



## DRAFT BASIC ASSESSMENT REPORT – REF. DM/0036/2021: KZN/EIA/0001671/2021

Submitted in terms of the Environmental Impact Assessment Regulations, 2014, as amended promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) to:

**KWAZULU-NATAL DEPARTMENT OF ECONOMIC DEVELOPMENT, TOURISM AND ENVIRONMENTAL AFFAIRS (EDTEA)**

### PROJECT TITLE

Proposed Construction of Bothas Hill Convenience Centre comprising Service Station and associated infrastructure, including a Retail Centre on Erf 363 Bothas Hill, eThekweni Municipality, KwaZulu - Natal

#### (1) (A) (i) DETAILS OF THE EAP WHO PREPARED THE REPORT:

Mondli Consulting Services has been appointed by Simandlovu trading to undertake the Basic Assessment process for the construction of Bothas Hill Convenience Centre comprising Service Station with associated infrastructure, including a Retail Centre on Erf 363 Bothas Hill.

#### Details of the EAP:

Business name of EAP:	<b>Mondli Consulting Services</b>		
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#### (ii) The expertise of the EAP (including curriculum vitae)

Name of representative of the EAP	Education qualifications	Professional affiliations	Experience at environmental assessments (yrs)
SI Thwala	National Diploma in Analytical Chemistry & Bachelor of Science degree majoring in Geography and Computer Science.	None	Three years experience in environmental management. Has years of experience in environmental training.
BM Mthembu	Diploma in Nature Conservation Master's degree (Environmental Studies Dissertation, Geography) Bachelor of Laws (LLB)	Registered EAP: No. 2018/168 (EAPASA)  Society of South African Geographers (Membership No. 28/09)	Has been involved in environmental and conservation field for over 20 yrs.  Conducted EIAs for over 18 years including Strategic Env. Assessment. Has been involved in the review and commenting on development projects impacting on the environment.

## (B) THE LOCATION OF THE ACTIVITY

- (i) The project site is falling within eThekweni Metropolitan area, off old main Road (R103) traversing through Bothas Hill.

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- (ii) *The physical address and farm name*

Property Number	Property Description	Size	Development type
1	Erf 363 Bothas Hill. The site is <b>zoned Activity node.</b>	The total site area is 11 104m <sup>2</sup> in extent, of which the Service Station with food outlets and Retail Centre will occupy 1 072m <sup>2</sup> .	Commercial

- (iii) Where the required information in terms of (i) and (ii) is not available, the co-ordinates of the boundary of the property or properties

Alternatives	Latitude (S)	Longitude (E)
Preferred site	29° 47" 50.48"	30° 53" 28.62"
Alternative site 1	None	None

(C) A PLAN WHICH LOCATES THE PROPOSED ACTIVITY OR ACTIVITIES APPLIED FOR AS WELL AS ASSOCIATED STRUCTURES AND INFRASTRUCTURE AT AN APPROPRIATE SCALE.

See attached plan which shows the proposed activity and associated infrastructure – **Appendix A (i) and (ii)**

- (i) A linear activity, a description and co-ordinates of the corridor in which the proposed activity or activities is to be undertaken

The proposed project is not a linear activity.

In the case of linear activities: N/A

Alternatives	Latitude (S)	Longitude (E)
Preferred site	None	None
<b>Alternative site 1</b>	None	None
Starting point of the activity		
Middle point of the activity		
End point of the activity		
<b>Alternative site 2</b>	None	None
Starting point of the activity		
Middle point of the activity		
End point of the activity		

- (ii) On land where the property has not been defined, the co-ordinates within which the activity is to be undertaken

The proposed activity is not on land that has not been defined.

(D) A DESCRIPTION OF THE SCOPE OF THE PROPOSED ACTIVITY, INCLUDING –

The project entails the construction of Bothas Hill Service Station including associated structures and infrastructure comprising fuel storage tanks [2 x 46 000 litres ULP], 1 x 46 000 litres diesel all underground and totaling 138 000 litres, pumps, concrete paving & canopy, convenience shop, retail centre with shops, food outlets / drive thru, kitchen, toilets, car wash and parking area. The height restrictions for the area is 3 storeys.

- (i) All listed and specified activities triggered and being applied for

In terms of the Environmental Impact Assessment (EIA) Regulations 2014, as amended, promulgated in terms of the National Environmental Management Act, 1998 (NEMA), certain listed activities are specified for which either a Basic Assessment (GNR 327 and 324) or a full Scoping and Environmental Impact Assessment (GNR 325) is a requirement.

In this regard the following listed activity in Government Notice R 327 which is Listing Notice 1 is applicable, which require only a Basic Assessment process.

Indicate the number and the date of the relevant notice;	Activity No(s) (in terms of the relevant notice)	Describe each listed activity as per the project description (and not as per wording of the relevant Government Notice) <sup>1</sup> :
GNR. 327 of 2014 (Listing Notice 1) - as amended on 7 April 2017.	Activity No. 14 - the development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 but not exceeding 500 cubic meters.	In this instance, it is 138 000 litres of fuel that will be stored on site for commercial purposes in the form of a Filling Station.

**Please note** that any authorization that may result from this application will only cover activities specifically applied for.

**(ii) A description of the activities to be undertaken including associated structures and infrastructure**

Background and proposed development

As highlighted above the project entails the construction of a service station with a food outlets and Retail Centre which will occupy 1 072m<sup>2</sup> .

The pre – application meeting was held with the Department of Economic Development, Tourism and Environmental Affairs attended by the EAP and the applicant on 15 October 2021.

The proposed site is located at Bothas Hill, on erf 363, along Old Main Road. The site is zoned activity node, with existing old, demolished building. The site is surrounded by the semi-commercial zone, residential area and retirement village opposite the site. Buildings surrounding the development site include shops, warehouse & hardware, offices and residential houses. This mix of land-uses is essential for vehicle ownership and could provide sufficient traffic which

<sup>1</sup>Please note that this description should not be a repetition of the listed activity as contained in the relevant Government Notice, but should be a brief description of activities to be undertaken as per the project description, i.e. describe the components of the desired development.

could bode well for the proposed development. According to the municipal zoning certificate, shops and fuelling and Service Station are allowed as primary land uses. The filling station is a free entry, however a special consent is required for the food outlet which forms part of the Retail Centre.

### Project Overview

The total site area is 11 104m<sup>2</sup>, of which the Service Station with food outlets will occupy 1 072m<sup>2</sup>. The site will have a fuel Service Station with a food outlet / drive thru in single storey complex, parking bays and infrastructure for basic services.

### Project objectives

The main objective of the project is to provide a lifestyle experience for the residents of Bothas Hill and tourists in the area. The Retail Centre will capture and reflect the rural atmosphere of the area leading to the valley of thousand hills.

The Convenience Centre itself will provide fuel, food outlets to residents and those travelling along Old main Road. The Facility will also provide sustainable jobs as close as possible to the people of Bothas Hill and the surrounding communities.

### Services on site

#### **Sewerage**

It is unclear at this stage whether the area has well developed sewer infrastructure. In discussing with the ward Cllr he indicated that according to his knowledge the area where the site was located had sewer infrastructure. However, it was agreed that this was to be confirmed with eThekweni Municipality Water and Sanitation Unit.

The uncertainty is stemming from the fact that most of the areas under the outer west of eThekweni are traditionally on septic tanks. However the formal confirmation will be obtained from eThekweni Municipality.

#### **Portable water**

The area where the proposed project is located has portable water infrastructure. It will be a matter of connecting to the site. Rainwater harvesting will also be promoted by the project.

#### **Stormwater Infrastructure**

The existence of the stormwater infrastructure on site is investigated and will be confirmed in due course. This will also be confirmed by eThekweni Municipality.

The storm water will have to be channelled to the existing authorised stormwater drainage system to the satisfaction of eThekweni Municipality. In this regard the applicable design standard is that of eThekweni Municipality: Design Manual: Guidelines and Policy for the design of Stormwater Drainage System.

#### **Roads**

The future access to the property will be determined by the traffic impact assessment (TIA) in conjunction with eThekweni Transport Authority (ETA) and KwaZulu – Natal Department of Transport (KZNDOT). The current access is off the Old Main Road (R103) traversing through the town of Bothas Hill, which is directly opposite Rob Roy Crescent. R103 is the main road which links vehicular traffic with the proposed site and the road is tarred and in a relatively good condition.

There will be no internal roads as the entrance will branch off to the Convenience Centre. The proposed access road, as well as all internal circulation and parking areas will be designed and constructed in accordance with the recommendations and standards of eThekweni Municipality and Traffic Impact Assessment conducted for the site.

The TIA conducted on site proposes to have a KZN DoT Type B3 single access on Old Main Road (Class 3) apposite Rob Roy Crescent, therefore forming the 4<sup>th</sup> leg to the intersection. The TIA has already been submitted to KZNDOT by the Traffic Engineer for comments. The same TIA will also be submitted to ETA for comments.

### ***Electricity***

There is electricity on site given the fact that there was a dwelling at some point that was demolished, and it will be a matter of ensuring the necessary re - connections to the proposed new building. This report has also been circulated to eThekweni Municipality Electricity Unit.

The applicant will consult with eThekweni Electricity's main records for underground electrical services on site. Discussions will also be with regard to any possible encroachment onto the eThekweni Electricity's servitude in respect of the proposed project. However, as a norm no structure may be placed within 12 metres from the centre line of the powerline or either side without the written confirmation of the relevant Authority.

### ***Refuse***

Refuse will be stored on site, in a well-constructed bin area before disposal. eThekweni Municipality will be requested to collect solid waste once a week, alternatively a private service provider can be arranged for the collection of solid waste from the facility. General and Hazardous waste will be separated to prevent cross contamination and suitable contracts must be signed for the removal of both types of waste.

It is anticipated that the project will generate the following types of waste:

#### **Construction phase**

General waste – the general waste likely to be generated during the project construction include litter from workers on site like plastics and papers. The suppliers and construction in general are likely to generate cans, papers and empty cement bags.

Hazardous – hazardous waste is defined as waste that poses substantial or potential threat to public health and the environment. This includes waste that tends to ignite, reactive, corrosive and toxic. The anticipated waste include metal, oil spills, concrete remnants, asphalt, chemical waste during construction and paint containers. Hazardous chemical substances must be inventoried and stored in accordance with the requirements of the safety data sheet, the EMPr and the Norms and Standards for the storage of waste

### Operational phase

General waste – paper and cans, cardboards, plastics and food remaining in the restaurant.

Hazardous waste – It is anticipated that the operational phase will generate chemical waste, oil, oil cans and petrol chemicals during the operational phase. This type of waste has to be landfilled in the landfill that is authorized to take such waste. As highlighted above all type of chemicals must be stored in line with the legislated standards. This type of waste will be managed, handled and disposed by the private specialized service provider to be engaged.

Solid waste will be stored at the designated “bin area” within the premises, and be collected once a week by either the Municipality or private registered service provider for disposal at the municipal landfill site. It is anticipated that the stored waste before collection will be below the threshold of 100m<sup>3</sup>, too little to warrant a waste license in terms of GN 718: Category A; B & C. Should the storage of waste increase in future, the frequency of disposal will be increased.

The project will promote the recycling of material like paper, glass, tins and plastic bottles and do separation at source. The recycling is also anticipated to be below 10 tons per month.

### Construction and phases

It is anticipated that the project will take about 12 months to complete, if the environmental authorisation is granted. However, like any project of this nature there could be external variables and influences which cannot be controlled by the applicant. The applicant will request the maximum timeframe allowed for the validity of a decision.

The construction phase will follow the conditions of the Environmental Authorisation, Environmental Management Programme and recommendations of Specialists studies conducted on site.

### Filling station and underground tanks

All tanks will be composite type tanks to be stored underground. This area is further expanded under the EMPr, but it has to be stated that the SAB specifications and guidelines will be complied with, which will include:

- SABS 089 – 3 1999 – the installation of underground storage tanks, pumps / dispensers and pipes.
- SABS – 0140 – 2 – Identification of colour markings (identification of hazards and equipment).
- SABS 62-1 & 62 -2 – steel pipes fittings.
- SABS 1123 – steel pipes flanges.
- SABS 12000 – standardised specifications for construction.
- SABS 1535 – polyester coated steel tanks for the underground storage for hydrocarbons and oxygenated solvents.

Accordingly, the underground storage tanks will comply with relevant SANS / SABS codes of Practice which include: SANS 10400 TT 53, SANS 10131, SANS 10108, SANS 11535 and SANS 10089 Part 2 & 3.

The underground storage tanks will be accordingly fitted with an overfill protection device. The tanks will be designed as to reduce risk of possible soil and groundwater contamination. As an extra precautionary measure, the underground storage tanks will be dipped daily and reconciled against volumes to establish any possible loss attributed to leakage.

The conditions of the tanks, pipes and monitoring wells will be inspected on regular basis. The underground tanks and products will be pressure tested prior to the actual commissioning. The tanks will be underground as opposed to above the ground, in order to eliminate the risk of fire.

Although the issue of the stormwater is addressed separately, but the following must be emphasized as far as they relate to fuel, oil and possible contaminants:

- Storm water, petrol, diesel and other polluted run-off must be directed to the containment sump of appropriate design.
- Storm water leaving the premises must not be polluted by any substance whether such a substance is a solid, liquid, gas vapour or any combination of these.
- There must be no mixing of contaminated and uncontaminated water.
- Clean storm water must be separated from contaminated storm water.

**(E) A DESCRIPTION OF THE POLICY AND LEGISLATIVE CONTEXT WITHIN WHICH THE DEVELOPMENT IS PROPOSED INCLUDING –**

*(i) An identification of all legislation, polices, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments that are applicable to this activity and have been considered in the preparation of the report*

**Table 1**

<b>Legislation</b>	<b>Authority</b>	<b>Year</b>
National Environmental Management Act	Department of Economic Development, Tourism and Environmental Affairs (EDTEA) / Department of Forestry, Fisheries and the Environment (DFFE)	1998
EIA Regulations, 2014	EDTEA / DFFE	2014
Guideline:5 Assessment of Alternatives and Impacts in support of EIA Regulations	EDTEA / DFFE	2006
Guideline on Need and Desirability, Department of Environmental	EDTEA / DFFE	2017



Affairs		
Petroleum Products Act, 1977 (Act 120 of 1977) as amended. – Petroleum Products site and retail license Regulations 2006	Department of Energy	1977 and 2006 respectively
National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)	EDTEA / DFFE	2004
National Environmental Management Air Quality and National Dust Control Regulations	National Department of Health	2013
The National Water Act	Department of Water and Sanitation	1998
National Environmental Management: Waste Act	EDTEA / DFFE	2008
National Environmental Management: Biodiversity Act	DEDTEA / DFFE	2004
Alien and Invasive Species Regulations	EDTEA / DFFE	2014
KwaZulu-Natal Amafa and Research Institute Act, Act No. 5	KwaZulu – Natal Amafa and Research Institute	2018
National Heritage Resources Act National Heritage Council Act	Heritage Council Heritage Council	1999 1999
South African	RSA	1996

Constitution		
Promotion of Administrative Justice Act	Department of Justice	2000
Occupational Health and Safety Act, 85 of 1993	Department of Labour	1993
National Health Act 61 of 2003	National Department of Health	2003
National Forests Act	DFFE	1998
Noise Control Regulations (Regulations 154, 10 January 1992)	EDTEA / DFFE	1992
Environment Conservation Act 73 of 1989 (Noise Control Regulation in terms of section 25 of the Environmental Conservation Act, 1989 – GNR 154 , commenced 10 January 1992)	DFFE / EDTEA	1989, commenced 1992
Hazardous Substances Act (Act No. 15 of 1973)	EDTEA / DFFE / eThekweni Municipality / Department of Energy	1973
SANS 10400 amendments, in terms of the National Building Regulations and Building Standards Act, No. 103 of 1977, as amended	eThekweni Municipality	1977
National Development Plan	RSA Government Departments, Municipalities and Public Entities	2011

eThekwini Municipality Integrated Development Plan (IDP)	eThekwini Municipality	2019 / 2020
Spatial Development Framework (SDF 2020/2021) and the Central Spatial Development Plan (CSDP 2014/2015)	eThekwini Municipality	2020 / 2021 and 2014 / 2015 respectively.
Spatial Planning Land Use Management Act (SPLUMA)	eThekwini Municipality	2013
EThekwini Public Health Bylaws	eThekwini Municipality	2016
EThekwini Nuisance Bylaws	eThekwini Municipality	11 March 2016

*(iii) How the proposed activity complies with and responds to the legislation and policy context, plans, guidelines, tools frameworks, and instruments*

**Table 2**

<b>Legislation, polices, plans, guidelines, spatial tools, municipal development planning frameworks and other instruments</b>	<b>Compliance and applicability</b>
National Environmental Management Act	Promulgation is as per this Act
EIA Regulations, 2014	The whole process has to comply with these Regulations. This is in line with the EIA Regulations as promulgated in terms of the National Environmental Management Act, 1998 (NEMA). In this regard it is 138 000 litres of fuel that will be stored on site as triggered by GNR. 327 of 2014 (Listing Notice 1) as amended on 7 April 2017, activity No. 14.
Guideline:5 Assessment of Alternatives and Impacts in support of EIA Regulations	These Guidelines are applicable in terms of the exploration of alternatives.
Guideline on Need and Desirability, Department of Environmental Affairs	In terms of these guidelines the need and desirability of the project has to cover certain

	specifics like training, safety, service delivery, benefits to the local people and the alignment of planning related issues to the project.
Petroleum Products Act, 1977 (Act 120 of 1977) as amended. – Petroleum Products site and retail license Regulations 2006	This relates to the control of petroleum products, site and retail licenses in this regard.
National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)	This may be applicable in case of dust and air pollution on site.
National Environmental Management Air Quality and National Dust Control Regulations	The purpose of the regulations is to prescribe general measures for the control of dust in all areas.
The National Water Act	The activities that may affect water resources on site e.g. surface run off.
KwaZulu-Natal Amafa and Research Institute Act	The legislation relates to heritage objects in case there are heritage resources on the site in question.
South African Constitution	Section 24 of the South African Constitution impress upon everyone having the right to an environment that is not detrimental to health.
National Forests Act	This legislation safeguards against the destruction of forests and indigenous trees that may be found on site.
Environment Conservation Act 73 of 1989 (Noise Control Regulation in terms of section 25 of the Environmental Conservation Act, 1989 – GNR 154 , commenced 10 January 1992)	This relates to any noise that may need to be controlled during construction and operational phases of the project.
Hazardous Substances Act (Act No. 15 of 1973)	The act regulates the working of chemicals and hazardous substances.
National Environmental Management: Waste Act	All waste related issues are governed by this legislation e.g. appropriate disposal of solid waste during construction and operational phases.
National Health Act	This piece of legislation is key in regulating health related issues.
Occupational Health and Safety Act	Safety and Health issues on site, especially during construction and beyond.
SANS 10400 amendments, in terms of the National Building Regulations and Building Standards Act, No. 103 of 1977	This has to accompany the building plans submitted to the Municipality.
National Forests Act (Act 84 of 1998), 1998	The Act is applicable to the site as it comprises of indigenous vegetation.
National Development Plan	This relates to issues of job creation, economic activities, rural employment and inclusive rural development, environment challenges and the need for sustainable development. The plan speaks about creating 11 million net new jobs

	over the period and reducing the rate of unemployment to about 6% by 2030.
eThekwini Municipality Integrated Development Plan (IDP) 2019/2020.	The project is in line with the ethos of the eThekwini Municipality's IDP document.
Spatial Development Framework (SDF 2020/2021) and the Central Spatial Development Plan (CSDP 2014/2015)	These documents are key in identifying the appropriate land use for the site. In this instance the site is broadly identified for industrial purpose.
Spatial Planning Land Use Management Act (SPLUMA)	The Act is responsible for planning related issues within local government. This assist in ensuring integration and coherence with respect to planning issues within a municipal area.
EThekwini Public Health Bylaws	The bylaw regulates issues of public health within the boundaries of eThekwini Municipality.
EThekwini Nuisance Bylaws	The bylaw regulates issues regarded as nuisance within the municipal area of jurisdiction.
eThekwini Municipality: Sewerage Disposal Bylaw, 2015 (Chapter 7)	The bylaw regulates issues relating to sewerage within the municipal area.

**(F) A MOTIVATION FOR THE NEED AND DESIRABILITY FOR THE PROPOSED DEVELOPMENT INCLUDING THE NEED AND DESIRABILITY OF THE ACTIVITY IN THE CONTEXT OF THE PREFERRED LOCATION**

The proposed Bothas Hill Convenience Centre would be well situated along Old Main Road and is likely to have a desirable effect in the area as it will complement the area. The project is likely to provide jobs and subcontracting benefits to the locals during pre-construction, construction and operational phases.

The development of the project will play an import role in addressing some of the development challenges facing eThekwini and the KwaZulu – Natal Province through the creation of jobs. The 2019/2020 eThekwini Municipality's integrated development plan (IDP) states that unemployment rate for eThekwini increased to 27.1% in Q2 2018 from 26.7% in Q1 2018. It is also important to note that the labour force absorption rate showed an insignificant increase 0.4% (from 45.8% to 43.1%), and the participation rate decreased (from 59.31% to 59.1%) over the same period, indicating that there are more people looking for employment, and the likelihood of them finding employment has decreased. In terms of skill levels, the largest portion of the workforce is employed at semi-skilled level followed by skilled and low-skilled. This project will go a long way towards achieving some of eThekwini's stated strategic goals. The unemployment rate in South Africa is known to be contributing immensely to the social ills the country is currently experiencing.

At times the impact of unemployment on society is often underestimated; whereas it includes factors like psychological harm, loss of work ethic, self-confidence, increase in ailments, disruption of family and social relations, increase in social exclusion and accentuation of race and gender

tensions. In this regard the project is mindful of the challenge, and intends contributing in a holistic and balanced manner.

Overall, the Facility will provide livelihoods to the local people and enhance local economic development. The developer has indicated a strong commitment to the upliftment of the locals.

Bothas Hill Convenience Centre is meant to be a lifestyle Centre that will mirror the rural image and the character of the area. It is meant to be an area of relaxation that will tie to the natural environment in terms of views and character in the context of the valley of a thousand hills. It is meant to have an appeal both to the local people and tourists. The proposed development is understood to be a lifestyle centre with a rural atmosphere that the developer would like to maintain and capitalize on as a concept.

The proposed development is well located along a high mobility corridor and will thus provide convenience to motorists travelling along Bothas Hill Old Main Road. The proposed development does not only feature a Service Station, but also include a drive thru that will benefit those who want to buy take aways on their way home or those who want to buy quick lunch as the development is located within Bothas Hill town.

The drive thru by its very nature is labour intensive, and in this instance likely to employ a lot of people compared to an ordinary food outlet. The proposed development is market feasible as evidenced by the attached Feasibility and Socio – economic impact assessment.

The site visit has shown a lot of litter being dumped, and evidence of the site being used by the homeless people. The proposed project will ensure a clean environment around the Facility.

The proposed development is also proposed on the site that was having a dwelling at some stage. The buildings were long demolished. In this way the proposed development will not require massive new engineering services, which may have impacted on the environment if the new services were to be put on site.

The timing of the project is perfect in the context of Covid 19 impacts that has created job losses and general economic decline. The South African economy is said to have contracted by 8.2% in 2020, as the pandemic weighed heavily on both external demand and domestic activity as the government implemented containment measures. This severe contraction is estimated to increase poverty by 2 million people (living below the poverty line for upper-middle income countries).

The need and desirability of this project is further bolstered by the gloomy facts emerging from the Feasibility and Socio – economic impact assessment conducted for this project and site.

The pandemic and the containment measures to curb the spread of the virus is damaging the South African economy as stated by the African Development Bank Group, 2021). The real GDP is said to have contracted by 8.2% in 2020, the result of a decline in construction, transport and communication, manufacturing, and mining. On the demand side, all components declined, with the largest contraction, 32.4%, recorded in investment. The Reserve Bank of South Africa cut the policy rate by a cumulative 300 basis points in 2020, from 6.5% to 3.5%, to support businesses and households affected by the pandemic.

The lingering economic weaknesses prompted the three major credit rating agencies to downgrade South Africa's local and foreign currency credit rating to sub-investment grade. The social indicators are likely to remain weak due to the severity of the pandemic and legacy issues of low human development.

About 2.6 million people have lost their jobs since March 2020, bringing the unemployment rate to 32.5% in the fourth quarter of 2020 from 30.8% in the previous period. It was the highest jobless rate since quarterly data became available in 2008, with more people entering the labour market and actively looking for jobs. The market is not creating sufficient jobs to absorb enough people of working age into employment as outlined by Trading Economics, 2021. The unemployment rate is highest among youths aged between 15 and 24, at around 63%.

The fuel industry has seen significant changes in fuel consumption with more people working from home. But fuel retailers have found new ways of attracting revenue, including offering pharmacy goods, Wi-Fi access and electric vehicle charge stations at their forecourts. Fuel retailers are also using technology to innovate: Refuel is an app-based mobile business which brings fuel to the consumer.

The proposed development will unfold in line with the following project phases:

***i. Pre-construction phase and planning***

This phase offer opportunities that are provided by the project to the local professional service providers whenever the skills are available. It does also offer limited opportunities for manual work e.g. the digging of trial pits.

***ii. Construction phase***

This phase is highly technical in terms of engineers, artisans and the like, but also make provision for the manual worker and opportunities for the local suppliers and small sub-contractors. Manufacturers of materials will create employment and increase economic activities. Transporter of materials will create jobs in their sector. The utilization of skilled workers and training of less skilled workers in the construction will take place on site. The opportunity afforded to unskilled workers to work and interact with skilled personnel will assist in the informal transfer of skills with long term benefits. There will be an opportunity as well for licensed informal traders to do business when construction is underway on site.

***iii. Operational phase***

Provision of sustainable and permanent jobs to the locals through the Service Station, drive thru and the Retail Centre. The developer has indicated the desire to employ and prioritise local people, and this will have an advantage of shorter travelling distances for the locals from the nearby Bothas Hill areas, KwaNyuswa and surrounding areas thus saving on travelling costs.

Looking at the guideline on need and desirability publication, compiled as part of the EIA Guideline & Information Document Series, one has found it very helpful in further assessing this development. It tends to focus on planning tools like the IDP, SDF and EMF. The said guideline

provides a list of 14 aspects, which must be considered. The points below indicate how different aspects have been addressed for the proposed development.

1. *Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved Spatial Development Framework (SDF) agreed to by the relevant environmental authority? (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP).*

**Response:** The project falls within eThekweni Metro whose IDP (2019 – 2020)'s long term vision among other things talks about its commitment to achieving a Vision of “Being Africa’s Most Caring and Liveable City” through the effective and efficient delivery of basic services, and its intention to invest in areas that will make the greatest social and economic impact within the City. It also talks about the importance of local economic development. The proposed project will go a long way in meeting some of these aspirations, in particular the local economic development aspects as contained in the municipal strategic documents.

2. *Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occur here at this point in time?*

**Response:** As highlighted above, the identified site is located in an ideal position along Bothas Hill Old Main Road. The site is already zoned activity node. The current zoning allows the Service Station as a free entry. The special consent is lodged for the food outlets and drive thru.

3. *Does the community/area need the activity and the associated land use concerned (is it a societal priority)? This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate).*

**Response:** This project is likely to enhance the area in terms of its location. At a local level the project is likely to provide sustainable jobs. The timing is perfect in the context of economic devastation caused by Covid 19 pandemic. During the meeting held with the ward leadership on 12 January 2022 the project was unanimously supported as captured in the attached minutes.

4. *Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development?*

**Response:** The area in question has most engineering services in place, like electricity, access road, refuse collection service and portable water infrastructure. The sewer issue will be clarified with Ethekewini Municipality and will be in line with the municipal requirements.

5. *Is this development provided for the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)?*



**Response: The project is located within a well serviced municipal area.**

6. *Is this project part of a national programme to address an issue of national concern or importance?*

**Response: Yes, in terms of reducing unemployment and poverty in South Africa.**

7. *Is the development the best practicable environmental option for this land/site?*

**Response: The total site area is 11 104m<sup>2</sup>, of which the Convenience Centre will occupy 1 072m<sup>2</sup>. The development will in the main be located on the location that was having the building that was demolished. The rest of the site will be left undeveloped and the developer will be encouraged to manage it along conservation lines to enhance the project vision of the natural feel and the rural atmosphere of the valley of thousands hills for the benefit of the tourists that tend to frequent this area.**

8. *Would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF as agreed to by the relevant authorities?*

**Response: No, the project will actually enhance the goals of the IDP in terms of local economic development while ensuring environmental sustainability. The area is already zoned activity zone.**

9. *Would the approval of this application compromise the integrity of the existing environmental management priorities for the area (e.g. as defined in EMFs), and if so, can it be justified in terms of sustainability considerations?*

**Response: As highlighted above the project will capture the rural atmosphere of the area. The project will not encroach on any environmental sensitivities as identified by eThekweni Municipality, in particular the Durban Metropolitan Open Space System (D'MOSS).**

10. *Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context).*

**Response: The proposed facility is ideally located in terms of engineering infrastructure, transport network, visibility and accessibility. As highlighted above the site is on an area zoned activity zone, and along the tourism route to areas frequented by tourists like Phezulu Experience and Valley of thousand Hills.**

11. *How will the activity or the land use associated with the activity applied for, impact on sensitive natural and cultural areas (built and rural / natural environment)?*

**Response: As indicated above, the development will not encroach on any environmental sensitivities like D'MOSS. The project will not impact on the indigenous tree species and riverine vegetation, as it will be on the disturbed area that has been occupied by a dwelling**

for many years. From the cultural perspective the site has no remaining heritage features and is unlikely to yield archaeological sites as outlined in the heritage assessment conducted for the site.

12. *How will the development impact on people's health and wellbeing (e.g. in terms of noise, odours, visual character and sense of place, etc)?*

**Response:** The proposed development does not produce any emissions, save the fumes that may be coming from the fuel during fill up. In terms of the visual character and sense of place the site is located in a well-developed area in the context of urban built environment.

13. *Will the proposed activity or the land use associated with the activity applied for, result in unacceptable opportunity costs?*

**Response: No.**

14. *Will the proposed land use result in unacceptable cumulative impacts?*

**Response: No.**

#### **(G) A MOTIVATION FOR THE PREFERRED SITE, ACTIVITY AND TECHNOLOGY ALTERNATIVE**

As per GN. R 326, Appendix 1(2)(b), alternatives for the proposed development are to be identified and considered, and this is in line with the definition under Chapter 1 of the EIA Regulations, interpreting alternatives as "in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to the –

- a. Property on which or location where the activity is proposed to be undertaken;
- b. Type of activity to be undertaken;
- c. Design or layout of the activity
- d. Technology to be in the activity;
- e. Operational aspects of the activity

And includes the option of not implementing the activity"

This approach compels the developers and assessors to consider other potential land uses and possible future land uses for the site under assessment.

#### *Preferred site and alternative layout*

The developer has secured this site for this specific activity, and there is no other site available to the developer within the immediate surroundings. Furthermore, the site is already zoned Activity node with the Service Station as a free entry, however a special consent application is underway for the food outlet / drive thru. The site is ideally located within a well-established transport network area on Erf 363 Bothas Hill, Durban.

The original site has been amended as per the inputs of the Traffic Engineer based on the traffic impact assessment that has been conducted on site.

The proposed site was found to be suitable for this project based on the following factors:

- The site is located off Old Main Road (R103) traversing through the town of Botas Hill, making it an ideal location from the business perspective.
- The site is attractive from the business perspective with regard to accessibility and visibility.
- However, a slight uphill from the westbound traffic on the Old Main Rd limits the visibility of the site from the motorists.
- The site is already zoned activity node and the proposed Service Station is therefore an allowed land use.
- The site has enough space for the buildings and parking.
- It is anticipated that sustainable jobs will be created for the surrounding community.
- Studies conducted on site have not identified any fatal environmental flaws, but recommended mitigation measures for the identified impacts.
- The proposed development is not in conflict with the development plans of eThekweni Municipality.

#### *Alternative site*

There is no alternative site for this proposed development. As indicated above, this site was bought for this specific purpose due to its ideal location and zoning. It will not make any sense to leave this site and go for another one while this one is already zoned for the activity that is allowed.

The site was previously having a dwelling that was demolished, it will therefore not make business sense to abandon this already disturbed site for another one that may result in disturbance of the site that has previously not used.

According to the Feasibility and Socio – economic impact assessment the current site is given an overall rating of 60.9% which can be interpreted as a moderate potential for the particular site.

#### *Technology alternative*

The underground storage of tanks is highly controlled and regulated in South Africa through South African Bureau of Standards (SABS) Specifications and Codes, Guidelines and various South African National Standards (SANS).

There is no specific “special” technology considered for the proposed project, except that the project construction will follow the guidelines of the National Home Building Council (NHBC) with regard to construction specifications.

As indicated above there will be heavy reliance on SANS codes of practice as specified for the underground storage tanks and associated fuel handling infrastructure. The COTO specifications will be used during construction of roads, kerbs and forecourt.

**(H) A FULL DESCRIPTION OF THE PROCESS FOLLOWED TO REACH THE PROPOSED PREFERRED ALTERNATIVE WITHIN THE SITE, INCLUDING:**

***(i) Details of all the alternatives considered***

*Property on which the activity is undertaken*

As indicated above the site has been used for a dwelling that was demolished some time back. The site and exact proposed location has been further subjected to feasibility through various studies and assessments. The site has not revealed any fatal flaws in terms of the studies and assessments conducted.

*Type of activity undertaken*

The property is already allowing a Service Station as a free entry in terms of the municipal planning policies and plans.

*Design and layout of the activity*

The original layout has been amended based on the inputs by the Traffic Engineer to allow for the safe entry to the site.

*Technology to be used by the activity*

As highlighted above under (G), there is no specific technology that will be used for the project, except the designs that will be in line with SANS / SABS codes of Practice.

*No – go option*

The no-go option is defined as an option of not undertaking the proposed activity and its associated alternatives. In this instance this will mean retaining the entire site in its current state. The no-go option is not seen as an alternative in this instance and context.

The proposed activity and facility will afford the local people an opportunity to be employed, and this contribute in alleviating poverty. If this option is not pursued the unemployed are likely to lose out in terms of potential job opportunities that are likely to be created by this development. This is particular true for the locals who are unskilled, especially during the construction and operational phases. The local small businesses are also likely to benefit during the project construction phase. The no go option will mean the loss of permitted informal trading during construction phase of the project. The facility will provide permanent jobs for those who will be employed when the facility is operational.

There will be a loss of savings on distance travelled to work. There will be a loss of economic development with regard to the neighbouring areas and communities.

There will be a loss of local economic empowerment and other opportunities like subcontracting, supplying material and permitted trading during construction. There will be loss of revenue generation by the Municipality in future through rates, which in turn assist in service delivery.

There is evidence to show that the site in its current neglected state is used for illegal activities like illegal dumping and is also used by the homeless. The latter has been registered as the concern by some of the stakeholders consulted as part of the public participation process. Therefore, if the site is not developed these illegal activities may escalate to levels where it will be difficult to reverse them. This is true in the context of law enforcement agencies focusing on serious crime as opposed to illegal dumping and loitering.

The no-go option from another perspective will mean no development on this site and landscape. There will be not a slightest chance for soil and water contamination. There will be no risk of petroleum products polluting the underground water resources.

#### Alternative location

The identified location is seen as ideal based on the zoning of the site as activity node.

#### ***(ii) Details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs***

The project has followed the standard public participation process as contemplated under Regulation 41 of the 2014 EIA Regulations, as outlined below.

- Site notice board – notices in both English and isiZulu were displayed on site on a visible location in front of the site. A picture of the notices that were displayed on site as contemplated under Regulation 41 (3) are attached – see **Appendix B (1)**.
- Public meeting – the meeting was held with the ward 103 Cllr Mkhize to discuss the project due to restrictions with regard to gatherings as agreed with the local leadership. The meeting was held on 12 January 2022 at the Cllr's offices at Bothas Hill. – see attached minutes - **Appendix B (2)**.
- The newspaper advert was published in the Mercury dated 17 November 2022 - **Appendix B (3)**.
- Notices regarding the project were distributed to key stakeholders like Total Bothas Hill, Spar Bothas Hill, Build IT Bothas Hill, Cafes, 1000 Hills Tourism, Rob Roy Retirement Village and so forth within the town of Bothas Hill.
- Draft Basic Assessment Report (BAR) circulation / Written Notices – a register of Interested and Affected parties has been compiled.

#### ***(iii) A summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or reasons for not including them***

Over and above TABLE 3 below, a TABLE of Comments and Responses Report is attached as TABLE 17. See also the list of a Register of interested and affected parties.

**Table 3**

<b>Organisation (I &amp; A party)</b>	<b>Issue / concern raised</b>	<b>EAP's response</b>	<b>Incorporation / Non-incorporation and reasons thereof</b>
Ezemvelo KZN Wildlife	<p>The organization deal with issues of biodiversity.</p> <p>Their comments will be attached as <b>Appendix B (4)</b>.</p>	Draft Basic Assessment report has been circulated to Ezemvelo KZN Wildlife.	Comments will be incorporated into the EMPr.
KwaZulu – Natal Amafa and Research Institute	<p>KwaZulu – Natal Amafa and Research Institute is the custodian for heritage in KZN Province.</p> <p><b>Comments will be attached as - Appendix B (5).</b></p>	<p>Umlando Archaeological Surveys and Heritage Management has been appointed for this project to assess archaeological / cultural heritage, paleontology theme and age of buildings on site.</p> <p>From the cultural perspective the site has no heritage features and is unlikely to yield archaeological sites as outlined in the heritage assessment conducted for the site.</p> <p>The report has been lodged with KwaZulu – Natal Amafa and Research Institute for their comments. See attached – <b>Appendix D (00)</b></p>	Comments will be incorporated into the EMPr
Department of Water and Sanitation (DWS)	<p>Department of Water and Sanitation to provide comments as per their constitutional function.</p> <p>Comments from DWS will be attached as <b>Appendix B (6)</b>.</p>	The draft Basic Assessment report has been sent to DWS for comments.	Comments will be incorporated into the EMPr
Department of	The Department of Forestry,	The draft report has	Comments will be

Forestry, Fisheries and the Environment (DFFE) – Forestry Regulations & Support	Fisheries and the Environment (DFFE) is the authority mandated to regulate activities affecting natural forests and tree species protected in terms of National Forest Act.  Their comments are attached as <b>Appendix B (7)</b> .	been sent to DFFE for their comments from their perspective	incorporated into the EMPr
Department of Mineral Resources and Energy	The Department Mineral Resources and Energy will be the final Department to authorise the Fuel Service Station.  Their comments are to be attached as <b>Appendix B (8)</b> .	The draft Basic Assessment report has been forwarded to the Department of Mineral Resources and Energy for comments.	Comments will be incorporated into the EMPr
eThekwini Municipality	eThekwini Municipality is the metropolitan responsible for activities as delegated to the local sphere of government within the boundaries of eThekwini.  Comments will be attached as <b>Appendix B (9)</b> .	The draft BAR has been circulated to eThekwini Municipality.	All comments from the different Departments and Units of eThekwini Municipality will be incorporated into the final BAR and EMPr.
Department of Economic Development, Tourism and Environmental Affairs.	EDTEA is the Department mandated to authorize environmental applications in the Province of KZN.  Comments are attached as - <b>Appendix B (10)</b> .	The draft BAR has been circulated to EDTEA.	Comments will be incorporated into the EMPr
Fuel Retailers Association.	This is an industry association which is an interested stakeholder.  Comments will be attached as <b>Appendix 11</b> .	The draft report has been forwarded to the Association for comments.	Comments will be incorporated into the EMPr

***(iv) The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects.***

***(Preferred site)***

## ***Geographical and physical attributes***

### **Topography**

The site is located on the upper point of the area, before starting to moderately slope down towards the south western side of the site.

### **Land Use character**

The site is zoned activity node. It is surrounded by land uses including shops, offices, residential houses and retirement village opposite the site.

### ***Climate***

The site experiences warm and temperate weather with summer rainfall and cold winters. The area is characterized by high humidity and does not experience frost. The mean annual precipitation is about 978 mm.

## ***Description of ecological baseline***

### *Vegetation and Fauna*

#### *Vegetation*

The site was visited on the 21<sup>st</sup> of June 2021, and a site walk was conducted across the whole site.

The scope of work entailed assessing the vegetation types, identifying the flora and fauna, rare and endangered species (if present) and evaluated the impact the project activities will have on them. The purpose of the vegetation assessment was to provide a “site picture” of vegetation that will be cleared and how this will impact the vegetation of the area; also prepare list of fauna and flora. The identification of invader plants on site, to integrate into the eradication programme.

The area near the current entrance which includes the demolished building has been turned into an illegal dumping site, and this does not only destroy vegetation.

During the site visit it was observed that there were no indigenous species on the location where the development is proposed i.e. where the demolished dwelling and the yard were standing. The site walk and vegetation assessment was not carried on the area outside of the development footprint i.e. the location towards the forest area as it will not be disturbed by the project. The proposed development footprint is highly transformed and severely encroached by alien invader plants.

Looking at the impact of the proposed development on vegetation, the development will not impact on vegetation, in particular the indigenous tree species as these are located outside of the development footprint.



It is the EAP's view that a fully fledged Terrestrial Biodiversity study will not achieve anything in this respect because the project will focus on the already disturbed footprint that previously had a building, and the rest of the site will remain intact. In fact the developer will be encouraged to conserve the rest of the site, namely the south western area.

### Invader plants

Invasive alien plant species (IAP) are species whose introduction and/or spread outside their natural distribution threaten biological diversity. They are non-native to an ecosystem and may cause economic or environmental harm. They impact negatively on biodiversity, including decline or elimination of indigenous species – through competition for water and the disruption of local ecosystems and ecosystem functions. IAPs, introduced and/or spread outside their natural habitats, have affected natural biodiversity in almost every ecosystem type on earth and are one of the greatest threats to biodiversity.

Without natural enemies, these plants reproduce and spread quickly, taking valuable water and space from our indigenous plants. Many alien plants consume more water than local plants, depleting our valuable water resources. Thick alien vegetation can also provide fuel for veldfires, making them exceptionally hot, which damages the burnt areas soil structure. IAPs cost South Africa tens of billions of rand annually in lost agricultural productivity and resources spent on removing or managing them. IAPs are a major threat to biodiversity in catchment areas, potentially disrupting the delicate natural balance in ecosystems. As we depend on biodiversity for water, food, wood, clean air, medicine and much more, it is vitally important that we protect this resource. (Grain SA, April 2017)

Below is the list of the alien plants identified on site:

**Table 4: Alien invasive plants identified on site**

<b>Scientific Name</b>	<b>Common Name</b>
<b><i>Bidens Pilosa</i></b>	Blackjack
<b><i>Bougainvillea spectabilis</i></b>	Brazil bougainvillea
<b><i>Lantana camara</i></b>	Tick berry (common lantana)
<b><i>Acacia mearnsii</i></b>	Black wattle
<b><i>Acacia podalyriifolia</i></b>	Old silver wattle
<b><i>Ricinus Communis</i></b>	Castor oil plant
<b><i>Mangifera indica</i></b>	Mango Tree
<b><i>Cedrus deodara</i></b>	Hemalaya cedar
<b><i>Catalapa bignoniodes</i></b>	Catawba
<b><i>Montanoa hibiscifolia</i></b>	Anzac flower
<b><i>Pseudotsuga menziesii</i></b>	Columbian pine
<b><i>Ligustrum lucidum</i></b>	Glossy privet
<b><i>Magnolia soulangeana</i></b>	Garden magnolia
<b><i>Terminalia catappa</i></b>	Tropical almomd
<b><i>Phytolacca dioica</i></b>	Umbratree
<b><i>Monstrera deliciosa</i></b>	Tarvine

<i>Hedychium gardnerianum</i>	Ginger lily
<i>Ageratum houstonianum</i>	Blue billy goat weed
<i>Rubus rosifolius</i>	Bramble of the cape
<i>Cordyline australis</i>	Cabbage palm
<i>Junglas nigra</i>	American walnut
<i>Lantana camara</i>	Tick berry
<i>Psidium guajava</i>	Guava tree
<i>Osmundastrum cinnamomeum</i>	Cinnamon fern
<i>Salix alba</i>	Sallow tree
<i>Solanum mauritanum</i>	Wild tobacco tree
<i>Senna bicapsularis</i>	Rambling cassia
<i>Medicago lupulina</i>	Black medic

The area is degraded and infested with alien plant species. The alien plant eradication programme need to be implemented, especially to safeguard the remaining vegetation and plants on the forest side of the site which will not be developed.

### Grass species

The grass family is one of the most important families in the world. It forms the very basis of many ecosystems and all animals are therefore either directly or indirectly dependent on them for survival. Grasses are used as a food source; they provide shelter for a huge range of organisms, and they protect the soil from being degraded which leads to erosion.

Grassland is a complex ecosystem which supports a huge variety of organisms such as insects, frogs, reptiles, birds and mammals which includes our large herbivores. Many species use the grassland to build nests, forage for food, and use as shelter.

**Table 5: Grass species identified on site**

Scientific Name	Common Name
<i>Digitaria eriantha</i>	Common finger grass
<i>Cynodon Dactylon</i>	Couch grass
<i>Eragrostis chloromelas</i>	Curly leaf
<i>Eragrostis curvula</i>	Weeping love grass
<i>Melinis repens</i>	Natal red-top
<i>Sporobolus africanus</i>	Rat's – tail Dropseed

### Fauna

No faunal species were observed during the site visit, in particular those which are of conservation concern.

No species of conservation significance are likely to occur on the proposed development footprint due to its degraded nature, and pedestrian traffic on the site.

Even if there were species like millipedes, molluscs, insects and reptiles but these will not be affected to any greater extent since the area in question is outside of the development footprint, and will not be cleared. The conclusion of the team assessment was that the project will not negatively affect any faunal species of specific conservation concern.

### ***Soil and Geology***

According to the 1:250 000 Geological Map Series, attached to the report, and from the available literature, as well as the observations during the site investigation, the general area within which the site is located consists mainly of deposits from the Natal Metamorphic Province Group, consisting of granite and gneiss. These sandy soils belong to the Natal metamorphic Province Supergroup that is estimated to be 1000 million years old.

### ***Groundwater and Wetlands / Hydrology***

The geotechnical investigation indicated that no water seepage was encountered at the bottom of any of the four (4) test pits that were assessed. This indicates that the water table is not too shallow.

#### *Wetland*

No wetlands were observed within the site.

### ***Social attributes***

The area is falling under eThekweni Metropolitan demarcated as ward 103 in terms of municipal boundaries.

### ***Economic attributes***

The proposed project is likely to create economic spin offs for the local people, especially the economic catchment area for this site. The project is likely to make a major economic contribution in this regard, given the fact that it is surrounded by communities that need economic opportunities.

The Feasibility and Socio Economic Impact Assessment has analysed and confirmed the expected economic benefits that are likely to flow from the project.

### ***Heritage & archaeological, historical features and cultural aspects***

Our walk about on site did not reveal any graves nor any visible heritage objects within the proposed project site. Nonetheless, Umlando Archaeological Surveys and Heritage Management has been engaged to assess the site. A review of the database and historical maps was interrogated by Umlando, which revealed that the area has no known heritage sites.

In addition, the report has been forwarded to KwaZulu – Natal Amafa and Research Institute for their comments as custodians of heritage objects in the Province of KwaZulu – Natal.

***Site photographs***

Below are site photographs showing the state of the site - **Appendix C (1) and (2)**.



*Figure 1 - Site photo showing a demolished building and illegal dumping taking place on site, May 2021*



Figure 2 - site photo showing alien plants on site, May 2021

**(v) The impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts –**

*(aa) can be reversed*

*(bb) may cause irreplaceable loss of resources; and*

*(cc) can be avoided, managed or mitigated*

As highlighted this project has not considered any alternatives as per the reasons furnished above, as a result it will only consider the potential impacts for the preferred site. The only alternative is within the site itself, whereby the project footprint will be the location that previously had the dwelling and associated structures.

#### **Impacts identified for the preferred site**

- Soil erosion during earthworks, construction and operational phases.
- Air pollution in the form of dust during construction.
- Soil contamination during construction.
- Soil contamination during operational phase.
- Underground and surface water pollution.
- Stockpiling.

- Location of construction camp.
- Littering and solid waste.
- Heritage objects and fossils.
- Concrete mixing.
- Alien plants on site.
- Noise pollution during construction phase.
- Traffic Management.
- Health and Safety.
- Social and economic impacts.

#### *Positive impacts of the activity*

The Feasibility and Socio economic Impact Assessment show that local unemployed people and small businesses will benefit in terms of jobs during the construction and operational phases of the project. The project will contribute in local economic development for the broader area. Local business will get an opportunity to be suppliers to the project, as well as sub-contracting opportunities.

Several skills will be required for the completed project like petrol attendants, security staff, cashiers, receptionists, housekeeping, chefs, waitress, gardeners, supervisors and so forth.

Bothas Hill Convenience Centre comprising Service Station will play a meaningful role in ensuring that strategic goals of the KZN PGDS are realised i.e. inclusive economic growth and spatial equity.

#### *Negative impacts of the activity*

The construction phase has to safeguard against any possible environmental degradation like soil erosion that may be caused during earthworks. The project has to safeguard against any possible underground water pollution, as well as surface water pollution.

Soil contamination due to concrete mixing and possible oil spillages. Air pollution in the form of dust during the construction phase that may be generated and dispersed to the neighbouring properties, road and passersby. Risk of fire and explosion due to the nature of the petroleum products stored on site.

Increase in ambient noise levels from construction machinery, workers on site and passersby and patrons. Emissions due to construction traffic as trucks deliver material on site, and the plant working on site. Waste that will be generated during construction and operational phases of the project.

Some of the key concerns and negative impacts are largely anchored around the anticipated influx of migrant labour, potential disruptions of basic service provision during construction and change in sense of place. However, various mitigation measures have been proposed, including prioritising local labour for employment, provision of a schedule for construction when water and electricity interruption could occur with the consent of the community and the provision of parking on site for

visitors and customers. Generally, the recommended mitigation measures should address the anticipated negative impacts.

The EIA Regulations, 2014 as amended stipulates requirements that need to be adhered to and objectives to be reached when undertaking environmental impact assessment. Key to a successful EIA is the accurate identification of environmental and social impacts and the subsequent assessment of the likely significance of each impact. This will assist in facilitating the prioritization of impacts, the identification of fatal flaws and the identification of mitigation measures.

**Table 6: interpretation of the overall significance of impacts is presented below**

Scoring value	Significance
>35	<b>High – The impact is total / consuming / eliminating</b> – In the case of adverse impacts, there is no possible mitigation that could offset the impact, or mitigation is difficult, expensive, time-consuming or some combination of these. Social, cultural and economic activities of communities are disrupted to such an extent that these come to a halt. Mitigation may not be possible / practical. Consider a potentially fatal flow in the project.
25 – 35	<b>High – The impact is profound</b> – In the case of adverse impacts, there are few opportunities for mitigation that could offset the impact, or mitigation has a limited effect on the impact. Social, cultural and economic activities of communities are disrupted to such an extent that their operation is severely impeded. Mitigation may not be possible / practical. Consider a potential fatal flaw in the project.
20 - 25	<b>Medium – The impact is considerate / substantial</b> – The impact is of great importance. Failure to mitigate with the objective of reducing the impact to acceptable levels could render the entire project option or entire project proposal unacceptable. Mitigation is therefore essential.
7 - 20	<b>Medium - The impact is material / important to investigate</b> – The impact is of importance and is therefore considered to have a substantial impact. Mitigation is required to reduce the negative impacts and such impacts need to be evaluated carefully.
4 - 7	<b>Low – The impact is marginal / slight / minor</b> – The impact is of little importance, but may require limited mitigation; or it may be rendered acceptable in the light of proposed mitigation.
Scoring value	Significance
0 - 4	<b>Low – The impact is unimportant / inconsequential / indiscernible</b> – no mitigation required, or it may be rendered acceptable in light or proposed mitigation.

The significant rating of each identified impact was then reviewed by the EAP through professional judgement and checklists. The checklist entails comprehensive list of possible environmental effects and impacts. In assessing each impact and its significance the evaluation was based on the following elements:

## Nature of the impact

The environmental impacts of a project are those resultant changes in environmental parameters, in space and time, compared with what would have happened had the project not been undertaken or if the no-go option was adopted.

**Extent** - This talk to the physical and spatial scale of the impact. Below are some of the standard terms used in assessment relating to the extent.

**Table 7 - Extent**

RATING	EXTENT SCALE
7	<b>International</b> - The impacted area extends beyond national boundaries.
6	<b>National</b> – The impacted area extends beyond provincial boundaries.
5	<b>Ecosystem</b> – The impact could affect areas essentially linked to the site in terms of significantly impacting ecosystem functioning.
4	<b>Regional</b> – The impact could affect the site including the neighbouring areas, transport routes and surrounding towns e.g. at the KZN Provincial level.
3	<b>Landscape</b> – The impact could affect all areas generally visible to the naked eye, as well as those areas essentially linked to the site in terms of ecosystem functioning.
2	<b>Local</b> – The impacted area extends slightly further than the actual physical disturbance footprint and could affect the whole, or a measurable portion of adjacent areas. Normally within a radius of 2 km from the site.
1	<b>Site Related</b> – This is an impact within the boundaries of the construction site or the development footprint. The loss is considered inconsequential in terms of the spatial context of the relevant environmental or social aspect.

**Magnitude** - This provides a qualitative assessment of the severity of a predicted impact. Below are some of the standard terms used in assessment relating to this indicator.

**Table 8 - Magnitude**

RATING	MAGNITUDE SCALE
7	<b>Total / eliminating</b> – Function or process of the affected environment is altered to the extent that it is permanently changed.
6	<b>Profound / considerate / substantial</b> – Function or process of the affected environment is altered to the extent where it is permanently modified to an extent of temporal cease.
5	<b>Material / important</b> – The affected environment is altered, but function and process continue, albeit in a modified way.
4	<b>Discernible / noticeable</b> – Function or process of the affected environment is altered to the extent where it is temporarily altered, be it in a positive or negative manner.
3	<b>Marginal / slight / minor</b> – The affected environment is altered, but natural function and process continue.
2	<b>Unimportant / inconsequential / indiscernible</b> – The impact temporarily alters the



	affected environment in such a way that the natural processes or functions are negligibly affected.
1	This is where there will be no impact on the environment.

**Duration** - This describes the timeline of the predicted impact. Below are some of the standard terms used in assessment relating to duration.

**Table 9 - Duration**

Rating	DURATION SCALE
7	<b>Long term</b> – Permanent or more than 15 years post decommissioning. The impact remains beyond decommissioning and cannot be negated.
3	<b>Medium term</b> – Lifespan of the project. Reversible between 5 to 15 years post decommissioning.
1	<b>Short term</b> – The impacts will be easily reversible with the adoption of mitigation measures. This will happen during the project lifespan. The impact will either be remedied with mitigation or will be mitigated through natural processes within the project phase i.e. within 0 – 5 years.

**Irreplaceability / Loss of resources** - Environmental resources cannot always be replaced; once destroyed, some may be lost forever. It may be possible to replace, compensate or reconstruct a lost resource in some cases. The loss of a resource may become more serious later, and the assessment must take this into account. Below are some of the standard terms used in assessment relating to duration.

**Table 10 - Irreplaceability / Loss of resources**

RATING	IRREPLACEABILITY / RESOURCE LOSS SCALE
7	<b>Permanent</b> – The loss of a non-renewable / threatened resource which cannot be renewed / recovered with, or through, natural process in a time span of over 15 years, or by artificial means.
5	<b>Long term</b> – The loss of a non-renewable / threatened resource which cannot be renewed / recovered with, or through, natural process in a time span of over 15 years, but can be mitigated by other means.
4	<b>Loss of an ‘at risk’ resource</b> – one that is not deemed critical for biodiversity targets, planning goals, community welfare, agricultural production, or other criteria, but cumulative effects may render such loss as significant.
3	<b>Medium term</b> – The resource can be recovered within the lifespan of the project. The resource can be renewed / recovered with mitigation or will be mitigated through natural process in a span between 5 and 15 years.
2	<b>Loss of an ‘expendable’ resource</b> - one that is not deemed critical for biodiversity targets, planning goals, community welfare, agricultural production, or other criteria.
1	<b>Short-term</b> – Quickly recoverable. Less than the project lifespan. The resource

	can be renewed / recovered with mitigation or will be mitigated through natural process in a span shorter than any of the project phases, or in a time span of 0 to 5 years.
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**Reversibility** - The distinction between reversible and irreversible impact is a very important one, and the irreversible impacts not susceptible to mitigation can constitute significant impacts in an EIA process. The potential for rehabilitation is the major determinant factor when considering the temporal scale of most predicted impacts. Below are some of the standard terms used in assessment relating to reversibility.

**Table 11 - Reversibility**

RATING	REVERSIBILITY SCALE
7	<b>Long term</b> – The impact will never be returned to its original or benchmark state. The impact cannot be reversed.
3	<b>Medium term</b> – The impact / effect will be returned to its original or benchmark state through mitigation or natural processes in a span shorter than the lifetime of the project, or in a time span between 5 and 15 years.
1	<b>Short term</b> – The impact / effect will be returned to its original or benchmark state through mitigation or natural processes in a span shorter than any of the phases of the project, or in a time span of 0 to 5 years.

**Probability** - The assessment of the probability / likelihood of an impact / effect has been undertaken in accordance with ratings and descriptors provided below.

**Table 12 - Probability**

RATING	PROBABILITY SCALE
1.0	Absolute certainty / will occur
0.9	Never certainty / very high probability
0.7 – 0.8	High probability / to be expected
0.4 – 0.6	Medium probability / strongly anticipated
0.3	Low probability / anticipated
0.2	Possibility
0.0 – 0.1	Remote possibility / unlikely

**(vi) The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives**

There are no alternative sites, as a result the assessment focused on this specific site (preferred site). The site visit, and site walk while analyzing and observing the physical environment on the project site. Desktop analysis of the site using google image, map analysis like National Wetlands

map & aerial images, SAHRIS heritage programme and South African Protected Conservation Areas Database (SAPAD). We also used professional judgment, observation on site and past experience.

We have consulted stakeholders and tapped on their knowledge. We have also looked at the historical data for the site, to get a better insight of the changes over time. We have also studied literature and Specialists studies relating to this site.

**(vii) Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects**

*Positive impacts of the activity*

The local unemployed people and small businesses will also benefit in terms of jobs during the construction and operational phases of the project. The local economic development for the greater area will be enhanced by this project. Suppliers and sub-contractors will benefit during the construction phase, as well as during the operational phase. The project will contribute in skills development for the area in that the locals will get an opportunity in new skills like petrol attendants, cashiers, waitress and so forth.

*Negative impacts of the activity*

The construction and operational phases have to safeguard against any possible environmental degradation like soil erosion that may be caused by the development footprint. The project has to safeguard against any possible pollution of soil, surface and underground water. The project has to safeguard against soil contamination by machinery during earthworks and construction phase. The project of this nature poses a risk of fire and explosion due to the nature of the petroleum products stored on site, albeit the strict regulations guiding such storage on site.

Overall, the project is alive to the concept of sustainable development that talks to development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The concept continuously underpins the inextricable link between human socio-economic systems and the environment. Therefore, the project has no intention of socially harming the area, if anything it will promote its growth and prosperity.

**(viii) The possible mitigation measures that could be applied and level of residual risk**

*Mitigation* - In the assessment process the potential to mitigate the negative impacts is determined and rated for each identified impact. The significance of environmental impacts has therefore been assessed considering any proposed mitigation measures.

- Reduction of soil erosion by ensuring that the soil has ground cover at all times.
- Ensuring that noise levels are within legally acceptable levels during the construction phase.

- Landscaping after project completion that may include indigenous plants as part of promoting the natural feel, as well as habitats for the fauna.
- Ensuring that there is no degradation taking place on site during construction and post construction, achieved through continuous monitoring by the Environmental Control Officer.
- Ensuring that waste is disposed in line with acceptable environmental standards.
- Stormwater management need to be implemented as per the recommendations of the Stormwater Management Plan.
- Implementation of the Environmental Management Programme (EMPr) and its recommendations.
- Safeguard against pollution of water resources.
- The use of fuel tanks that comply with SABS standards and relevant SANS.
- Ensuring that the project stick to the principles of sustainable development, and look at all aspects in a balanced manner.

**(ix) The outcome of the site selection matrix**

There has been no comparison of sites, as the preferred site is the only site assessed. Therefore, there has not been any site selection matrix applied.

**(x) If no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such**

There has been no alternative site assessed as highlighted above, however the project is located off Old Main Road (R103) traversing through the town of Bothas Hill, which is an ideal spot from the connectivity perspective.

The preferred site can be motivated as follows:

- The site has been bought by the proponent for this specific activity due to its ideal location from the business perspective as per the requirements of the petroleum industry, among other things that look at accessibility, visibility, environmental sustainability and size.
- The site is transformed and had a dwelling that had long been demolished.
- The assessment has not shown any fatal environmental flaws.
- The site is located in an area with established engineering services and infrastructure, therefore there will be no need to disturb another site with new infrastructure development.
- According to the socio – Feasibility and Socio – Economic Impact assessment economic study the business is economically viable, and likely to do well in the current location.
- There are no households and settlement that will be disrupted by the construction of this project.

**(xi) A concluding statement indicating the preferred alternatives, including preferred location of the activity**

It is deemed practical to continue with this site as opposed to abandoning it for another site. The choosing of any new site will mean abandoning this site and buying another one elsewhere which

may not be economically feasible. The service station as a land use may not necessarily be a free entry on any other site, compared to this one. The current site is already zoned activity zone, and the other site may still need rezoning.

**(I) A FULL DESCRIPTION OF THE PROCESS UNDERTAKEN TO IDENTIFY, ASSESS AND RANK THE IMPACTS THE ACTIVITY WILL IMPOSE ON THE PREFERRED LOCATION THROUGH THE LIFE OF THE ACTIVITY, INCLUDING –**

Desktop analysis of the site was done using google images, map analysis like National Wetlands map & aerial images, SAHRIS heritage programme and South African Protected Conservation Areas Database (SAPAD). We also used professional judgment, observation on site and past experience. The stakeholders were consulted widely, including the locals to tap on their knowledge of the area, and site in particular.

We did literature review of the area, and also used the knowledge of specialists as per the Specialists Studies conducted.

**(i) A description of all environmental issues and risks that were identified during the environmental impact assessment process**

- Soil erosion during earthworks, construction and operational phases.
- Air pollution in the form of dust during construction.
- Soil contamination during construction and operational phases.
- Underground and surface water pollution.
- Stockpiling on site.
- Location of construction camp.
- Littering and solid waste.
- Heritage objects and fossils.
- Concrete mixing.
- Alien plants.
- Noise pollution during construction phase.
- Traffic Management.
- Health and Safety.

**(ii) An assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures**

**Table 13 – Impacts and mitigation**

<b>Impact and risk</b>	<b>Description / Significance</b>	<b>Mitigation</b>
Soil erosion / earthworks	<ul style="list-style-type: none"> <li>• The removal of groundcover and earthworks may lead to soil erosion on site.</li> </ul>	<ul style="list-style-type: none"> <li>• Any noticeable erosion gullies on site must be dealt with, by implementing anti-erosion measures.</li> </ul>

		<ul style="list-style-type: none"> <li>• Reuse topsoil to rehabilitate disturbed areas.</li> <li>• Prevent soil erosion by maintaining the grass cover on site.</li> <li>• Stormwater plan will control all stormwater which may cause soil erosion on site.</li> </ul>
Air pollution	<ul style="list-style-type: none"> <li>• Dust from earthworks.</li> <li>• Construction vehicle fumes.</li> </ul>	<ul style="list-style-type: none"> <li>• Suppression of dust by watering the project site as and when necessary during construction.</li> <li>• Vehicles and machinery must be properly and regularly serviced.</li> </ul>
Soil contamination	<ul style="list-style-type: none"> <li>• Concrete mixing must not spill onto the soil during construction.</li> <li>• Oil and chemicals contaminating soil during construction.</li> </ul>	<ul style="list-style-type: none"> <li>• Prevent soil contamination by not mixing any concrete on the soil.</li> <li>• Vehicles and plant must not be allowed to drip oil, and drip trays must be used when vehicles/plant are parked on site.</li> <li>• Vehicles must not be repaired on site as to cause soil contamination.</li> </ul>
Stormwater and water resources	<ul style="list-style-type: none"> <li>• Contamination of ground and surface water.</li> <li>• Accidental spillages of Petro chemicals from vehicles and equipment.</li> <li>• Erosion gullies.</li> <li>• The tanks pose a risk of leak onto to the underground water resources.</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation of the Stormwater Management Plan.</li> <li>• The Plan has to be implemented to the letter, ensuring that accumulated surface water is collected and disposed of in a responsible manner.</li> <li>• Before and after construction the site must be graded, and no ponding of water on site must be allowed.</li> <li>• The platform must be graded to prevent ponding and ingress of water into the newly placed fills and the deeper soils.</li> <li>• Rainwater harvesting must be adopted on site.</li> <li>• The fuel tanks must be SABS</li> </ul>

		<p>compliant and in line with relevant SANS.</p> <ul style="list-style-type: none"> <li>• The base of the fuel tank excavations must be flat and free of rocks, compacted to specification with the correct backfill material and prepared using accepted SANS standards to ensure stability of underground tanks.</li> <li>• All pipe-work must be double walled and comply with SANS 62- 1 and 2'SANS 1132 (pipework).</li> <li>• Absorbent spill kits and disposal containers must be provided to workers to handle spillages.</li> <li>• The underground storage tanks must be designed and installed in accordance with the SABS Standards (South African Bureau of Standards, SABS 089-3-1999'and Third Edition. Code of practice – The petroleum industry, Part 3: The installation of underground storage tanks, pumps/dispensers and pipework at service station and consumer installations). SANS standards adequately address various potential impacts via the implementation of required engineering measures.</li> <li>• An emergency preparedness and</li> </ul>
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		Response Plan must be implemented for the site.
Stockpiling	<ul style="list-style-type: none"> <li>• Stockpiling will be done on site, within a clearly demarcated construction camp.</li> </ul>	<ul style="list-style-type: none"> <li>• No stockpiling must take place within 150 metres of a watercourse.</li> </ul>
Location of construction camp	<ul style="list-style-type: none"> <li>• A construction camp will be located at the appropriate place, and accordingly fenced.</li> </ul>	<ul style="list-style-type: none"> <li>• The construction camp must be located 150 metres away from the watercourse.</li> </ul>
Destruction and disturbance of graves and heritage resources.	<ul style="list-style-type: none"> <li>• The project will have to be on the watch for any heritage objects that may be found during earthworks phase.</li> </ul>	<ul style="list-style-type: none"> <li>• The Heritage assessment has not identified any heritage objects on site. In case of any heritage object found during earthworks, the project must stop, and such must be reported to Amafa.</li> </ul>
Littering / Solid waste / Waste	<ul style="list-style-type: none"> <li>• The project must take care of the site not to be polluted by such things as litter by workers on site, oil spills, building material, papers, cans and bottles.</li> <li>• Possible waste – plastics, metal, wood, concrete and so forth.</li> </ul>	<ul style="list-style-type: none"> <li>• Solid waste must be disposed of at the nearest landfill site, with proof of responsible disposal method whenever requested. In all likelihood the bulk of solid waste generated will be in the category of general waste.</li> <li>• However, it is anticipated that some hazardous waste may be generated which will be disposed of appropriately in the landfill site that accepts such type of waste. Hazardous waste defined as waste that poses substantial or potential threat to public health and the environment. This includes waste that tends to ignite, reactive, corrosive and toxic.</li> <li>• Chemical waste must be stored in appropriate containers and disposed of at an appropriate disposal site.</li> <li>• Rubbish drums and refuse plastic bags will have to be made available for litter during the day, to be cleared and disposed of at the municipal disposal site at appropriate</li> </ul>



		<p>intervals as advised by the Environmental Control Officer.</p> <ul style="list-style-type: none"> <li>• All construction spoil must be disposed of at the municipal landfill site.</li> <li>• No burning of refuse must take place on site.</li> </ul>
Alien invaders	<ul style="list-style-type: none"> <li>• Alien plants on site must be eradicated systematically.</li> </ul>	<ul style="list-style-type: none"> <li>• Alien plants will be eradicated on project completion.</li> </ul>
Concrete mixing	<ul style="list-style-type: none"> <li>• Concrete mixing on site can pollute and contaminate the soil.</li> </ul>	<ul style="list-style-type: none"> <li>• The mixing of concrete must be done within the bunded area or alternatively be brought on site by a readymade concrete mixer.</li> <li>• All spillages must be removed and properly disposed of.</li> </ul>
Noise (construction phase)	<ul style="list-style-type: none"> <li>• There will be ambient noise on site due to construction activities, especially vehicles and machinery.</li> </ul>	<ul style="list-style-type: none"> <li>• Machinery and equipment used during construction phase must be properly serviced.</li> <li>• No construction must take place during the night as to disturb the peace of the area.</li> <li>• No construction must take place during Sundays and public holidays.</li> </ul>
Traffic management	<ul style="list-style-type: none"> <li>• There will be an increase of traffic flow in the vicinity of the site during construction.</li> </ul>	<ul style="list-style-type: none"> <li>• The conditions set by eThekweni Transport Authority and KZN DoT must be followed and implemented to the letter.</li> <li>• Flag persons will be used to control traffic as may be necessary.</li> <li>• The 40 km speed signs will be erected on site, in order to control traffic speed and avoid accidents.</li> </ul>
Traffic management (operational stage)	<ul style="list-style-type: none"> <li>• There will be an increase of traffic flow in the vicinity of the site during operational phase.</li> </ul>	<ul style="list-style-type: none"> <li>• The conditions set by eThekweni Transport Authority and KZN DoT must be followed and implemented to the letter.</li> <li>• The recommendations of the TIA must be implemented to the letter.</li> </ul>
Health and Safety	<ul style="list-style-type: none"> <li>• The movement of people within the site must be</li> </ul>	<ul style="list-style-type: none"> <li>• Safety officer must be appointed to deal with all safety</li> </ul>

	<p>controlled through the security entry and register.</p> <ul style="list-style-type: none"> <li>• The site will have a dedicated Safety Officer.</li> <li>• Construction vehicles must not pose a threat to the safety of local pedestrians</li> <li>• The workers must be provided with mobile toilets on site.</li> <li>• Fire and explosion always pose danger to projects of this nature.</li> </ul>	<p>issues on daily basis during construction.</p> <ul style="list-style-type: none"> <li>• Safety induction must be done on commencement of construction.</li> <li>• Protective clothing must be worn by workers at all times.</li> <li>• Safety file and Safety officer to be on site, especially during construction phase.</li> <li>• Safety signs and speed limits erected on site.</li> <li>• The mobile toilets on site must be kept clean and serviced regularly.</li> <li>• Fire extinguishers must be readily available onsite and easily accessible.</li> <li>• Firefighting equipment must comply with SANS 1151 and must be inspected regularly.</li> <li>• No smoking must be allowed near flammable materials.</li> <li>• No cell phones may be used during fuel dispensing during operational stage.</li> <li>• An emergency Response Plan (ERP) must be implemented for the site, for emergency procedures. The ERP must include emergency contact numbers.</li> <li>• Staff must be trained adequately to avoid and handle high risk situations.</li> </ul>
<p>Socio economic impacts</p>	<ul style="list-style-type: none"> <li>• Creation of employment opportunities for skilled and non-skilled employees.</li> <li>• Skills development to local communities.</li> </ul>	<ul style="list-style-type: none"> <li>• Prioritisation of the locals in terms of employment, unless if the skill is not available locally.</li> <li>• Complaint register must be accessible on site to</li> </ul>

	<ul style="list-style-type: none"> <li>• Possible opportunities for the local suppliers and sub-contractors.</li> </ul>	<p>the members of the public.</p> <ul style="list-style-type: none"> <li>• The project will ensure it encompasses the concept of sustainable development.</li> <li>• The project must ensure the success of its commitment to social upliftment.</li> </ul>
Economic impacts	<ul style="list-style-type: none"> <li>• The proposed development will provide permanent employment opportunities to some members of the community.</li> </ul>	<ul style="list-style-type: none"> <li>• The developer has stated the project's commitment to social upliftment and creation of opportunities.</li> </ul>

Cumulative impacts affect the significance ranking of an impact since it considers impacts from both on and off site. The challenge is when the impacts that are considered within standards if combined may be cumulative in nature to the level that may exceed the set standards. In this regard it is important to consider impacts in terms of their cumulative nature.

**Table 14 – Cumulative impacts**

<b>Impact and risk</b>	<b>Cumulative impacts (past, current and foreseeable)</b>
Soil erosion	Not cumulative.
Air pollution	None anticipated.
Soil contamination (construction & operational)	None anticipated.
Stormwater and water resources	Not foreseen, with a stormwater plan in place.
Stockpiling	None anticipated.
Location of construction camp	Not foreseen
Destruction and disturbance of graves and heritage resources	Not foreseen
Littering and solid waste	Unlikely to be cumulative
Concrete mixing	Not cumulative in this instance
Noise (construction phase)	Not cumulative
Traffic management	Not cumulative - The background traffic was grown accumulatively at a growth rate of 2.5% for 5 years and added to the development generated traffic. The results indicated that none of the intersections that were analysed in this TIA will require any upgrades to accommodate the increase in traffic volumes.
Health and Safety (construction phase)	Not cumulative

Health and Safety (operational phase)	Not cumulative
Socio – economic impacts (negative)	Not cumulative

**(J) AN ASSESSMENT OF EACH IDENTIFIED POTENTIALLY SIGNIFICANT IMPACT AND RISK, INCLUDING –**

- Cumulative impacts that may occur as a result of the undertaking of the listed activity during the project life cycle;
- The nature, significance and consequence of the impact and risk;
- The extent and duration of the impact and risk;
- The probability of the impact and risk occurring;
- The degree to which the impact and risk can be reversed;
- The degree to which the impact and risk may cause irreplaceable loss of resources; and
- The degree to which the impact can be mitigated.

**Table 15: Assessment of negative impacts of the preferred site and layout**

<b>Impact and risk</b>	<b>Magnitude</b>	<b>Duration</b>	<b>Extent</b>	<b>Reversibility</b>	<b>Irreplaceability/ Loss of resources</b>	<b>Probability</b>	<b>Significance with mitigation</b>
Soil erosion	Unimportant.	Short term.	The loss is considered inconsequential	Medium - term	Short - term.	Probable.	See Table 15 below
Air pollution	Unimportant	Short term	Considered inconsequential.	Short term	Short-term	Probable	See Table 15 below
Soil contamination	Unimportant.	Short term	Considered inconsequential.	Short term	Short-term	Probable	See Table 15 below
Stormwater and water resources	Unimportant	Short term	Extends slightly further than site	Short term	Medium term	Probable	See Table 15 below
Alien invader species	Important	Short term	Considered inconsequential.	Short term	Short term	Probable	See Table 15 below
Stockpiling	Unimportant	Short term	Considered inconsequential	Short term	Short term	Remote possibility	See Table 15 below
Location of construction camp	Unimportant	Short term	Considered inconsequential	Short term	Short term	Remote possibility	See Table 15 below

Destruction and disturbance of graves and heritage resources	Unimportant	Short term	Considered inconsequential	Short term	Short term	Remote possibility	See Table 15 below
Littering and solid waste	Unimportant	Short term	Considered inconsequential	Short term	Short term	Low probability	See Table 15 below
Concrete mixing	Unimportant	Short term	Considered inconsequential	Short term	Short term	Low probability	See Table 15 below
Noise (construction phase)	Unimportant	Short term	Considered inconsequential	Short term	Short term	Probable	See Table 15 below
Traffic management	Marginal	Short term	Noticeable	Short term to Medium term	Short term to Medium term	Probable	See Table 15 below
Health and Safety (construction phase)	Inconsequential	Short term	Considered inconsequential	Short term	Medium term	Probable	See Table 15 below
Health and Safety (operational phase)	Noticeable	Short term	Extends slightly further than site	Short term	Medium term	Remote possibility	See Table 15 below
Socio economic (negative)	Inconsequential	Not foreseen	Not foreseen	Not foreseen	Not foreseen	Unlikely	See Table 15 below

The overall significance of an impact / effect has been ascertained by attributing numerical ratings to each identified impact. The numerical scores obtained for each identified impact have been multiplied by the probability of the impact occurring before and after mitigation. High values suggest that a predicted impact / effect is more significant, whilst low values suggest that a predicted impact / effect is less significant.

**Table 16: Ranking and scoring of negative impacts of the preferred site and layout**

Impact and risk	Magnitude		Duration		Extent		Resource Loss	Reversibility		Probability		Significance Without mitigation	Significance with mitigation
	With out	With	With out	With	With out	With		With out	With	With out	With		
Soil erosion	With out	With	With out	With	With out	With		With out	With	With out	With		

	3	2	3	1	2	1	0	3	1	0.3	0.2	3.3	1
Air pollution (dust)	3	2	3	1	2	1	1	3	1	0.6	0.2	7.2	1.2
Soil contamination	5	2	3	1	2	1	1	3	1	0.3	0.2	4.2	1.2
Water resources pollution	2	1	3	1	2	1	0	3	1	0.3	0.2	3	0.8
Alien invader species	5	2	3	1	3	1	0	3	1	1.0	1.0	14	5
Stock piling	2	1	3	1	2	1	3	3	1	0.2	0.1	2.6	0.7
Location of construction camp	2	1	3	1	2	1	3	3	1	0.6	0.1	7.8	0.7
Heritage resources	2	1	1	1	2	1	1	3	1	0.2	0.1	2	0.6
Solid waste	3	2	3	1	2	1	1	3	1	0.6	0.3	7.2	1.8
Concrete	3	2	3	1	2	1	1	3	1	0.6	0.3	7.2	1.8
Noise - construction phase	3	2	2	1	2	1	1	1	1	0.4	0.2	3.6	1.2
Traffic	4	3	3	1	3	2	1	7	3	1.0	0.9	18	9
Health	4	2	3	1	3	1	3	3	1	0.4	0.2	6.4	1.6

h and Safety (construction)													
Health and Safety (operational)	5	4	3	2	3	2	3	3	1	0.2	0.1	3.4	1.2
Socio-economic impact (negative)	1	0	0	0	0	0	0	0	0	0.0	0.0	0	0
Socio-economic impact (positive)	3	3	7	7	5	4	0	3	7	1.0	1.0	18	21
<b>Average</b>												<b>6.74</b>	<b>3.16</b>
												<b>Low</b>	<b>Low</b>

### Significance

In the context and highlight of the significance scoring outlined above, the Bothas Hill Convenience impacts can be mitigated. The overall significance impact for both options without mitigation, is considered to be LOW, with a score of 6.74. When mitigation is taken into consideration, the overall impact significance is still considered to be LOW, with a score of 3.16.

There are no alternative sites that have been analysed, and therefore there is no way of comparing the impacts for alternatives. However, our assessment is that the economic benefits to the community far outweighs the impacts that can be mitigated like underground water resources, soil erosion and so forth. This benefit talks to the jobs, shopping and a place to re fuel and the food

outlet for the patrons. This is likely to have a direct bearing on the wellbeing of the local residents. The no-go option will offer very little benefit to the locals and broader economy when one considers the findings of the Feasibility and Socio – Economic Impact Assessment.

Accordingly, it is the opinion of the EAP that there is no reason why the project cannot be authorized compared to the no-go option.

**(K) WHERE APPLICABLE, A SUMMARY OF THE FINDINGS AND IMPACT MANAGEMENT MEASURES IDENTIFIED IN ANY SPECIALISTS REPORT COMPLYING WITH APPENDIX 6 TO THESE REGULATIONS AND AN INDICATION AS TO HOW THESE FINDINGS AND RECOMMENDATIONS HAVE BEEN INCLUDED IN THE FINAL REPORT;**

**THE FOLLOWING SPECIALISTS STUDIES ARE ATTACHED AS APPENDICES D:**

Based on the screening tools and interaction with the Competent Authority during the pre – application meeting, the following studies have been conducted on site: i.e.:

- Feasibility and Socio – economic Impact assessment study.
- Geotechnical Study
- Traffic Impact Assessment (TIA)
- Heritage Assessment

The EAP also conducted a basic vegetation assessment, although the development footprint is located where the demolished building was previously standing.

As indicated above, it is the EAP’s view that a fully fledged **Terrestrial Biodiversity** study will not achieve much in this regard given the fact that the development footprint will be standing on the already disturbed location where the demolished house was standing.

In fact the EAP is recommending that the forest area on the south western side be left intact for conservation purposes.

**Feasibility and Socio Economic Impact Assessment for the proposed Bothas Hill Petrol Filling Station and Retail Centre prepared by Urban – Econ dated May 2021 – Appendix D (1)**

The primary aim of this report is to show whether the development of a new petrol filling station and small retail centre in Bothas Hill is feasible. Furthermore, the study is meant to show the socio-economic impact of the said project.

The study area comprise areas encompassing Bothas Hill, Drummond, KwaNyuswa, Qadi and Inchanga, which forms the primary market for this filling station and the retail centre. The majority of the primary market uses the Old Main Rd (R103) to travel to and from Bothas Hill, Hillcrest, Kloof, Pinetown, New Germany and Durban; thus passing near the development site.

The study is set to determine the market potential of the proposed Bothas Hill Convenience Centre comprising Service Station and the food outlet drive-thru establishment, located off Old Main Road,



ERF 363, Bothas Hill.

In this regard there are certain major socio-economic factors that must be accounted for. These include, but not limited to, the following:

- o Site Assessment
- o Target Market Profile
- o Competition Analysis
- o Competing Filling Stations Impact
- o Socio-Economic Impacts Analysis

The analysis of these factors and dynamics tend to determine whether or not the proposed Bothas Hill Convenience Centre comprising Service Station and the complementary drive-thru establishment will make business sense.

Qualitative interviews were conducted with motorists, residents, businesses, and community leaders (i.e. ward Councillors :) around the vicinity of the proposed development.

The traffic count done by the traffic engineer indicates that a substantial number of vehicles do pass the location of the proposed site for Bothas Hill Convenience Centre comprising Service Station. This implies that large number of vehicles may be intercepted by the service station and thus sustain the business in return.

The key spatial factors considered included accessibility, quality of roads and visibility among other factors. These affirm that the location of the proposed filling station is conducive for the growth and sustainability of the development.

19% of the households in the market catchment area do own a car. These households along with the transient market will form the basis of the market for Bothas Hill Convenience Centre comprising Service Station. In the region of 43% of the market catchment population is employed while a staggering 57% is unemployed or not economically active or are discouraged work seekers. A high 34% of the market catchment area either have no income or live on less than R30 a day. This marks the poorest of the poor in the study area population. Since these people are practically not economically active, Bothas Hill Convenience Centre comprising Service Station and Drive Thru will play an important role in ensuring that some of these people are brought back into the economic mainstream.

The fuel demand calculation at 6% interception rate indicate that there is market demand of 320 904 litres a month for the prosed filling station. Moreover, there is a market demand for a convenience store that is 254 m<sup>2</sup> GLA in size. According to the report, the capital expenditure phase will create a total of 214 jobs per annum.

According to the study, a large percentage of the study area falls within the potential economically active population. A total of 60.2% of the total population in the study area is potential economically active population whereas 33.6% of the total population is junior population. The senior population makes up 6.2% of the total population.

There are five (5) Petrol Filling Stations (PFSs) within the 5km radius to the proposed development site. The closest filling station to the proposed site is Total Bothas Hill Garage (1.5km away), which is also on the Old Main Rd (103). There are also two other filling stations on the Old Main Rd in Hillcrest within of a 5km radius, these are Caltex and Shell. The other two filling stations are located along the Inanda Rd (Bp) and the Kassier Rd (Engen). Most of these FPSs are located in Hillcrest, which is quite a distance to the proposed development site, although these filling stations are within of a 5km radius of the proposed filling station.

A supply audit of the existing filling stations within the market area was conducted by Urban-Econ in April 2021. In this case, the filling stations directly adjacent to and in relative proximity to the development site were considered by the supply audit. The purpose of this audit was to determine the effective competitive supply within the market area, i.e., the existing filling stations, which are expected to compete with the new filling station and its auxiliary functions. Consequently, the following sub-section provides a summary of the findings of the abovementioned supply audit.

This subsection considers the following aspects:

- The location of existing filling stations;
- Analysis of the expected fuel sales of existing filling stations;
- The availability of auxiliary functions at said filling stations;
- Number of pumps filling stations; and
- Distance from the proposed filling station.

For the purpose of the study, contact with all the identified filling stations listed was made in an attempt to obtain the relevant information. The study was only able to obtain the relevant volume information from one (1) of the filling stations within a 5 km radius. After multiple attempts in contacting the relevant filling stations, one (1) of the total contacted (5) was the only filling station where the relevant information was officially obtainable, other respondents were not eager to share information of their service stations. Thus, estimations of the number of fuels pumped per month were employed using the number of existing PFS. A detailed call log was kept recording the attempted contact information with all the filling stations within a 5km radius.

The four remaining filling station average volume values were extrapolated from the volume obtained for the one service station. The calculation utilises the existing average volume and was divided by the number of nozzles of the filling station. These values, therefore, provide us with a maximum and minimum volume range for each filling station. This, therefore, provided us with the maximum and minimum volume range for the other four filling stations.

The conclusion was that the development of another petrol filling station in Bothas Hill is feasible. The total pump volume in litres is expected to be 328 736 litres per month in 2023, growing steadily to 368 035 litres in 2025 and 519 528 litres by 2031.

An interception rate of 5.5% from light vehicles, and 4.5% from Taxis, Heavy Vehicles and Buses is employed on the transient traffic from the Old Main Rd (both westbound and eastbound traffic). The market catchment, which includes Bothas Hill, Drummond, KwaNyuswa, Qadi and Inchanga, has a household growth rate of 8.1%, and is currently accessible to only one petrol filling station in

Bothas Hill. Also, the proposed development is strategically positioned since it is located within Bothas Hill town and will include a retail centre which is expected to attract more people than it could have if it was only the filling station.

The number of light vehicles, taxis, heavy vehicles and busses travelling past the site towards the west and east bounds are expected to increase in the next 10 years. Vehicle sales in KwaZulu-Natal increased from 2000 to 2020, with an average annual increase of 1.6%. The increase in passenger vehicles and various commercial vehicle sales also signals the increase in the demand for fuel which bodes well for the new filling station development.

In terms of retail, there is enough retail demand to accommodate a proposed local convenience centre of 470 m<sup>2</sup> in the study area. The net effective demand in 2020 was 2 880m<sup>2</sup>, and projected to be 3 384m<sup>2</sup> in 2023 when the proposed development begins operating. There is only one formal retail facility in the study area, which is located within Bothas Hill semi commercial area, with a GLA supply of 1 650m<sup>2</sup>.

Most of the people in the study do their shopping in Pinetown, Hillcrest and Durban, and the majority of their transports pass by the proposed development site. Therefore, there is a large percentage of the leakage of buying power from people travelling to Pinetown, Hillcrest and Durban for shopping.

The total number of households in the study area is 5 100 for 2020. Thus, a local convenience centre is a suitable development for such a market. The proposed retail facility aims at satisfying the local needs of the residents within Bothas Hill, Drummond, KwaNyuswa, Qadi and Inchanga. The close proximity of a taxi rank will add to the market strength of a convenience centre.

Factors such as the product range, the quality and price, the operator, the service, business hours, parking and security will impact on the success of the proposed centre. The assumption is made that the proposed retail centre will start operating in 2023. South Africa's retail sector is adapting to the reality of new customer preferences, lifestyle changes, the impacts of Covid-19 and technological developments. Thus, the retail sector is on the mend.

The COVID-19 pandemic has had a massive impact on retail in 2020. The obvious outcome has been the growth in e-commerce. Offline retailers were forced to respond with the speedy rollout of new technologies, apps and ways of meeting shoppers' needs such as Click and Collect. The impact of the COVID-19 pandemic will be felt for months to come and most likely permanently. South African retailer confidence has declined by 13 points in the first quarter of 2021, impacted by the Covid-19 pandemic and related trade restrictions.

South African government social grants have been a pillar of support for retail sales. South Africa's online retail sector is small by the standards of developed international markets, however it has been growing rapidly in scope and value. The internet penetration rate in South Africa's low-income areas is insignificant; property companies that own Community and Neighbourhood Shopping Centres in these areas will almost certainly continue to see stable trading density growth rates, despite the upward trajectory in global online shopping.

The proposed development is anticipated to result in the creation of direct and indirect employment opportunities. Direct employment opportunities are anticipated to occur through the employment of construction workers, and this is anticipated to be short term or last until the construction phase is completed. The development is anticipated to attract a pool of skilled, semi-skilled labour, unskilled in the local area and is expected to result in the transfer of skills during the construction phase. Additional activities during the construction phase such as transactions with building material suppliers will potentially create indirect job opportunities, as suppliers are expected to potentially hire additional factory workers as well as equipment and material producers due to the demand for building equipment.

The development of a retail centre is expected to have an impact on the competing retail, particularly those that are located on the same route as the proposed retail. There is only one formal retail which is located in Bothas Hill town, many shoppers choose to travel to Hillcrest and Pinetown to do their shopping due to limited variety in Bothas Hill town. Therefore, there might be impact on the competing retail in Bothas Hill, however, it is expected to be minimal since the new retail centre is expected to attract the leakage of shoppers travelling to Hillcrest and Pinetown due to the variety of goods which will be offered.

In the short term, filling station located along the same route is expected to negatively impact the development of the new petroleum filling station. With the probability of a slight decrease in pump volumes. In the long term, the pump volumes are expected to return to normal and exceed them. As the sale of new vehicles increase and vehicle ownership rise, the demand for fuel will increase. The intensity of the impact on the existing filling stations is expected to be of medium intensity. In the short term there is an expectation of a decline in pump volumes, but not to the extent that the competition filling stations become unfeasible. The long-term effects are expected to be of low intensity.

Very low impact is expected on the existing retail since the retail centre is expected to attract leakage of shoppers travelling to Hillcrest, Pinetown and Durban for their shopping. The increase in competition between the filling stations and retail benefits the consumer, in terms of price, convenience and options.

The key concerns and negative impacts are largely anchored around the anticipated influx of migrant labour, potential disruptions of basic service provision during construction and change in sense of place. However, various mitigation measures have been proposed, including prioritising local labour for employment, provision of a schedule for construction when water and electricity interruption could occur with the consent of the community and the provision of parking on site for visitors and customers. Generally, the recommended mitigation measures should address the anticipated negative impacts. On the other hand, positive impacts such as job creation and stimulation of local and regional economics should also ensure the proposed mixed-use high-density development.

Bothas Hill Convenience Centre comprising Service Station will play a meaningful role in ensuring that strategic goals of the KZN PGDS are realised i.e. inclusive economic growth, spatial equity etc.

A total of 15 filling station owners and managers were telephonically interviewed. The main question directed to respondents was whether the proposed filling station on Old Main Road (R103) will have a negative impact on their sales. In the main, filling stations located within 3 km of the proposed site indicated that the proposed filling station will have a negative impact on their sales. On the other hand, those filling stations located over 4 km away were generally of the view that the proposed filling station will not necessarily have an impact on them. Although most filling stations were reluctant to reveal the number of litres, they pump each month, those that shared ranged between 300 000 – 450 000 litres a month.

Regarding competition economic impact, this study found that the competing filling station will be negatively impacted by the proposed new filling station for only two (2) years (2020 – 2022). Between 2024 and 2025 the competing filling stations will breakeven and start making profit once more. Therefore, the co-existence of Bothas Hill Convenience Centre comprising Service Station and the competition is not in doubt as all could be sustainable in the long term. Therefore, it is the conclusion of this study that the impact on competing filling stations will be temporary while profitability will be maintained for the coming years.

**Geotechnical Study prepared by GeoPro Civil Materials & Geotechnical Professionals (Pty) Ltd dated May 2021 – Appendix D (2)**

The objective of the investigation was to establish the nature and engineering properties of the underlying soil, as well as to assess the suitability of the proposed area, from a geotechnical perspective, and give an overview of the subsurface conditions for the proposed development.

According to the 1:250 000 Geological Map Series, attached to the report, and from the available literature, as well as the observations during the site investigation, the general area within which the site is located consists mainly of deposits from the Natal Metamorphic Province Group, consisting of granite and gneiss. These sandy soils belong to the Natal metamorphic Province Supergroup that is estimated to be 1000 million years old.

The excavation of the trial pits showed that all of the pits were stable. As a safety precaution all excavations exceeding 1.5m must adhere to the safety regulations and must receive adequate shoring.

The material encountered at the bottom of the test pits was moist reddish ferruginous sand material with small quartz minerals. The ferruginous sand is from the weathering and breaking down of granite rock. No water seepage was encountered at the bottom of any of the four (4) test pits that were assessed. This indicates that the water table is not too shallow.

The report recommended that the services of a structural engineer should be acquired for the designing of the foundation to the appropriate forces that the structure is expected to exert the foundation and in turn on the ground.

**Traffic Impact Assessment (TIA) for a proposed Bothas Hill Convenience Centre comprising Service Station and food outlet located off Bothas Hill Old Main Road (R103), eThekweni Municipality prepared by EMAAN Traffic Engineers - Appendix D (3)**

The site is located off Old Main Road opposite Rob Roy Crescent. The site proposes to have a KZN DoT Type B3 single access on Old Main Road (Class 3) opposite Rob Roy Crescent, therefore forming the 4th leg to this intersection.

Old Main Road has a speed limit of 60km/h. The required shoulder sight distance for a 60km/h road for trucks with trailers is 230m as per UTG 5. This is achievable from proposed position of the site access as long as there are no obstructions in either direction of the access within the road reserve of Old Main Road.

An analysis of the traffic counts revealed that the Saturday AM peak hour on this road network occurred from 09:45 to 10:45 and the Friday PM peak hour occurred from 15:45 to 16:45, both of which are typical peak commuter periods for a commuter Saturday morning and Friday afternoon in an urban area.

The following conclusions can be drawn, and recommendations made from the above traffic impact assessment:

- The 2026 forecast traffic conditions are good, and all critical intersections operate at acceptable levels of service in the peak hours.
- The proposed development will generate a total of 317 vehicles/h equivalent car unit (ecu) two-way trips in the AM peak hour and 291 veh/h equivalent car unit (ecu) two-way trips in the PM peak hour.
- Of this total traffic, 95 veh/h equivalent car unit (ecu) two-way trips in the AM peak hour and 150 veh/h equivalent car unit (ecu) two-way trips in the PM peak hour were pass by trips and 11 veh/h equivalent car unit (ecu) two-way trips in the AM peak hour and 19 veh/h equivalent car unit (ecu) two-way trips in the PM peak hour were diverted trips.
- The proposed access to site will be a KZN DoT Type B3 forming a 4-way intersection with Old Main Road/Rob Roy Crescent.
- A 15m building line applied from the R102 – relaxed to 7.5m for internal roads and parking.
- The planning year horizon analysed the local traffic volumes in the year 2026 (5-year planning horizon). The background traffic was grown accumulatively at a growth rate of 2.5% for 5 years and added to the development generated traffic. The results indicated that none of the intersections that were analysed in this TIA will require any upgrades to accommodate the increase in traffic volumes.
- It is recommended that sidewalks be implemented along the site frontage along Old Main Road to cater for any pedestrian activity that will be generated by the proposed development.
- It is recommended that the bush in the road verge from the site access up till 230m west of the site access be cleared.

The proposed development can therefore be supported from a traffic and transportation perspective.

The TIA concluded by supporting the proposed development from the traffic perspective, as long as all the recommendations are implemented to the letter.

**Heritage Assessment prepared by Umlando Archaeological Surveys and Heritage Management dated 16 May 2021 - Appendix D (4)**

Umlando Archaeological Surveys and Heritage Management was appointed for this project to assess archaeological / cultural heritage, paleontology theme and age of buildings on site.

As indicated in their report attached as **Appendix D (4)**, the site review of the database and historical maps revealed that the area has no known heritage sites. The area is highly disturbed with no heritage sites and buildings. No buildings were recorded on the 2000 topographical map, and thus the buildings post-date 2000. The PIA sensitivity map showed the area as of no significance.

The draft Basic Assessment report has however been sent to KwaZulu – Natal Amafa and Research Institute for their formal comments as custodians of heritage objects in the Province of KwaZulu – Natal.

**(I) AN ENVIRONEMNTAL STATEMENT WHICH CONTAINS -**

***(i) a summary of the key findings of the environmental impact assessment;***

It is critical that all project phases adhere to the conditions stated in the draft Basic Assessment Report, specialists' studies and the EMPr for the proposed project. In this regard, it is anticipated that the project will not have a significant impact on the receiving environment.

The main positive impact relates to jobs that will be created by the project benefitting residents closer to where they live. The project is therefore likely to also benefit the motorists travelling along Bothas Hill Old Main road in the form of fuel, shopping, restaurants and take aways. The commitment shown by the developer to the upliftment of the local people. In this regard it is anticipated that the project will have a greater social impact in the area.

However, on the other hand it must be ensured that the project does not affect any of the resources like underground resources. The project must ensure there is no soil erosion taking place on site. The post construction landscaping must ensure that indigenous tree species and ground cover is maintained on site. All material used during construction will have to be removed from site to the disposal site, so that the environment is left in a good state. The alien plants must be eradicated on site. The project has to consider the concept of sustainable development.

In the broader scheme of things, the impacts anticipated in the project site are of low impact as highlighted by the significance ranking above. These can be mitigated as outlined above, and also emphasized in the EMPr.

In the final analysis, social, economic and environmental factors must be weighed against the mitigatory measures advanced by the actual assessment and other reports where applicable and takes everything together for a balanced and well thought decision. Overall, the identified impacts can be mitigated as long as the recommendations of the Specialists studies and Environmental Management Programme is

followed to the letter. Therefore, the EA if granted, and the EMPr will be very crucial during all phases of the project. The EMPr will guide all environment related issues during all phases of the project from planning, pre-construction, construction and operational phase.

**(ii) a map at an appropriate scale which superimposes the proposed activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers; and**

See the map below that clearly show the development footprint in relation to the property and the rest of the site that will not be developed (in RED)



Figure 3 - Map showing the development footprint in relation to the property (Source: TIA for Bothas Hill Convenience Centre, Emaan Traffic Engineers)

**(iii) a summary of the positive and negative impacts and risks of the proposed activity and identified alternatives;**

*Positive implications of the activity*

The positive spinoffs relate to job creation and business opportunities for the local businesses during construction. The project will also provide fuel, shopping, restaurants and take aways closer to where people are living.

*Negative implications of the activity*



The project has to safeguard against any possibility of erosion, especially during earthworks. It has to safeguard against any spillages that may impact on ground water resources. The project has to take into consideration of all the views expressed by stakeholders.

**(M) BASED ON THE ASSESSMENT, AND WHERE APPLICABLE, IMPACT MANAGEMENT MEASURES FROM SPECIALISTS REPORTS, THE RECORDING OF THE PROPOSED IMPACT MANAGEMENT OUTCOMES FOR THE DEVELOPMENT FOR INCLUSION IN THE EMPr;**

Erosion on site will be avoided through the implementation of a detailed Stormwater Management Plan, and following the recommendations of a Geotechnical report. Care must also be exercised to prevent contaminated water, oil and fuel from migrating into the environment from both surface water runoff and from unlikely leaking of fuel storage tanks. There will be proper landscaping on project completion, making use of indigenous species as appropriate. All these measures have been incorporated onto the EMPr.

**(N) ANY ASPECTS WHICH WERE CONDITIONAL TO THE FINDINGS OF THE ASSESSMENT EITHER BY THE EAP OR SPECIALIST WHICH ARE TO BE INCLUDED AS CONDITIONS OF AUTHORISATION;**

Most of the aspects have been highlighted above.

**(O) A DESCRIPTION OF ANY ASSUMPTIONS, UNCERTAINTIES, AND GAPS IN KNOWLEDGE WHICH RELATE TO THE ASSESSMENT AND MITIGATION MEASURES PROPOSED;**

None presented.

**(P) A REASONED OPINION AS TO WHETHER THE PROPOSED ACTIVITY SHOULD OR SHOULD NOT BE AUTHORISED, AND IF THE OPINION IS THAT IT SHOULD BE AUTHORISED, ANY CONDITIONS THAT SHOULD BE MADE IN RESPECT OF THAT AUTHORISATION;**

In the context and highlight of the significance scoring outlined above, the proposed project has low impact to the environment. The environmental management programme has been drafted and attached to this report which will serve as the guiding document under the supervision of the Environmental Control Officer ensuring the implementation of the mitigation measures.

Our assessment of the site is that the economic and social benefits to the community far outweighs the impacts that can be mitigated like underground water, soil erosion and so forth. This benefit talks to the jobs that are closer to where the community is living. The no-go alternative will offer very little benefit to the local and broader economy when one studies the findings of the Feasibility and Socio – economic Impact Assessment and other Specialists studies.

Accordingly, it is the opinion of the EAP that there is no reason why the project cannot be authorized. It is the EAP's view that this development will far outweigh the impacts imparted by it. The site in question is already disturbed and impacted upon by previous developments. In addition,

the site has demolished building.

The development of the site will also present an opportunity to eradicate alien plants that have heavily infested the property.

It must be noted that the impacts mostly identified like soil erosion, possible impact on water resources, can be mitigated through strict implementation of the recommendations of Specialists studies and EMPr. The implementation of the mitigation measures outlined throughout this report and the EMPr are likely to provide a setting for the development to take place in a sustainable manner. Our overall analysis is that this activity must be authorized.

Overall, the identified impacts can be mitigated as long as the monitoring function is ongoing during the construction phase. The EMPr will be very crucial during all phases of the project.

**(Q) WHERE THE PROPOSED ACTIVITY DOES NOT INCLUDE OPERATIONAL ASPECTS; THE PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED, THE DATE ON WHICH THE ACTIVITY WILL BE CONCLUDED, AND THE POST CONSTRUCTION MONITORING REQUIREMENTS FINALISED;**

The environmental authorization in this instance will include operational aspects, and has to be a lifetime requirement. The activity is likely to commence immediately after the environmental authorization is issued, of course if granted by the Department of Economic Development, Tourism and Environmental Affairs, with construction continuing for about 12 months subsequent to commencement.

**(R) AN UNDERTAKING UNDER OATH OR AFFIRMATION BY THE EAP IN RELATION TO;**

- (i) the correctness of the information provided in the reports at the time of compilation;
- (ii) The inclusion of comments and inputs from stakeholders and I&APs;
- (iii) The inclusion of inputs and recommendations from the specialist reports where relevant; and
- (iv) Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties; and

I,

confirm that the information provided in the report is correct;

The inclusion of comments and inputs from stakeholders and I&APs is correct;

The inclusion of inputs and recommendations from the specialist reports is correct;

Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties; and

Commissioner of oaths:

Commissioner:

Place:

Date:

**(S) WHERE APPLICABLE, DETAILS OF ANY FINANCIAL PROVISIONS FOR THE REHABILITATION, CLOSURE, AND ONGOING POST DECOMMISSIONING MANAGEMENT OF NEGATIVE ENVIRONMENTAL IMPACTS**

The applicant will set aside funds for landscaping, as well as the eradication of invader alien plants on site. The latter will be done in terms of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) and related Regulations dated 2014.

**(T) ANY SPECIFIC INFORMATION THAT MAY BE REQUIRED BY THE COMPETENT AUTHORITY; AND**

The Competent Authority will have an opportunity to provide comments and inputs on this draft Basic Assessment Report.

**(U) ANY OTHER MATTERS REQUIRED IN TERMS OF SECTION 24 (4)(a) AND (b) OF THE ACT.**

NONE, as all issues relating to organs of state with jurisdiction on site have been covered. Furthermore, all impacts, alternatives, mitigation, option of not implementing an activity, issues of monitoring and assessment thereof have been addressed by this Basic Assessment report.

**THE ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT is attached as Appendix E.**