

DEVELOPMENT CONCEPT FOR PORTION 3, FARM ONGOS

ASSESSING THE DEVELOPMENT POTENTIAL OF PORTION 3, FARM ONGOS No. 38

Submitted on: 18 February 2013

CLIENT : Mr. U Kaumbi
NATIONAL HOUSING ENTERPRISE

CONSULTANT: Harold Kisting



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To: National Housing Enterprise (NHE)
P.O. Box 20192
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14 February 2013

Att: Mr. U Kaumbi

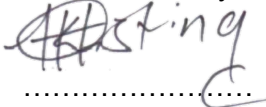
Development Concept for Portion 3, Farm Ongos No. 38.

Your request for a development concept for Portion 3, Farm Ongos No. 38 has reference.

Attached please find the development concept together with the calculation for the residual value of the land.

Please feel free to contact myself should there be any queries about the concept and calculation.

Yours Sincerely,



Harold Kisting

Town and Regional Planner
For Harmonic Town Planning Consultants

Development Concept for Portion 3, Farm Ongos No.38.

Appointment

Harmonic Town Planning Consultants CC was appointed by NHE to compile a concept layout for Portion 3 of farm Ongos No. 38. The purpose of the concept layout is to determine the residential erf yield and the development costs of Portion 3.

Location and Context

Farm Ongos is located north-west of Windhoek immediately north of Havana Township one of the most northwestern townships of Windhoek. Portion 3 is approximately 5 kilometers north of Havana and about 15 Kilometers northwest from Windhoek CBD. The farm is connected with Windhoek via Monte Christo Road which gives easy access to Otjomuise road and the Western-By-Pass.

The location of the Farm is indicated on the attached locality plan.

Farm Ongos is presently used for farming and was recently subdivided into 9 Portions and the remainder. Portion 3 is located on the northern boundary of the farm along Monte Christo Road. Portion 3 measures 178,4473 hectare in extent and is defined by Monte Christo Road on the western boundary, Monte Christo Farm in the north, Power lines to the east and Portion 4 of Farm Ongos in the south. The site is rectangular in shape and measures 785 meters on its northern boundary and about 3 kilometers along its eastern boundary.

The size and shape of Portion 3 are indicated on the attached surveyor general diagram.

Topography

Portion 3 is hilly with a tributary of the Aretaragas river running in a northerly direction along Monte Christo road. The tributary starts as a small channel in the southwest of the portion and opens up as it runs north.

Development Concept

The Development concept for Portion 3, Ongos is informed by Monte Christo Road on the western boundary, the tributary of the Aretaragas river in the middle of the site and the Power lines on the eastern boundary. The constraints basically shape the site into 9 portions suitable for residential development. The developable portion comprise 59% of the site or a total of 104.3 ha delivering 7 residential extensions and an estimated 1,738 residential erven with an average size of 450 m² per erf.

Portion 1:

Portion 1 measure's approximately 195,310 m² in extent and is located between Monte Christo Road and the tributary of the Aretaragas river. The portion has an average slope of 5% and is very suitable for residential development. Portion 1 is rectangular in shape and is approximately 310 meters wide by 627 meters in length. The portion can yield one residential extension with an estimated 326 residential erven at an average size of 450 m² per erf. Portion1 can be reached easily without major investments in road infrastructure.

Portion 2:

Portion 2 measure's approximately 148,858 m² in extent and is located between Monte Christo Road and the tributary of the Aretaragas river. The portion has an average slope of 10% and is also suitable for residential development. Portion 2 is a long sliver and at its narrowest point is approximately 30 meters wide by 2,000 meters in length. The portion can yield one residential extension with an estimated 248 erven at an average size of 450 m² per erf. The portion can be reached easily without major investments in road infrastructure.

Portion 3:

Portion 3 measure's approximately 331,877 m² in extent and is located east of the tributary of the Aretaragas river on the southern boundary of the original site. The portion has an average slope 5% and is very suitable for residential development. Portion 3 is triangular in shape and measures approximately 656 meters at its base and 760 meters to its apex. The portion can yield 2 residential extensions with an estimated 553 erven at an average size of 450 m² per erf. Vehicular access will require a culvert to cross the river.

Portion 4:

Portion 4 measure's 153,599m² in extent and is located between the tributary of the Aretaragas river and the power lines in the middle of the original site. The portion has an average slope 6% and is very suitable for residential development. Portion 4 is rectangular in shape and is approximately 230 meters wide by 660 meters in length. Portion 4 can yield 1 residential extension with an estimated 256 erven at an average size of 450 m² per erf. Vehicular access will require a culvert to cross the river.

Portion 5:

Portion 5 measure's approximately 119,368 m² in extent and is located between the tributary of the Aretaragas river and the powerlines to the north of the original site. The portion has an average slope 7.5% and is suitable for residential development. Portion 5 has an irregular shape and is approximately 245 meters wide at its widest point and 870 meters in length. Portion 5 can yield 1 residential extension with an estimated 199 erven at an average size of 450 m² per erf. The portion will require a culvert to cross the river for access.

Portion 6:

Portion 6 measure's approximately 93,751 m² in extent and is located east of the power lines. The portion has an average slope 10% and is suitable for residential development. Portion 6 has a rectangular shape and is approximately 40 meters wide by 2000 meters in length. Portion 6 can yield 1 residential extension with an estimated 156 erven at an average size of 450 m². The portion will require two culverts to cross water channels for access.

Undevelopable Land:

About 41% or a total of about 73.7 ha of the site is undevelopable encompassing Monte Christo Road and the northern boundary right of way (7.1ha), the river (48.4ha) and the power line reserve (17.8ha). The power line reserve was taken 25 meters from the centre point of the power line on each side. There are two bulk Nampower power lines running parallel on the eastern boundary of the site.

Social Facilities

The development will also have to make provision for a primary and secondary school of (±15 ha), church sites(± 1 ha) and business plots(±1ha). The land take-up for these uses were not deducted

Bulk Services

The primary obstacle for the development of the site is the lack of bulk services. Water can be tapped-off the Namwater line to Windhoek, but a reservoir would be required. A major substation will also be required. The major obstacle to the proposed development is however the lack of a sewer treatment facility.

An engineering concept design for water and sewer was done to determine the costs of bulk services. The sewer treatment facility is planned at the lowest point of the site on the northern boundary next to the river.

Layout Plans

Detailed contours at one meter intervals are required to design final layout plans for each of the developable portions. These contours are not available at the moment and can be procured at a cost of about N\$85,000 including VAT.

Implementation

Development will start at Portion 1 and then move to portion 2 and Portion 3. Once portion 3 is provided with bulk services, Portions 4, 5 and 6 can connect easily to bulk services.

Direction of Growth

Windhoek City is running out of developable land and the primary growth takes place in a north easterly direction. Monte Christo Road is identified as a major distributor by the City and will in the future connect with Brakwater and ultimately the B1 road. Urban development will follow this road.

The site is therefore in the path of future City growth and will be part of Windhoek in approximately 10 years from now.

Conclusion

The final feasibility decision for the proposed residential development on Portion 3, Ongos No. 38 will depend on the cost of bulk services as the developer is responsible to supply these services that will be taken over by the City of Windhoek. The City of Windhoek is currently compiling a master plan for bulk services in Brakwater and the availability of bulk services in Brakwater might significantly reduce the cost of bulk services to Portion 3, Ongos.

At a land selling price of N\$265 per square meter the residual value of the land is estimated at about N\$10 million.

Attachments:

- 1 Appendix 1: Ongos Portion 3: Locality Map
- 2 Appendix 2: Ongos Portion 3: Development Concept with Contours
- 3 Appendix 3: Ongos Portion 3: Development Concept without Contours
- 4 Appendix 4: Ongos Portion 3: Development Potential Calculation
- 5 Appendix 5: Ongos Portion 3: Bulk Servicing Costs
- 6 Appendix 6: Ongos Draft Engineering Design

Remainder Ongos 38

Monte Christo

Brakwater

PTN.4(DEONSA)/B/37

Naubanis

Havana

Hakahana

RE/MSK T & T 31

PHLS/A/24

PTN 6

PTN 7

PTN 8

PTN 9

PTN 1

PTN 2

PTN 4

PTN 5

Portion 3 of Farm Ongos No.38

LOCALITY PLAN OF PORTION 3
OF FARM ONGOS 38

CLIENT: NHE



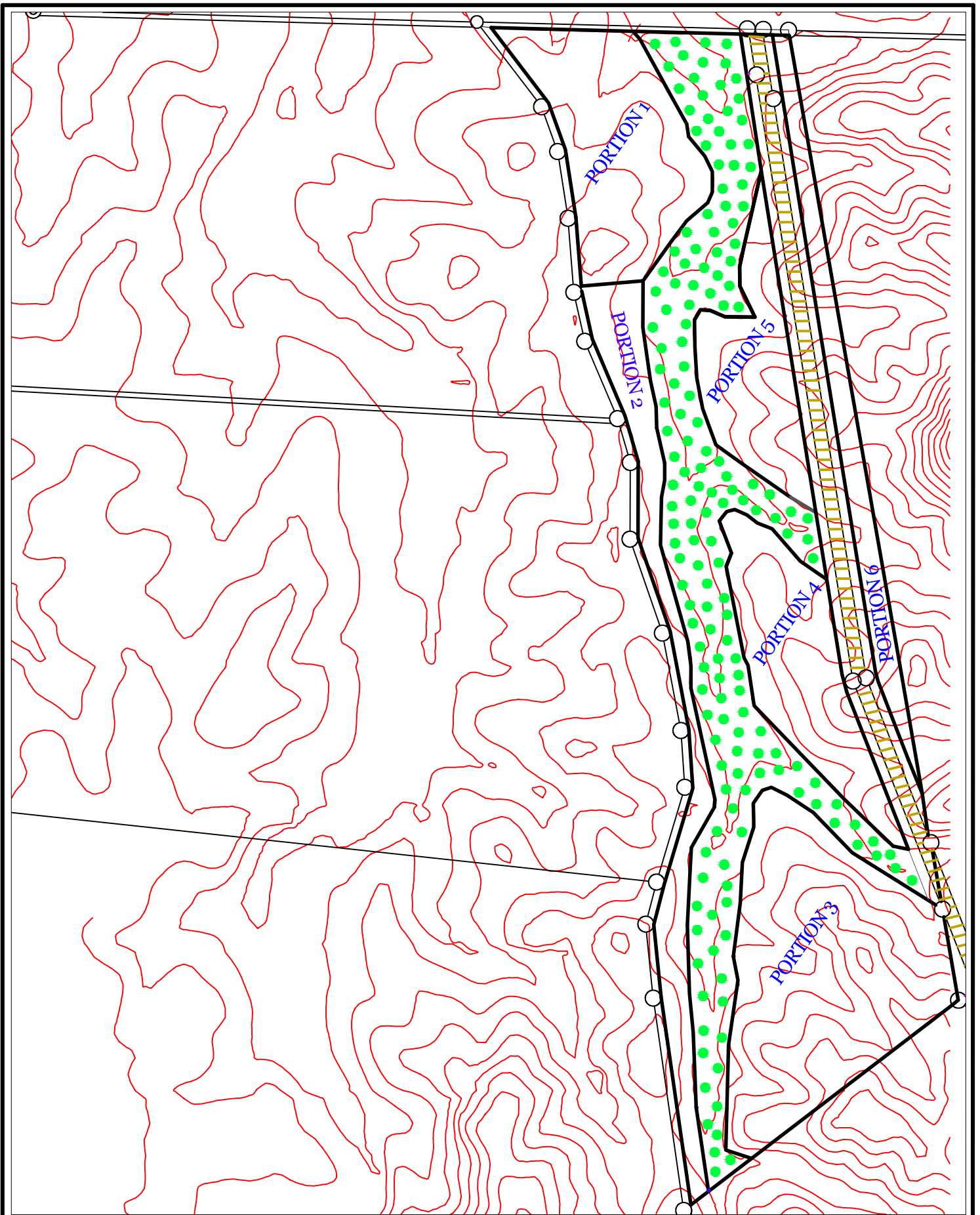
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Feb 2013



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DEVELOPMENT CONCEPT PLAN
PORTION 3 OF FARM
ONGOS 38

CLIENT: NHE



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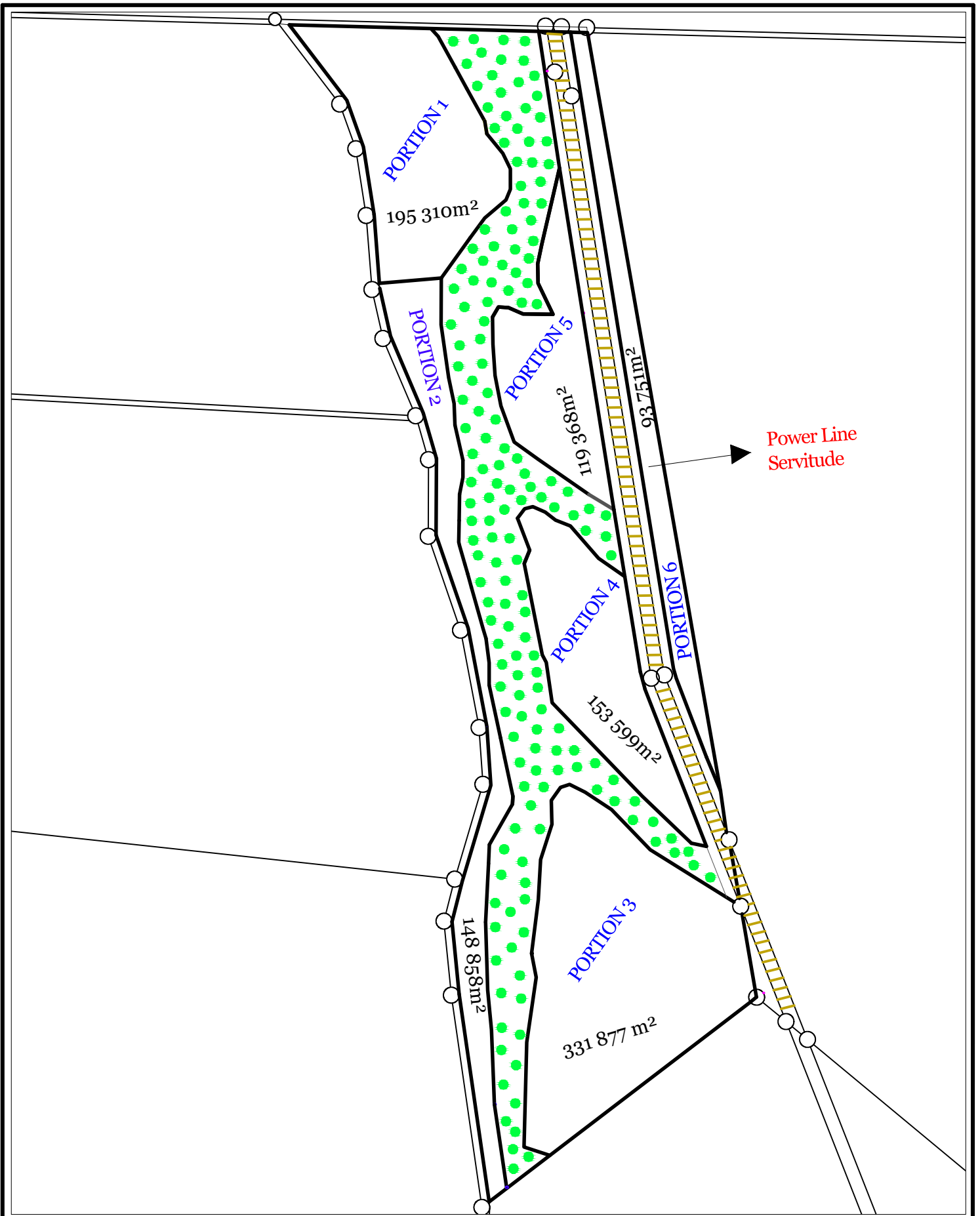
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DEVELOPMENT CONCEPT PLAN
PORTION 3 OF FARM
ONGOS 38

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NHE: ONGOS PORTION 3 DEVELOPMENT POTENTIAL CALCULATION

PROJECT DETAIL								SALES	BULK COSTS	INTERNAL SERVICING COSTS				RESIDUAL
Portion	Area m2	Area ha	Average Slope	Primary Use	Area for Internal Roads	Area for Residential Erven	Number of Erven @ 450m2	Estimated Sales Value	Bulk Servicing Costs	Internal Servicing Costs	Professional Fees	Financing Costs per developable Portion over 18 months	Profit Margin	Surplus/ Deficit
1	195,310	19.5	5.0%	Residential	48,827.5	146,483	326	38,817,863	17,873,391	9,765,500	4,145,834	1,178,690	3,881,786	1,972,661
2	148,858	14.9	10.0%	Residential	37,214.5	111,644	248	29,585,528	13,622,432	7,442,900	3,159,800	898,354	2,958,553	1,503,489
3	331,877	33.2	5.0%	Residential	82,969.3	248,908	553	65,960,554	30,371,038	16,593,850	7,044,733	2,002,868	6,596,055	3,352,008
4	153,599	15.4	6.0%	Residential	38,399.8	115,199	256	30,527,801	14,056,295	7,679,950	3,260,437	926,966	3,052,780	1,551,373
5	119,369	11.9	7.5%	Residential	29,842.3	89,527	199	23,724,589	10,923,808	5,968,450	2,533,839	720,389	2,372,459	1,205,645
6	93,751	9.4	10%	Residential	23,437.8	70,313	156	18,633,011	8,579,429	4,687,550	1,990,047	565,785	1,863,301	946,899
7	483,657	48.4		Drainage			0	0	0	0	0	0	0	0
8	178,069	17.8		Powerline Servitude			0	0	0	0	0	0	0	0
	70,548	7.1		Road										
	1,775,038	177.5			260,691.0	782,073	1,738	207,249,345	95,426,394	52,138,200	22,134,689	6,293,052	20,724,935	10,532,076

(Excl. Bulk Professional Fees)
(Excl. Bulk Financing)
Financing: 11% per annum

Surveyed Area ha: 178.4473

ASSUMPTIONS

Land Price per SQM:	265.00
Profit Margin on Sales Value %:	10%
Average Sales Price Per Erf:	119,250.00

Average Erf Size SQM	450
Area For Internal Roads	25%
Area For Residential Dev.	75%

Internal Servicing Costs per Erf:	30,000.00
Total Bulk Servicing Costs	95,426,394.00
Bulk Servicing Costs per Erf:	54,907.76
Average Servicing Cost Per Erf:	84,907.76
Average Servicing Cost Per SQM:	188.68

Professional Fees Include:

- 1 Town Planning
- 2 Survey
- 3 Engineering Designs
- 4 EIA

Excluding Electrical Reticulation per Erf, Included in Bulk Servicing
(Bridge to Cross river, Sewer Treatment Ponds, Water Reservoir, Electrical Substation, Dumpsite)

NOTES:

The development will require 2 school sites, in total 10ha

LAND USE EFFICIENCY	HA	%
TOTAL RESIDENTIAL LAND	104.3	59%
Drainage Land	48.4	27%
Power Reserve	17.8	10%
Road Reserve	7.1	4%
	177.5	100%

Item No	Item Description	Unit	Quantity	RATE	AMOUNT	
1	Arterial Road	km	2.2	2,500,000.00	5,500,000	00
2	450mm Dia Sewerline	m	3200	693.41	2,218,912	00
3	315mm Dia Water Pipe and Fittings	m	3200	1,638.17	5,242,144	00
4	160mm Dia Water Pipe and Fittings	m	1402	436.85	612,463	70
5	1000mm Dia Sewer Manholes	No	13	3,500.00	45,500	00
6	Culverts	No	5	9,875.00	49,375	00
7	Sewer Treatment Plant	Sum	-	-	60,000,000	00
9	Bulk Electricity	km	2.2	1,200,000.00	2,640,000	00
10	Electrical Reticulation per Erf	No	1738	11,000.00	19,118,000	00
					95,426,394	70

