

STOCKVILLE QUARRY

PRELIMINARY PLANNING SERVICES REPORT

FOR

GIBA BUSINESS PARK

Reference: 50711

MAY 2012

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THEKWINI GEOCIVILS C.C. T/A
TGC ENGINEERS

* Geotechnical, Structural & Civil Engineers * Waste Disposal
Consultants * Project Managers

Suite 6, 1st Floor, Section B
4 The Crescent
Westway Office Park
Spine Road, WESTVILLE

Tel : (031) 265-1777
Fax : (031) 265-2727 / 086 655 1586
E-Mail : tgc@tgcengineers.co.za

STOCKVILLE QUARRY

REPORT ON

GIBA BUSINESS PARK

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STOCKVILLE QUARRY

PRELIMINARY PLANNING SERVICES REPORT FOR GIBA BUSINESS PARK

1. INTRODUCTION

The Giba Business Park is to be developed on Subs 139 & 140 of the Farm Clifton № 939 which is adjacent to and west of the recently approved Kisana Business Park (refer Appendix 4). A significant portion of the property is being quarried to extract granite which is used throughout the eThekweni region as a road building material. The quarrying operation is being planned such that when completed the terraces formed can be used as building platforms. In addition to the quarrying the site is used for other activities including the Giba Bike Park, BCP Organic Research Company, storage areas and small warehouses.

The proposed development envisages the formalisation of quarried platforms and the existing small warehouses and integrating this development with the Giba Bike Park and the BCP Organic Unit. As an initial step it is proposed to rezone the site from extractive industrial to Clifton Canyon Business Park which is a special zone to cater for a mixture of light industry, warehouse and business zones. A condition of the rezoning is that a Site Development Plan shall be approved by the Municipality prior to any uses other than the already permitted Extractive Industry being established on site.

2. DESCRIPTION OF THE SITE

2.1 LOCATION

The site is located in an area known as Clifton Canyon which is south-west of Pinetown and bordered by Shongweni to the west. The National Route 3 (N3) forms the northern boundary. Virtually undeveloped agricultural/residential areas exist to the west and south. To the east plans for a new Business Park (Kisana Business Park) have recently been approved and it is anticipated that the development of this park will commence shortly. Further east is the Mahogany Ridge Industrial area and with the Kisana Business Park, the Giba Business Park will form an almost continuous extension of business activities westward along the N3 from Pinetown.

2.2 TOPOGRAPHY

The site is located on the lower south facing side slopes of Giba Gorge in the area referred to as Clifton Canyon. The Umhlatazana River forms the southern boundary along most of the site, however a relatively small section of the site, currently occupied by BCP extends across the river onto the south bank. Except in the valley bottom the topography is steep and characterized by two steep sided spurs extending southward towards the river. The eastern spur is currently being quarried.



2.3 GEOLOGY

A detailed geotechnical investigation has not been undertaken however a preliminary assessment, based on previous testing of the in-situ materials and observations of the numerous exposures, has been undertaken.

The area is underlain by granite bedrock which is overlain by clayey soils derived from the bedrock approximately 2,0m deep. The granite rock varies from very soft below the clay horizon, to hard at a depth of approximately 20m.

The depth of the clayey soils increases to more than 3,0m in the valley and stream inverts.

Generally the rock is strongly foliated with no major joints noted. No seepage zones have been observed except in the inverts of the valleys separating the spurs.

Based on testing the upper soils comply with the requirements of G9 & G10 material while the rock varies from a G8 to G6 in the deeper cutting.

The materials are suitable for use in bulk earthworks and should be stable if cut and fill slopes are limited to 1 in 1,75. In the rock cutting the slope can be increased to 1 in 1,5.

2.4 CADASTRAL

The site comprising two properties will have to be consolidated. At some future date subdivision into individual sites may be considered. Overhead power cable servitudes extend through the site from the eastern boundary to the north-west corner. These servitudes in favour of Eskom and eThekweni Electricity comprise the development potential and the planning envisages that the cable routes be relocated. This is an expensive exercise and a two stage relocation process is suggested with the layout shown as Option 1 being followed by Option 2 at a later stage.

Details of the two sites are:

Sub 139 of Clifton № 939	25,2065 ha
Sub 140 of Clifton № 939	131,3224 ha

3. **EXISTING LAND USE & DEVELOPMENT**

The existing land use includes open areas along the river frontage and in the entire western portion of the property. A Cycle Park has been established near the river and riding and walking trails extend into the open areas. An east west aligned gravel road through the property provides access to neighbouring properties west of the site. The alignment of the road although fixed at both ends can vary at times as the road is relocated to accommodate quarrying operations but basically follows the alignment indicated.

Quarried areas have been left as large levelled platforms which are being used as follows:-

Platform	
1	Storage units under construction
2	Storage of plant
4	Scrap car storage
5	Container storage
6	Metro Water pipe storage
21	Existing factory
23	Container storage
24	Three factory units

The buildings on platforms 21 & 24 comprise old structures which have existed since the owner purchased the site. The building on platform 21 accommodates one small manufacturing company whilst the one on platform 24 has three sections, one used for the storage of Municipal water pipes (Metro), and the other two for home industries manufacturing kitchen cupboards in the one and Jacuzzi's and Skylights in the other.

Two other developments on the site are the BCP Organic Research Company on the south bank of the stream which focuses on agricultural products and research and the Giba Cycling Park on the opposite north bank which is a recreational facility.

Recently as part of the Mining License Renewal, the owner has prepared an End Use plan for the site. Quarrying is now being undertaken in accordance with the plan. Quarried material is being excavated to design lines and levels to create future building platforms. Prior to this, developments on the site have been haphazard with perhaps only the BCP site and Giba Cycle Park planned properly.

Existing services are:-

- i) Road Access: Access to the site is along a 3,0km long gravel road extending westward from Stockville Road through the Kisane Business Park approximately parallel to the N3 to the site boundary. The road is within a right of way servitude in favour of the property. The road is maintained by the owner of the Giba site.

Within the site the access road continues westward through the quarry and open area to the western boundary where it links to a gravel road which extends further westward providing access to several residential sites. Just inside the site boundary a secondary road branches off the access road and extends southward past the Giba Bike Park and turns westward running alongside the river to the existing buildings and the BCP development. This road is also gravel surfaced.

- ii) Water Supply: The bulk of the sites water comes from 2 boreholes. A small diameter Municipal connection exists extending to the site from a Municipal main in Milky Way Road. This main is used to supplement the borehole supply. Five 5000ℓ water storage tanks exist within the site to provide storage for fire fighting purposes.

- iii) Sewage Disposal: The volume of sewage being generated at present is limited. It is currently being disposed of on-site via septic tank and french drain systems. The disposal system provided for BCP has been designed in accordance with the Municipality standards.
- iv) Stormwater Disposal: The ground surface is virtually entirely unhardened, though large areas have been cleared for quarrying purposes. Whilst runoff from the site has increased stormwater is generally well controlled being directed into open channels which drain down towards the river.

4. PROPOSED DEVELOPMENT

The site is to be developed in two components. A Special Zone which includes light industrial and business activities in the eastern portion of the site between the N3 and the internal access road, with the balance of the site zoned eco-tourism.

The Special Zone site is to be developed with large levelled platforms formed as part of the quarrying operation. The platforms, existing and proposed are located in the eastern portion of the site mainly in the area between the access road and the N3. A relatively small platform exists along the southern edge of the access road. It is separated from the eco-tourism zone by a steep embankment. In the eco-tourism zone, south of the access road extending to the river, the Giba Bike Park is to be retained as well as several small sites most of which are already developed with small home industry activities. The BCP site on the southern bank of the river will also be retained with its activities conforming with the eco-tourism description.

The following platforms will be created:-

Area	Site	Area (m ²)
Eastern Spur Ex	1	9,238
	2	3,866
	3	3,555
	4	11,122
	5	18,677
	6	4,440
	7	5,661
	8	3,375
	9	9,026
	10	4,022
	11	4,758
	12	4,091
Informal	21	4 234
	22	800
	23	5,396
	24	1,550
Total		89,577
Giba Park	Overall area	32 909
BCP	Overall area	28 346

The total platform area is just over 89 577m² whilst additional areas that could be further developed covers 60 000m² (Giba & BCP). We have assumed a total potential development area of 149 577m² for planning purposes.

5. BULK SERVICES

5.1 ACCESS

Road access to the site is currently along a 3,0m gravel road extending westward from Stockville Road to the site boundary. This road is currently maintained by the owner of Giba.

As discussed previously a new Business Park (Kisana) is to be developed along the entire length of this road as part of which the road will be reconstructed and upgraded to an asphalt surfaced industrial road 7,0m wide.

In addition, plans have been prepared for the construction of a new interchange on the N3 east of the Toll Plaza which will provide direct access onto and off the N3.

Until this development takes place it is proposed to continue using the gravel access road and a Traffic Impact Assessment is in progress.

5.2 WATER SUPPLY

As part of the Kisana Business Park development, a new supply main will be laid along the access road. This main should have a minimum diameter of 150mm and will be extended into Giba Business Park.

The projected demand at Giba Business Park is estimated to be 300kℓ/day.

5.3 SEWAGE DISPOSAL

Planning is in progress for a truck sewer main which extends up the valley along the southern bank of the river. The site will be connected to this main. The estimated flow generated from the development is estimated as follows:-

Business/Industrial	@	20ℓ/day/ha	180kℓ/day
Office Resources	@	5000ℓ/day/ha	<u>90kℓ/day</u>
		Total	270kℓ/day

5.4 ELECTRICAL SUPPLY

Electrical supply is currently available. This supply will have to be upgraded as required.

5.5 STORMWATER MANAGEMENT

In terms of developmental Guidelines and Regulations a stormwater management plan will be developed. The plan will take cognisance of the major drainage system provided by the Umhlatazana River and its small tributary streams. The minor system will be installed as part of the development in the form of piped networks.

In terms of the regulations the development may not affect the 50 year flood plain of the Umhlatazana River and the 100 year flood level must be indicated on the drawings. Preliminary calculations have been carried out and the estimated position of the 100 year flood levels are indicated on the layout plan. One of the existing sites encroaches into the flood plain and this will have to be assessed carefully in finalising the planning in this area.

In terms of the development itself, the stormwater system will be designed on the basis that runoff from the site post development is not to exceed that from the existing site. To achieve this stormwater detention areas will be identified and sufficient storage capacity provided to detain the additional runoff and allow for gradual release of the stormwater into the drainage system, by restricting outlet capacity.

The proposed position of detention areas are indicated on the plan.

Based on the runoff factor increasing from 0,35 for undeveloped land to 0,8 for industrial property and using a 50 minute duration storm, the increased runoff for a 50 year return period storm will be 10785kℓ. This storage volume will be provided by forming low berms across the valley inverts in the positions indicated.

6. *INTERNAL SERVICES*

6.1 GENERAL

Internal services will be designed in accordance with the eThekweni Municipality's Guidelines for Industrial developments.

6.2 ROADS

All roads will be asphalt surfaced and shall have a minimum width of 7,0m. Kerbing will be provided along both edges and verges 1,5m wide. For the geometric design the following design standards are proposed:-

Gradient	Min	1%	
	Max	10%	
Horizontal Radius		40m	
Vertical Curves	Sag (k)	min 1,85	desirable 14
	Crest (k)	min 3,1	desirable 16

6.3 STORMWATER DRAINAGE

The stormwater drainage system will be designed to accommodate 1 in 3 year return period storms except at critical points where the design return period will be increased to 10 years. Overland flow routes will be identified and incorporated into the design layout.

Minimum pipe sizes will be as follows:-

Culvert crossing	600mm
Pipes draining road areas	375mm
Pipe in servitudes	300mm

6.4 SEWERS

The sewer reticulation network will be designed to accommodate the average flow adjusted by a peak factor of 4. A minimum pipe size of 160mm will be adopted. An allowance of 15% will be allowed for infiltration.

6.5 WATER SUPPLY

The water reticulation will be designed in accordance with the eThekweni requirements.

7. **CONCLUSION**

Based on the above we believe the development of the site as envisaged is feasible. Detailed discussions will be needed with the eThekweni Municipality to confirm the availability of bulk service connections.

Liaison must also be undertaken with the developer of the adjacent Kisana Business Park to ensure provision are made for Giba Business Park during the development of this site and thereafter.

G. J. PAYNE Pr. Eng.

Pr. No 850381

APPENDIX 1

PROPOSED ZONING PLAN

APPENDIX 2
EXISTING SITE PLAN

APPENDIX 3
PROPOSED SITE PLAN

APPENDIX 4

ELECTRICAL SERVITUDE OPTION 1

APPENDIX 5

ELECTRICAL SERVITUDE OPTION 2

APPENDIX 6

APPROVAL LETTER FOR KISANA BUSINESS PARK

ETHEKWINI MUNICIPALITY
Inner West Area Office

PINETOWN TOWN PLANNING SCHEME

DATE: 08 FEBRUARY 2010
 SITE DESCRIPTION: REMAINDER OF ERT 6809 PINETOWN
 NAME OF ENQUIRER: DR MOODLEY
 ZONING: SPECIAL ZONE 1G

GENERAL LAND USE MANAGEMENT INFORMATION

ZONING	SPECIAL ZONE 1G				
	Offices	Light Industrial	Commercial	Petrol Filling Station	Public Open Space
FOOTPRINT AREA RATIO	1.0	1.4	0.8	0.4	
COVERAGE	40%	70%	40%	40%	
FRONT BUILDING LINE	7.5m	7.5m	7.5m	7.5m	
SIDE BUILDING LINE	3.0m	3.0m	3.0m	3.0m	
REAR BUILDING LINE	3.0m	3.0m	3.0m	3.0m	
MAX PERMITTED HEIGHT	3 storeys	6 storeys or 23 metres whichever is lesser	3 storeys	2 storeys	
PERMISSIBLE	YES	YES	YES	YES	YES

B: The controls given above are those specific to the land use zone in which the property falls. However, attention is drawn to the Town Planning Scheme Clauses where, in certain cases, additional requirements can be called for at the discretion of the Head Development Planning and Management and no information recorded above can be taken as comprehensive. Specific detailed information can only be given in respect of an application after it has been lodged showing the detailed proposals of the development.

REMARKS:

- note 1: This information has been compiled at the above date, but as the Town Planning Scheme is in the course of preparation it may be amended from time to time.
- note 2: The information given is in respect of Land Use Management requirements only and must not be construed as indicating requirements in terms of the eThekweni Municipality - Inner West By-Laws, the National Building Regulations, Environmental Legislation or any restrictive conditions in Title Deeds.
- note 3: For further information please contact NKANYISO MZIMELA Tel No. (031) 311 6424

INFORMATION COMPILED BY: NKANYISO
 CHECKED BY: *[Signature]*

ETHEKWINI MUNICIPALITY
 DEVELOPMENT PLANNING
 ENVIRONMENT & MANAGEMENT
 2010-02-09
 INNER WEST AREA REGION

APPENDIX 7
SEWER ROUTE ROD

From:

To:0865355281

24/05/2012 09:11

#976 P.001/002



**agriculture
& environmental affairs**

Department:
Agriculture
& Environmental Affairs
PROVINCE OF KWAZULU-NATAL

KZN Department of Agriculture & Environmental Affairs
Directorate: Environmental Services
Private Bag X54321, Durban, 4000
Tel: 031 302 2875 | Fax: 031 302 2824
Toll-Free: 0800 000 996
Enquiries: Ms. Vanessa Macleod
Email: vanessa.macleod@kzndae.gov.za
Website: www.kzndae.gov.za
Reference: DM/0024/10

Fax Transmission

**Messrs Tongaat Hulett Developments
P.O. Box 22319
Glenashley
4022**

Attention : Mr. Rory Wilkinson
Tel no : 031 560 1926
Fax no : 086 681 9207

Dear Sir/Madam,

DM/0024/10: ENVIRONMENTAL AUTHORISATION FOR THE TONGAAT HULETT SEWER RETICULATION PROJECT ON VARIOUS PORTIONS OF ASSAGAY, SUMMERVELD, KIRKFALLS, CLIFTON AND PINETOWN, LOCATED WITHIN THE ETHEKWINI MUNICIPALITY.

The KwaZulu-Natal Department of Agriculture and Environmental Affairs **authorises** the abovementioned project. This environmental authorisation and reasons for the decision are attached herewith.

ENQUIRIES

Please note that:

- All enquiries regarding this application for environmental authorisation (including the Department's decision) must be directed to the official of this Department with contact details provided on the letterhead above.
- Only enquiries regarding appeals must be submitted to the Office of the MEC (details provided below).

APPEALS

In terms of sub-regulation 10(2) of the EIA Regulations, June 2010, you are instructed to notify all registered interested and affected parties in writing within **twelve (12) days** of this Department's decision in respect of your application. You are required to comply with the requirements of sub-regulations 10(2)(a)-(d) with regard to this notification. This includes drawing the attention of registered interested and affected parties to the fact that an appeal may be lodged against the decision in terms of Chapter 7 of the EIA Regulations, June 2010.


In accordance with the provisions of sub-regulation 60(1) of the EIA Regulations, June 2010, a notice of intention to appeal must be lodged with the **KwaZulu-Natal MEC of the Department of Agriculture and Environmental Affairs**, within **twenty (20) days** of the date of this decision by posted, faxed, e-mailed or hand delivered to the following address:

Department of Agriculture & Environmental Affairs, KwaZulu-Natal	Environmental Authorisation Cover Letter: DM/0024/10	Page 1 of 2	23/05/2012 Date	 Signature
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POSTAL/ FAX/ E-MAIL:	PHYSICAL:	SATELLITE OFFICE	
Private Bag X9059 PIETERMARITZBURG 3200 Tel: 033 343 8240 Fax: 033 343 8255 E-Mail: haresh.inderlal@kzndae.gov.za	No. 1 Cedara Executive Building Cedara College PIETERMARITZBURG 3201	P.O. Box 2132 DURBAN 4000 Tel: 031 368 2223 Fax: 031 368 1601	8 th Floor Truro House 17 Margaret Mncadi Blvd (Victoria Embankment) DURBAN 4001

The appellant is reminded of the requirements of sub-regulations 60(2) and 60(3) in the EIA Regulations, June 2010 with regard to the notification of registered interested and affected parties and the applicant (if the appellant is not the applicant) of the notice of intention to appeal.

Yours faithfully



Dr. S.S. Mkhize
Head of Department
Department of Agriculture and Environmental Affairs
Signed by: Ms. Vanessa MacIou
Designation: District Manager - eThekweni District office

Date : 23 May 2012

cc : Ms. Kerry Seppings, Messrs Kerry Seppings Environmental Specialists cc
Tel : 031 769 1578
Fax : 031 769 1579

Department of Agriculture & Environmental Affairs, KwaZulu-Natal	Environmental Authorisation Cover Letter OM/0024/10	Page 2 of 2	23/05/2012 Date	 Signature
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