

## PROJECTS OF DUBRUTO URBAN PLANNING

22 February 2016

### **Centurion Lake Redevelopment - Symbio City**

#### **Background**

This is the well-known project to redevelop erf 53 Verwoerdburg Stad. DUBRUTO URBAN PLANNING Inc. has been directly involved in this project from the beginning. We provided some influence in the strategic thinking process that took the lake from an unsolvable problem to a situation where it will become – through the proposed development - a huge asset to the Tshwane Metro and all its residents. We also provided the collective planning memory from the development history and practise of the original Centurion Mall and Lake and its ongoing development over the last 35 years to take the present process forward. We also provided a collective definition and motivation of the present urban planning realities and enormous development potential that supports the present proposals for the redevelopment of the Lake. Finally we supported the municipal administration to provide their Council and decision making structures with applicable and comprehensive urban planning knowledge to come to fully informed decisions in this regard. Several informative reports were provided and presentations were held by municipal planners to various sub committees of the Tshwane Metro Council. This firm assisted the municipal personnel with some of the content of that.

We did not propose the specific aspects of the idea or design of the present concept of 3 tower blocks and a shopping centre nor the private rapid transport system. However we formulated this idea into proper presentations, motivations and proposed town planning zoning rights.

This firm - as part of the developing company - is monitoring the process as it is progressing presently and has identified several critical aspects of the project that needs addressing to achieve the goals set by the Tshwane Metro and the developing company. These critical and complex aspects will be dealt with by applying our strategic thinking skills.

**The proposal as it stands: 3 tower block buildings on top of a new shopping centre.**



## The Concept

The concept is about a development company leasing - and buying a part of it - the land from the Tshwane Metro and - because of its locality so close to the Gautrain station – to develop the above proposal and in doing so provide an acceptable and practical solution of the huge problems affecting the Centurion Lake.

## The Land



The proposal to lease the land comprise the following: Note that this text originated from the initial concept and that there was a small adjustment in regard to the total land being leased and that being sold.

## PROPERTY PARTICULARS

### Property Description

The area is the Centurion Lake (erf 53 Verwoerdburg Stad) as well as the 5 properties abutting the lake on its northern banks. The total area as is indicated by each land parcel's Surveyor General Plan totals 99 530m<sup>2</sup>.

The total area to be leased is: 92 122m<sup>2</sup> (Has since been slightly adjusted)

The total area to be bought is: 7408m<sup>2</sup> (Has since been slightly adjusted)

Total areas on map on next page have since been slightly adjusted.

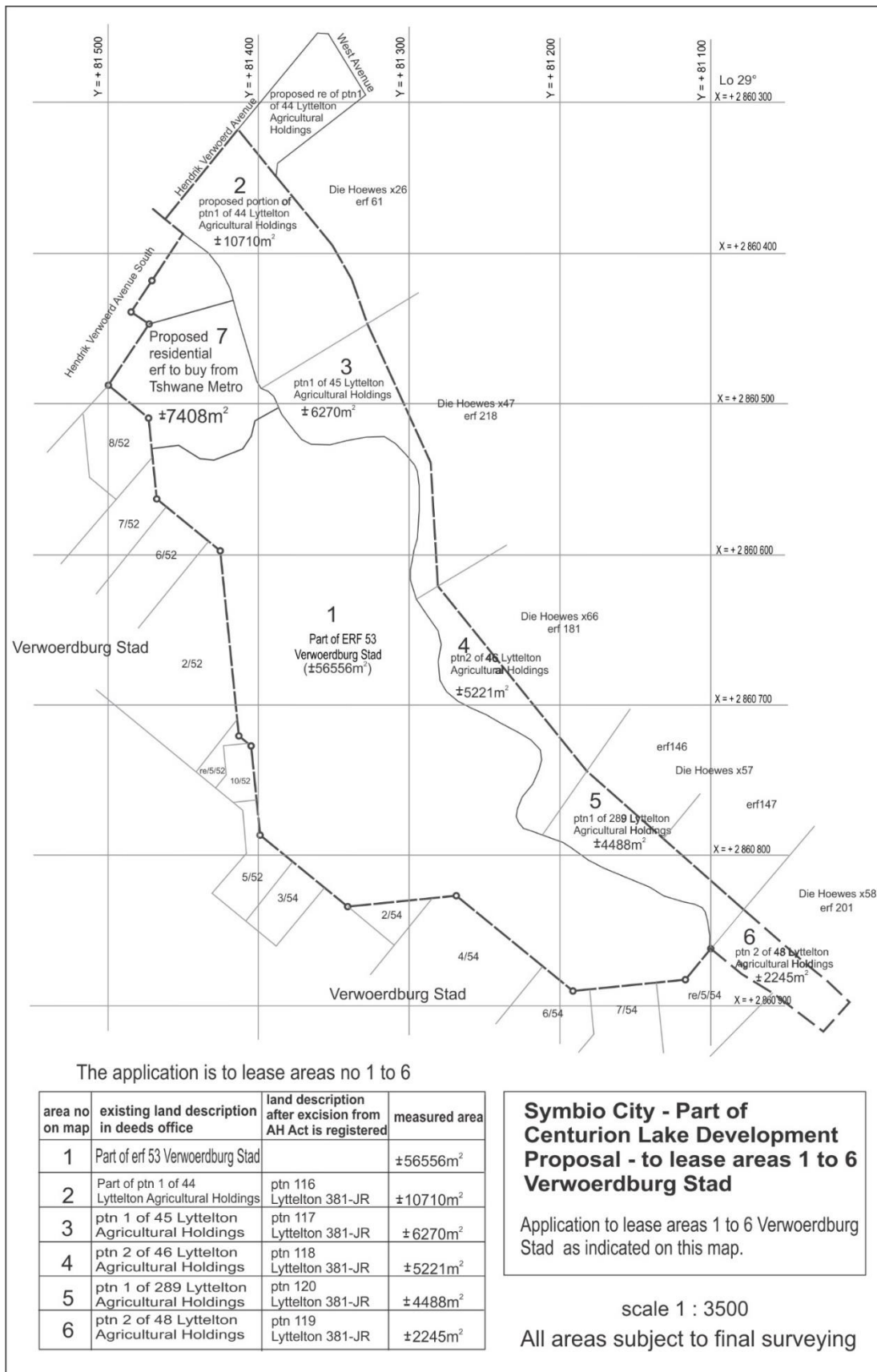
### Zoning

Erf 53 Verwoerdburg Stad is zoned: "Public Open Space".  
Areas 2 to 7 on Map 1 is regarded to be zoned agricultural.

### Land use

Erf 53 Verwoerdburg Stad: Is in its entirety a lake built within the Hennops River.  
Areas 2 to 7 are being used as landscaped open space with "braai" facilities.





## Registered Owner

The City of Tshwane Metropolitan Municipality.

## Some Aspects Regarding the Proposed Development of Symbio City

Only erf 53 Verwoerdburg Stad is to be developed for a specific land use. The abutting land parcels to be leased would be used for access to the development, different services, open space



- A Private Rapid Transport system to connect the development with the Gautrain Station as well as with the proposed development Zwartkop x28 and also the present Centurion Mall area.

*The development company of Symbio City is in negotiations with the existing owners of the Centurion Mall to enable a reasonable monetary situation to become viable in regard to both shopping areas in future.*

## **The Lake**

(Note that all aspects discussed here have to be finalised and designed in detail still)

As has been thoroughly discussed elsewhere that the status quo of the Centurion Lake area and the low water quality of the river cannot be allowed to continue. The silting up of the lake is causing the lake's capacity to diminish in such a way that flooding is now occurring in a dangerous and unpredictable way. To just clean the Lake up and re-instate it to its former glory would cost more than R100 million and would not solve the problem of silting. The lake has been constructed in the past to provide the then new shopping centre with an advantage over other shopping centres and never has been an essential aspect of the Centurion Mall Development. The 6,3ha of area under water actually are wasting available area that can be utilised much better for other productive and recreational activities.

The original development has been implemented 30 years ago and a rethink of the situation should be in order. Most of the stakeholders whose businesses are situated around the lake would welcome any solution that would remove the present status quo and replace it with a development that would not include any water from the river.

It has been proposed that the Hennops River be canalised into a canal that would run underneath the proposed building structure on erf 53 Verwoerdburg Stad. This canal would be able to accommodate a 1:150 year flood. The canal would accept the Hennops River near the existing entrance of the river into the lake (on portion 2 of Holding 48) and dispose of it into the river at a suitable place on the downstream side of erf 53 of Verwoerdburg Stad. (It is now being contemplated the river to be canalised from where the river flows underneath the N1 freeway.) See also article on Open Spaces and Symbio City under DOWNLOADS.

Applicable structures would be implemented upstream from the canal to filter the normal load of the river especially the incredible load that is occurring when the river is flooding. A secondary river basin to accommodate flooding above the 1:150 year level would be constructed on top of the land parcels abutting erf 53 on its northern banks. This secondary basin would either not be obvious or it would be in the form of a canal like the Cheonggyecheon River Park in Seoul, South Korea with cleaned water circulating continuously as needed.)

The abutting land areas also to be leased would be secondary to many other uses like open space, access to buildings, services, etc. (The concept of Symbio City is that all services are generated on site which includes cleaning processes of water too.)

Taking the above said into account it is obvious that the lake would then be available as land to be redeveloped as proposed. Because of the original urban design features of the original development situated around the lake much effort will be put into the new design to again create an aesthetical pleasing development on ground level. It is the plan to again provide many water and recreational features on the ground surface – although this time the water systems would be artificial like in a swimming pool. The water of the river would not be used directly and if used at all it would be thoroughly cleaned first.



## Local Transport System

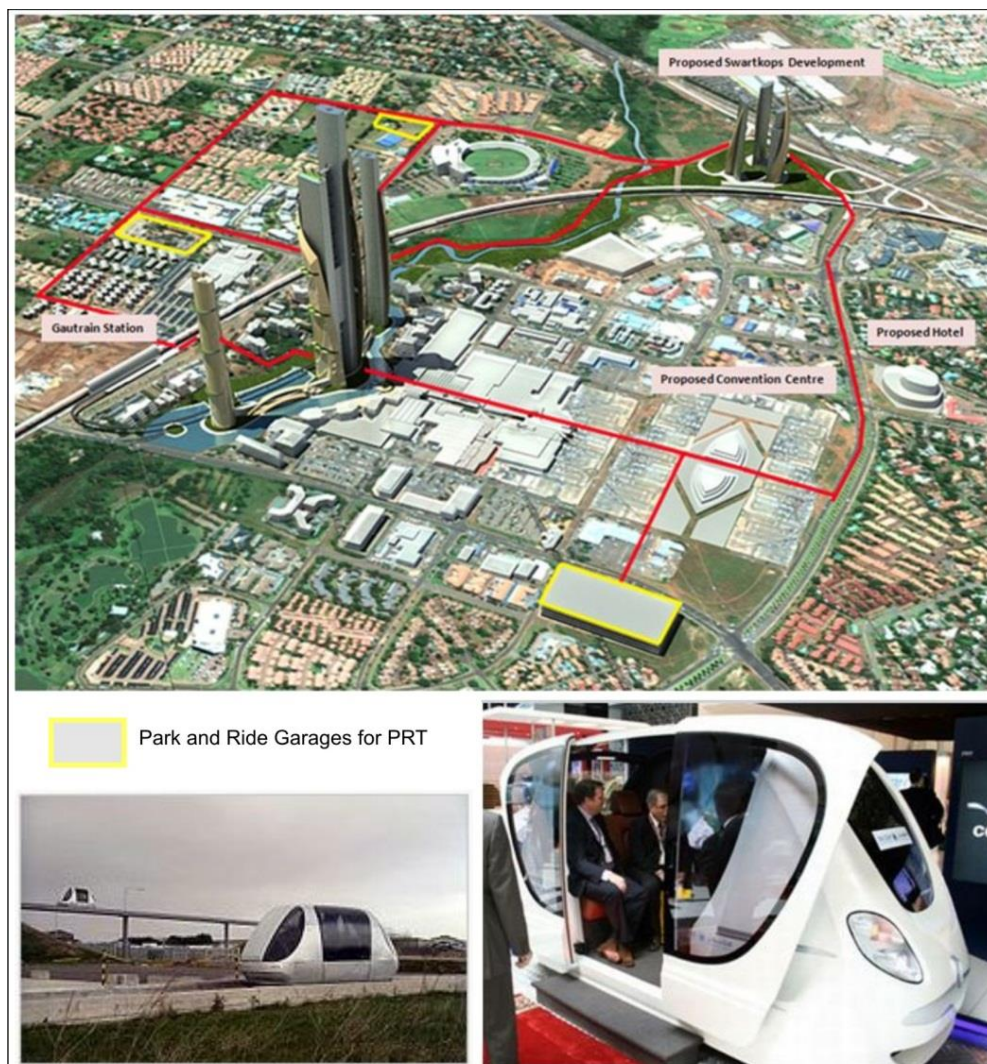
Many decentralised urban nodes like Sandton City, Sunning Hill Rivonia, Centurion Mall area, etc. tends to quickly spread horizontally beyond easy access for pedestrians. The result is a movement system mostly based on private vehicle transport that has no cohesion between the buildings situated on it. There is a total lack urban design on street level – not creating urban places, etc. All such places can only be accessed within the buildings or on privatised land.

The proposed Centurion Lake Development would include a Personal Rapid Transit (PRT) system that would connect the new development with several other existing developments. This would include Zwartkop extension 28 – the application belonging to the applicants for 40 storey office and commercial buildings abutting the John Vorster traffic interchange. This system should revolutionize personal transport within the Centurion business area.

The fast developing Personal Rapid Transport systems of the world provides a unique solution. PRT brings what has been a transportation solution of the future to a proven and safe solution of today. It is a viable option for urban transportation with potential for higher access and services at a lower cost than commonly transport modes, while avoiding traffic problems such as congestion, accidents and pollution.

It seems that the Centurion Mall area and its surroundings could be particular suitable for such transport systems. Some of these systems are already in use in world cities.

### Graphic: A Concept of Personal Rapid Transit routes for Centurion Lake Development



Note: Park and ride garages indicated are only concepts.

The above graphic indicates that to address some of the huge parking requirements of the proposed Centurion Lake Development a system of “park and ride” connected to the PRT system is proposed. Parking could take place in buildings situated outside the Centurion business area and would house modern parking stack systems in place of the usual parking garage. The PRT system would not only serve the Centurion Lake Development but other developments and land uses too.

The proposed Centurion Lake Development would also provide parking in the basins of the buildings by way of automatic parking stacking systems.

## **Conclusion**

The application for the Symbio City Development contained a 113 page motivating memorandum. Some of the conclusions in the report can be listed as follows: The above mentioned facts and text is not a motivation for Symbio City but provides only some technical information of interest.

- The proposal is in line with the responsibility of the municipal leaders to provide their residents with the vision and framework in which they can do their part to prepare for the city for the global onslaught;
- The proposal is of a high quality and reflects true strategic thinking, creating an intelligent approach to create a better future for all;
- The proposal would create enormous economy of scale – creating the ability to pay for many solutions of seemingly insurmountable problems;
- The proposal would elevate the Centurion Lake area as a central place of the highest hierarchy in the Gauteng global sub region and would thereby continue to draw in new property investment reflecting the same innovative approach;
- The proposal shows that the Centurion Lake area can pounce on to opportunity to become a leading element of the emerging Gauteng urban region and in doing so would also increase the Tshwane Metro’s global competitiveness;
- The proposal shows that because of the urban region concept the location of the proposed development will be able to respond to the challenge and in doing so would also pull the surrounding area into a new urban future;
- The proposal also indicates that a interconnected knowledge economy has developed on the periphery of Tshwane and Johannesburg over decades and that a market large enough for the proposed Centurion Lake development already exists on a regional scale. The proposal can therefore capture leading international companies of the sub region to settle in the Tshwane Metro.
- It has been indicated that development in the northern Gauteng area (Witwatersrand) is a function of the potential urban energy present in the main development corridors. The proposed development would be situated on a junction formed by different corridors;
- The proposal shows that there is a vast existing and integrated movement system surrounding the site that is of the highest quality. That there is a traffic box formed by provincial roads and that the area within the traffic box experienced sustainable growth over decades and often during times of national economic stress. The area has exceptional access to the freeway system. The area has a strong transit element as the Centurion Gauteng station is only minutes on foot away while there are 3 stations of the old railway system within the traffic box. Several bus services run on the north bound routes of the traffic box.
- The proposal clearly indicated that a huge amount of job creation took place in the area over the decades and that a real mixed use land use pattern exists already. Development of offices accelerated in the last 5 years and the Samrand / Olievenhoutbosch corridor probably past a critical point of mass. The office component of the southern Tshwane area can – together with the office floor area as proposed by the Centurion Lake Development – will become a dominating factor in the northern Gauteng’s post-industrial economy.
- The proposal indicated the importance of the West Avenue traffic interchange and the need to implement it as soon as possible. It showed that the proposed Centurion Lake development can also spawn additional development in the form of infill development and cause West Avenue to be extended to the N14 freeway and the traffic interchange be constructed. It also indicated how West Avenue can become an additional business strip within the bigger Centurion Lake area.
- Although the proposal showed 3 tower blocks to be built on erf 53 Verwoerdburg Stad, the total visible coverage of the proposed development on erf 53 Verwoerdburg Stad will only be  $\pm 17\%$  although the total floor area ratio on the erf will be  $\pm 9,5$ . It showed that erf 53 Verwoerdburg Stad

is zoned “public open space“ at present and therefore it is a park that first has to be closed by way of procedure before it can be rezoned to accommodate the proposed development. (This has been completed) The proposal implies that erf 53 would be subdivided and that one of the erven will be used for a residential high density development – providing 1000 dwelling units. The 100 000m<sup>2</sup> retail shopping centre that is proposed will be situated partly below the public level on top of the ground and would not tower above the existing retail development.

- The proposal will not destroy the open space element of erf 53 Verwoerdburg Stad but will give back 35 000m<sup>2</sup> in the form of various open space or recreational elements. There is huge open space resources upstream and downstream from the Centurion Lake.

The project has been accepted and approved by the Tshwane Metro’s Council. Erf 53 Verwoerdburg Stad (lake area) has been closed in terms of Ordinance 17 of 1939 (Transvaal local Governance Ordinance). Presently the land alienation process is still being conducted in line with all applicable legislation. As soon as the lease documents have been signed by all parties the full detail planning process of the project will be initialised in line with the conditions as stipulated in the lease documents and as will be necessary in all aspects.

**Dubruuto Urban Planning**  
**February 2016**