FEASIBILITY STUDY

FOR

ENGEN

KAMANJAB SERVICE STATION AND CONVENIENCE CENTRE

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T&A_13 November 2012_V2

Table of Contents

Acronyms

ADT	Annual Daily Traffic Averages
ATM	Automated Teller Machine
BCR	Benefit to Cost Ratio
BID	Background Information Document
CC	Close Corporation
DEA	Department of Environmental Affairs
EIA	Namibia Environmental Assessment
HV	Heavy Vehicles
I&APs	Interested Affected Parties
IRR	Internal Rate Of Return
KSSCC	Kamanjab Service Station and Convenience Centre
LRP	Lead Replacement Petrol
LV	Light Vehicles
MET	Ministry of Environment and Tourism
MTI	Ministry of Trade and Industry
N$	Namibian Dollars
NHIES	Namibia Household Income & Expenditure Survey
NPV	Net Present Value
T & A	T and A Group Trading and Investment
NTB	Namibia Toursim Board
ULP	Unleaded Petrol
WCM	Westcoast Merchants

WCM developed a business model which analysed the technical (technological input for operation) and human resource required to operate the venture. Through a mini labour survey, skills required for the venture were identified in the labour market. All skills required to operate the venture are available in the local market. WCM also proposed a recruitment and selection budget of N$20,000 in a bid to source the best skills and talent for the venture.

1.5. Task 5: Environmental Impact Assessment

WCM with the help of Outrun Investment CC (Environmental Specialists) undertook an Environmental Impact Assessment for the project.

1.6. Task 6: Financial Feasibility Review

WCM prepared a financial model based on the design above, Engineers' recommendations and Quantity Surveyor's estimated costs for the project.

1.7. Conclusions

During the feasibility study process the following milestone were achieved:

- The project has received a green light from Ministry of Environment and Tourism through the issue of an Environmental Clearance.
- Ministry of Mines and Energy through the issue of an Operating Licence approved the project. (See Annex B)
- Kamanjab Rural Council has entered into an agreement to avail 10,000m^2 to T & A Trading and Investment CC for the development of Kamanjab Service Station and Convenience Centre at the chosen site (adjacent to intersection of the roads leading to Opuwo, Outjo, Khorixas and Palmwag). All legal/licensing issues pertaining to the project have been addressed.
- Engen Namibia (Pty) Ltd (petroleum products suppliers) has agreed to supply T & A with petroleum products, pumps for the venture and signage of the Service Station.
- Standard Bank Namibia has expressed their desire to locate an ATM at KSSCC when the infrastructure has been developed.
- Namibia Breweries have also agreed in principle to appoint T & A as their wholesaler for beer for Kunene Region.

2. Task 1: Orientation

Through the orientation process, WCM became familiar with the Kamanjab study area; the priorities and expectations of the members of the development company of KSSCC, T & A Group Trading and Investments CC; and development trends of comparable projects. T & A is a Close Corporation founded and owned by Mr. Tylvas Shilongo and Mrs Albertina Shilongo. The company wishes to establish a service station and truck port at Kamanjab Village in Kunene Region, about 401km from Windhoek (coordinates 1937 59.880SS and 1449 59.880E). The area has a population of about 8,000 (3,600 female and 4,400 male) organised in 2400 households[1]. The climate is semiarid to very arid receiving 150mm to 350mm of rainfall per annum making Kunene Region one of the most arid and drought prone region in Namibia.

The service station will comprise of retail outlet selling petroleum products (petrol, diesel, oil, liquefied petroleum gas, oxyacetylene gas), bakery, takeaway, truck port, camping site with ablution facilities, carwash, curio shop and a convenience store. Other commercial services planned for this venture include retailing of veterinary products, hardware store selling construction materials, a deport wholesaling beer and an Automated Teller Machine (ATM). In the long term, the venture will also incorporate a cultural village (tourism facility) and lodging facilities adjacent to the service station. During orientation, WCM investigated the business skills and experience of the owners of T & A.

KSSCC is a business initiative by Black Namibian Entrepreneurs investors seeking investment opportunities in the Kunene Region. T & A intends to capitalise on the business travellers, Kamanjab residents, farmers (commercial and communal) and tourists.

The proposed site for KSSCC is a 10,000m^2 plot at the adjacent to the intersection of the major highways (C35 Road & C40 Roads) linking Kamanjab Village to Outjo, Khorixas, Opuwo, Ruacana and Palmwag. The site is within the boundaries of the area zoned for development by the Kamanjab Village Council. This is the only land available to T & A and a result there is no need to consider an alternative site during this study.

[1] Namibia 2011 Population and Housing Census Preliminary Results Report by National Statistic Agency

- Other Petroleum Products
- Beer and other alcoholic beverages (for wholesaling),
- Hardware Products,
- Takeaway meals,
- General Convenience Store products
- Veterinary Drugs
- Curio Shop (art and craft products),
- Meat and other meat products,
- Camping Space,
- Bread from own bakery

- Services
  - Tyre Repair Services
  - Carwash Services,
  - Rest rooms
  - Truckpot
  - Showers
  - Internet Cafe,
  - ATM

2.2. WCM's Observations

The initial phase of the Economic Development Feasibility Study for KSSCC began with a tour of the study area where KSSCC is proposed. WCM toured the site area, specifically noting areas of development, adjacent land uses, and site proximity to existing commercial and residential clusters, especially around Kamanjab's 4 way intersection (the intersection of the C40 and C35 roads).

Figure 1: Point 'A', proposed site- Kamanjab Village in relation to other areas in Namibia

Recent infrastructural development in the area surrounding the proposed site for KSSCC include the upgrading from gravel to bitumen standards of the Kamanjab to Omakange road (MR67) totalling 204km. MR67 connects with 2 other roads, the Omakange to Opuwo road (MR100) and the Omakange to Okahao (MR122) road which has improved connectivity between Kunene Region and the rest of the country.

Figure 2: Satellite Image of the proposed site, Kamanjab Village residential areas and surrounding facilities.

WCM conducted high level pre-feasibility reviews of all the ideas that T & A had and it was agreed that some of those concepts would not be ideal for the first phase of the project. As a result of the various consultations WCM's general impressions of current development priorities, drawn from the stakeholder meetings, and professional consultations include:

- Service station and truck port with a tyre repair centre;
- Engen Quick shop;
- Hardware Store;
- Veterinary drug store
- Car Wash;
- Curio Shop;
- Beer Wholesale Deport;
- Internet Cafe;
- Truck Port;
- ATM;
- Rest Camp.

- Oshana - northeast, between Oshana and Oshikoto
- Oshikoto - northeast, east of Oshikoto
- Otjozondjupa - east
- Erongo - south

Hard statistics of economic activity in Kamanjab are hard to come by, but a high level survey conducted by WCM has indicated that the major activity in the Kamanjab is small scale retailing, livestock farming, selling of tourism services, art and craft products. Tourism activities include but are not limited to:

- Rhino tracking
- Hiking
- Game drives (day & night)
- Camping
- Trophy hunting

According to the Namibia Household Income & Expenditure Survey (NHIES) 2009/2010 the annual consumption (total household consumption) for Kunene Region is estimated at N$759,000,000. The average annual household consumption is N$44,416.00 while per capita consumption is estimated at N$10,175.00. It would be premature to deduce that the estimated total household consumption represents an opportunity for KSSCC. There is a need to assess the household expenditure of the target market and estimate the households' expenditure on the products and services that will be sold by KSSCC. There is also a need to estimate the expenditure of Kamanjab alone since not every resident in Kunene will have access to KSSCC. These assessments will be done 3.2, 3.3, 3.4 and 3.5 below.

3.2.Engen Convenience Store (Quick shop)'s Viability

A survey conducted by WCM in association with Outrun Investments revealed a demand for a number of products that can be sold by KSSCC. These products will include but not limited to the following:

- Bread

Figure 3: Annual household income by main source of income

Main Source of Income	Household %	Population%	Average House-hold size
Salaries and Wages	49.1	42.8	4.1
Subsistence farming	23	29.4	6
Commercial farming	0.6	0.4	3.3
Business income	8.1	7.5	4.4
Pensions	1.2	1	3.9
Cash Remittances/grants	2.9	2.2	3.5
Rental Income	0.5	0.4	3.8
Interest Income	0.3	0.1	2.5
State old age pension	9.9	12.1	5.8
War veteran grants	0.1	0.1	6.4
Disability grants	0.7	0.7	4.7
State Child Maintenance Grants	0.7	0.8	5.8
State foster care grants	0.2	0.3	6.7
Alimony and similar allowances	0.3	0.2	3.9
Drought relief assistance	0.5	0.5	4.6
In kind receipts	1.2	0.8	3.9
Other	0.9	0.7	3.9
Total	**100**	**100**	4.7

(Source: Namibia House Hold Income & Expenditure Survey 2009-2010)

From the table above, it is evident that 49.1% of the market earns income from salaries. This means that 49.1% of Kunene households' budget is funded from salaries. 23.0% of the households earn income from subsistence farming, 0.6% earns income from commercial farming and 8.1% survive on income from business. This means that 80.8% of the households survive on income from economic activities. Basically the population has sources of income that can sustain the KSSCC's operations even during drought periods.

The table below shows the expenditure per household per consumption item. This was done to see how much money the consumers (per household) will spend on the products that will be offered by KSSCC's convenience store. There are 12,460 households in Kunene Region (Namibia 2011 Population and Household Census Preliminary Report) with each household spending N$7,969 per year on food. Consequently the demand for KSSCC's products in Kunene Region is N$99,293,740.00 per year.

spent on food annually by 2,400 households in Kamanjab). There are however suppliers of these products in the Kamanjab market, though few. KSSCC will have to develop and implement strategies to wrestle the market from current few providers already located in Kamanjab. These competitors include Shell Services Station, located across the road from the proposed site of KSSCC and other small general dealers located in Kamanjab.

To ascertain the acceptability of the KSSCC by the market and the desire of the Kamanjab community to purchase products and services that will be sold by KSSCC, a market survey was conducted by WCM. The results of the survey showed that 98% of the study sample was willing to purchase products at KSSCC provided that the products were competitively priced (prices lower than Shell's prices). 2% of the study sample expressed skepticism over the continuous availability of products at the KSSCC after it is established and maintained that they would still preface to do their shopping in Otjiwarongo. Population

The 2011 census of Namibia puts the population of Kunene Region at above 86,000 (estimated to have increased at 2, 5% growth rate). 72% of this population is based in rural areas. Kamanjab has a total population of 8000 (3,600 female and 4,400 male) comprising 2,400 households.

In order for WCM to draw conclusions regarding the short term demand for development we reviewed the population estimates and projections. We compared our population estimates and projections to the number of developed and undeveloped residential parcels in Kamanjab. The village contains very few residential parcels as can be visually verified in the aerial photograph Figure 2 above *(Courtesy of Google Earth)*.

Whilst there is a high rate of vacant residential ervens, the low activity in the property market does not substantiate a significant short-term population increase to substantially increase the size of the market. Still, depending on the development ability and future developments that can improve the absorption of these lots, the primary market could potentially experience more aggressive long-term population growth.

3.3.Employment

Relatively low median incomes dominated by farm and retail wages and salaries, combined with a 24% employment rate supports the village's current economy and the populace

- Diesel
- Petrol
- Other petroleum products

Fuel prices are government regulated hence gross margins that can be realised by KSSCC for selling fuels are regulated. Service stations in Namibia are currently earning N$0.71 per litre sold for both diesel and petrol. However since T & A is going to construct the services station without the funding from Engen, KSSCC will be entitled to N$0.10 (on current rates) and N$0.13 (by projected 2014 rates) in rebate per litre of diesel purchased. Gross margin for lubricant is currently paged at N$5.00 per litre sold and is projected to grow to N$5.65 per litre sold by 2014. The services station will also be eligible for discount N$1.00 per litre of lubricants purchased (on current rates). This discount is also projected to grow to N$1.13 by 2014.

Oil products retailer, Shell has a service station in Kamanjab and is most likely going to guard its market share aggressively in the face of competition. In WCM's opinion it is important that the truck port and the service station come up with an innovative strategy other than location to wrestle market share from the current players. One such an innovation is creating a strategic business relationship with transport services providers whose vehicles frequently drive through Kamanjab to refill their vehicles. Once such companies are identified, KSSCC can offer free overnight parking for the transport companies' vehicles in exchange for a prepaid fuel account with T & A. Such an arrangement will see the transport services providers have a monthly limit for fuel consumption based on the prepayment made. Drivers of such transport companies will not have to carry cash to purchase fuel from KSSCC but will refuel on account (the prepayment account). However the drivers will have to pay a fee of about N$13.00 (2014 rates) for the use of shower facilities at the truckport, deductable from the prepayment account. Meals for drivers bought from KSSCC can also be deductable from the prepayment account. Such an initiative can be used to boost fuel and takeaway sales for KSSCC.

There are four roads that service Kamanjab

- Kamanjab - Outjo
- Kamanjab - Opuwo/Ruacana
- Kamanjab -Khorixas

and due to continued realisation of growth of the local economy, vehicle traffic figures passing through Kamanjab are expected to increase.

Figure 6: Traffic Figures for roads servicing Kamanjab

	Outjo-Kamanjab 157.97 km			Kamanjab-Khorixas 77.46 km			Kamanjab-Ruacana/Opuwo 256.55 km			Kamanjab-Palmwag 107.8 km		
Year	LV[2]	HV[3]	ADT[4]	LV	HV	ADT	LV	HV	ADT	LV	HV	ADT
2010	200	35	235	112	8	121	173	19	191	70	10	80
2011	178	29	207	101	8	109	163	19	182			
2012	175	30	205	86	9	95	165	21	185			
Growth	-12.5%	-16.7%	-12.8%	-23%	12.5%	-21.5%	-4.6%	10.5%	-3.1%			

(Source: Roads Authority of Namibia)

An average of 496 light vehicles and 70 heavy vehicles pass through Kamanjab every day(Source: Roads Authority of Namibia).. A survey conducted by WCM at Shell Service Station in Kamanjab showed that 45% of the light vehicles refuel in Kamanjab an average of 20 litres the service stations in Kamanjab have the potential to sell 20 litres of fuel per vehicle to 223 vehicles. Assuming a ratio of 2:1 ratio of petrol powered light vehicle to diesel powered light vehicles the Kamanjab service stations sell 20 litres of petrol per vehicle per day to 149 light vehicles and 20litres of diesel per vehicle to 74 diesel powered light vehicles. Consequently the market for petrol in Kamanjab is 2980 litres of petrol per day (89,400litres per month).

A survey conducted at Shell Service Station in Kamanjab showed that 45% of heavy vehicles passing through Kamanjab refuel an average of 60litres per vehicle per day, heavy vehicles will require 1,920 litres of diesel per day. 74 diesel powered light vehicles that refuel 20 litres of diesel per vehicle per day will consume 1,480 litres of diesel per day. The market for diesel in Kamanjab is 102,000 litres per month (3,400 litres per day)

It should be noted that KSSCC will have to wrestle this market from current supplier in Kamanjab by implementing marketing strategies that will pull customers from Shell Service Station to KSSCC.

3.5.Community Comments

To gain a more complete understanding of the market demand for the proposed development, we interviewed business people regarding their perception of the project. The primary findings are summarised as follows:

[2] Light Vehicles
[3] Heavy Vehicles
[4] Annual Daily Traffic Averages

as a regulator to the operations of the Shell service station e.g. better customer care and possible lower commodity prices.

NB Interviewees were assured that their comments would be confidential.

3.6.Marketing Plan

As a new player entering into a market where there are players already in the market (Shell Services Station and general dealers in Kamanjab) KSSCC will have to implement marketing strategies to wrestle the market from current suppliers. The marketing budget for KSSCC should include a mixture of messages communicated to the target market through deferent media. KSSCC can communicate its marketing message through the use of:

- **4 Billboards** which will be erected 2 km from the service station on the four main roads leading to the four way (where KSSCC will be locate).

- **Yellow pages and Trade Directory:** According to the report Global Directory of Market Research Agencies in 2010, the adverts in yellow pages capture 9% of KSSCC's market. It is a directional medium and points willing customers in the direction where the service can be purchased. If someone is looking for a service station in Kamanjab and does not know the area, they will look in the phone book for something good and close. 63% of adults and 48% of business people refer to yellow pages in a month's period. To capture the corporate customer, the organization will also have to advertise in the local trade directory. This will be a good and effective advertising method since almost every corporate office that matters has the Namibian trade directory.

- **Newspapers and Magazines:** For its official opening KSSCC will have to place ads and sales promotions in the state newspapers and other major newspapers like, Infomante, Namibian, Republican, New era, Namibian Sun, Namibia Today. The consultant also recommends that KSSCC place adverts in local magazines like Business Success, Gems. Newspapers reach 11.2 percent of the market for the industry. Newspapers along with yellow pages reach 20.3% of the market. The company's advertising will have to be targeted at people interested in travelling by placing ads in the travel and or leisure section in newspapers. Newspapers are read by people of all age groups and income levels and are read at an average of 44 minutes per day by individuals.

- **Television:** The consultant also recommends that KSSCC advertise its products and promotions on Namibia's three television station (NBC, One Africa Television and TBN).

Figure below shows the marketing budget that can be adopted by KSSCC. This budget covers pre-opening marketing costs and marketing expenses for the 1st 12 months of operation.

Figure 7: Marketing and Promotion Budget 2013-2014

Marketing & Promotion Budget (N$)

	Pre Opening	Month 1 (N$)	Month 2 (N$)	Month 3 (N $)	Month 4 (N$)	Month 5 (N$)	Month 6 (N$)	Month 7 (N$)	Month 8 (N$)	Month 9 (N$)	Month 10 (N$)	Month 11 (N$)	Month 12 (N$)
Billboard Rental	31,600	31,600	31,600	31,600	31,600	31,600	31,600	31,600	31,600	31,600	31,600	31,600	31,600
Television	45,000												
Radio	21,000												
Newspaper	22,500												
Brouchure	5,000	5,000	5,000	5,000	5,000								
Other	2,000	2,000	2,000	2,000	2,000								
Total	127,100	38,600	38,600	38,600	38,600	31,600	31,600	31,600	31,600	31,600	31,600	31,600	31,600

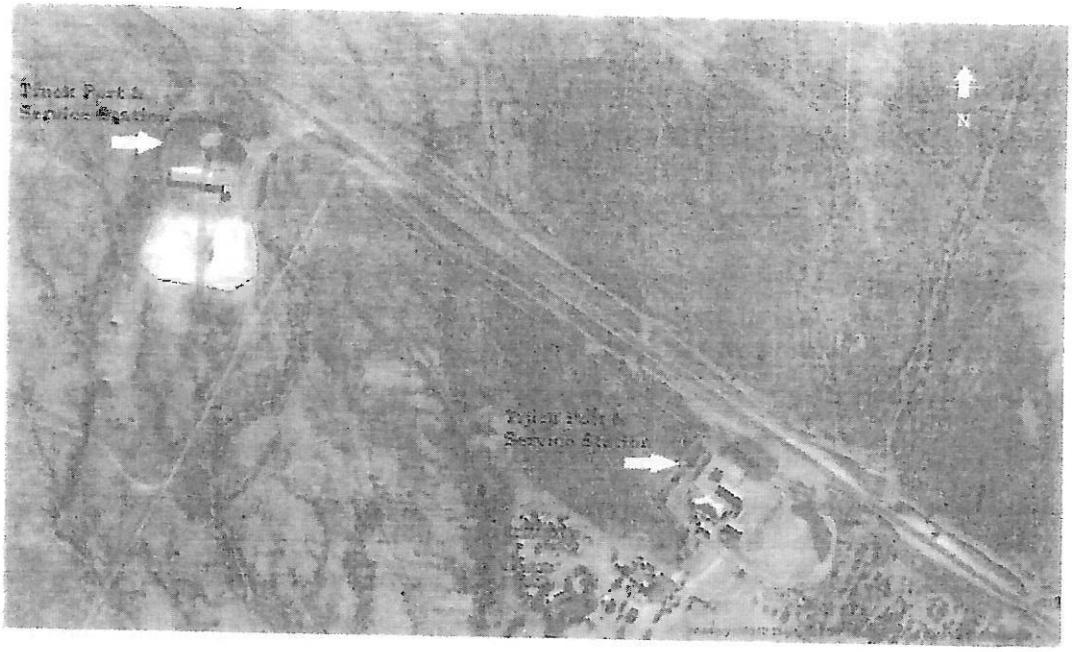
3.7.Market summary

- The role of the site in establishing the desirability of an entire shift from current retailers in Kamanjab may not be underestimated as it provides an excellent opportunity for a co-ordinated and phased development plan that will serve the entire Kamanjab and the Kunene Region at large.
- A co-ordinated planning effort could aid in avoiding haphazard sprawl and maximizing desirable economic development creating further value for the centre and assisting the village council with urban planning.
- The buying power of the local market needs to be substantially complemented by travellers by-passing the Kamanjab through the roads servicing the village.

WCM predicts that, in order for people to choose to purchase goods and services at the study site, instead of the current retailers, customer service and stock availability must not be compromised, particularly for the affluent customers, who can afford strong trips to Outjo and Otjiwarongo for shopping purposes.

4. Task Three: Precedent Studies

Identifying development experience at comparable projects is helpful for determining whether any common development trends or patterns exist.



4.3.Otavi

Figure 10: Satellite image of Otavi's service station and truck port

5. Task Four: Technical and Human Resources Feasibility

A team of professionals worked on this project. The team consists of:

- **Westcoast Merchants** — Business Consultants
- **Multi Consult cc** — Architects, Civil, Structural and Electrical Engineers
- **Blokeer, Jacobs & Kuschke** — Quantity Surveyors
- **Outrum Investments cc** — Environmental Specialists

The following opportunities and priorities have been identified:

5.1.Image

The site development strategy should provide a positive image for Kamanjab. The objectives include:

- Encourage more upscale development activity near the site of KSSCC (i.e. quality commercial activity, higher priced residential properties, etc.)
- Avoid the typical unattractive land use patterns that result from the usual individual development decision-making process.
- Incorporate some green space in the eventual facility plan.

5.2.Economic Benefits

The development strategy should maximise fiscal and economic benefits for residents of Kamanjab, other property owners and area residents. This objective relates to both the site as well as the adjacent land areas in the vicinity.

5.3.Development Phases

Due to the size of this project and capital limitations, the design team broke the venture into four phases:

- Phase 1: Construction of the service station, convenience store, tyre repair shop, hardware and beer deport.
- Phase 2: Construction of Truck Port

The company will also require a Car Wheel Balancers. The best option (according to the recommendation by various suppliers is the EUROPA Car Wheel Balancer. It has the following features

- Simultaneous weight and position readings on the double display. Self-diagnosis and calibration ensure exceptional accuracy and easy maintenance.
- A computerized digital wheel balancer with a single, fully automatic cycle. Easily access to the different programs using the various function keys.
- Brake pedal for accurate positioning of counterweights.
- Wheel protection guard that allows balancing of 1,120 mm (44") diameter wheels. Automatic width gauge only on WB277 version.
- Aludata program that resolves all the problems of balancing aluminium rims. The arm in the central part of the weight holder panel indicates the exact position for application of adhesive weights.
- Hidden spoke program that hides adhesive weights behind the rim spokes, optimizing the quality/aesthetic ratio.
    - 5 Alu programs for dynamic balancing with adhesive weights.
    - 3 Static balancing programs (with spring or adhesive weights)
    - 2 Special Alu programs for Pax tyres with measurements in mm

Jacks and loose tools for the tyre repar shop can be sourced locally from suppliers like Cymot. Other assets like furniture, car washing equipment, computers and printers can be sourced from various local suppliers. Storage tanks and pipe works can be supplied to T & A by Forgeweld, a South African Engineering firm with vast experience in manufacturing storage tanks for service stations. T & A will have to spent N$1,664,859 in equiment when establishing KSSCC. Please see Figure 13 below for the detailed budge for equipment and machinery required by KSSCC.

5.6.Pricing Strategy

The market that KSSCC is entering has players with monopolistic tendencies. Their products are perceived to be too high by the Kamanjab customers. KSSCC can implement a marketing strategy that will attract the customers from current providers. WCM recommends the following pricing strategies:

- **Penetration pricing:** An analysis done on the prices of Shell Service Station in Kamanjab's convenience store shows that the products in the store carry mark-ups ranging from 40% to 47%. KSSCC can price it products with mark-ups ranging from 35%-40% and still be profitable. In the light of this, KSSCC will have lower prices compared to its competition. Lower prices coupled with good customer care will be factors that can attract customers from Shell Service Station's convenience store to KSSCC's convenience store. Figure 16 below shows the projected price computations for the products and services to be sold by KSSCC

- **Psychological pricing:** The aim of psychological pricing is to make the customer believe the product is cheaper than it really is. Pricing in this way is intended to attract customers who are looking for "value". Competitors for KSSCC are not using psychological pricing. KSSCC can utilise this pricing strategy to wrestle customers from its competition.

5.7.Strategy summary

- **Consensus** – Based on our discussions with the Kamanjab Village Council, the village does not appear to have any other immediate potential commercial activities priorities and options for the area site either in its own capacity or in partnership with other potential investors and have entered into agreement with T & A to avail the 10,000m^2 of land on proposed site. Please see Annexure D for the confirmation letter from Kamanjab Village Council.

- **Mission** – While T & A generally concludes that the goal for the development is to maximise the long-term opportunities at the proposed centre, this mission will need to incorporate the priorities of the Kamanjab. These priorities were presented to a cross-section of the village's population on an informal basis to determine their potential interest in the concept and general enthusiasm was noted.

6. Task Five: Environmental Impact Assessment

WCM enlisted the assistance of Outrun Investment (environmental specialists) to undertake an environmental impact assessment for T & A's KSSCC project. The EIA was done in line with Namibia Environmental Assessment Policy of 1995 and the Environmental Management Act of 2007. Activities undertaken include:

- Development of scoping report and consultations with Interested Affected Parties (I&APs);
- Submission of scoping report to Ministry of Environment and Tourism (MET);
- Development of Environment Management Plan;
- Submission of Environment Management Plan to MET.

6.1. The Scoping Report

KSSCC was identified as a listed activity under Namibia Environmental Assessment Policy of 1994 that required an Environmental Clearance from MET's Directorate of Environmental Affairs. The scoping process was undertaken in accordance with Namibia's Environmental Assessment Policy of 1994. Public consultations were done during the development of the Scoping Report.

After developing the Scoping Report I&APs were afforded a chance to comment on the report. Key stakeholders identified during the scoping exercise include:

- Ministry of Mines and Energy;
- Outjo Town Council;
- Kamanjab Village Council;
- Environmental groups;
- Civil Society Organisations;
- Kamanjab Community Members;
- Kamanjab Business Community.

Public participation process of the scoping exercise was initiated through the Kamanjab Village Council who invited the Kamanjab community. Initiation posters were also pinned up in public

- To ensure initial information disclosure about the project is understandable to the non-technical stakeholders and local population;
- To ensure that adequate and timely information is provided to the public;
- To ensure that all stakeholders are given sufficient opportunity to express their issues, concerns and opinions;
- To ensure that stakeholders' opinions and concerns influence project decisions;
- To ensure that effective communication will continue during the construction and operational phases of the project.

6.3. Outcomes of Environmental Impact Assessment (EIA)

The EIA process identified the following aspect and potential environmental impacts. These aspects (positive and negative) are for both the construction and operational phases of the project.

6.3.1 Air pollutants (Dust)

Fugitive dust generated during the construction of the service centre will irritate workers at the site, nearby residents and businesses. The dust can contribute to respiratory illnesses. Dust also negatively affects flora adversely and impacts negatively on the outlook or aesthetic value of the surrounding areas. Mitigation of this environmental aspect will involve on-site mixing and unloading operations which should be done using adequately services and maintained machinery. Wetting of the ground surface and providing construction employees with dust masks were also recommended as mitigation activities. These mitigating activities will be monitored by the project's Environmental Health/Construction Manager and will be monitored by Ministry of Health & Social Services and MET's Department of Environmental Affairs (DEA) on a month basis.

6.3.2 Noise

During the construction phase, noise from construction activities will irritate site workers, potentially imparing hearing, and the noise can be a nuisance to nearby businesses and lodges within the vicinity of the KSSCC's construction site. To mitigate this environmental aspect it was advised that the construction equipment being used on site should be well maintained and construction actives will have to be limited to working hours (7:00am to

6.3.5 Positive Environmental Aspects

Positive environmental aspects noted were:

- Creation of new jobs
- Positive economic benefits due to increased availability of fuel and other services.
- Positive impact of the new infrastructure on the outlook or aesthetic value of the surrounding areas

A detailed analysis of the environmental issues that were noted are in the EIA document annexed hereto. (Annex C). The draft EIA document was made available to the public for comments on the issues of interest. After incorporating the public's comments and opinions, the EIA report was forwarded the MET. MET were satisfied with the report and an Environmental Clearance was issued, allowing the project to proceed to the construction phase. Please see Annex C for the EIA document and the Environmental Clearance.

- Camping,
- Bread from own bakery

7.1.Investment Plan

All the four phase of the project will require fixed capital to the tune of N$31,357,477.90 to construct facilities only. Please see figure below for the breakdown of construction cost of the project.

Figure 12: Infrastructure Costs

	Excluding VAT (N$)	VAT (N$)	Including VAT (N$)	Total (N$)
Phase 1				
1.1 Construction Cost (Phase 1)	12,998,095.65	1,949,714.35	14,947,810.00	
1.2 Design Fees	1,180,037.00	177,005.55	1,357,042.55	
1.3 Supervision & Disbursements	981,314.00	147,197.10	1,128,511.10	
1.4 Total Cost Phase 1				**15,159,447**
Phase 2				
2.1 Construction Cost (Phase 2)	2,039,913.04	305,986.96	2,345,900.00	
2.2 Design Fees	231,394.00	34,709.10	266,103.10	
2.3 Supervision & Disbursements	182,271.00	27,340.65	209,611.65	
2.4 Total Cost Phase 2				**2,821,615**
Phase 3				
3.1 Construction Cost (Phase 3)	7,401,391.30	1,110,208.70	8,511,600.00	
3.2 Design Fees	703,526.00	105,528.90	809,054.90	
3.3 Supervision & Disbursements	585,579.00	87,836.85	673,415.85	
3.4 Total Cost Phase 3				**9,994,071**
Phase 4				
4.1 Construction Cost (Phase 4)	2,483,565.22	372,534.78	2,856,100.00	
4.2 Design Fees	256,896.00	38,534.40	295,430.40	
4.3 Supervision & Disbursements	200,709.00	30,106.35	230,815.35	
4.4 Total Cost Phase 4				**3,382,346**
Total Infrastructure Costs				**31,357,478**

The above costs are based on the estimates provided by the project's quantity surveyor. Please see Annex D for the quantity surveyor's report. The financial model developed incorporates phases 1, 2 and 4 for initial development, leaving phase 3 for development in year 6. This phase will be developed from company's own funds. In essence the fixed capital required for constructing the phases to be developed first will be:

Phase 1 N$ 15,159,446.65

Phase 2 N$ 2,821,614.75

			Excluding VAT (N$)	VAT (N$)	Including VAT (N$)	Total (N$)
F		Tyre Repair Shop Equipment				
9	9.1	TC528 IT Tyre Changers	58,000	8,700	68,700	
	9.2	WB 680 Wheel Balancer	56,000	8,400	66,400	
	9.3	2 Ton Jacks	1,000	150	1,150	
	9.4	Loose tools	4,400	660	5,060	
		Total Tyre Repair Shop Equipment				141,310
G		Other Assests				
10	10.1	Motor Vehicles				
	10.2	UD 80 10 ton truck	517,404	77,611	595,014	
	10.3	1 ton truck	260,000	39,000	299,000	
		Total Other Assets				894,014

Figure below shows the summary of fixed costs for the venture

Figure 14: Fixed Capital Budget Summary

SQ	Description	Amount (N$)
A	Infrastructure costs (Phase 1.2 and 4)	21,363,407
B	Bakery Equipment	126,663
C	Furniture and Equipment	389,298
D	Take-away Equipment	88,734
E	Carwash Equipment	24,840
F	Tyre Repair Shop Equipment	141,310
G	Motor Vehicles	894,014
	Total Fixed Assets	**23,028,266**

7.2.Investment Summary

Apart from Fixed Capital, Kamanjab Service Station and Convenience Centre will also require working capital for operation. The working capital will be used to acquire inventory and finance operations costs during in the initial period. Figure below shows the capital requirements of the venture.

Figure 14: Capital Budget Summary

Description	Amount (N$)	Amount (N$)
Fixed Capital		23,028,266
Working Capital		3,584,603
Start-up Costs	221,100	
Diesel Inventory	290,270	
Petrol Inventory	254,406	
Gas Inventory	23,375	
Other Petroleum Products Inventory	20,625	
Tyre repair shop Inventory	10,395	
Beer Deport Inventory	500,797	
Hardware Store Inventory	1,735,544	
Carwash Inventory	3,564	
Convenience Store Inventory	32,175	
Takeaway Inventory	17,078	
Vetenary Drug Store Inventory	19,500	
Curio Shop Inventory	12,675	
Bakery Inventory	3,300	
Cash	439,800	
Total Capital Required		26,612,869

The project required an initial investment of N$26,612,869 which will be used as Fixed Capital (N$23,028,266) and Working Capital (N$3,584,603). The bulk of the working capital will be used to purchase inventory (N$ 2,923,703), finance start-up costs (N$ 221,100) and fund operating costs during the initial period (N$439,800).

The venture will be financed from an interest bearing loan of N$23,951,582 and owners' investment of N$2,661,287, contributed on 1:1 ratio by the shareholders. Figure below shows the start-up chart for Kamanjab Service Station and Convenience Centre.

Figure 16: Sales Projections Assumptions 2014

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Petrol Demand Estimates												
Overall Petrol Demand (Litres)	89,400	89,400	89,400	89,400	89,400	89,400	89,400	89,400	89,400	89,400	89,400	89,400
100% ULP 95 Petrol Demand (Litres)	49,170	49,170	49,170	49,170	49,170	49,170	49,170	49,170	49,170	49,170	49,170	49,170
100 % LRP 93 Petrol Demand (Litres)	40,230	40,230	40,230	40,230	40,230	40,230	40,230	40,230	40,230	40,230	40,230	40,230
ULP 95 Octane Petrol												
Cost Price of ULP 95 Octane Petrol	13.69	13.69	13.69	13.69	13.69	13.69	13.69	13.69	13.69	13.69	13.69	13.69
Pump Price of ULP 95 Petrol Per litre	14.59	14.59	14.59	14.59	14.59	14.59	14.59	14.59	14.59	14.59	14.59	14.59
Total Demand of Petrol (N$)	717,635	717,635	717,635	717,635	717,635	717,635	717,635	717,635	717,635	717,635	717,635	717,635
Petrol Sold (litres)	9,834	12,293	14,751	17,210	18,685	19,668	22,127	23,110	24,093	24,585	25,568	27,044
Market Share	20%	25%	30%	35%	38%	40%	45%	47%	49%	50%	52%	55%
LRP 93 Octane Petrol												
Cost Price of LRP 93 Octane Petrol	13.54	13.54	13.54	13.54	13.54	13.54	13.54	13.54	13.54	13.54	13.54	13.54
Pump Price of Petrol Per litre (N$)	14.44	14.44	14.44	14.44	14.44	14.44	14.44	14.44	14.44	14.44	14.44	14.44
Total Demand of Petrol (N$)	580,991	580,991	580,991	580,991	580,991	580,991	580,991	580,991	580,991	580,991	580,991	580,991
Petrol Sold (litres)	8,046	10,058	12,069	14,081	15,287	16,092	18,104	18,908	19,713	20,115	20,920	22,127
Market Share (%)	20%	25%	30%	35%	38%	40%	45%	47%	49%	50%	52%	55%
Diesel Sales Assumptions												
100% Diesel Demand (litres)	102,000	102,000	102,000	102,000	102,000	102,000	102,000	102,000	102,000	102,000	102,000	102,000
Cost Price of Diesel (N$)	12.94	12.94	12.94	12.94	12.94	12.94	12.94	12.94	12.94	12.94	12.94	12.94
Pump Price for Diesel (N$)	13.84	13.84	13.84	13.84	13.84	13.84	13.84	13.84	13.84	13.84	13.84	13.84
Market Share (%)	20%	25%	30%	35%	38%	40%	45%	47%	49%	50%	52%	55%
Diesel Sales (litres)	20,400	25,500	30,600	35,700	38,760	40,800	45,900	47,940	49,980	51,000	53,040	56,100
Tyre Fixing Assumptions												
Tyre fixing (Average Price)	50	50	50	50	50	50	50	50	50	50	50	50
Estimated tires fixed	540	550	560	564	570	572	580	590	600	605	610	620
Carwash Assumptions												
Average washing price (N$)	40	40	40	40	40	40	40	40	40	40	40	40
Estimate- Cars washed (Sum)	540	550	570	582	595	601	605	615	620	635	640	650
Assumptions for takeaway												
Average meal price (N$)	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
Estimated Meals (Sum)	1,500	1,650	1,815	1,997	2,196	2,416	2,657	2,923	3,215	3,537	3,891	4,280
Internet Cafe Assumptions												
Hourly Charge (N$)	15	15	15	18	18	18	18	18	18	18	18	18
Estimated Usage (Hrs)	720	756	794	833	875	919	965	1,013	1,064	1,117	1,173	1,231
Camping Site Assumptions												
Daily Charge (N$)	120	120	120	120	120	120	120	120	120	120	120	120
Estimated Usage (Nights)	90	108	114	120	126	132	138	128	135	140	142	150
Bakery Assumptions												
Average Price of bread (N$)	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
Estimated Units Sold (Sum)	1,200	1,320	1,452	1,600	1,760	1,936	2,200	2,420	2,662	2,930	3,223	3,550

Figure 18: Annual Sales Forecast

Sales	2014	2015	2016	2017	2018
ULP 95 Octane Petrol	$3,487,704	5,951,556	8,064,261	10,101,103	12,764,932
LRP 93 Octane Petrol	$2,823,617	4,852,996	6,528,761	8,177,772	10,334,386
Diesel	$6,861,744	10,894,618	13,679,303	16,580,974	20,095,400
Gas	$534,607	588,068	646,875	711,562	782,718
Other Petroleum Product s	$397,928	437,721	481,493	529,642	582,607
Tyre Repair Services	$348,050	421,141	509,580	616,592	746,076
Beer Depot Sales	$10,425,515	11,468,067	12,614,874	13,876,361	15,263,997
Hardware	$37,536,564	39,788,758	42,176,083	44,706,648	47,389,047
Carwash	$288,120	348,625	421,836	510,422	617,611
Takeaway	$737,758	892,687	1,080,151	1,306,983	1,581,449
Convenience Store sales	$781,682	859,850	945,835	1,040,419	1,144,461
Veterinary Drugs	$534,607	588,068	646,875	711,562	782,718
Truckpot Sales	$21,384	23,523	25,875	28,462	31,309
Rent Receivable- ATM	$30,000	33,000	36,300	39,930	43,923
Curio Shop Sales	$320,764	352,841	388,125	426,937	469,631
Internet Cafe Sales	$199,477	252,127	346,675	457,611	587,267
Meat	$748,450	823,295	905,624	996,187	1,095,806
Camping	$182,760	217,789	257,996	304,067	356,772
Bread Sales	$328,163	397,077	480,463	581,360	703,445
Total Sales	**$66,588,894**	**$79,191,805**	**$90,236,986**	**$101,704,594**	**$115,373,555**

Direct Cost of Sales	2014	2015	2016	2017	2018
ULP 95 Octane Petrol	$3,271,057	5,581,861	7,563,332	9,473,650	11,972,009
LRP 93 Octane Petrol	$2,646,361	4,548,343	6,118,910	7,664,401	9,685,632
Diesel	$6,412,325	10,150,282	12,704,528	15,348,793	18,538,272
Gas	$454,416	499,858	549,843	604,828	665,311
Other Petroleum Product	$298,446	328,291	361,120	397,232	436,955
Tyre Repair	$121,818	147,399	178,353	215,807	261,127
Beer Depot	$8,861,688	9,747,857	10,722,643	11,794,907	12,974,398
Hardware	$24,398,767	25,862,693	27,414,454	29,059,321	30,802,881
Carwash	$43,218	52,294	63,275	76,563	92,642
Takeaway meals	$331,991	401,709	486,068	588,142	711,652
Convenience Store	$508,093	558,903	614,793	676,272	743,899
Veterinary Drug	$347,495	382,244	420,468	462,515	508,767
Curio Shop Products	208,497	229,346	252,281	277,509	305,260
Meat	$486,492	535,142	588,656	647,521	712,274
Bread	$65,633	79,415	96,093	116,272	140,689
Subtotal Direct Cost of Sales	**$48,456,296**	**$59,105,637**	**$68,134,817**	**$77,403,735**	**$88,551,766**
Present Values Cost of Sales	**$48,456,296**	**$55,760,035**	**$60,639,745**	**$64,989,668**	**$ 66,171,031**

7.4.Profitability

According to the financial model developed, Kamanjab Service Station is a viable business venture that will generate profit in the first month of operation. Profits after tax are project to be $487,401 for Month 1 of operation representing a net margin of 13.55%. The venture is projected to earn after tax profit of N$9,938,948 after operating for the first 12 months representing a net margin of 14.93%. Profits are projected to rise from N$11,367,094 in Year 2 to N$12,853,840. Profits are also expected to grow to a high of $16,356,810 by the fifth year of operation.

Figure 19: Pro Forma Profit and Loss

	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14
Sales	$3,595,969	$3,941,384	$4,300,910	$4,678,686	$5,017,601	$5,347,944	$5,781,220	$6,152,960	$6,550,472	$6,946,665	$7,397,123	$6,877,958
Direct Costs of Goods	$2,558,168	$2,829,248	$3,111,203	$3,404,693	$3,660,100	$3,903,668	$4,238,366	$4,512,822	$4,804,511	$5,089,494	$5,420,014	$4,924,006
Cost of Goods Sold	$2,558,168	$2,829,248	$3,111,203	$3,404,693	$3,660,100	$3,903,668	$4,238,366	$4,512,822	$4,804,511	$5,089,494	$5,420,014	$4,924,006
Gross Margin	$1,037,801	$1,112,136	$1,189,707	$1,273,993	$1,357,501	$1,444,275	$1,542,854	$1,640,139	$1,745,960	$1,857,171	$1,977,109	$1,953,952
Gross Margin %	28.86%	28.22%	27.66%	27.23%	27.05%	27.01%	26.69%	26.66%	26.65%	26.73%	26.73%	28.41%
Expenses												
Payroll	$65,000	$65,000	$65,000	$65,000	$65,000	$65,000	$65,000	$65,000	$65,000	$65,000	$65,000	$65,000
Marketing/Promotion	$38,600	$38,600	$38,600	$38,600	$31,600	$31,600	$31,600	$31,600	$31,600	$31,600	$31,600	$31,600
Consultancy	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
Telephone and Internet	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000
Insurance	$8,000	$8,000	$8,000	$8,000	$8,000	$8,000	$8,000	$8,000	$8,000	$8,000	$8,000	$8,000
Fuel	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000
Utilities	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Maintenance	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000
Water and Electricity	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000
Printing and Stationery	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000
Travel and Subsistence	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
Total Operating Expenses	$146,600	$146,600	$146,600	$146,600	$139,600	$139,600	$139,600	$139,600	$139,600	$139,600	$139,600	$139,600
Profit Before Interest and Taxes	$891,201	$965,536	$1,043,107	$1,127,393	$1,217,901	$1,304,675	$1,403,254	$1,500,539	$1,606,360	$1,717,571	$1,837,509	$1,814,352
EBITDA	$891,201	$965,536	$1,043,107	$1,127,393	$1,217,901	$1,304,675	$1,403,254	$1,500,539	$1,606,360	$1,717,571	$1,837,509	$1,814,352
Interest Expense	$198,703	$197,801	$196,890	$195,971	$195,043	$194,106	$193,160	$192,205	$191,240	$190,267	$189,284	$188,292
Taxes Incurred	$207,749	$230,321	$253,865	$279,427	$306,857	$333,171	$363,028	$392,500	$424,536	$458,191	$494,467	$487,818
Other Income												
Rebate-Diesel Sales	$2,652	$3,315	$3,978	$4,641	$5,039	$5,304	$5,967	$6,232	$6,497	$6,630	$6,895	$7,293
Total Other Income	$2,652	$3,315	$3,978	$4,641	$5,039	$5,304	$5,967	$6,232	$6,497	$6,630	$6,895	$7,293
Net Other Income	$2,652	$3,315	$3,978	$4,641	$5,039	$5,304	$5,967	$6,232	$6,497	$6,630	$6,895	$7,293
Net Profit	$487,401	$540,730	$596,330	$656,636	$721,040	$782,703	$853,033	$922,066	$997,081	$1,075,743	$1,160,652	$1,145,535
Net Profit/Sales	13.55%	13.72%	13.87%	14.03%	14.37%	14.64%	14.76%	14.99%	15.22%	15.49%	15.69%	16.66%

Figure 22: Pro Forma Cash Flow

Cash Received	2014	2015	2016	2017	2018
Cash from Operations					
Cash Sales	$66,588,894	$79,191,805	$90,236,986	$101,704,594	$115,373,555
Subtotal Cash from Operations	$66,588,894	$79,191,805	$90,236,986	$101,704,594	$115,373,555
Additional Cash Received					
Non Operating (Other) Income	$64,443	$106,733	$139,776	$176,686	$223,281
New Current Borrowing	$0	$0	$0	$0	$0
New Other Liabilities (interest-free)	$0	$0	$0	$0	$0
New Long-term Liabilities	$0	$0	$0	$0	$0
Sales of Other Current Assets	$0	$0	$0	$0	$0
Sales of Long-term Assets	$0	$0	$0	$0	$0
New Investment Received	$0	$0	$0	$0	$0
Subtotal Cash Received	$66,653,337	$79,298,538	$90,376,762	$101,881,280	$115,596,836
Expenditures	2014	2015	2016	2017	2018
Expenditures from Operations					
Cash Spending	$780,000	$837,900	$879,795	$923,786	$969,972
Bill Payments	$52,928,607	$67,578,306	$76,789,284	$86,550,244	$98,335,537
Subtotal Spent on Operations	$53,708,607	$68,416,206	$77,669,079	$87,474,029	$99,305,509
Additional Cash Spent					
Non Operating (Other) Expense	$0	$0	$0	$0	$0
Principal Repayment of Current Borrowing	$0	$0	$0	$0	$0
Other Liabilities Principal Repayment	$0	$0	$0	$0	$0
Long-term Liabilities Principal Repayment	$1,356,574	$1,521,071	$1,705,515	$1,912,324	$2,144,211
Purchase Other Current Assets	$0	$0	$0	$0	$0
Purchase Long-term Assets	$0	$0	$0	$0	$0
Dividends	$0	$0	$0	$0	$0
Subtotal Cash Spent	$55,065,181	$69,937,277	$79,374,594	$89,386,353	$101,449,721
Net Cash Flow	$11,588,155	$9,361,262	$11,002,168	$12,494,926	$14,147,115
Cash Balance	$12,027,955	$21,389,217	$32,391,385	$44,886,311	$59,033,426
Net Present Value-Cash Balance	$12,027,955	$20,178,507	$28,828,217	$37,687,412	$ 46,760,003

7.6.Projected Balance Sheet

Figure 24 : Pro Forma Balance Sheet

Assets	2014	2015	2016	2017	2018
Current Assets					
Cash	$12,027,955	$21,389,217	$32,391,385	$44,886,311	$59,033,426
Inventory	$4,924,006	$6,006,166	$6,923,688	$7,803,573	$8,852,363
Total Current Assets	$16,951,962	$27,395,382	$39,315,073	$52,689,884	$67,885,789
Long-term Assets					
Long-term Assets	$23,028,266	$23,028,266	$23,028,266	$23,028,266	$23,028,266
Total Long-term Assets	$23,028,266	$23,028,266	$23,028,266	$23,028,266	$23,028,266
Total Assets	$39,980,228	$50,423,648	$62,343,339	$75,718,150	$90,914,055
Liabilities and Capital	2014	2015	2016	2017	2018
Current Liabilities					
Accounts Payable	$5,006,085	$5,603,483	$6,374,848	$7,179,886	$8,163,193
Current Borrowing	$0	$0	$0	$0	$0
Other Current Liabilities	$0	$0	$0	$0	$0
Subtotal Current Liabilities	$5,006,085	$5,603,483	$6,374,848	$7,179,886	$8,163,193
Long-term Liabilities	$22,595,008	$21,073,937	$19,368,422	$17,456,098	$15,311,887
Total Liabilities	$27,601,092	$26,677,420	$25,743,270	$24,635,984	$23,475,079
Paid-in Capital	$2,661,287	$2,661,287	$2,661,287	$2,661,287	$2,661,287
Retained Earnings	($221,100)	$9,717,848	$21,084,942	$33,938,782	$48,420,879
Earnings	$9,938,948	$11,367,094	$12,853,840	$14,482,097	$16,356,810
Total Capital	$12,379,135	$23,746,229	$36,600,069	$51,082,166	$67,438,976
Total Liabilities and Capital	$39,980,228	$50,423,648	$62,343,339	$75,718,150	$90,914,055
Net Worth	$12,379,135	$23,746,229	$36,600,069	$51,082,166	$67,438,976
Net Present Value-Net Worth	$12,379,135	$22,402,103	$32,573,931	$42,889,572	$ 53,417,986

7.8 Internal Rate of Return (IRR)

Assuming that alternative investment of capital would yield an annual interest rate of 6%, WCM used 6% as the discounting factor for income stream to arrive at the Net Present Value for KSSCC over a five year period. With such a high IRR KSSCC is a feasible business venture that should be pursued.

Figure 28 NPV and IRR of KSSCC

	2013	2014	2015	2016	2017	2018 Total	
Income Stream	- 26,612,869	48,456,296	59,105,637	68,134,817	77,403,735	88,551,766	
Discount Factor 1.06^	1	1.06000	1.12360	1.19102	1.26248	1.33823	
Net Present Value	- 26,612,869	45,713,487	52,603,807	57,207,306	61,311,008	66,171,031	256,393,769
Internal Rate of Return							199.64%

An investment of N$26,612,869 will generate a total return on N$256,393,769 (NPV) over a period of 5 years. In essence every dollar invested is projected to have 199.64% return over a five year period in present value terms.

8. Risk Analysis

Although this venture has a high IRR, there is risk that might render the financial model developed unachievable. This risk includes:

- The entrance of a competitor with more financial resources, into the market targeted by KSSCC can be considered a risk for T & A. There is a vacant lot opposite the proposed site of KSSCC which if taken up by a company that will provide similar products and services to those offered by KSSCC, can reduce T & A's market share, revenue and profitability. This risk can be mitigated by T & A getting a moratorium with Kamanjab Village Council that will stop the village council from allowing another investor to establish a business venture similar to KSSCC (a service station and carport).
- Global Economic downturn- As mentioned above, traffic flow through Kamanjab decreased over the past three years due to the global economic downturn. The major source of income for KSSCC's target market is tourism (mostly international tourism). During a global economic recession, numbers of tourist visitors to Kunene Region decreases and this has both direct and indirect effects on KSSCC. Direct effect of this would be a reduction in traffic passing through Kamanjab which mean fewer customers for KSSCC. Indirect effects the global recession on KSSCC will be that of a reduction in tourist numbers which will result in more closures of tourism and hospitality establishments in Kunene Region which in turn

results in retrenchment of employees who form KSSCC's target market. The mitigating activities for this would be for KSSCC to grow its local market share for products like building materials, beer and veterinary drugs which are hardly affected by reduced numbers of tourists visiting Kunene Region.

9. Benefit-cost ratio (BCR)

A benefit-cost ratio (BCR) is an indicator, used in the formal discipline of cost-benefit analysis, that attempts to summarize the overall value for money of a project or proposal. A BCR is the ratio of the benefits of a project or proposal, expressed in monetary terms, relative to its costs, also expressed in monetary terms. All benefits and costs should be expressed in discounted present values.

Benefit cost ratio (BCR) takes into account the amount of monetary gain realized by performing a project versus the amount it costs to execute the project. The higher the BCR the better the investment. General rule of thumb is that if the benefit is higher than the cost the project is a good investment.

9.1 Benefits

Figure below shows the calculation of Net Present Value of Revenue streams (benefits) for the first five years of operation after being subject to a discount factor of 6%. The NPV of KSSCC's benefits is N$375,838,246 for the first five years of operation.

Figure 27 Benefits for KSSCC and NPV of benefits

Benefits	2013	2014	2015	2016	2017	2018	Total
Revenue Stream		66,588,894	79,191,805	90,236,986	101,704,594	115,373,555	
Discount Factor 1.06^a	1	1.06000	1.12360	1.19102	1.26248	1.33823	
Net Present Value	-	62,819,711	70,480,425	75,764,713	80,559,564	86,213,832	375,838,246

9.2 Costs

Figure below shows the costs for KSSCC over the first 5 years of operation and the NPV of the total cost for the venture. The NPV for the cost of KSSCC for the first 5 years of operation is N$326,166,312. This is arrived at after discounting the total costs of venture for the first five year by 6%.

The labour survey conducted by the consultant shows that the skills required to develop the project are available. The design team for the project have expressed the abundance of skill needed to construct the project since the project is not the 1st one of its nature. The local labour market has the necessary skills required to operate the venture. A recruitment budget has been proposed in order to source the best talented and skilled personnel for the venture.

Initial consultations with potential financers of the project have been positive. A meeting attended by T&A group trading and Investment, WCM and the Head of Lending for the Development Bank of Namibia have show a general acceptance of the nature of the venture by the bank. However, the financers will only be able to finance the venture after studying a business plan of the venture (to be developed).

According to the financial model developed, Kamanjab Service Station is a viable business venture that will generate profit in the first month of operation. Profits after tax are project to be $487,401 for Month 1 of operation representing a net margin of 13.55%. The venture is projected to earn after tax profit of N$9,938,948 after operating for the first 12 months representing a net margin of 14.93%. Profits are projected to rise from N$11,367,094 in Year 2 to N$12,853,840. Profits are expected to grow to a high of $16,356,810 by the fifth year of operation.

Over the first five year period, the project had a BCR of 1.15 (1.15:1) which is the dollar representation of a $1.15 return for every $1.00 invested in KSSCC. After five years of sales, KSSCC would have paid for itself almost 1.15 times which makes KSSCC a good business venture that should be pursued.

Based on WCM's findings, KSSCC is a feasible venture which should be developed. The next stage of this venture would be to develop a business plan that can be used to source finance for venture and to provide blue prints for the operations of the venture.

Mortgage Loan Payments

Enter Values	
Loan Amount	23,951,582.17
Annual Interest Rate	11.50 %
Loan Period in Years	10
Number of Payments Per Year	12
Start Date of Loan	1/1/2014
Optional Extra Payments	-

Loan Summary	
Scheduled Payment	336,748.33
Scheduled Number of Payments	120
Actual Number of Payments	120
Total Early Payments	-
Total Interest	16,458,217.78

Lender Name:

Pmt No.	Payment Date	Start Balance	Scheduled Payment	Extra Payment	Total Payment	Principal	Interest	Final Balance	Cumulative Interest
1	01/02/2014	23,951,582.17	336,748.33	-	336,748.33	107,212.34	229,536.00	23,844,369.83	229,536.00
2	01/03/2014	23,844,369.83	336,748.33	-	336,748.33	108,239.79	228,508.54	23,736,130.04	458,044.54
3	01/04/2014	23,736,130.04	336,748.33	-	336,748.33	109,277.09	227,471.25	23,626,852.95	685,515.79
4	01/05/2014	23,626,852.95	336,748.33	-	336,748.33	110,324.33	226,424.01	23,516,528.63	911,939.79
5	01/06/2014	23,516,528.63	336,748.33	-	336,748.33	111,381.60	225,366.73	23,405,147.03	1,137,306.53
6	01/07/2014	23,405,147.03	336,748.33	-	336,748.33	112,449.01	224,299.33	23,292,698.02	1,361,605.85
7	01/08/2014	23,292,698.02	336,748.33	-	336,748.33	113,526.64	223,221.69	23,179,171.38	1,584,827.54
8	01/09/2014	23,179,171.38	336,748.33	-	336,748.33	114,614.61	222,133.73	23,064,556.77	1,806,961.27
9	01/10/2014	23,064,556.77	336,748.33	-	336,748.33	115,713.00	221,035.34	22,948,843.77	2,027,996.60
10	01/11/2014	22,948,843.77	336,748.33	-	336,748.33	116,821.91	219,926.42	22,832,021.86	2,247,923.02
11	01/12/2014	22,832,021.86	336,748.33	-	336,748.33	117,941.46	218,806.88	22,714,080.40	2,466,729.90
12	01/01/2015	22,714,080.40	336,748.33	-	336,748.33	119,071.73	217,676.60	22,595,008.68	2,684,406.50
13	01/02/2015	22,595,008.68	336,748.33	-	336,748.33	120,212.83	216,535.50	22,474,795.84	2,900,942.00
14	01/03/2015	22,474,795.84	336,748.33	-	336,748.33	121,364.87	215,383.46	22,353,430.97	3,116,325.46
15	01/04/2015	22,353,430.97	336,748.33	-	336,748.33	122,527.95	214,220.38	22,230,903.02	3,330,545.84
16	01/05/2015	22,230,903.02	336,748.33	-	336,748.33	123,702.18	213,046.15	22,107,200.84	3,543,592.00
17	01/06/2015	22,107,200.84	336,748.33	-	336,748.33	124,887.66	211,860.67	21,982,313.18	3,755,452.67
18	01/07/2015	21,982,313.18	336,748.33	-	336,748.33	126,084.50	210,663.83	21,856,228.68	3,966,116.51
19	01/08/2015	21,856,228.68	336,748.33	-	336,748.33	127,292.81	209,455.52	21,728,935.87	4,175,572.03
20	01/09/2015	21,728,935.87	336,748.33	-	336,748.33	128,512.70	208,235.64	21,600,423.18	4,383,807.67
21	01/10/2015	21,600,423.18	336,748.33	-	336,748.33	129,744.28	207,004.06	21,470,678.90	4,590,811.72
22	01/11/2015	21,470,678.90	336,748.33	-	336,748.33	130,987.66	205,760.67	21,339,691.24	4,796,572.39
23	01/12/2015	21,339,691.24	336,748.33	-	336,748.33	132,242.96	204,505.37	21,207,448.28	5,001,077.77
24	01/01/2016	21,207,448.28	336,748.33	-	336,748.33	133,510.29	203,238.05	21,073,937.99	5,204,315.81
25	01/02/2016	21,073,937.99	336,748.33	-	336,748.33	134,789.76	201,958.57	20,939,148.23	5,406,274.39
26	01/03/2016	20,939,148.23	336,748.33	-	336,748.33	136,081.50	200,666.84	20,803,066.74	5,606,941.22
27	01/04/2016	20,803,066.74	336,748.33	-	336,748.33	137,385.61	199,362.72	20,665,681.13	5,806,303.95
28	01/05/2016	20,665,681.13	336,748.33	-	336,748.33	138,702.22	198,046.11	20,526,978.90	6,004,350.06
29	01/06/2016	20,526,978.90	336,748.33	-	336,748.33	140,031.45	196,716.88	20,386,947.45	6,201,066.94
30	01/07/2016	20,386,947.45	336,748.33	-	336,748.33	141,373.42	195,374.91	20,245,574.03	6,396,441.85
31	01/08/2016	20,245,574.03	336,748.33	-	336,748.33	142,728.25	194,020.08	20,102,845.78	6,590,461.94
32	01/09/2016	20,102,845.78	336,748.33	-	336,748.33	144,096.06	192,652.27	19,958,749.72	6,783,114.21
33	01/10/2016	19,958,749.72	336,748.33	-	336,748.33	145,476.98	191,271.35	19,813,272.74	6,974,385.56
34	01/11/2016	19,813,272.74	336,748.33	-	336,748.33	146,871.14	189,877.20	19,666,401.61	7,164,262.76
35	01/12/2016	19,666,401.61	336,748.33	-	336,748.33	148,278.65	188,469.68	19,518,122.96	7,352,732.44
36	01/01/2017	19,518,122.96	336,748.33	-	336,748.33	149,699.65	187,048.68	19,368,423.30	7,539,781.12
37	01/02/2017	19,368,423.30	336,748.33	-	336,748.33	151,134.28	185,614.06	19,217,289.03	7,725,395.17
38	01/03/2017	19,217,289.03	336,748.33	-	336,748.33	152,582.65	184,165.69	19,064,706.38	7,909,560.86
39	01/04/2017	19,064,706.38	336,748.33	-	336,748.33	154,044.90	182,703.44	18,910,661.48	8,092,264.30
40	01/05/2017	18,910,661.48	336,748.33	-	336,748.33	155,521.16	181,227.17	18,755,140.32	8,273,491.47
41	01/06/2017	18,755,140.32	336,748.33	-	336,748.33	157,011.57	179,736.76	18,598,128.75	8,453,228.23
42	01/07/2017	18,598,128.75	336,748.33	-	336,748.33	158,516.27	178,232.07	18,439,612.48	8,631,460.30
43	01/08/2017	18,439,612.48	336,748.33	-	336,748.33	160,035.38	176,712.95	18,279,577.10	8,808,173.25
44	01/09/2017	18,279,577.10	336,748.33	-	336,748.33	161,569.05	175,179.28	18,118,008.05	8,983,352.53
45	01/10/2017	18,118,008.05	336,748.33	-	336,748.33	163,117.42	173,630.91	17,954,890.63	9,156,983.44
46	01/11/2017	17,954,890.63	336,748.33	-	336,748.33	164,680.63	172,067.70	17,790,210.00	9,329,051.14
47	01/12/2017	17,790,210.00	336,748.33	-	336,748.33	166,258.82	170,489.51	17,623,951.18	9,499,540.66
48	01/01/2018	17,623,951.18	336,748.33	-	336,748.33	167,852.13	168,896.20	17,456,099.04	9,668,436.86
49	01/02/2018	17,456,099.04	336,748.33	-	336,748.33	169,460.72	167,287.62	17,286,638.33	9,835,724.47
50	01/03/2018	17,286,638.33	336,748.33	-	336,748.33	171,084.72	165,663.62	17,115,553.61	10,001,388.09
51	01/04/2018	17,115,553.61	336,748.33	-	336,748.33	172,724.28	164,024.06	16,942,829.33	10,165,412.14
52	01/05/2018	16,942,829.33	336,748.33	-	336,748.33	174,379.55	162,368.78	16,768,449.78	10,327,780.93
53	01/06/2018	16,768,449.78	336,748.33	-	336,748.33	176,050.69	160,697.64	16,592,399.09	10,488,478.57
54	01/07/2018	16,592,399.09	336,748.33	-	336,748.33	177,737.84	159,010.49	16,414,661.25	10,647,489.06
55	01/08/2018	16,414,661.25	336,748.33	-	336,748.33	179,441.16	157,307.17	16,235,220.09	10,804,796.23
56	01/09/2018	16,235,220.09	336,748.33	-	336,748.33	181,160.81	155,587.53	16,054,059.28	10,960,383.76
57	01/10/2018	16,054,059.28	336,748.33	-	336,748.33	182,896.93	153,851.40	15,871,162.35	11,114,235.16
58	01/11/2018	15,871,162.35	336,748.33	-	336,748.33	184,649.69	152,098.64	15,686,512.66	11,266,333.80
59	01/12/2018	15,686,512.66	336,748.33	-	336,748.33	186,419.25	150,329.08	15,500,093.40	11,416,662.88

Annexure B:

Ministry of Mines and Energy Retail Licence,

Kamanjab Village Council Land Offer Letter

Statistics from Roads Authority

Engen Confirmation of Supply Letter

Scoping Report Approval Letter &

Environmental Scoping Report

KAMANJAB VILLAGE COUNCIL

TEL: (+264 67)-330051
FAX: (+264 67)-330061

MAINSTREET

P.O. BOX 81
KAMANJAB, NAMIBIA

Enquiries: J.B. Namaseb
Direct: (+264 67)-330100

TO: THE PERMANENT SECRETARY

MINISTRY OF MINES AND ENERGY

PTIVATE BAG 13297

WINDHOEK

FROM: THE ACTING VILLAGE SECRETARY

KAMANJAB VILLAGE COYUNCIL

DATE: 06 AUGUST 2012

DEAR MR. NGHISHOONGELE

SUBJECT: CONFIRMATION THAT T AND A GROUP TRADING AND INVESTMENT CC HAS A PRINCIPAL AGREEMENT WITH KAMANJAB VILLAGE COUNCIL FOR LAND ACQUISITION TO DEVELOP A SERVICE STATION.

This letter serves to inform your good office that Kamanjab Village Council has entered into agreement to avail 10 000 m² to T&A group Trading and Investment CC to develop a service station with truck port.

The identified area will be at the junction of the Outjo Opuwo main roads, herewith please find attached a map of the area.

Kamanjab Village Council trust that you will find the above confirmation in order and won't hesitate to contact Council office for any query

Yours truly

J.B.NAMASEB
ACTING VILLAGE SECRETARY

2012 -08- 06

All official correspondence should be addressed to the Chief Executive Officer

TRAFFIC SURVEILLANCE SYSTEM

Roads Authority

Summary of Total Traffic for 2011

Station	029	Base Station

Road Number	M0067	Telephone Number	
Start - End Nodes	UO2511N - UO2512N	Equipment Position	Left
KM from Start Road	142.79	From - To Town	Outjo - Kamanjab

2011/01/01 - 2011/01/13, 2011/10/11 - 2011/12/31

	Total Days	Light	Heavy	Total	% Heavy
TOTAL	2259 Hours	16,798	2,726	19,524	14%
ADT	94.13 Days	178	29	207	14%

TRAFFIC SURVEILLANCE SYSTEM

Roads Authority

Summary of Total Traffic for 2011

Station	098	Base Station

Road Number	M0067	Telephone Number	
Start - End Nodes	UO8019S - UO2506N	Equipment Position	Left
Km from Start Road	161.05	From - To Town	Kamanjab - Opuwo

	Total Days	Light	Heavy	Total	% Heavy
2011/01/01 - 2011/08/04, 2011/10/11 - 2011/12/31					
TOTAL	7130 Hours	48,351	5,791	54,142	11%
ADT	297.08 Days	163	19	182	10%

TRAFFIC SURVEILLANCE SYSTEM

Namibia

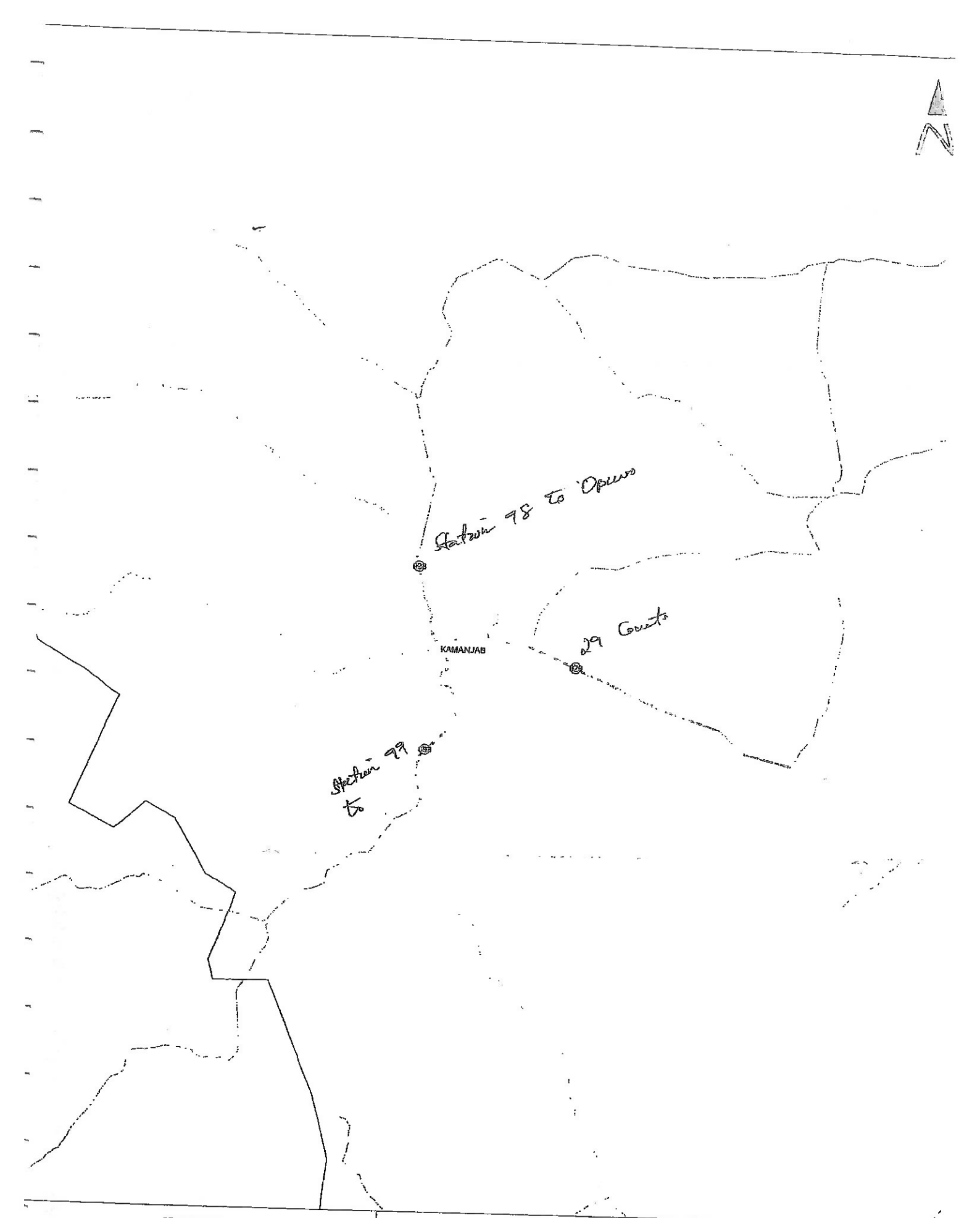
Summary of Total Traffic for 2011

Station	099	Base Station

Road Number		Telephone Number	
Start - End Nodes	UO2504N - UO8005S	Equipment Position	Left
KM from Start Road	319.17	From - To Town	Khorixas (D2667) - Kamanjab

2011/10/11 - 2011/10/28, 2011/11/10 - 2011/12/31

	Total Days	Light	Heavy	Total	% Heavy
TOTAL	1633 Hours	6,865	557	7,422	8%
ADT	68.04 Days	101	8	109	7%



NAMIBIA ROAD MANAGEMENT SYSTEM

NAMIBIA - Network 8 - (TSS)

Counting Stations

Roads Authority

Summary of Total Traffic for 2010

Station	099	Adhoc Station	
Road Number	M0076	Telephone Number	
Start - End Nodes	UO2504N - UO8005S	Equipment Position	Left
Klk from Start Road	319.17	From - To Town	Khorixas (D2667) - Kamanjab

	Total Days	Light	Heavy	Total	% Heavy
2010/08/19 - 2010/08/31					
TOTAL	299 Hours	1,399	105	1,504	7%
ADT	12.46 Days	112	8	121	7%

02 August 2012

The Permanent Secretary
Ministry of Mines and Energy
Private Bag 13297
WINDHOEK

Att: Mr. I. Nghishoongele

Dear Sir

Mr T. SHILONGO

This serves to confirm that upon successful completion of the retail site in Kamanjab and obtaining all relevant licenses by Mr Shilongo, Engen Namibia (Pty) Ltd will supply Mr Shilongo with fuel dispensers and petroleum products.

We trust you find the above in order.

Yours sincerely

Naftal Kakwambi
Retail Manager

Engen Namibia (Pty) Ltd
North Block, Mozart Square, Storch Street, P.O. Box 201, Windhoek, Namibia
Reg. No. 76/3107
Telephone: 00264 (0)61 295 9000, Fax: 00264 (0)61 295 9046

Directors WP Hartmann (South African) F Prins (South African) H Rae (South African)

ENVIRONMENTAL MANAGEMENT PLAN -

THE PROPSED CONSTRUCTION OF A SERVICE STATION AND TRUCK PORT AT KAMANJAB VILLAGE: KAMANJAB - KUNENE REGION - NAMIBIA.

FOR

T AND A GROUP TRADING INVESTMENTS CC

By

OUTRUN INVESTMENTS CC

Office Number 2 Jenner Street, NCCI Building,

Windhoek West, Windhoek, Namibia.

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outruninvest@hotmail.com

Outrun Investments cc

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF ANNEXURE

1. PROJECT DESCRIPTION

The applicant, T and A Group Trading and Investments (Pty) Ltd was founded by Mr and Mrs Shilongo. The company wishes to establish a service station at Kamanjab Village. The area falls under the jurisdiction of Kamanjab Village Council. The service station will comprise of a retail outlet selling petrol, diesel, oil, liquefied petroleum gas (lpg), bakery, restaurant, truck port, toilet and shower facilities, car wash as well as resting rooms. Other commercial services are also planned and these include retailing of veterinary products, hardware dealing with construction materials etc. In the long term there are plans to establish village tourism facility adjacent to the service station.
The site is at the four way intersection of the main roads servicing Kamanjab. The area covers approximately 3750 m^2. The project is expected to add considerable value to the area.

An environmental scoping process was done by the Consultant and a report containing the relevant information required in terms of the Environmental Management Act (2007), was compiled and submitted to Directorate of Environmental Affairs (DEA) in the Ministry of Environment & Tourism (MET).

This report has taken consideration of:

- Due consultation with the applicant and interested and affected parties.
- Review proposed development / activity at a regional and localized level.
- Identification of legal framework governing assessment
- Identification of the nature of site
- Identification through scoping and on – site evaluation of issues relating to development and its impact on site.
- Methodology of assessing potential impacts
- Environmental Management Plan for the identified environmental impacts.

The proposed site falls in the boundaries for business development zone and is open for development. However, for the construction of a service station, it is a requirement under the Environmental management Act and the Ministry of Mines and Energy to carry out an EIA study before embarking on the project and a permit and a dealership licence are issued respectively. No significant impacts were identified during the scoping phase and this EMP report was developed in accordance with the requirements of the Environmental Management Act.

1.2. PROJECT CONCEPT

The business concept that has given rise to this project is centred on the establishment of a service station and truck port. Below is list of various services that will be offered:

- Products will include
  - Diesel
  - Petrol
  - Paraffin
  - Engine oils
  - Engine cleaners
  - Automotive spares
  - Liquefied petroleum gas (lpg)
  - Oxyacetylene gas etc .
  - Confectioneries
  - Veterinary products
- Services
  - Car washing
  - Showers
  - Rest rooms
  - Automated teller machines
  - Truck port

2.3. PROJECT TEAM

Table.1. Team of experts and their areas of responsibility in the EIA process.

ORGANIZATION	AREA OF RESPONSIBILITY / FIELD OF EXPERTISE	TEAM MEMBERS
OUTRUN	Project management EIA coordination EIA process	Josiah Tonderai Mukutiri Josiah Tonderai Mukutiri Veronica Nonhlanhla Gundu
T and A Group Trading and Investments CC	Development of the business concept	T and A Group Trading and Investments CC
Institute of Energy and Environmental Studies CC	Literature review / Desk study	Bryn Canniffe
OUTRUN	Legislatory & Policy Review	Oliver Chigariro
OUTRUN	Development of Environmental Management Plan (EMP)	Josiah Tonderai Mukutiri
OUTRUN	Public Consultation and Facilitation	Tonderai Mukutiri and Delly Jenniffer Mutota
Multi Consult CC	Drawing of Site and Works Plan	AG du Toit

N.B. Detailed curriculum vitae can be provided upon request.

4. IDENTIFICATION OF ALTERNATIVES

This section covers a discussion of alternatives to the proposed construction of a service station and truck port at Kamanjab. The "do nothing" alternative is also considered.

4.1. Strategic alternatives

The proposed construction of the service station and truck port has been seen as a great step towards improving business in Kamanjab. This will be recognised through various ways including, increased availability of fuel for the locals and people in transit, increased availability of veterinary and hardware products and services

Increased availability of other sources of energy such as lpg and paraffin used for cooking is especially important now that the national electricity grid is stressed and Nampower will be limiting electricity consumption.

4.2. ALTERNATIVE SITES

The selected site is the open space next to the four way intersection, see attached site and works plan, annexure 1. There is no other proposed site for setting up the new service station and as a result no other alternative site was considered for this scoping study.

4.3. NO-GO OPTION

The "no-go" option means maintaining the status quo were no new service station and truck port will be constructed. There is no information on the current fuel demand for Kamanjab but however it is anticipated that the demand will increase due to increased traffic. The completion of the Tsandi to Omakange highway is expected to be the major boost in traffic flow through Kamanjab. As mentioned earlier on, there will be increased availability of other sources of energy such as paraffin, lpg will go a long way reducing the electricity consumption.

5.3. INITIATION OF THE SCOPING PROCESS

The scoping process was initiated by publicising it through the Kamanjab Village Council. Posters were displayed in public and popular gathering places such as entertainment centers, clinic, Village Council notice board etc. See Annexure 3 for the sample advertisement or poster.

The posters announced the beginning of the scoping process and invited stakeholders and members of the public to register as I & AP as well as participation in public meetings. A Background Information Document (BID), see attached copy in Annexure 4, was forwarded to stakeholders and members of the public.

The BID contained the relevant information about the proposed construction of a service station and truck port and promoted stakeholders and public participation in the scoping process. A comment sheet was provided at the end of the BID report inviting comments on issues of interest and importance to the stakeholders.

5.4. INITIAL PUBLIC MEETING

A public participation meeting was held at the Kamanjab Village Council Hall on the 25th of February 2012. The meeting was conducted following the 'Goal Oriented Project Planning Technique' (ZOPP) in which a formal presentation (see Annexure 5) was done in order to give the public details regarding the project and the EIA process being followed. The members present were given the chance to say their interests or concerns regarding the project. Communication was interactive and three languages used, English, Damara and Otjiherero. All the legible names and contact details of Attendees were included in the list of registered I&APs, see annexure 6.

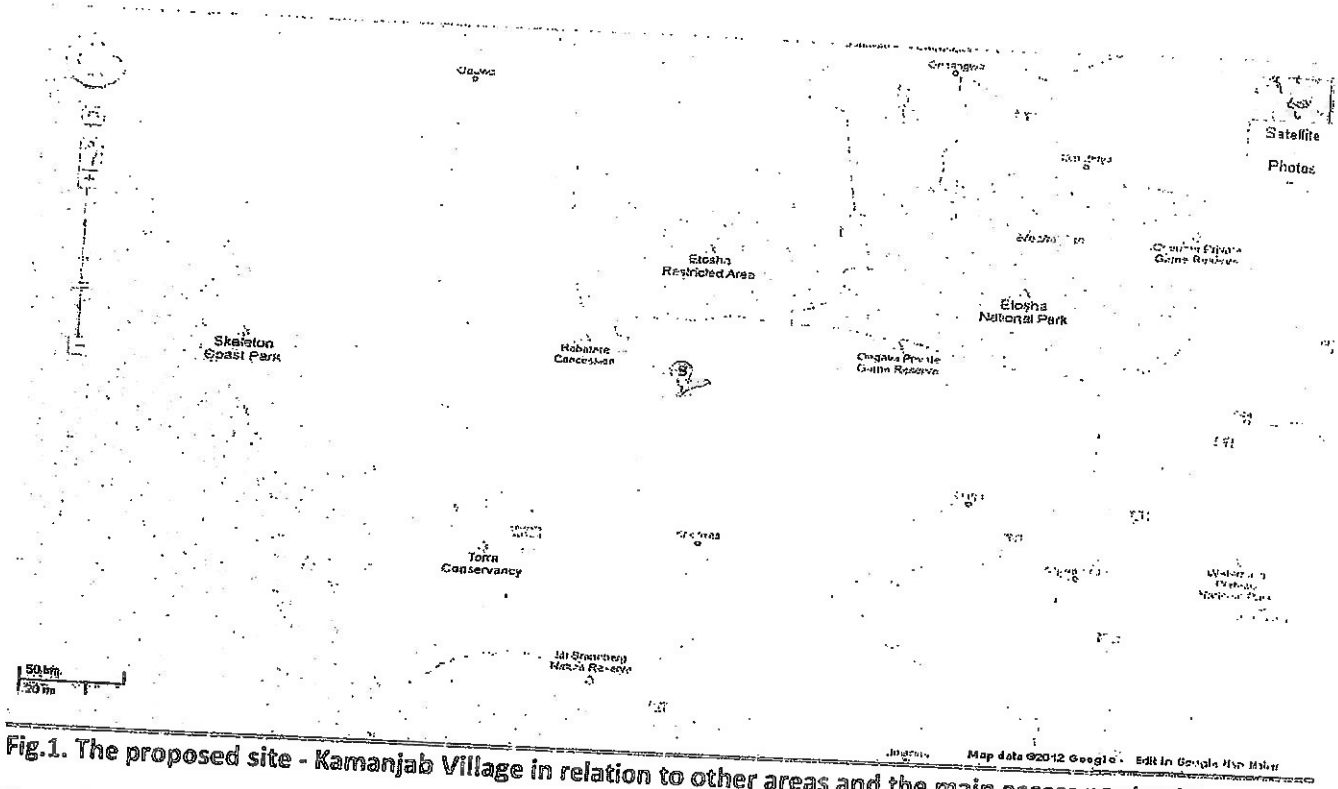


Fig.1. The proposed site - Kamanjab Village in relation to other areas and the main access routes to Kamanjab Village (marked B above).

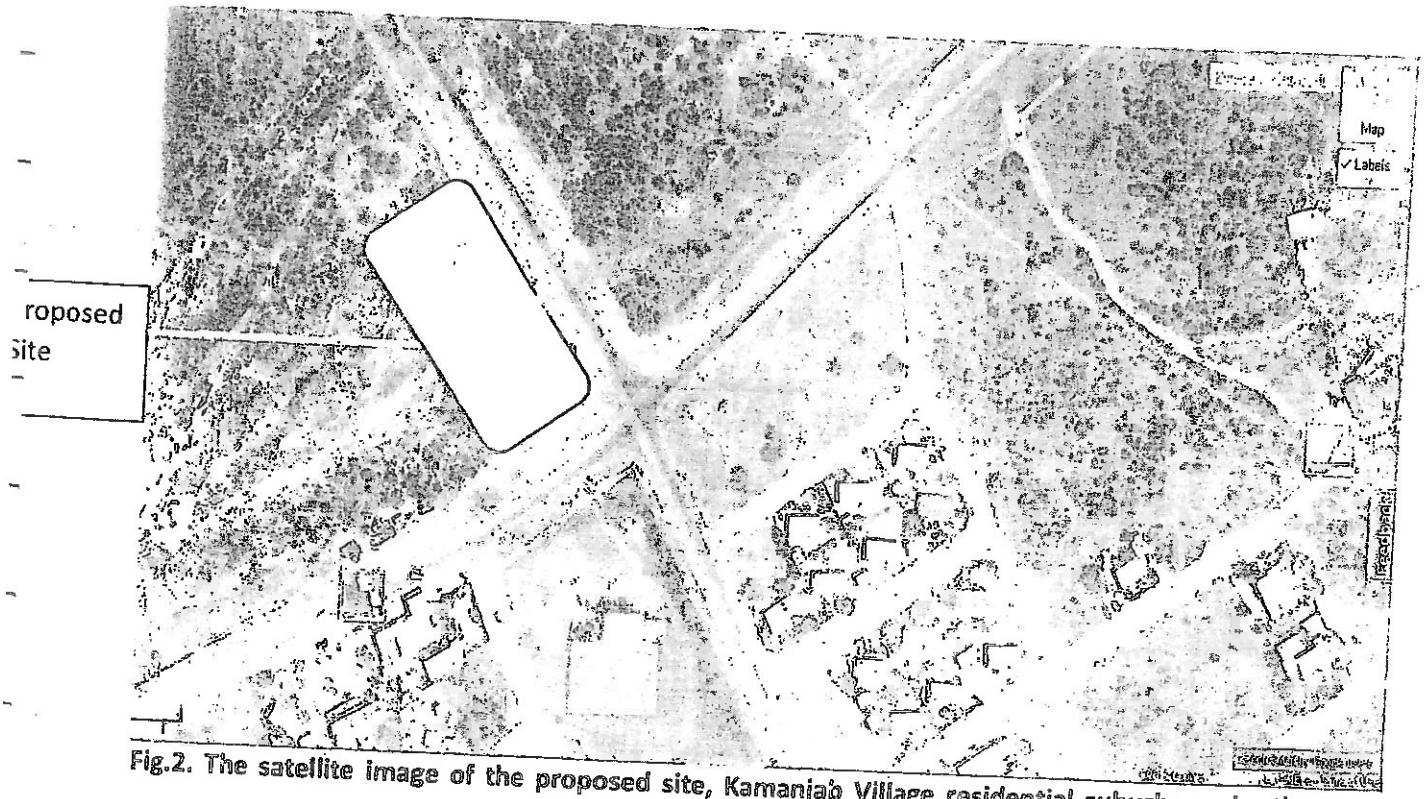


Fig.2. The satellite image of the proposed site, Kamanjab Village residential suburbs and other surrounding facilities.

Environmental Aspect	Environmental Impact
Noise	Irritates site workers with the potential of impairing hearing, nuisance to nearby businesses and lodges in the vicinity.
Land clearing	Landscape degradation
Health and safety hazards	Occupational diseases and accidents
Employment creation	Direct and / or indirect socio-economic benefits.
Carbon foot print	Increased carbon foot print and increased climate change
Soil and water quality	Soil and water contamination / pollution.

ENVIRONMENTAL ASPECT	IMPACT	POSITIVE \NEGATIVE	SOURCE	MITIGATION	IMPLEMENTING AGENT	RESPONSIBLE AGENT	MONITORING AGENT	MONITORING FREQUENCY
Low water use efficiency	Depletion of water resources	-ve	Showers in the rest rooms	Specify low-flow shower heads in the rest rooms.	Design Engineer and Architects	Project Manager / Proponent	DEA	At the design stage and commissioning phase.
Waste Water	Water pollution	-ve	Toilets and car wash	Design should ensure they are connected to the main sewer system.	Design Engineer and Architects	Project Manager / Proponent	DEA, Kamanjab Village Council	At design and construction phase of the project.

ENVIRONMENTAL ASPECT	IMPACT	POSITIVE \NEGATIVE	SOURCE	MITIGATION	IMPLEMENTING AGENT	RESPONSIBLE AGENT	MONITORING AGENT	MONITORING FREQUENCY
Low electricity use efficiency	Increased demand on the national grid.	-ve	Water heating geysers and lights.	Design a system were solar can be used for heating water and lighting.	Design Engineer / Architects	Project Manager / Proponent	DEA, Ministry of Mines and Energy	Design stage
		CONSTRUCTION PHASE						
Traffic flow	Disruption of traffic follow	-ve	Interaction with heavy construction vehicles	Local Traffic Department must be informed at least 1 week in advance if traffic flow will be affected by the construction works. Movement of heavy construction vehicles should avoid peak hours and directed by appropriate warning signs.	Construction Manager	Project Manager	Local Traffic Control Unit	Once off at the commissioning stage of the construction phase
On-site accidents	Injuries and / or loss of life. Damage to property	-ve	Un-informed pedestrians, passer byes and drivers.	Persons and vehicle access during construction should be restricted so as to prevent potential accidents.	Construction Manager	Project Manager	Local traffic control unit	Monthly

ENVIRONMENTAL ASPECT	IMPACT	POSITIVE \NEGATIVE	SOURCE	MITIGATION	IMPLEMENTING AGENT	RESPONSIBLE AGENT	MONITORING AGENT	MONITORING FREQUENCY
Noise	Irritates site workers with the potential of impairing hearing, nuisance to nearby businesses and lodges in the vicinity.	-ve	Movement of equipment Noise associated with hammering during construction.	Limit the noise to the site and make use properly maintained equipment. Limit site construction activities to working hours (7:00 am to 4:00 pm) and noisy activities to morning hours (8:00 am to 12:00 pm).	Construction Manager	Project Manager	DEA	Quarterly
and clearing	Landscape degradation	-ve	Cutting down of trees, removal of grasses, and excavation works.	The large tree on the bus stop should not be cut down. Kamanjab community have great attachment to it since it was the main shade for years. Incorporate indigenous trees in the landscape design as much as possible.	Construction Manager	Project Manager	DEA	Monthly

ENVIRONMENTAL ASPECT	IMPACT	POSITIVE \NEGATIVE	SOURCE	MITIGATION	IMPLEMENTING AGENT	RESPONSIBLE AGENT	MONITORING AGENT	MONITORING FREQUENCY
Soil and water quality	Soil and water contamination / pollution.	-ve	Accidental spillages of fuel and oils as well as paints and other construction liquids.	Strict operation procedure to be followed as provided for by the construction and site waste management plans. Storm drains with oil/water separators to be constructed prior to the beginning of major construction activities. Fuel storage area should be bund walled and concrete surfaced.	Construction Manager	Project Manager / Proponent	DEA	Monthly

ENVIRONMENTAL ASPECT	IMPACT	POSITIVE \NEGATIVE	SOURCE	MITIGATION	IMPLEMENTING AGENT	RESPONSIBLE AGENT	MONITORING AGENT	MONITORING FREQUENCY
Solid waste	Hazardous to health and reduces the aesthetic value of the area.	-ve		Provide adequate waste receptacles or bins should be easily accessible. Waste collection should be done at least once per week.	Service Station Manager	Project Manager / Proponent	DEA	Quarterly
Accidents During offloading	Disruption of traffic follow.	-ve	Bulk Fuel Tankers	Tankers should drive straight in and out without reversing.	Service station Manager	Proponent /Project Manager	Building Inspectors / Engen Engineers / Ministry of Mines & Energy	At design and Construction stages

ENVIRONMENTAL ASPECT	IMPACT	POSITIVE \NEGATIVE	SOURCE	MITIGATION	IMPLEMENTING AGENT	RESPONSIBLE AGENT	MONITORING AGENT
	DECOMMISSIONING PHASE						
Soil and Water quality	Soil and water contamination or pollution	-ve	Spillages during decommissioning and subsequent dismantling of tanks and pipe-works.	All fuels should be drained before dismantling of tanks and pipes. Rubble from concrete works should be disposed of at designated sites. Reusable or recyclable materials should be separated and treated as such.	Construction Manager	Project Manager / Proponent	DEA

ANNEX 1

ANNEX 2

PROJECT CONCEPT

A service station is designed to store and dispense fuel safely without causing fires or damage to the environment. A properly designed service station should have boreholes to monitor underground leaks, fire prevention standard operating procedures, fire prevention equipment, easy to install and operate, cheap to maintain and satisfy environmental regulations.

BENEFITS OF THE PROJECT

There is only one Shell service station in Kamanjab and is very expensive. This particular service station does not open 24 hours, and has limited services. The project will improve Kamanjab Village in the following ways:

- Local availability of various products which used to be sourced from Otjiwarongo only.
- Availability of an Automated teller machine in Kamanjab Village.
- Employment creation although this will not be significant.

THE COMPONENTS MAKING UP THE NEW SERVICE STATION AND TRUCK PORT

The facility should be comprised of the following units:

- Four (4) underground fuel storage tanks
- General dealer shop
- Bakery
- Take away
- Offices
- Car wash

- Toilets and showers
- Truck port or parking area
- Rest rooms
- Automated teller machines
- Veterinary consumables shop
- Truck port
- Fire safety equipment

PROJECT LOCATION

The selected site is adjacent to the four way intersection for all the major highways linked to Kamanjab Village (Fig .1.). This site lies within the boundaries of the area zoned for development by the village council. This is the only land available to the Proponent and as result there will be no need to consider an alternative site during the EIA study.

PROPOSED STUDIES
ASSESSMENT OF ALTERNATIVES

NO-GO OPTION

The "no-go" option means maintaining the status quo in which no new service station will be built. There is need to need to construct a new service station due to the expected increase in the volume of traffic passing through Kamanjab as a result of upgrading of roads linking Kamanjab to other regions and towns. Kamanjab residents will continue to suffer without other services which they have to obtain from as far as Otjiwarongo.

SITES

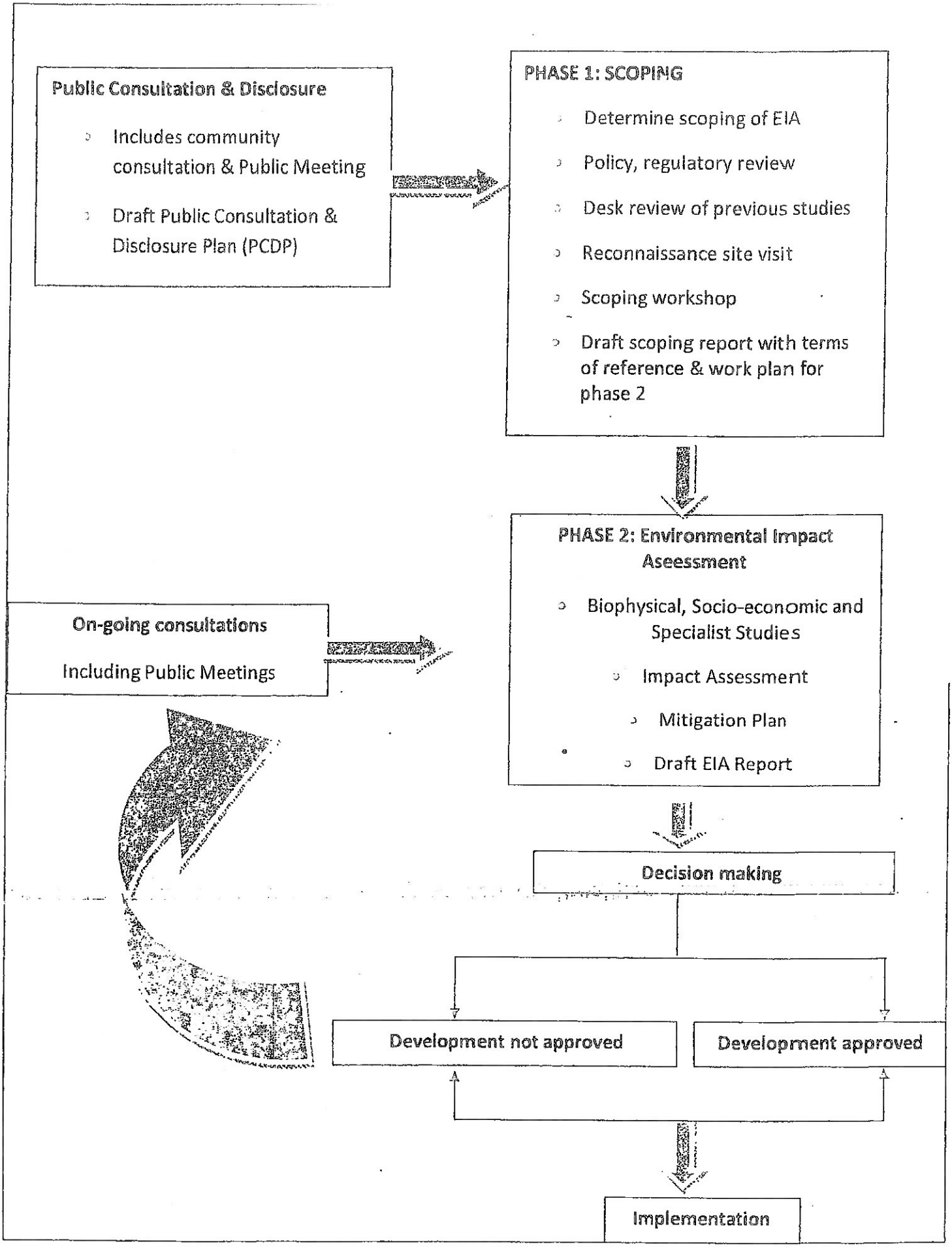
There is no alternative site to consider since this is the only site available to the Proponent as indicated by the Kamanjab Village Council.

THE ENVIRONMENTAL AND IMPACT ASSESSMENT PROCESS

An EIA is the process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development projects prior to major decisions being taken and commitments made.

The objectives of the EIA will be to:

- Provide you with adequate information to understand the potential environmental and socio-economic impacts of the proposed project and opportunities to comment on the project and the process.
- Provide information that will assist the consultants to incorporate effective mitigatory measures into the design and implementation of the project.
- Provide the regulatory authorities with sufficient information to serve as a basis for sound decision making.


Public Consultation & Disclosure
Includes community consultation & Public Meeting
Draft Public Consultation & Disclosure Plan (PCDP)
PHASE 1: SCOPING
Determine scoping of EIA
Policy, regulatory review
Desk review of previous studies
Reconnaissance site visit
Scoping workshop
Draft scoping report with terms of reference & work plan for phase 2
PHASE 2: Environmental Impact Aseessment
Biophysical, Socio-economic and Specialist Studies
Impact Assessment
Mitigation Plan
Draft EIA Report
On-going consultations
Including Public Meetings
Decision making
Development not approved
Development approved
Implementation

DRAFT EIA REPORT

The draft EIA report will reflect all the identified issues, mitigation measures and the proposed environmental management plan. The draft EIA document will be made available to the public for comments on issues of interest and can also raise any concerns they may feel require further attention.

LEGAL FRAMEWORK

The Namibian Government gazetted the Environmental Management Act in 2007. The EIA process will follow the EIA Policy and the Environmental Management Act. The EIA will also take cognizance of applicable international standards and guidelines, conventions and treaties.

PUBLIC CONSULTATION AND DISCLOSURE PLAN

According to the Environmental Management Act (2007), public participation forms an integral part of the EIA process. Adequate public consultation is important to identify issues relevant to the project, evaluating their significance and deciding measures to mitigate these impacts. A public consultation plan has been developed in line with the Environmental Management Act (2007) and seeks to achieve the following objectives:

- To ensure all stakeholders are included in the consultation and disclosure process;
- To ensure initial information disclosure about the project is appropriate and understandable to the non-technical stakeholders and the local population;
- To ensure that adequate and timely information is provided to the public;
- To ensure that all stakeholders are given sufficient opportunity to express their issues, concerns and opinions;

KAMANJAB SERVICE STATION AND TRUCK PORT PROJECT REGISTRATION AND COMMENTS FORM

Please register me as an Interested and Affected Party (I&AP) to receive ongoing communication about the EIA process and the proposed project.

NAME	ORGANIZATION	TELEPHONE	CELL	E MAIL	COMMENTS AND ISSUE OF CONCERN

JOSIAH TONDERAI MUKUTIRI
P. O. Box 24432
Windhoek
Namibia
Mobile: +264 - 814 391104
outruninvest@hotmail.com

ENVIRONMENTAL IMPACT ASSESSMENT – CONSTRUCTION OF A SERVICE STATION AND TRCUK PORT-KAMANJAB, NAMIBIA.

By

Josiah Tonderai Mukutiri

OUTLINE

- Objectives of the meeting
- Environmental Impact Assessment
- Key questions guiding scoping exercise

Objectives of the meeting

—To share Project Information with (Interested & Affected Parties) You and Other Stakeholders.

—To give You the Opportunity to Express Issues and Concerns regarding the Project at Hand.

PROJECT ELEMENTS

—Clearing of the land in preparation for the construction of the service station.

—Construction of the service station and truck port.

—Operation and maintenance of the new facility.

ENVIRONMENTAL IMPACT ASSESSMENT

(EIA)

Identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development projects prior to major decisions being taken and commitments made.

Contact Details

- Outrun Investments cc
- 0814391104
- outruninvest@hotmail.com

END

THANK YOU

EIA Kamanjab Community Public Meeting – Construction of a Service Station and Truck Port

Date: 25/02/2012

Concerns and identified potential negative Impacts of the project:

- The oil spillage into the water stream that takes water to the dam or into the underground water source.
- A big tree that the community is using for shade when hitch hiking to Opuwo should not be removed and if removed it should be replaced with another shade.
- Importing experts from other regions leaving the locals jobless should be avoided.

Positive impacts of the project:

- Employment creation to Kamanjab residents and the surrounding farms
- Minimize monopoly and will to improve customer care of the existing businesses.
- Contribute to infrastructural development
- Beautify the village
- Will attract other investors
- Contribute to poverty reduction
- Will reduce the burden of travelling to other towns to get some commodities e.g. gas, paraffin etc

Others:

- The project should consider subcontracting the local small registered contractors during the construction phase.
- At the identified project area there are mostly small thorn bushes and the community does not think it will negatively impact the community if removed.
- There are no graves that are known to the residents
- The community requests the projects to provide the toilets, car wash and Mini ATMs (banking facilities) services as well.
- The residents of Kamanjab want development and would want the implementation of the project if approved to be expedited as this will contribute to the attainment of VISION 2030.
- Everybody might not benefit directly from this project, but indirectly the whole village will benefit. Thus they are in full support of the project.

REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT AND TOURISM

Tel: (061) 284 2701
Fax: (061) 240 339
Enquiry: Ms. Saima Angula

Capital Centre, 6th Floor
Private Bag 13306
Windhoek

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

T and A Group Trading (Pty) Ltd
P.O. Box 24432
Windhoek

Dear Sir or Madam

SUBJECT: ENVIRONMENTAL CLEARANCE FOR THE ENVIRONMENTAL MANAGEMENT PLAN FOR THE PROPOSED SERVICE STATION AND TRUCK PORT AT KAMANJAB, KUNENE REGION

The Environmental Management Plan submitted is sufficient as it made provisions of the environmental management concerning the proposed activities. From this perspective regular environmental monitoring and evaluations on environmental performance should be conducted. Targets for improvements should be established and monitored from time to time.

This Ministry reserves the right to attach further legislative and regulatory conditions during the operational phase of the project. From this perspective, we issue this clearance with the following condition: all key stakeholders must be properly consulted and written consent obtained prior to any development activities.

On the basis of the above, this letter serves as an environmental clearance for the project to proceed. However, this clearance letter does not in anyway hold the Ministry of Environment and Tourism accountable of any wrong doing, for insufficient information, nor any adverse effects that may arise from this project activity. Instead, full accountability rests with the proponent and his/ her consultants.

Yours sincerely,

Teofilus Nghitila
ENVIRONMENTAL COMMISSIONER

Office of the Environmental Commissioner
P/Bag 13306
Windhoek, Namibia

All official correspondence must be addressed to the Permanent Secretary

FINAL SCOPING REPORT

THE CONSTRUCTION OF A SERVICE STATION AND TRUCK PORT AT KAMANJAB VILLAGE, KAMANJAB, KUNENE REGION, NAMIBIA.

SUBMITTED TO THE MINISTRY OF ENVIRONMENT AND TOURISM

BY

OUTRUN INVESTMENTS CC

RECEIVED BY.....

SIGNATURE E. T. Hatwade

MINISTRY OF ENVIRONMENT AND TOURISM

DATE. 3 MAY 2012

LIST OF ANNEXURES

PROCESS AND METHODOLOGY

This project was identified as a listed activity under the Namibia Environmental Assessment Policy of 1994 and the Environmental Management Act of 2007 that requires an Environmental Clearance from the Ministry of Environment & Tourism, Directorate of Environmental Affairs. Public consultations were done during the development of this report. This report will be made available to Interested and Affected Parties for commenting. This report summarises the proposed project, the receiving environment, the concerns raised by stakeholders and I & APs, and suggested mitigatory measures for predicted impacts.

PROJECT DESCRIPTION

The design of the proposed service station and truck will include:

- Four (4) underground fuel storage tanks
- General dealer shop
- Bakery
- Take away
- Offices
- Car wash
- Toilets and showers
- Truck port or parking area
- Rest rooms
- Automated teller machines
- Veterinary consumables shop

	business development although they had potential to affect the environment.
HEALTH AND SAFETY:	There were concerns that fuels are highly inflammable and can cause fires.
POTENTIAL NEGATIVE IMPACTS:	Oil and fuel spillages and all leakages. There is a big tree at the site, this tree has been used as a bus stop shade for many years and the community do not want it removed. Light pollution is one of the potential impacts likely to be brought by the project due to extensive lighting and signage. Staff members should be recruited from locals.
POSITIVE IMPACTS	*The community felt that there were potential positive impacts that are associated with project and these include employment, availability of an ATM etc.*
OTHER ISSUES:	Other issues or concerns raised by community members included; *The proponent should consider subcontracting local SMEs during the construction phase.* *No special high value or threatened tree species are endemic to the proposed site that the community is aware of.* *No graves or other social cultural and traditionally bound attachments are known to exist at the proposed site.*

1. Introduction

This report was compiled as part of the EIA process for the construction of a service station and truck port at Kamanjab Village. The EIA is being done in line with the Namibian Environmental Assessment Policy (1995) and the Environmental Management Act (2007). The project will also make reference to international standards in instances where we do not have Namibian set standards or limits.

Objectives

- to describe the project in details for everyone's understanding
- to describe the project environmental and the interrelationships among the various components
- to set clear boundaries on what will be included or excluded in the environmental impact assessment study
- to identify and prioritise issues and potential impacts which are directly or indirectly related to the construction and operation of a service station and truck port

The report will not attempt to present an assessment of the potential impacts or mitigatory measures that will be part of the EIA report.

1.1. PROJECT DESCRIPTION

The applicant, T and A Group Trading and Investments (Pty) Ltd was foundéd by Mr and Mrs Shilongo. The company wishes to establish a service station at Kamanjab Village. The area falls under the jurisdiction of Kamanjab Village Council. The service station will comprise of a retail outlet selling petrol, diesel, oil, liquefied petroleum gas (lpg), bakery, restaurant, truck port, toilet and shower facilities, car wash as well as resting rooms. Other commercial services are also planned and these include retailing of veterinary products, hardware dealing with construction materials etc. In the long term there are plans to establish village tourism facility adjacent to the service station.

The site is at the four way intersection of the main roads servicing Kamanjab. The area covers approximately 3750 m^2. The project is expected to add considerable value to the area.

An environmental scoping process has been entered into by the applicant and a report, (*"a scoping report...to contain all the information that is necessary for a proper understanding of the nature of issues identified during scoping..."*) as contained herein, has been compiled whereby the relevant information required in terms of the Environmental Management Act (2007), is provided.

This report has taken consideration of:

- Due consultation with the applicant and interested and affected parties.
- Review proposed development / activity at a regional and localized level.
- Identification of legal framework governing assessment
- Identification of the nature of site
- Identification through scoping and on – site evaluation of issues relating to development and its impact on site.
- Methodology of assessing potential impacts
- Information relating to public participation process.
- Plan of study for assessment of impacts / issues.

Bio physical and social aspects, including major infrastructural development projects taking place in the Kamanjab and the surrounding or bordering regions will form part of the EIA study and will guide the Consultants during the study. Mitigation strategies and a complete environmental management plan will be developed as part of the EIA study. Alternatives including the "no go" option will be explored. The proposed site falls in the boundaries for business development zone and is open for development. However, for the construction of a service station, it is a requirement under the Environmental management Act and the

1.3. PROJECT CONCEPT

The business concept that has given rise to this project is centred on the establishment of a service station and truck port. Below is list of various services that will be offered:

- Products will include
  - Diesel
  - Petrol
  - paraffin
  - Engine oils
  - Engine cleaners
  - Automotive spares
  - Liquefied petroleum gas
  - Oxyacetylene gas etc
  - Confectioneries
  - Veterinary products
- Services
  - Car washing
  - Showers
  - Rest rooms
  - Automated teller machines
  - Truck port

2. LEGAL REQUIREMENTS

2.1. Namibia's Environmental Assessment Policy of 1994.

The policy contains a list of prescribed projects that may have significant negative impacts on the environment. Such projects require authorisation from the Ministry of Environment & Tourism (MET) - Directorate of Environmental Assessment (DEA). The construction of service station is a listed activity that warrants an EIA since involves the following activities:

- Land clearing and removal of overland vegetation
- Excavation of the land
- Operation of the service station and truck port

Accordingly the project requires authorisation from MET: DEA, which will be based on the findings of the scoping exercise and the EIA.

2.2. RELEVANT NAMIBIAN LEGISLATION TO BE REVIEWED WITH RESPECT TO POTENTIAL ENVIRONMENTAL ISSUES

2.2.1. Labour Act (1992), in particular the Regulations Relating to Health and safety of Employees at work.

2.2.2. Primary Health Care Policy (1990)

2.2.3. National Environmental Health Policy (2002)

2.2.4. Air Quality Act (2004)

2.2.5. Atmospheric Pollution Prevention Act (1965)

2.2.6. Atmospheric Pollution Prevention Ordinance (1976)

2.2.7. Pollution and Waste Management Bill (draft)

2.2.8. Environmental Management Act (2007)

an activity. The Water Resources Management Act may be difficult to refer to at this stage since the regulations are still being developed.

2.3. Waste Management

2.3.1. Hazardous Substances Ordinance 14 of 1974

Controls substances with potential to cause injury or ill-health or death of human beings because of their toxic, corrosive, irritant, strongly sensitizing or flammable nature. Petrol, a highly flammable fossil fuel, will be one of the major products on sale including diesel and oils.

2.3.2. Pollution Control and Waste Management Bill

Aims to prevent and regulate the discharge of pollutants to air, water, and land. It further aims to promote the establishment of a system of waste management, and enable Namibia to meet its international obligations.

2.4. General Environmental Protection And Management

Environmental Management Act (2007)

Requires that projects with significant environmental impacts be subjected to an environmental impact assessment (EIA) process.

2.5. Noise And Vibration

Labour Act (1992)

2.6. Public Health

Public Health Act 36 of 1919

Provides for the prevention of pollution of public water supplies.

2.7. Land Use and Planning Issues

Town Planning Ordinance, Ordinance 18 of 1954

3.3. PROJECT TEAM

Table.1. Team of experts and their areas of responsibility in the EIA process.

ORGANIZATION	AREA OF RESPONSIBILITY / FIELD OF EXPERTISE	TEAM MEMBERS
OUTRUN	Project management EIA coordination EIA process	Josiah Tonderai Mukutiri Josiah Tonderai Mukutiri Veronica Nonhlanhla Gundu
OUTRUN	Development of the business concept	T and A Group Trading and Investments CC
Institute of Energy and Environmental Studies CC	Literature review / Desk study	Bryn Canniffe
OUTRUN	Legislatory & Policy Review	Oliver Chigariro
OUTRUN	Development of Environmental Management Plan (EMP)	Josiah Tonderai Mukutiri
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This section covers a discussion of alternatives to the proposed construction of a service station and truck port at Kamanjab. The "do nothing" alternative is also considered.

5.1. Strategic alternatives

The proposed construction of the service station and truck port has been seen as a great step towards improving business in Kamanjab. This will be recognised through various ways including, increased availability of fuel for the locals and people in transit, increased availability of veterinary and hardware products and services

Increased availability of other sources of energy such as lpg and paraffin used for cooking is especially important now that the national electricity grid is stressed and Nampower will be limiting electricity consumption.

5.2. ALTERNATIVE SITES

The selected site is the open space next to the four way intersection, see attached site and works plan, annexure 1. There is no other proposed site for setting up the new service station and as a result no other alternative site was considered for this scoping study.

5.3. NO-GO OPTION

The "no-go" option means maintaining the status quo were no new service station and truck port will be constructed. There is no information on the current fuel demand for Kamanjab but however it is anticipated that the demand will increase due to increased traffic. The completion of the Tsandi to Omakange highway is expected to be the major boost in traffic flow through Kamanjab. As mentioned earlier on, there will be increased availability of other sources of energy such as paraffin, lpg will go a long way reducing the electricity consumption.

Other members with interest or affected by the project. See attached list of registered I&APs and Annexure 2.

6.3. INITIATION OF THE SCOPING PROCESS

The scoping process was initiated by publicising it through the Kamanjab Village Council. Posters were displayed in public and popular gathering places such as entertainment centers, clinic, Village Council notice board etc. See Annexure 3 for the sample advertisement or poster.

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A public participation meeting was held at the Kamanjab Village Council Hall on the 25th of February 2012. The meeting was conducted following the 'Goal Oriented Project Planning Technique' (ZOPP) in which a formal presentation (see Annexure 5) was done in order to give the public details regarding the project and the EIA process being followed. The members present were given the chance to say their interests or concerns regarding the project. Communication was interactive and three languages used, English, Damara and Otjiherero. All the legible names and contact details of Attendees were included in the list of registered I&APs, see annexure 6.

with geo textile fabrics to collect leakage and prevent groundwater contamination.

There is a big tree at the site, this tree has been used as a bus stop shade for many years and the community do not want it removed.

The site and works plan map developed also shows the big tree and the Proponent assured the community that the tree will not be removed.

Light pollution is one of the potential impacts likely to be brought by the project as the facility will need extensive lighting.

Staff members should be recruited from locals.

The service station will not require skilled personnel and there is no justification for employing people outside from Kamanjab Village. The design should consider that extensive lighting and signage will increase night ambience.

POSITIVE IMPACTS

The community felt that there were potential positive impacts that are associated with project and these include

Employment creation

Infrastructural development

Enhance the beauty and scenery of the Village

Attract potential investors to Kamanjab

6.6. REVIEW OF DRAFT SCOPING REPORT

The draft scoping report was put in the following centres for public review and commenting:

- Kamanjab Village Council Community Hall
- Kamanjab Village Council Offices
- Ministry of Mines and Energy

The closing date for commenting on the draft scoping report was 25 April 2012.

6.7. PUBLIC PARTICIPATION: WAY FORWARD

The comments on the Draft Scoping Report were incorporated into the final Scoping Report before submission to the MET: DEA. MET: DEA's decision will be made available to all I&APs.

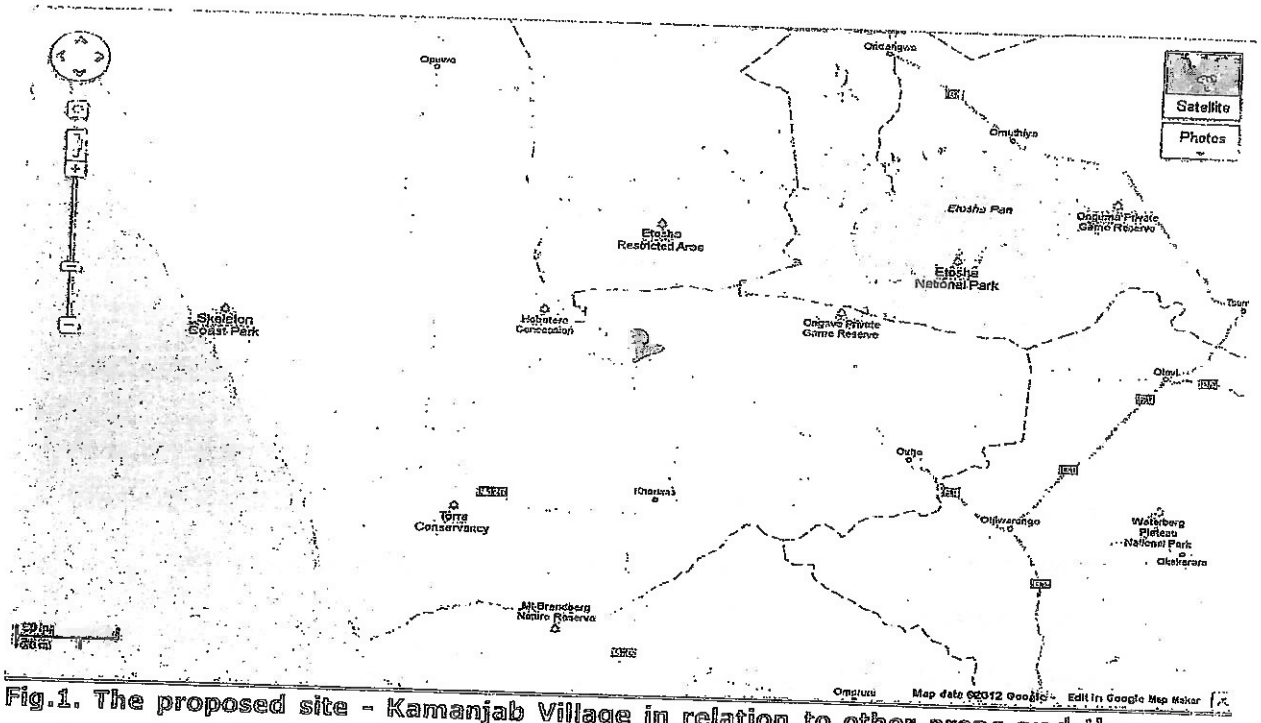


Fig.1. The proposed site - Kamanjab Village in relation to other areas and the main access routes to Kamanjab Village (marked B above).

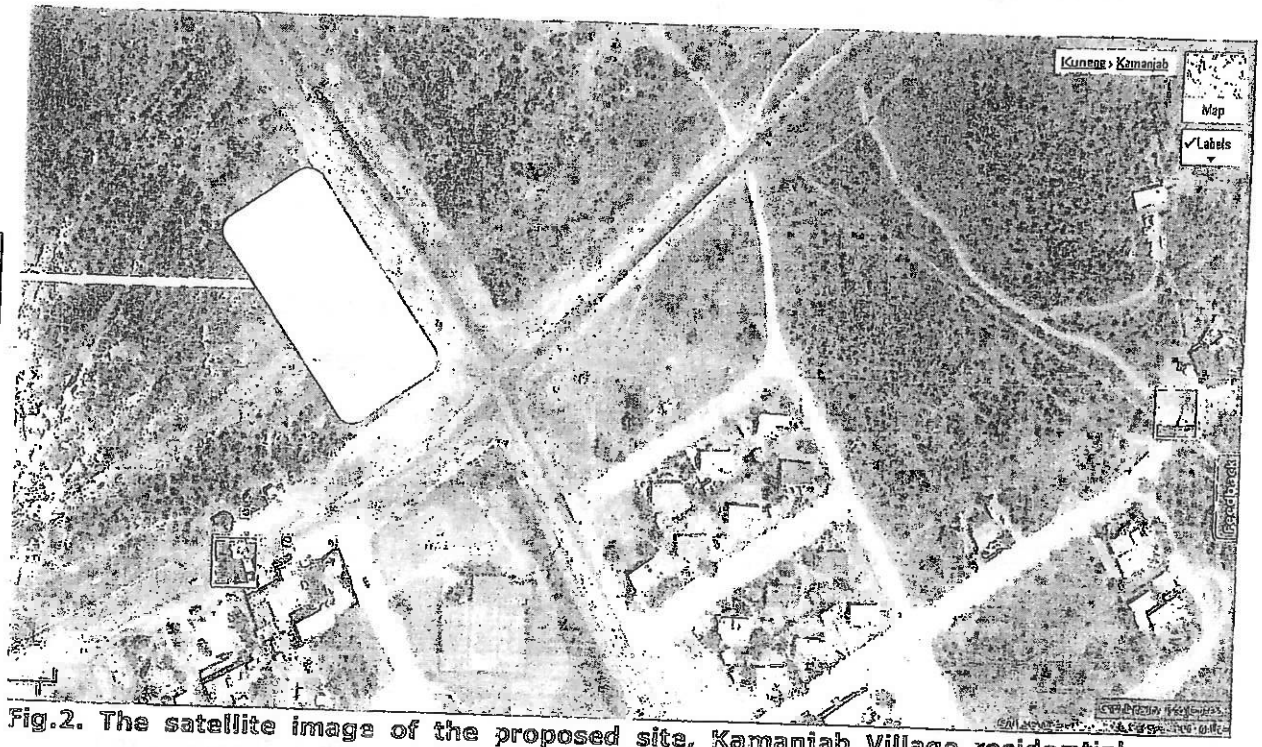


Fig.2. The satellite image of the proposed site, Kamanjab Village residential suburbs and other surrounding facilities.

ENVIRONMENTAL ASPECT	ENVIRONMENTAL IMPACTS
› soil from excavation. › packaging e.g. cement bags. › wood and steel scraps › food waste e.g. plastic bottles, plastic bags, food leftovers.	may also cause and increase in sedimentation and blockage of drains during rainy season.
7.5. Oil/Fuel Spills Fuel and or Oil spills can occur at the fuel storage facilities.	Oil/fuel can enter the drainage system and either contaminate the land, surface and ground water.
7.6. Employment opportunities New jobs will be created.	There will not be a significant number of jobs created due to the scale of the project which is small.
7.7. Positive economic benefits The local economy (Kamanjab) is expected to improve.	The project is likely to impact positively on the Kamanjab economy due to increased availability of fuel and other services.

7.11. SCREENED IMPACTS

Impacts on the Biophysical Environment

The proposed site has no endemic species known to inhabit this area and does not stretch over significant areal coverage and as a result have minimal impacts on the biophysical environment.

Impact on National Heritage Resources

The site has no elements of national heritage importance known. Hence there is no predicted significant impact on national heritage from the construction of the service station and truck port on this particular site.

OTHER IMPACTS

7.12. CONSTRUCTION PHASE

This phase could result in the following impacts during the construction of the service station and truck port:

- Removal of vegetation
- Excavation of the soil
- Noise from heavy earth moving equipment
- Windblown dust

This phase is short-term and / or temporary. The predicted impacts are considered insignificant and an environmental management plan will be developed to manage the short term impacts and prevent any long term impacts arising thereto.

7.13. OPERATIONAL PHASE IMPACTS

Accidental fires and spillages will be handled through the technical designs, fire prevention measures and standard operation procedures. Other predicted impacts during the operation phase will be mitigated

8. CONCLUSIONS AND WAY FORWARD

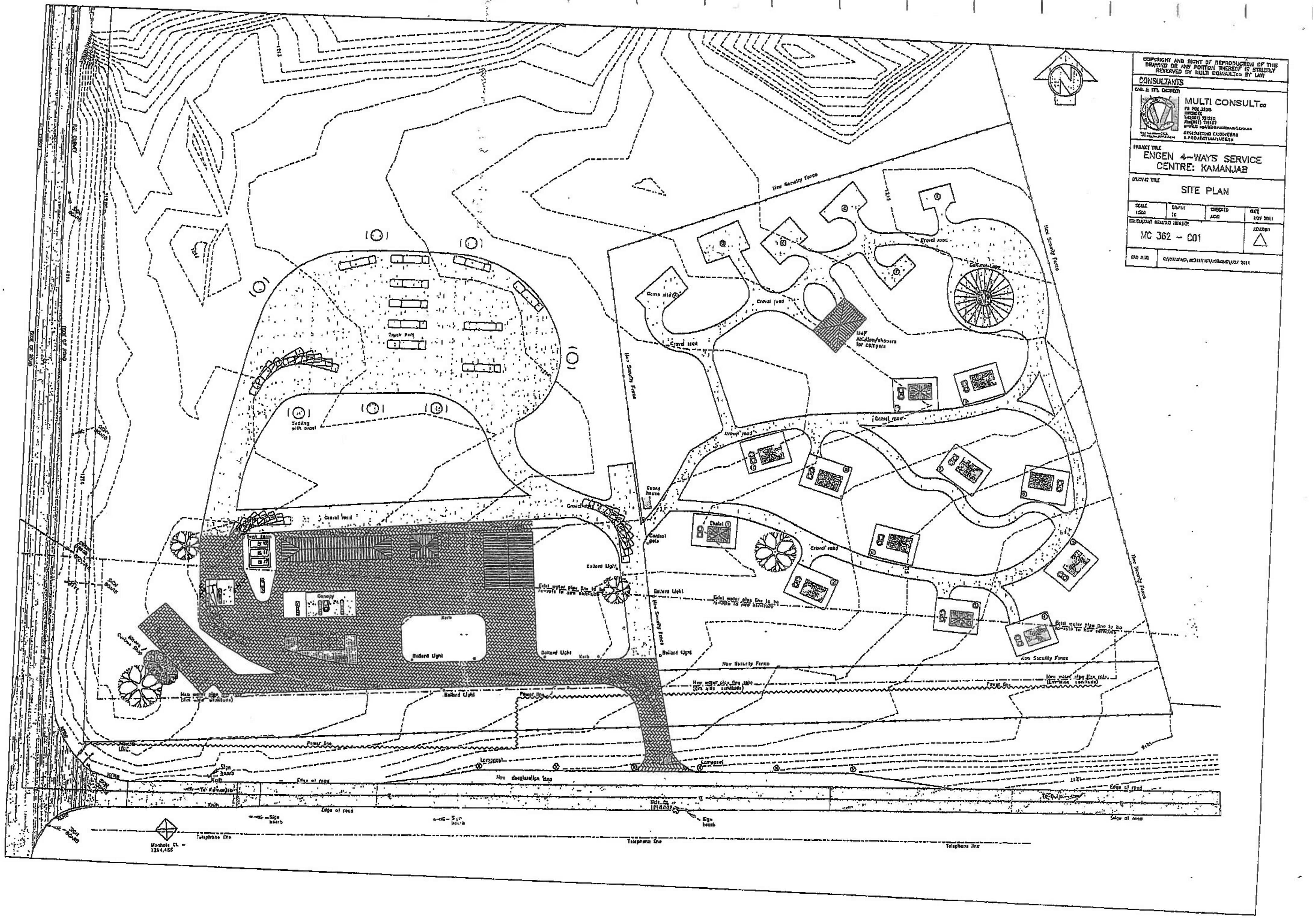
8.1. CONCLUSION

This report was compiled from information obtained from relevant authorities, stakeholders, I&APs and technical experts and professionals. It has presented the context, benefits of the project and the EIA process being followed. The service station will be a retail facility selling highly inflammable fuels with high risk for fires and explosions. Furthermore the signage and lighting will increase the night ambience which has negative ecological impacts. The construction phase results in land clearing and soil excavations and generation of solid wastes. It is anticipated that increase in traffic flow and availability of a truck port may result in increase in HIV prevalence in the area. The potential impacts are not very significant and it is against this background that no specialist studies will be carried out.

8.2. WAY FORWARD

The scoping report was distributed in various venues accessible to I&APs and other stakeholders for public review. Their comments were incorporated in the final report before submission to MET: DEA. The Consultant predicted that the potential impacts will not be significant and proposes that an Environmental Management Plan be developed instead of carrying out a full scale EIA. The EMP will contain detailed instructions responsibilities for all the parties involved in the project right from the design, construction, commissioning & handover and operation of the services station. The decision made by MET: DEA will be made known to all registered I&APs and stakeholders.

ANNEXURE 1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CONSULTANTS
MULTI CONSULTcc
CONSULTING ENGINEERS & PROJECT MANAGERS
PROJECT TITLE
ENGEN 4-WAYS SERVICE CENTRE: KAMANJAB
DRAWING TITLE
SITE PLAN
MC 362 - C01
New Security Fence
Gravel road
Camp site
Ablution/showers for campers
Chalet
Guard house
Control gate
Truck Park
Seating with braai
Canopy
Bollard Light
Kerb
Exist water pipe line to be re-route to new servitude
New water pipe line route (5m wide servitude)
Power line
Lamppost
New deceleration lane
Edge of road
Telephone line
Sign board

ANNEXURE 3

ANNEXURE 4

PROJECT CONCEPT

A service station is designed to store and dispense fuel safely without causing fires or damage to the environment. A properly designed service station should have boreholes to monitor underground leaks, fire prevention standard operating procedures, fire prevention equipment, easy to install and operate, cheap to maintain and satisfy environmental regulations.

BENEFITS OF THE PROJECT

There is only one Shell service station in Kamanjab and is very expensive. This particular service station does not open 24 hours, and has limited services. The project will improve Kamanjab Village in the following ways:

- Local availability of various products which used to be sourced from Otjiwarongo only.
- Availability of an Automated teller machine in Kamanjab Village.
- Employment creation although this will not be significant.

THE COMPONENTS MAKING UP THE NEW SERVICE STATION AND TRUCK PORT

The facility should be comprised of the following units:

- Four (4) underground fuel storage tanks
- General dealer shop
- Bakery
- Take away
- Offices
- Car wash

PROJECT ELEMENTS TO BE COVERED BY THE EIA.

The EIA will cover the following elements:

- Land clearing
- Construction of the new service station and truck port.
- Operation of the new service station, truck port and associated services.

Fig.4. The Environmental Impact Assessment process that will be followed.

SCOPE OF THE WORK

The EIA will focus on the issues related to land clearing and the construction of a service station and truck port at Kamanjab Village.
The EIA will be done in 2 phases (See Figure.4).

PHASE 1 – SCOPING

It is a formal requirement during the EIA process to carry out a scoping study and this is in-line with the Namibian Environmental Management Act (2007). The purpose of this study is to direct the assessment on the key issues for assessment and at the same time eliminate those that do not require detailed intensive studies.

SCOPING ACTIVITIES

- Consultations with key stakeholders, government departments etc.
- Advertising and carrying out public meetings.
- Distribution of project information to the public.
- Producing draft scoping report.
- Gathering public comments on draft scoping report.
- Submission of final scoping report to Ministry of Environment & Tourism (MET).

PHASE 2

Issues that are raised during the scoping study will be used to develop terms of reference for specialist studies. Experts within the Consultancy Team will be assigned to carry out the specialist studies should there any. The results from the specialist studies will be incorporated into the Draft EIA report.

- To ensure that stakeholders' opinions and concerns influence project decisions;
- To ensure regular feedback is given to the public;
- To ensure that effective communication will continue during the construction and operational phases of the project;

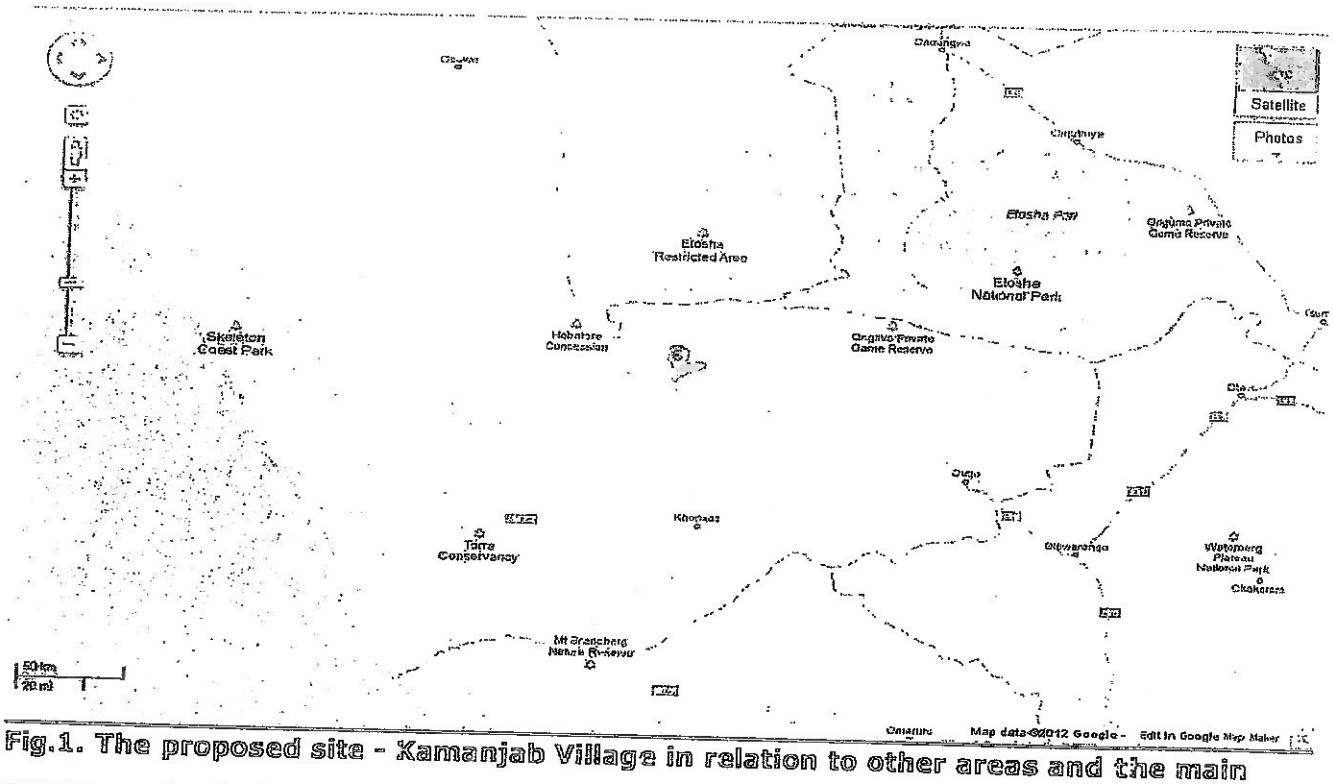
T and A Group Trading Enterprises CC and the Outrun Investments Team are committed to active and ongoing communication and consultation with all members of the public in the proposed construction of the new service station and truck port at Kamanjab Village.

HOW YOU CAN BE INVLOVED?

- Attend public meetings that will be advertised in the press, posters pinned in the village and the National Radio.
- Contact the EIA consultants for further information.
- Review the draft reports when you are invited to do so within the timeframes provided.

Please ensure that you are registered on the project database by providing your contact details to the EIA consultants. Registration will ensure that you receive on-going communication about the EIA process, meeting invitations, project updates and invitations to review the draft reports.

ANNEXURE 5



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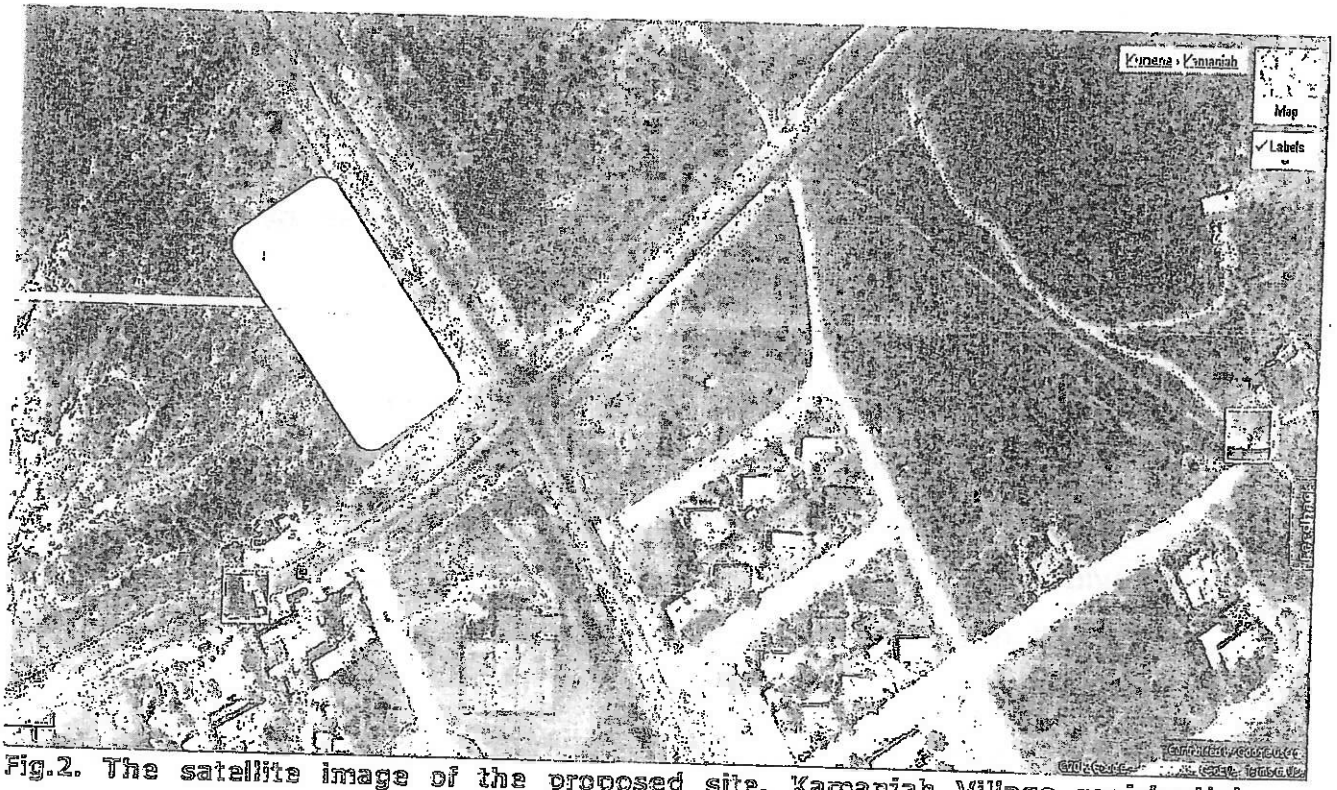

Fig.2. The satellite image of the proposed site, Kamanjab Village residential suburbs and other surrounding facilities.

Annexure D: Progressive Quantity Surveyors / Engineers' Cost Estimates.

MULTI CONSULT cc

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CONSULTING ENGINEERS AND PROJECT MANAGERS

Reg. No. cc/94/00122
VAT Reg. No. 0045913-01-5

T + A Group Trading + Investment cc
P.O Box 32130
Pionierspark
Windhoek
Namibia

362/A/L 03

August 29, 2012

Attn: Mr. Nelson Shilongo

Sir

4 – WAYS SERVICE CENTRE: KAMANJAB

Further to our recent meeting in my office, we attach hereto :

- A4 drawing indicating the new phases of development as proposed by you instead of the previous 5 phases as suggested by us.
- Cost estimate from Messrs Blokker, Jacobs + Kuschke QS
- Cost estimate of electrical works for all phases
- Cost estimate of fuel installation
- Summary of budget estimated project cost.
- Drawing list

Four sets of pump and tank drawings were already collected by you for Ministry of Mines and Energy approval, Village Council approval and for your license application.

We confirm our visit to Mr Kakwambi of Engen Namibia, the re-submission of the forecourt layout and general site plan on 01/08/2012 as well as the receipt of their approval on 02/08/2012 by e-mail.

Also on 04/02/2012, we forwarded a general site plan to Mr. Josiah Tanderia Mukutiri (your appointed Environmentalist) for inclusion in his EIA – study.

As discussed we attach the estimated professional fees for phase I, i.e. design fees and supervision fees separately. The drawings for Phase I to IV is done and available

Trust all is clear

Yours Faithfully

AG du Toit
For Multi Consult cc

MULTI CONSULT cc

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CONSULTING ENGINEERS AND PROJECT MANAGERS

ESTIMATED BUDGET COST FOR ELECTRICAL AND AIR CONDITIONING

PROJECT: 4 - WAYS SERVICE CENTRE: KAMANJAB

CLIENT: T + A GROUP TRADING AND INVESTMENT CC

PHASES: I to IV

SUMMARY OF SCHEDULES OF QUANTITY		
SCHEDULES		NAD
SCHEDULE 1 :	CONTRACT ADMINISTRATION AND GENERAL REQUIREMENTS	23,200.00
SCHEDULE 2 :	CONTRACTOR'S ESTABLISHMENT ON SITE	27,800.00
SCHEDULE 3 :	SITE ELECTRICAL	548,824.00
SCHEDULE 4 :	MAIN BUILDING, DEPOT, CANOPY & TAXI	372,790.80
SCHEDULE 5 :	CAMP SITE, ABLUTION & CULTURAL LAPA	92,482.20
SCHEDULE 6 :	AC, KITCHEN CANOPY & VENTILATION	52,000.00
SCHEDULE 7 :	BUTCHERY COLD ROOM	100,000.00
	PROVISIONAL SUM FOR CERTIFICATION & OF LIGHTNING PROTECTION SYSTEM	20,000.00
TOTAL		1,237,097.00
CONTINGENCIES OF 5%		61,854.85
TOTAL ESTIMATE FOR E & M (Excl. VAT)		1,298,951.85

MULTI CONSULT cc

CONSULTING ENGINEERS AND PROJECT MANAGERS

DRAWING LIST

MC PROJECT : MC 362 - ENGEN 4-WAY SERVICE CENTER:KAMANJAB

DRAWING NO	DRAWING TITLE	DRAWING STATUS	REMARKS	DATES:	REV:
	ABLUTION BLOCK - CAMPERS				
MC 362 - C601	PLAN ELEVATION & SECTIONS				
MC 362 - C602	FOUNDATION & REINFORCEMENT LAYOUT				
MC 362 - C603	INTERNAL WATER LAYOUT				
MC 362 - C604	INTERNAL SEWER				
MC 362 - C605	FLOOR, JOINTS & APRON				
	DEPORT BUILDING				
MC 362 - C301	PLAN, ROOF LAYOUT AND SECTION A-A				
MC 362 - C302	FLOOR, JOINTS & APRONS LAYOUT				
MC 362 - C303	ELEVATIONS LAYOUT				
MC 362 - C304	FOUNDATION, FOUNDATION REINFORCEMENT & DETAILS				
	GUARD HOUSE				
MC 362 - C800	PLAN & ELEVATIONS				
MC 362 - S801	INTERNAL WATER, SEWER LAYOUT, ROOF LAYOUT & JOINTS				
MC 362 - S802	FOUNDATION & REINFORCEMENT LAYOUT				
	EXTERNAL SERVICES				
MC 362-L01	LOCALITY PLAN				
MC 362-C00	PHASING DEVELOPMENT				
MC 362-C01	SITE LAYOUT				
MC 362-C02	EXTERNAL WATER				
MC 362-C03	EXTERNAL SEWER				
MC 362-C04	ALL SRVICES				
MC 362-C05	SETTING OUT				
MC 362-C06	SETTING OUT 2				
MC 362-C07	PAVING & KERB LAYOUT				
MC 362-C08	PAVING & KERB LAYOUT 2				
MC 362-C09	ROAD MARKINGS & SIGNAGE				
MC 362-C10	FENCE LAYOUT				
MC 362-C11	EXTERNAL FIRE WATER LAYOUT				
MC 362-C12	CONTOURS				
	FORE COURT				
MC362 - C100	SITE PLAN				
MC362 - C101	ALL SERVICES				
MC362 - C102	EXTERNAL WATER & AIR SUPPLY				
MC362 - C103	FIRE FIGHTING SERVICES,SIGNAGE & ESCAPE ROUTES				
MC362 - C104	SPILL CONTANMENT LAYOUT + EXTERNAL SEWER				
MC362 - C105	STORMWATER + LEVELS + SLOPES				
MC362 - C106	PUMP & TANK LAYOUT				
MC362 - S100	CANOPY FOUNDATION PLAN AND DETAIL				
MC362 - S101	CANOPY ROOF PLAN & DETAILS				
MC362 - S102	CANOPY DETAILS				
MC362 - S103	CANOPY LIGHTING LAYOUT & DETAILS				
MC362 - S104	COC CANOPY ROOF PLAN & SECTIONS				
MC362 - S105	COC CANOPY LAYOUT & DETAIL				
MC362 - S106	COC CANOPY R.C FOUNDATION BASE & DETAILS				
MC362 - S107	RC SLAB + DETAILS				
MC362 - S108	OIL INTERCEPTOR				
MC362 - S109	PUMP ISLAND DETAIL				
MC362 - S110	PUMP & TANK DETAILS - 01				
MC362 - S111	PUMP AND TANK DETAILS - 02				
MC362 - S112	PUMP AND TANK DETAILS - 03				
	MAIN BUILDING				
MC362 - C200	PLAN LAYOUT				
MC362 - C201	ELEVATIONS				
MC362 - C202	APRON & SURFACE BED JOINTS				
MC362 - C203	FOUNDATION LAYOUT				
MC362 - C204	INTERNAL WATER LAYOUT				
MC362 - C205	INTERNAL WATER LAYOUT				
MC362 - C206	ROOF TRUSSES LAYOUT				
MC362 - C207	ELECTRICAL AND AIR CONDITIONS LAYOUT				
MC362 - C208	CEILLING LAYOUT				
MC362 - C209	TILE LAYOUT				
MC362 - S201	FOUNDATION REINFORCMENT				
MC362 - S202	RING BEAM REINFORCMENT				
	TYRE REPAIR				
MC362-C400	PLAN,SECTION,ELEVATIONS & SERVICES + DETAIL				

Annexure E: Progressive architect's drawings.

BLOKKER, JACOBS & KUSCHKE
QUANTITY SURVEYORS

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MAERUA PARK
CENTAURUS ROAD

MULTI CONSULT CONSULTING ENGINEERS
P.O. BOX 35056
WINDHOEK

Attention : André du Toit

20-May-12

Dear Sir

Proposed new service station at Kamanjab **Estimate no. 7**

1 I refer to your request regarding budget cost estimates for the above mentioned project, based on provisional sketch plans received on 10/5/2012.

2 To try and achieve the proposed budget the Client will have to make some drastic adjustments. We submit the figures to you in a proposed breakdown of the project in stages in an effort to meet the possible cash flow challenge.

3 Cost Estimate

Builder's work

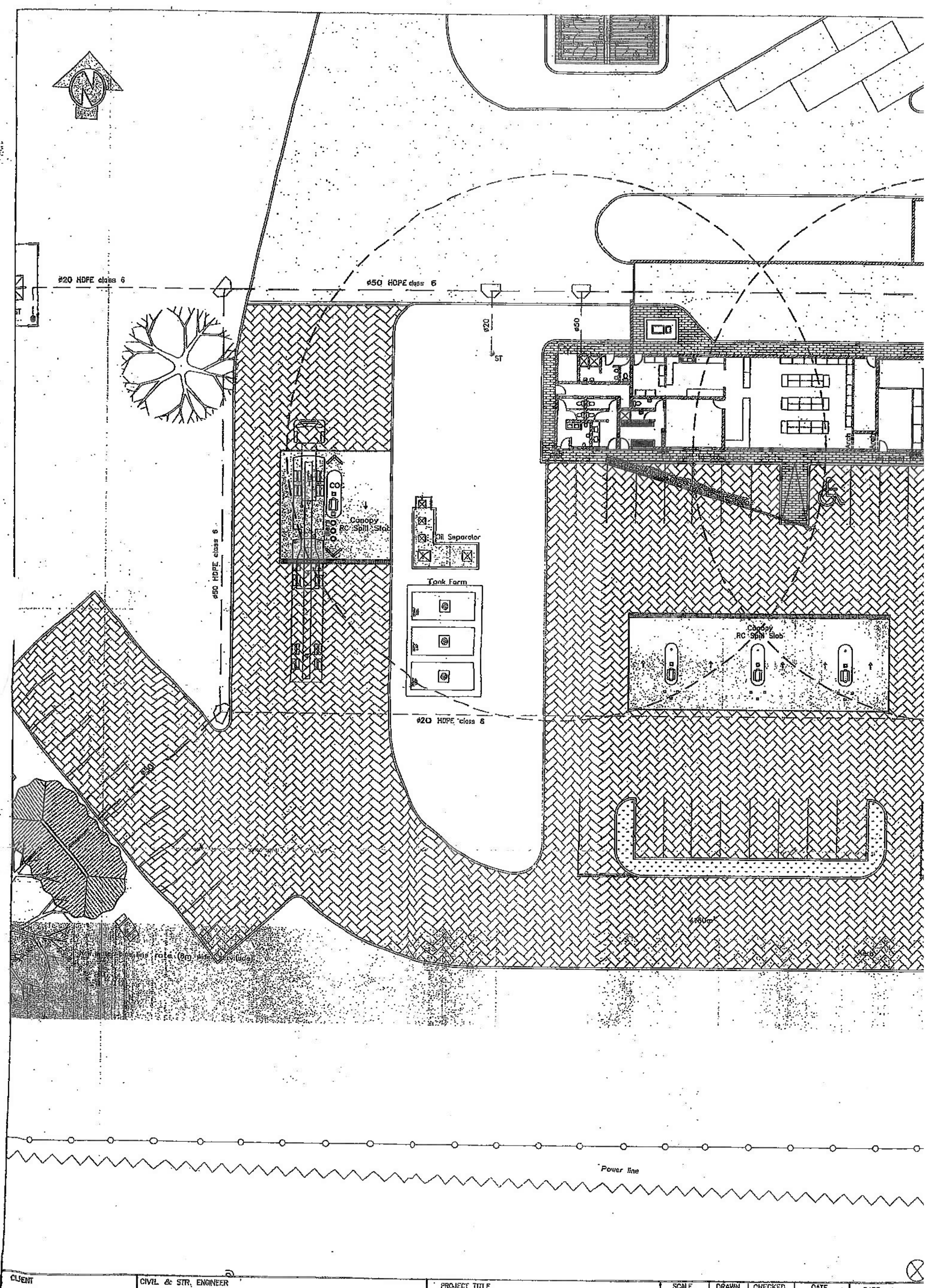
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
1 Main Building	2,307,100				
2 Shed/depot		1,778,100			
3 Main canopy	471,500				
4 COC Canopy	230,600				
5 Taxi ablution			693,400		
6 Campers' ablution					1,027,300
7 One-bed chalets (6)				3,209,000	
8 Two-bed chalets (4)				2,380,600	
9 Guard house		395,100		83,600	
10 Curio shop					
11 Cultural lapa		196,800			262,400
12 Gas & Tyre repair					
13 External works					
Site levelling (say)	2,053,500	735,400	982,800	704,800	698,600
Fencing	230,600	57,700	288,300	288,300	288,300
Paving	0	0	129,200	150,700	150,700
Gravel roads	1,455,100	623,600	0	0	0
Signage (say)	0	0	476,900	159,000	159,000
Sewers & water	102,500	20,500	41,000	41,000	41,000
Refuse area	167,900	33,600	33,600	50,400	50,400
Benches, braai areas	97,400	0	0	0	0
14 Electrical & Air Conditioning Installation	0	0	13,800	15,400	9,200
Subtotal	846,600	185,200	75,700	45,100	146,400
Brought forward	5,909,300	3,290,600	1,751,900	6,423,100	2,134,700
	5,909,300	3,290,600	1,751,900	6,423,100	2,134,700

EIA PUBLIC MEETING - THE CONSTRUCTION OF A SERVICE STATION AND TRUCK PORT AT KAMANJAB VILLAGE

ATTENDANCE REGISTER.

DATE: 25 FEB -2012

	NAME	CELL NO.	E-MAIL.
1	Kamburi C.N.	0812898498	Kambiri chris@gmail.co
2	Joemeni		
3	Cn	0817922 20	
4	T.M. Komibe		
5	E. Matheus		
6	V.B. Rujinao	0813942497	
7	G. Efraim		
8	O. Tjirige	081764[illegible]78	
9	G. Aebeb	0816721352	
10	C Naruseb	081[illegible]056045	
11	S. Kenahoma Cell	0817221309.	
12	A.J.f. Tjiondo Cell	0816644888	
13	Aina Embashu	0812612513	
14	C. Loger.	0814913752	
15	Guims, Esme	0814913752	
16	Kafiti Naurira.		
17	Topias Utombo		
18	Ubes Aiaeb		
19	maria Magdalena Guims		
20	GIDEON Ihonga		
21	Jostofina Ugams		
22	L'Kuwa PETRUS	081-6078061	
23	Salinde Hees	0817538392	
24	PETRUS JOHANNES PIENAAR	0813889893 (067-330009)	



CLIENT	CIVIL & STR. ENGINEER	PROJECT TITLE	SCALE	DRAWN	CHECKED	DATE
T+A GROUP TRADING AND INVESTMENT CC	MULTI CONSULT cc	4 WAYS SERVICE CENTRE: KAMANJAB	1:200	TC	AG du Toit	JULY 2012
P.O.BOX : 32130 PIONEERS PARK WINDHOEK Tel: 061-227339 Fax: 061-220850	PO BOX 35056 WINDHOEK Tel:(061) 221560 Fax:(061) 249487 e-mail: agdutoit@multiconsult.com.na CONSULTING ENGINEERS & PROJECT MANAGERS	DRAWING TITLE FIRE FIGHTING SERVICES	CONSULTANT DRAWING NUMBER MC 362-C103		REVISION	

DATE

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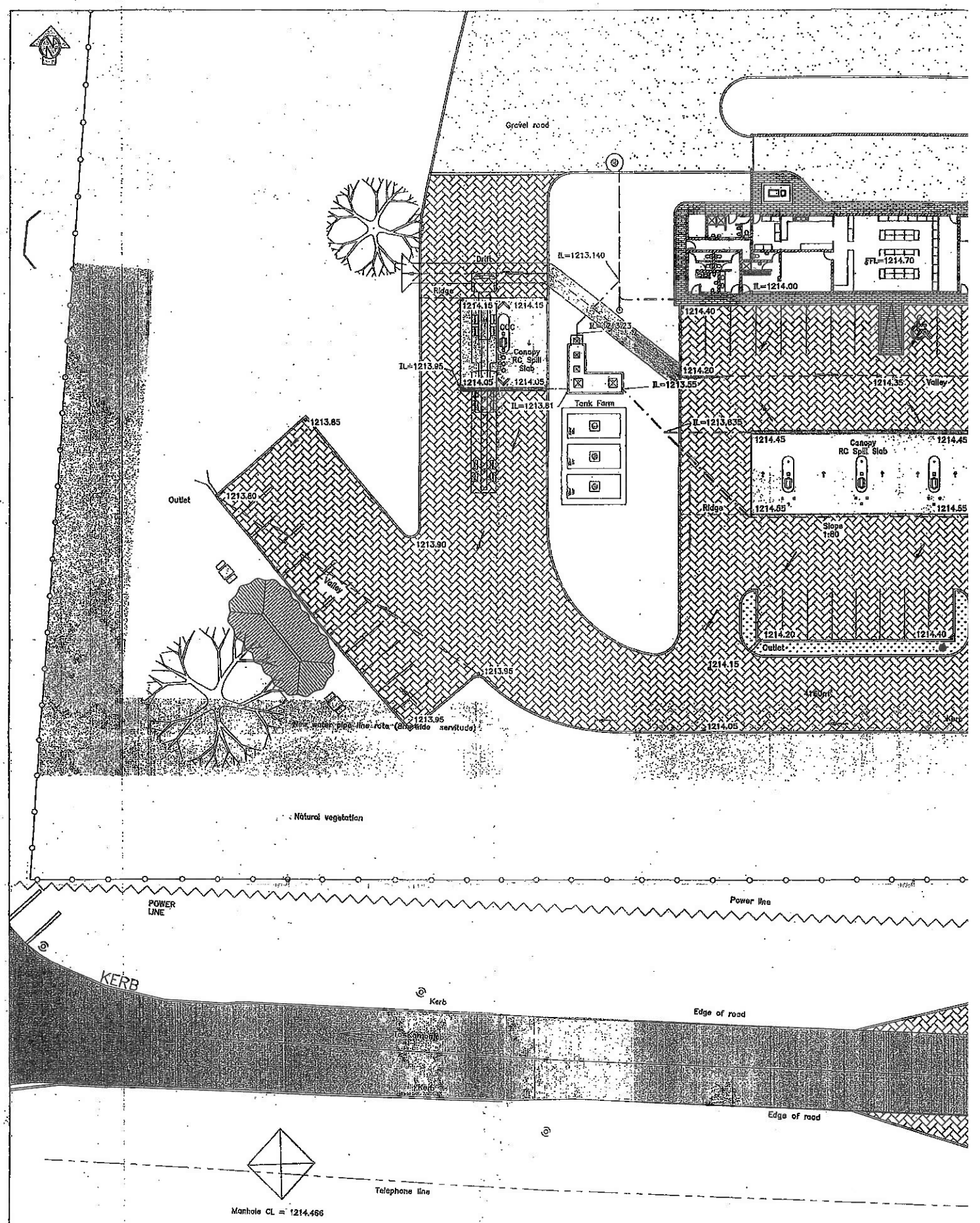

CLIENT

T+A GROUP TRADING AND INVESTMENT CC.

P.O.BOX : 32130 Tel: 061-227539

CIVIL & STR. ENGINEER

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Tel:(061) 231566
Fax:(061) 249497
e-mail: agdmulti@multiconsult.com.na

CONSULTING ENGINEERS

PROJECT TITLE

4 WAYS SERVICE CENTRE: KAMANJAB

DRAWING TITLE

STORM WATER + LEVELS + SLOPES

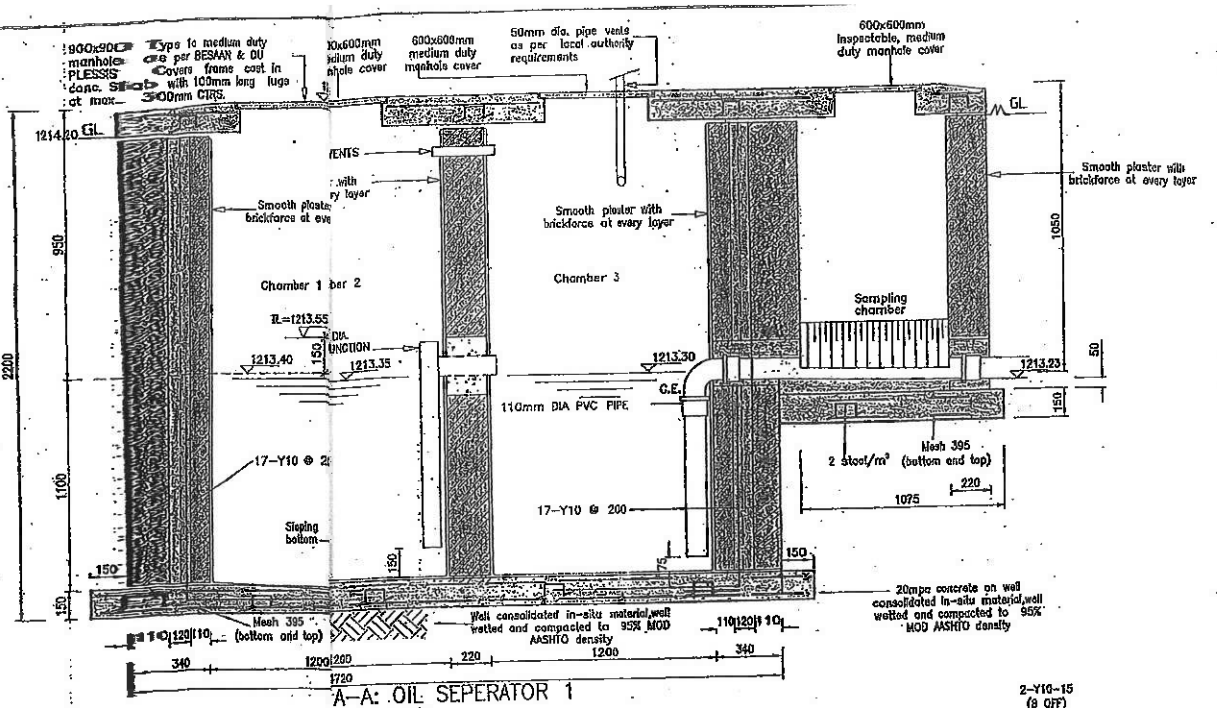
SCALE	DRAWN	CHECKED	DATE
1:250	IC	AG du Toit	JULY 2012

CONSULTANT DRAWING NUMBER

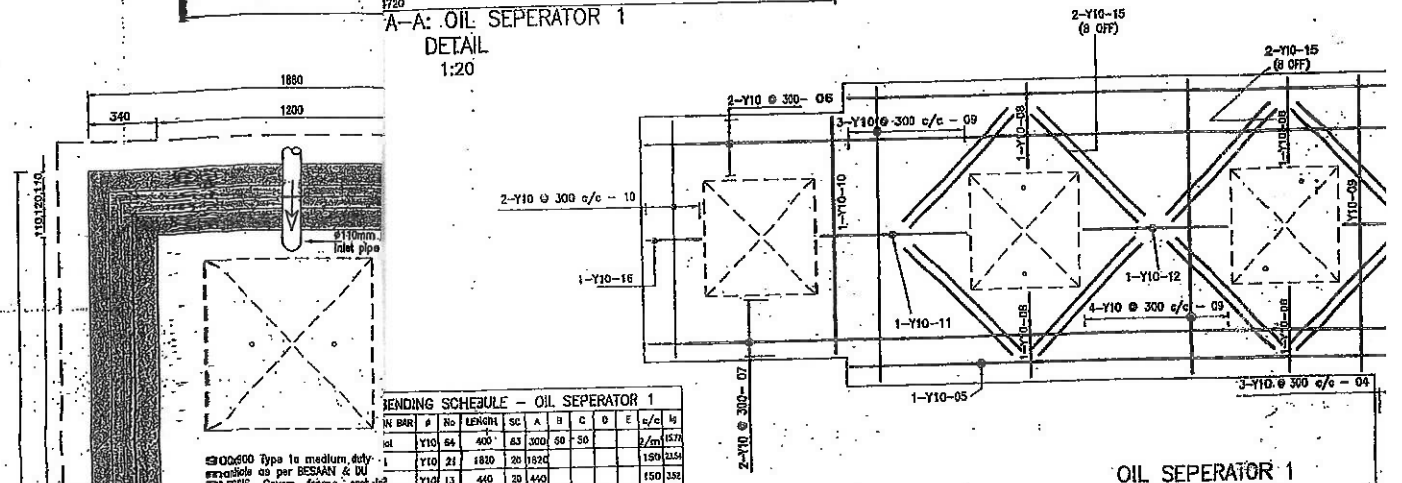
MC 362-C105

REVISION

DATE



A–A: OIL SEPERATOR 1
DETAIL
1:20

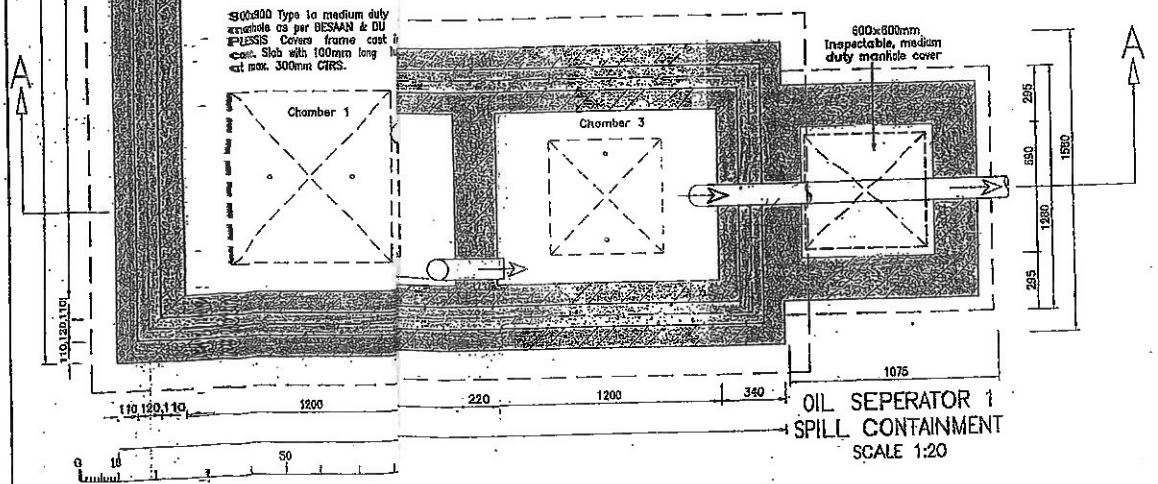


OIL SEPERATOR 1
REINFORCEMENT
SCALE 1:20

BENDING SCHEDULE – OIL SEPERATOR 1

IN BAR	#	No	LENGTH	SC	A	B	C	D	E	c/c	kg
ial	Y10	64	400	63	300	50	50			p/m	157.9
1	Y10	21	1820	20	1820					150	235.4
2	Y10	13	440	20	440					150	3.52
3	Y10	2	2850	20	2850					300	3.16
4	Y10	6	5430	20	5430						28.07
5	Y10	2	4670	20	4760						5.75
6	Y10	2	5745	20	5745					300	7.66
7	Y10	2	4335	20	4335					300	5.34
8	Y10	7	440	20	440						1.99
9	Y10	8	1530	20	1530						7.54
0	Y10	1	1230	20	1230						0.76
0	Y10	2	1230	20	1230					300	1.51
1	Y10	1	725	20	725						0.45
2	Y10	1	770	20	770						0.47
3	Y10	1	620	20	620						0.38
4	Y10	16	1000	20	1000						9.86
5	Y10	16	800	20	800						7.89
6	Y10	1	270	20	270						0.17
7	Y10	106	2000	37	1000	1000	STARTERS			200	13.05

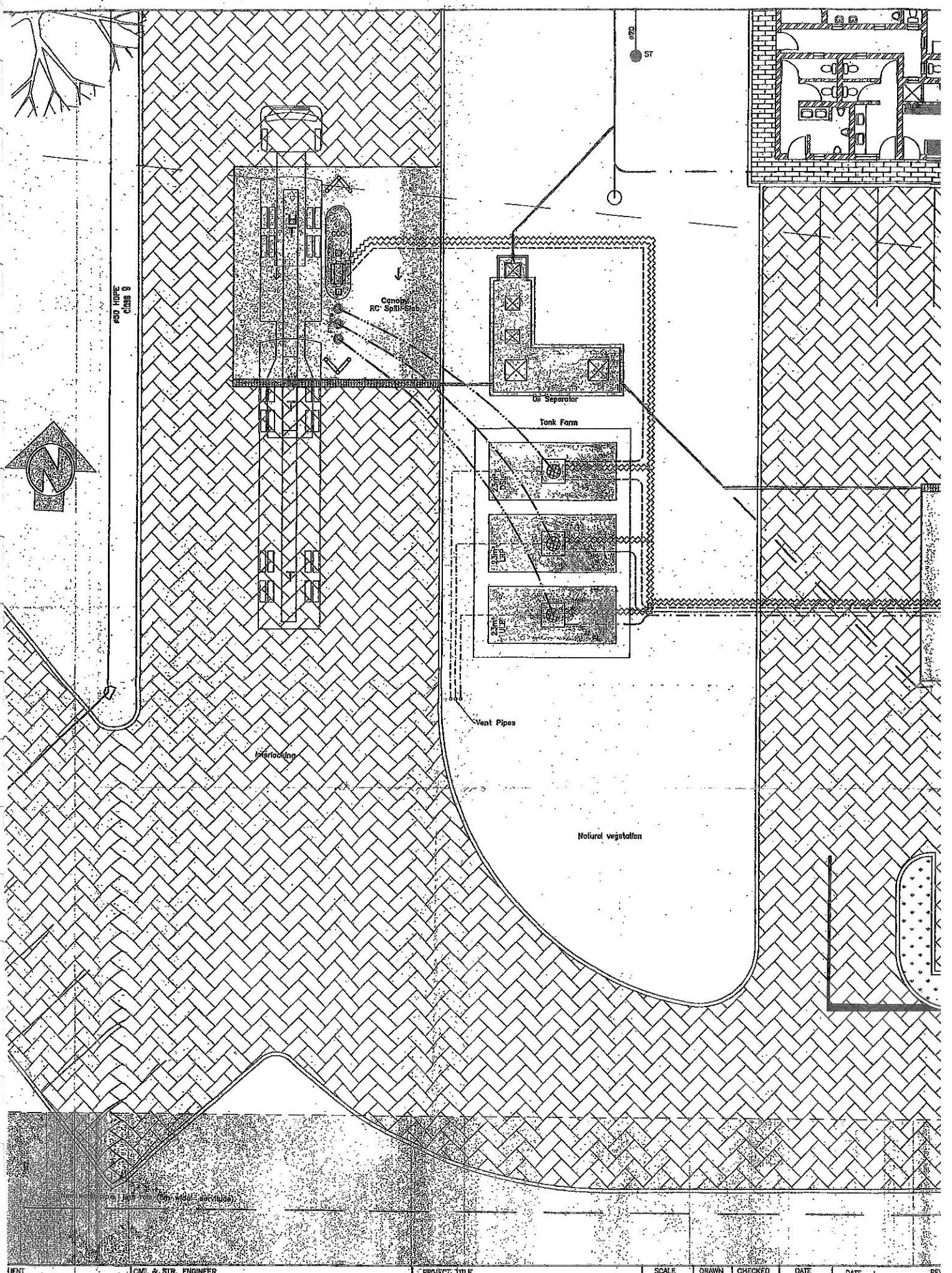
forcement for oil separator — TOT Kg = 248.33
lap length = 500 ; cover = 50



OIL SEPERATOR 1
SPILL CONTAINMENT
SCALE 1:20

CLIENT	CIVIL & STR. ENGINEER	PROJECT TITLE	SCALE	DRAWN	CHECKED	DATE
T+A GROUP TRADING AND INVESTMENT CC	MUL PO BOX 5 WINDHO Tel (061) Fax (061) e-mail: eg	4 WAYS SERVICE CENTRE: KAMANJAB	As Shown	TC	AG du Toit	JULY 2012
		DRAWING TITLE: 3 CHAMBER OIL SEPERATOR	CONSULTANT DRAWING NUMBER: MC 362–S108			REVISION
			CAD REF: G:\DRAWING\MC362\MC\FOR TENDER\JULY 2012			

DATE	REVISION



CLIENT
T+A GROUP TRADING AND

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PROJECT TITLE
4-WAYS SERVICE CENTRE:
KAMANJAB

SCALE	DRAWN	CHECKED	DATE
1:100	TC	AG du Toit	JULY 2012

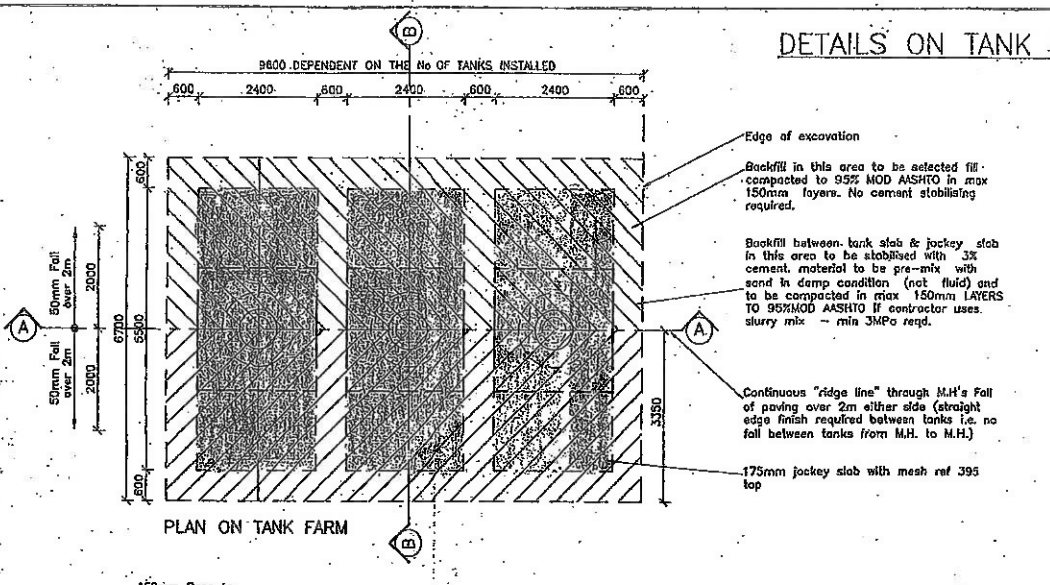
CONSULTANT DRAWING NUMBER

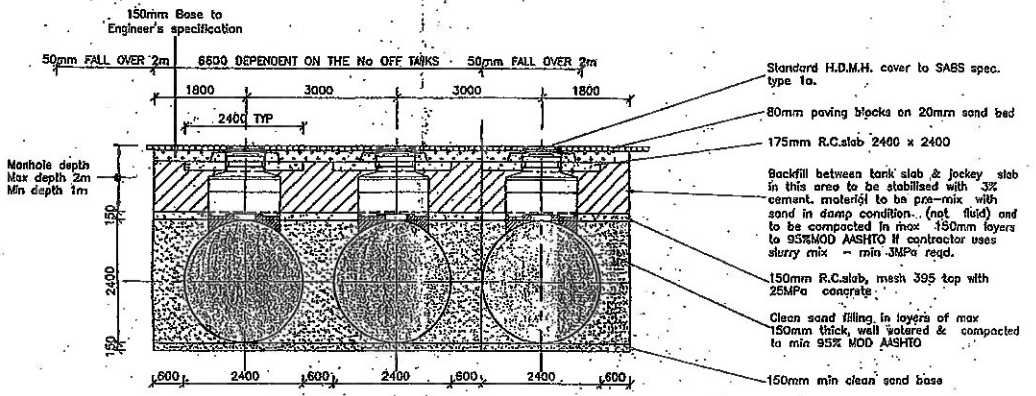
REVISION

DATE

REV

DETAILS ON TANK FARM





Standard H.D.M.H. c

80mm paving bloc

175mm r.c.

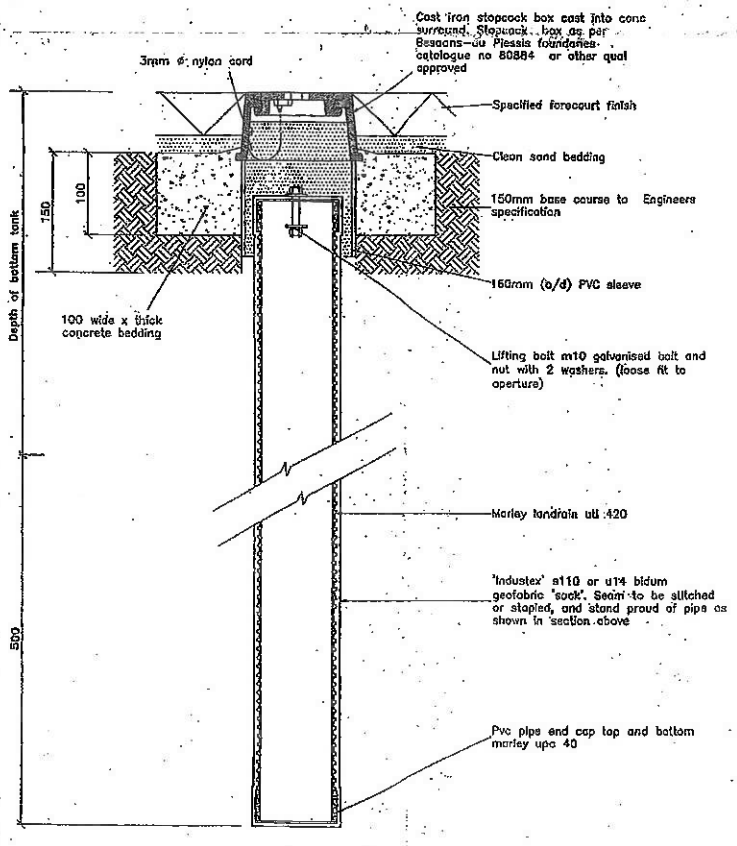
Backfill between tank sl in this area to be s cement. material to sand in damp condition to be compacted in max TO 95%MOD AASHTO slurry mix -

150mm R.C.sl

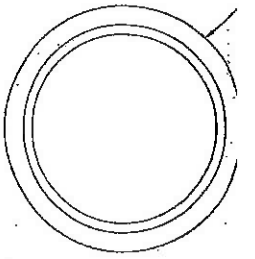
Clean sand filling 150mm thick, well wate to min

150mm mi

FUEL OBSERVATION W



CROSS-SECTION THROUGH FUEL

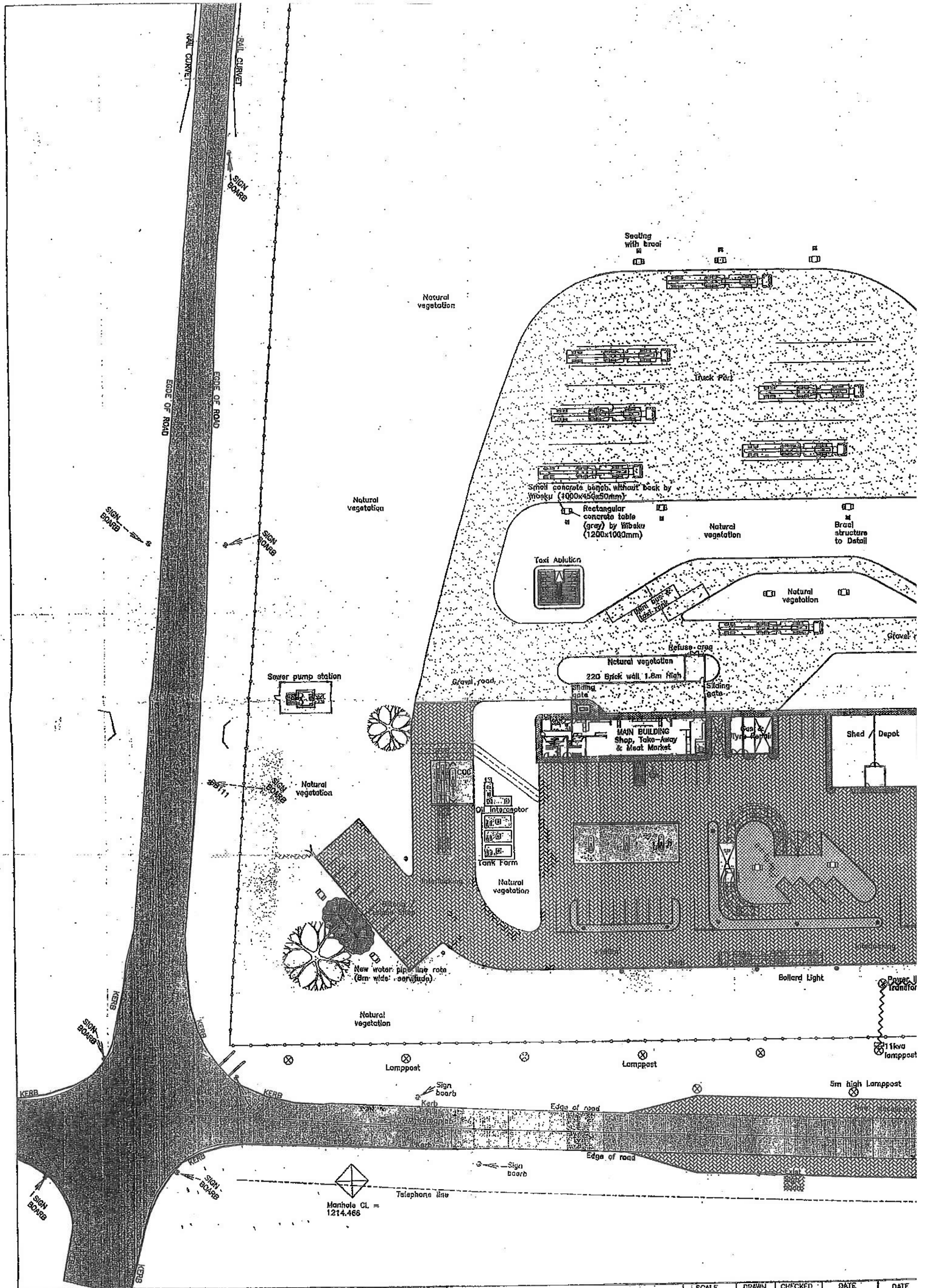


NOTE :

* One observation well is to b each corner of underground ta (see sketches above) at max intervals

* Wells should be positioned n than 300mm from each outsid end tanks (cover slab overhan on existing tanks)

* Wells should be placed befor filling of tank excavations.



CLIENT	CIVIL & STR. ENGINEER	PROJECT TITLE	SCALE	DRAWN	CHECKED	DATE
T+A GROUP TRADING AND INVESTMENT CC	MULTI CONSULT cc	4 WAYS SERVICE CENTRE: KAMANJAB	1:500	TC	AG du Toit	JULY 2012
P.O.BOX : 32130 PIONEERS' PARK WINDHOEK Tel: 061-227339 Fax: 061-220850 Cell: 081 129 9558	PO BOX 35856 WINDHOEK Tel:(061) 221560 Fax:(061) 249487 e-mail: agdutoit@multiconsult.com.na CONSULTING ENGINEERS & PROJECT MANAGERS	DRAWING TITLE: SITE LAYOUT	CONSULTANT DRAWING NUMBER: MC 362-C01			REVISION
			CAD REF: C:\DRAWING\MC362\MC\FOR TENDER\JULY 2012			

DATE

COPY... THIS ... STRICTLY ...