sugar cane field land that is on the edge of a fast developing village. It is mostly colonised by sugar cane. The Northern boundary is bordered by the reserve of the main Savanne A9 road and on which there are very old trees. It has approved morcellements on its Southern and Western

boundaries. The Southern boundary also adjoins the alignment of the Old Railway line which is a public domain. Beyond the railway track there is the Gris-Gris public beach. There are no other activities apart from sugar cane fields on the site.

2.1.7 Similar projects in the surroundings

The site is bordered by residential development. These developments were implemented by the same project developer. The only difference is that the proposed undertaking shall be gated one.

2.1.8 Infrastructure

The site is adjacent to existing residential developments and as such all basic infrastructure such as proper access, potable water, electricity, communication facilities and entertainment spots are readily available. The region of Souillac has also a modern hospital, school, reliable means of transportation, places of worship, post office among others that would be enabling factors for prospective settlers to integrate the physical environment.

2.1.8.1 Roads and drains

There is an existing tarred road network to connect to the proposed. The network has two lanes allowing traffic flow in both directions. The roads have street lights. There is a drainage network made of reinforced concrete. Internal roads shall be constructed so that each plot has a proper access. The proposed development shall be provided with a drainage network and shall be studied as a separate catchment. The areas earmarked for green spaces shall be utilized to accommodate the soakaways as disposal means of rain water.

2.1.8.2 Water

Water would be available from the existing pipe network running on the existing morcellement. This network is fully functional and has enough pressure to supply the new development.

2.1.8.3 Power Supply

The site has a functional power supply line within close proximity. The Central Electricity Board has provided its consent in that respect.

2.1.8.4 Wastewater disposal

The site does not have a waterborne sewerage system. It is unlikely that a sewer system would be implemented soon as the Wastewater management Authority is presently focusing on the Plaines Wilhems Sewerage projects. Wastewater is carried out by on-site disposal system such as septic tanks and leaching fields.

2.1.8.5Solid waste disposal

Solid waste is of domestic nature. The nearby village is served by the scavenging unit from the Grand Port Savanne District Council that has a biweekly round of collection of wastes. Ultimate disposal is done at Mare Chicose.

2.1.8.6 Future developments

The whole land forms part of the promoter's domain. Based on data collected from proponent and public/private developers there are no anticipated projects in the vicinity.

2.1.9 Flora and Fauna

As described above the site in question is presently a piece of land covered with sugarcane. There are no other vegetation except isolated patches of wild grass and *chiendent.*

During the site observation a few passing sparrows were identified as well as a mongoose. The observations made on site did not reveal any floral or fauna species of endemic nature or any species that are on the verge of extinction.

2.2 PROJECT DESCRIPTION

2.2.1 The Project Initiator

The project is initiated by the Union Sugar Estate. The master plan and layout has been designed by Messrs Sagiterre which has acquired vast experience in that domain.

2.2.2 Need & Justification of Project

The demand on residential lands has always been on an increasing trend. It has been noted that during the past decade more than 10,000 plots of land from public and private sectors have been put on the market and there is still a shortage. Though we have a stagnating population people see investment in land as a secured one. There is also a growing tendency from young earners to buy land at an early stage. All these do contribute towards a growing need for land.

The project in its context has come at the right moment where there is a rational utilization of land. As mentioned earlier the site is at present a vast extent of land under sugarcane plantation. It has a high development potential by virtue of its prime location on the rim of a fast expanding village. Similar developments as the one proposed have come up on the southern and western sides of the site. Therefore all the required components are presently available for making the proposed project a success.

With the fall of the preferential trades and the fall of sugar price on the world market the intensity of cane cultivation has considerably reduced. Areas under sugarcane cultivation dropped from 76,840 ha in 1995 to 72,000 at present. This will further drop with the implementation of VRS2. Government put in place a strategy in partnership with the Sugar producers that transcribed into a reform in the sugar sector. This reform gave rise to some major incentives that included the reconversion of sugar cane fields and agricultural lands into property developments sites. Moreover the projects related to IRS and RES have been consolidated in order to make more land available for that purpose as it is a guaranteed source to bring in Foreign Direct Investment. Therefore the site in question that would be subdivided has high potential to add to the land bank for property developments.

The site in question is being developed in order to finance the VRS 2 initiative currently in force. The workers, labourers and artisans would draw an anticipated benefit by getting an early pension and a piece of land of 7p within a VRS morcellement on their retirement day. The workers lands need to have the basic amenities such as a good road network, water and electricity. The cost associated with the VRS morcellement would be recouped by selling land for the present development on the local market.

The construction of this type of development would also provide direct jobs opportunities for those directly involved in the physical construction of the project and its marketing. This project would give rise to a significant amount of indirect jobs in the form of enhanced commercial sales from fast food, snacks and take-away shops, increase in sales from supermarkets and the like. This would result in an increase in income for existing businesses or else it would provide opportunities for new businesses to open.

This project would also be beneficial to the service sector involved in the marketing and sale of land. Agents and notaries would no doubt benefit from sale transactions. Lending institutions, insurance agencies are the other beneficiaries.

The government institutions would also earn benefits through land registration businesses, levies, duties, taxes, license fees, permits, processing fees, financial contribution to CWA, CEB and Value Added Tax.

This proposed development once fully functional would also provide opportunities for the informal sector that do contribute a lot in terms of service providers of low remunerations. These include servants and maids, baby-sitters, gardeners, drivers, electricians and plumbers, car mechanics, repair shops amongst others. This is very significant to the local inhabitants who would be able to find a job that would bring an extra income. The region of Souillac has a substantial population that can be classified under the poor category. Thus the coming of the project may contribute towards alleviating the financial hardships of the people in the surroundings.

The proposed project would also provide an additional land bank on the real estate and property market. This would provide potential buyers to have an alternative

option in finalising their choices. The additional supply of land would also result to availability of land at competitive prices.

Therefore this proposed development is coming at the right moment where the "mood" of recessions is still hovering around. Investments and jobs creation under this project would contribute in creating a resilient business atmosphere. Based on the foregoing the project has all the merits to be implemented.

2.2.3 Capital Investment

The proposed morcellement project has thus a positive socio-economic bearing such that it would foster direct investment in the form of Capital investment from the project promoters and their banking institutions. It is expected that this project would warrant an investment to the tune of Rs 45m. This will generate in turn positive return for the commercial industries involved in the business of construction and supply of construction materials. It has been observed that the village of Souillac and Chemin Grenier have many hardware shops, showrooms for home furniture and domestic appliances. Therefore these businesses will have an additional outlet once this project gets implemented.

2.2.4 Carrying capacity of site

The sizes of the residential lots vary in area. The minimum lot size is about 456.94 m^2 and the largest one 1672.29 m^2. However, the majority of the lots have an area varying between, 469 m^2 and 729 m^2. The area for each lot has been shown in the table on the master plan in *Annex II*. These sizes of the lots are sufficient for potential owners to build their house and would leave them with enough space for greening the yard for embellishment and kitchen gardens. The space available would also allow residents with leisure activities such as outdoor games. In that respect this morcellement will not give rise to a dense and compact undertaking. The housing density for this particular project is estimated at 1226 units per square km (103/0.084 km^2), which is very low. If it could be assumed that the number of inhabitants per lot is 5 then the population density for this development would be about 6,131 per km^2.

2.2.5 Expected maximum height of residences

The purpose of the undertaking is to provide land for residential development. The owners would individually develop their lands in conformity with the Guidelines of the Grand Port Savanne District Council. The height of the potential residences would not exceed 2 storeys (i.e. 7m from natural ground level).

2.2.6 Detailed morcellement plan

The overall plan for the undertaking has been displayed in the Master Plan reproduced in *Annex II*. This undertaking would contain all the components that would enable an owner to construct his dwelling and live peacefully. All infrastructure works would be implemented for the benefit of the owners. It includes the basic needs as well as recreational areas in the form of landscaped zones/green areas.

The developer would maintain the gated undertaking, inclusive of green areas, at his own cost.

2.2.6.1 Internal Road

The existing and proposed road layout is shown in the Master Plan and detailed in *Annex IV*. The main accesses to the project site are off the existing road located on the Western boundary. This road is itself connected to an existing roundabout that forms part of a functional morcellement. This roundabout is connected perpendicularly to the Savanne A9 road.

The internal road network has been designed in such a manner that each owner would be allowed to access freely his plots. The entrance from the western boundary has a 7.0m wide carriageway. The main entrance has a road reserve of 6.0m on each side. The reserve shall be planted so as to offer a majestic landscaping outlook. This reserve shall also be used to accommodate buried services.

The internal road network has been designed so as to service each plot. The widths of the internal roads are mainly 6.0m and 5.50m as shown in the Master Plan. Road reserves of 2.5m have been provided on both sides.

The internal road network would be fully tarred. The design of roads would comply with approved international engineering standards, as well as the standards set by the Road Development Authority.

The design of the road geometry and road sections would aim at providing a safe access for people to commute.

The typical road layout and details are shown in *Annex IV*.

2.2.6.2 Roadside drains and disposal methods

Drains would be constructed along one side of the road in order to evacuate the overland flow and run-off from roads. The drain would be designed to evacuate run-off generated after a storm. The region of Souillac Gris-Gris receives a fair amount of rainfall but cyclonic conditions bring high intensity rainfall over short duration. All drains would be covered with a reinforced concrete slab. There are no external drain networks that could be used to evacuate the run-off from the present site. As an attenuation measure during a storm, surface waters shall be diverted into soakaways that would be located under the lots earmarked as green areas. The soakaways shall consist of deep pits filled with stones and gravels which sizes range from 100-200mm. The upper layer shall be covered with a non-woven geo-textile lining to reduce possibility of clogging. The typical road

layout, the road section, drain design and soakaway are shown in *Annex IV***.**

2.2.6.3 Water supply system

The morcellement would have about 103 residential lots and each lot need to have a proper water supply. The estimated daily water requirement for domestic purposes would be 103m^3/d. An additional estimated amount of 7m^3/d of water would be required for irrigation of the green areas. Thus a total daily demand of water would be 110m^3/d. A water line already exists along the road leading to the site on the Western boundary. Therefore a water network of 90mm OD HDPE pipe would be constructed to provide this development and the potential owners with a potable and reliable water supply from that line. Water supply for each residential lot would be carried out through a smaller diameter (32 mm) polypipe tapped from the water mains, running in the road reserves and on the same alignment of the road side drain, by a saddle/ferrule arrangement. These smaller dia. pipes would be exposed and plugged in each and individual lots. The water distribution network shall consist of a piping system that meets the requirements of the CWA. The pipes would be buried and located in the road reserves. Once placed, they would be tested against leakages. After the hydraulic test the whole network would be disinfected and cleansed. The disinfection would be carried out under the supervision of the CWA. After that the line would be drained and water released from the CWA mains. The internal water network shall also have appurtenances like, sluice valves, washouts, fire hydrants and air release valves so as to render the line functional. The proposed water distribution for the development is shown in *Annex V*.

2.2.6.4 Power supply system and street lighting

The site is near a power transmission line that is connected to the national grid. This line would be used to tap electricity in order to feed the project site. Each lot would be supplied with an uninterrupted power supply. The cabling works that are necessary for the distribution shall be buried. The morcellement shall be divided into zones and the live line shall emanate from the main transformer. Each zone shall serve a dedicated number of lots by street pillars. Though this is gated development electricity shall be billed individually. The power supply would also feed the street lights at night. The daily power load estimated for the project at full occupancy is estimated at 750 kVA. The underground cable routing is shown in *Annex VI*.

2.2.6.5 Wastewater disposal system

The region of Souillac does not have a waterborne sewerage network. Wastewater disposal in this area would thus be carried out by on-site

disposal methods. The guidelines prepared by the Wastewater Management Authority and the Planning guidelines from the Ministry of Housing and Lands and the Ministry of Health shall be used for the designs of septic tanks and absorption systems. A typical design for the wastewater disposal is shown in *Annex VII*. This design shall be provided to each owner at the time of sale.

2.2.6.6 Solid waste disposal system

This project would yield solid waste namely of domestic nature. The expected waste quantity is 1 kg per household per day and would be mainly in the form of paper and plastic. Each dwelling unit shall have a garbage bin. It is expected that the owners would place all their solid waste in plastic bags and properly tied to avoid littering. The disposal of the wastes shall be carried out by the refuse collectors servicing this area.

2.2.6.7 Telephone lines

Telephone lines and networks exist near the site. It is planned to provide for that service. These would be carried out by providing a network so that each lot has access to a land line. However, with the available state-of-the-art technology in that sector there is less dependence on fixed lines. The extensive uses of mobile phones and wireless internet connections have made communications very accessible without incurring any infrastructure works. This aspect would be considered prior to the construction phase.

2.2.6.7 Location and extent of green space

Green spaces have been evenly distributed over the site in order create a serene atmosphere once the undertaking is fully developed. The dedicated green spaces have an extent of 4046.65 m^2 representing a coverage of 9.24%. In addition to that the internal roads reserves would be converted into green areas and this would contribute to about 8301.25m^2. Therefore the total green space available for this development shall be 1ha 2347.90 m^2. This represents approximately 21.63% of the area to be developed.

2.2.6.8 Location and extent of commercial lots

This undertaking relates to the development of a piece of land into a gated residential morcellement. No commercial activities have been earmarked nor shall be allowed.

2.2.6.9 Traffic implications

The traffic implications would have to be considered in two phases; namely the construction phase and the functional phase. The construction of the infrastructure works would entail the flow of heavy duty equipment such as trucks. The proposed undertaking would bring forth an additional traffic flux to

the tune of 103 private vehicles once fully functional. This is foreseen in the horizon 2015. The present road setup and geometry are adequate for such traffic load.

2.2.6.10 Benefits

Any undertaking of that type, size and scale brings in a plethora of opportunities and benefits. The beneficiaries are both public and private in so far direct investment, secured investment, loans, insurances, direct jobs, indirect jobs, commercial activities through procurement of goods and services are concerned. In addition it would generate residential properties within the present land bank. This would enhance competition in sale and this would equate to a stable price in the land business.