Vlakfontein MTN Cell Mast

Our Ref: 9/2/284/0003

Enquiries: Phillip Hine
Tel: 021 462 4502
Email: phine@sahra.org.za
CaseID: 116

Date: Friday June 15, 2012

Letter

In terms of Section 38(8) of the National Heritage Resources Act (Act 25 of 1999)

<u>Attention:</u> Ms Monica Niehof
Vukani Infrastructure Planning Services
414 Rustic Road
Silvertondale
0184

INTENTION TO SUBMIT AN APPLICATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT 1998 AS AMENDED ("NEMA") TO THE COMPETENT AUTHORITY OR LISTED ACTIVITY 3 (A) & (B): (AA), (BB), (CC) & (EE) IN REGULATION 546: E STABLISHMENT OF A MTN (PTY) LTD TELECOMMUNICATION BASE STATION ON PORTION 3 OF THE FARM VLAKFONTEIN 176 IS

Thank you for your indication that development is to take place in this area.

In terms of the National Heritage Resources Act, no 25 of 1999, heritage resources, including archaeological or palaeontological sites over 100 years old, graves older than 60 years, structures older than 60 years are protected. They may not be disturbed without a permit from the relevant heritage resources authority. This means that before such sites are disturbed by development it is incumbent on the developer (or mine) to ensure that a **Heritage Impact Assessment** is done. This must include the archaeological component (Phase 1) and any other applicable heritage components. Appropriate (Phase 2) mitigation, which involves recording, sampling and dating sites that are to be destroyed, must be done as required.

Please note that in terms of section 38 (1) (a) of the National Heritage Resources Act (Act no. 29 of 1999), the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length must be subject to a Heritage Impact Assessment.

However, if the development is small and is likely to have a minimal impact, the applicant may apply for an exemption from a Heritage Impact Assessment. It is recommended that in this particular case the applicant engage a professional archaeologist to assess whether this particular project will need to be subject to a HIA. The finding must be submitted to SAHRA APM Unit.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Phillip Hine
Heritage Officer

Colette Scheermeyer
SAHRA Head Archaeologist
South African Heritage Resources Agency

ADMIN:
Direct URL to case: http://www.sahra.org.za/node/2156
(MDEDET, Ref: 17/2/3/N-123)

ON SAHRIS

Our Reference:
T9508 Vlakfontein Farm

Your Reference:
17/2/3 N-123

TORBIOUSE
SOLUTIONS

Reg. No. 2001/080535/23

PO Box 32017, Totiusdal, 0134

414 Rustic Road
Silvertondale, 0184
Pretoria

Tel: (012) 804 1504/ 6
Fax: (012) 804 7072
e-mail: admin@torbiousesolutions.co.za

19 March 2012

South African Heritage Resources Agency
P O Box 4637
Cape Town
8000

Attention: Mr. Phillip Hine

Via Registered Mail

Dear Sir,

DRAFT BASIC ASSESSMENT REPORT FOR AN APPLICATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT 1998 ("NEMA") AS AMENDED TO THE COMPETENT AUTHORITY FOR LISTED ACTIVITY 3 IN REGULATION 546: ESTABLISHMENT OF A MTN (PTY) LTD TELECOMMUNICATION MAST ON PORTION 3 OF THE FARM VLAKFONTEIN 176 IS

Kindly receive the draft Basic Assessment Report for the above mentioned application.

We request you to evaluate the attached report on the proposed project and provide us and the Mpumalanga Department of Economic Development, Environment and Tourism with your written comments and/or inputs, if any, by faxing or e-mailing such within 40 days from the date of this letter. It will be assumed that you do not have any comments on the Basic Assessment Report of the proposed project on the expiry of the 40 day response period.

Should you have any further queries please do not hesitate to contact us.

SA HERI
30 MAR 2012

Kind Regards,

Monica Niehof
For: Torbiouse Solutions cc

Comments:

SA HERITAGE RESOURCES AGENCY
RECEIVED
30 MAR 2012

the dedet

Department:
Economic Development, Environment and Tourism
MPUMALANGA PROVINCIAL GOVERNMENT

Basic assessment report in terms of the
Environmental Impact Assessment Regulations, 2010, promulgated in terms of the National Environmental Management Act, 1998(Act No. 107 of 1998), as amended.

(For applicant / EAP to complete)

File Reference Number:	**17/2/3 N-123**
Project Title:	**The establishment of a telecommunication mast – T9508 Vlakfontein Farm**
Name of Responsible Official:	**Mr. Musa Mondlane**

(For official use only)

NEAS Reference Number:	
Date Received:	

Kindly note that:

1. Required information must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. Tables can be extended as each space is filled with typing.
2. Where applicable **black out** the boxes that are not applicable in the form.
3. An incomplete report may be returned to the applicant for revision.
4. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
5. All reports (draft and final) must be submitted to the Department at the address of the relevant **DISTRICT OFFICE** given below or by delivery thereof to the relevant **DISTRICT OFFICE**. Should the reports not be submitted at the relevant district office, they will not be considered.
6. No faxed or e-mailed reports will be accepted.
7. One copy of the draft version of this report must be submitted to the relevant district office. The case officer may request more than one copy in certain circumstances.
8. **Copies of the draft report must be submitted to the relevant State Departments / Organs of State for comment.** In order to give effect to Regulation 56(7), proof of submission/delivery of the draft documents to the State Departments / Organs of State must be attached to the draft version of this report.
9. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
10. All specialist reports must be appended to this document, and all specialists must complete a declaration of independence, which is obtainable from the Department.

SECTION A: BACKGROUND INFORMATION

Project applicant:	**MTN (Pty) Ltd**		
Trading name (if any):	**MTN (Pty) Ltd**		
Contact person:	**Ms. Desire Strydom**		
Physical address:	**Building 1, Commerce Square, 39 Rivonia Road, Sandton**		
Postal address:	-		
Postal code:	-	**Cell:**	**083 200 5491**
Telephone:	-	**Fax:**	
E-mail:	**Strydo_D@mtn.co.za**		

Environmental Assessment Practitioner:	**Torbiouse Solutions cc**		
Contact person:	**Monica Niehof**		
Postal address:	**P.O. Box 32017, Totiusdal**		
Postal code:	**0134**	**Cell:**	**072 607 8719**
Telephone:	**(012) 804 1504**	**Fax:**	**0866900441 / 0866900468**
E-mail:	**admin@torbiousesolutions.co.za**		
Qualifications:	**10 Years Environmental Impact Assessment evaluations**		
Professional affiliations (if any):	-		

SECTION B: DETAILED DESCRIPTION OF THE PROPOSED ACTIVITY

Describe the activity, which is being applied for, in detail. The description must include the size of the proposed activity (or in the case of linear activities, the length) and the size of the area that will be transformed by the activity.

Regulation 546 Activity 3: Construction of a 54m high lattice mast painted red and white with antennae and a 81m² MTN (Pty) Ltd telecommunication base station with equipment containers enclosed by a 2,4 m high steel palisade fence on Portion 3 of the Farm Vlakfontein 176 IS.

SECTION C: PROPERTY/SITE DESCRIPTION

Provide a full description of the preferred site alternative (farm name and number, portion number, registration division, erf number etc.):

Portion 3 of the Farm Vlakfontein 176 IS.

Indicate the position of the activity using the latitude and longitude of the centre point of the preferred site alternative. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection. The position of alternative sites must be indicated in Section B of this document.

Latitude (S):		**Longitude (E):**	
26°	**05.559'**	**29°**	**48.022'**

In the case of linear activities:

	Latitude (S):		**Longitude (E):**	
• Starting point of the activity	°	'	°	'
• Middle point of the activity	°	'	°	'
• End point of the activity	°	'	°	'

SITE OR ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as an appendix to this document.

The site or route plans must be at least A3 and must include the following:

6.1 a reference no / layout plan no., date, and a legend / land use table
6.2 the scale of the plan which must be at least a scale of 1:2000;
6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
6.4 the exact position of each element of the application as well as any other structures on the site;
6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
6.6 all indigenous trees taller than 1.8 metres and all vegetation of conservation concern (protected, endemic and/or red data species);
6.8 servitudes indicating the purpose of the servitude;
6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
  - watercourses and wetlands;
  - the 1:100 year flood line;
  - ridges;
  - cultural and historical features;

6.9 10 metre contour intervals

SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached as an appendix to this form.

FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 as an appendix for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

SECTION D: BASIC ASSESSMENT REPORT

Prepare a basic assessment report that complies with Regulation 22 of the Environmental Impact Assessment Regulations, 2010. The basic assessment report must be attached to this form and must contain all the information that is necessary for the competent authority to consider the application and to reach a decision contemplated in Regulation 25, and must include:

		(Checklist for official use only)
1.	A description of the environment that may be affected by the proposed activity and the manner in which the geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity.	
2.	An identification of all legislation and guidelines that have been considered in the preparation of the basic assessment report.	
3.	Details of the public participation process conducted in terms of Regulation 21(2)(a) in connection with the application, including – (i) the steps that were taken to notify potentially interested and affected parties of the proposed application; (ii) proof that notice boards, advertisements and notices notifying potentially interested and affected parties of the proposed application have been displayed, placed or given; (iii) a list of all persons, organisations and organs of state that were registered in terms of regulation **55** as interested and affected parties in relation to the application; and (iv) a summary of the issues raised by interested and affected parties, the date of receipt of and the response of the EAP to those issues;	
4.	A description of the need and desirability of the proposed activity;	
5.	A description of any identified alternatives to the proposed activity that are feasible and reasonable, including the advantages and disadvantages that the proposed activity or alternatives will have on the environment and on the community that may be affected by the activity;	
6.	A description and assessment of the significance of any environmental impacts, including— (i) cumulative impacts, that may occur as a result of the undertaking of the activity or identified alternatives or as a result of any construction, erection or decommissioning associated with the undertaking of the activity; (ii) the nature of the impact; (iii) the extent and duration of the impact; (iv) the probability of the impact occurring; (v) the degree to which the impact can be reversed; (vi) the degree to which the impact may cause irreplaceable loss of resources; and (vii) the degree to which the impact can be mitigated;	
7.	Any environmental management and mitigation measures proposed by the EAP;	
8.	Any inputs and recommendations made by specialists to the extent that may be necessary;	
9.	A draft environmental management programme containing the aspects contemplated in regulation **33**;	

10. A description of any assumptions, uncertainties and gaps in knowledge;	
11. A reasoned opinion as to whether the activity should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be made in respect of that authorisation	
12. Any representations, and comments received in connection with the application or the basic assessment report;	
13. The minutes of any meetings held by the EAP with interested and affected parties and other role players which record the views of the participants;	
14. Any responses by the EAP to those representations, comments and views;	
15. Any specific information required by the competent authority; and	
16. Any other matters required in terms of sections 24(4)(a) and (b) of the Act.	

The basic assessment report must take into account -

(a) any relevant guidelines; and
(b) any departmental policies, environmental management instruments and other decision making instruments that have been developed or adopted by the competent authority in respect of the kind of activity which is the subject of the application.

* In terms of Regulation 22(4), the EAP managing the application must provide the competent authority with detailed, written proof of an investigation as required by section 24(4)(b)(i) of the Act and motivation if no reasonable or feasible alternatives, as contemplated in subregulation 22(2)(h), exist.

Have reasonable and feasible alternatives been identified, described and assessed?	[redacted]	**NO**
If NO, the motivation and investigation required in terms of Regulation 22(4) must be attached as an Appendix to this document – ***Please refer to Appendix G5***		

1. A DESCRIPTION OF THE ENVIRONMENT

This section describes the environment that may be affected by the proposed activity and the manner in which the geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity in terms of *Regulation 22 sub-regulation 2 (d) of the EIA Regulations, 2010.*

1.1 PHYSICAL ENVIRONMENT

Gradient of the Site

Indicate the general gradient of the site.

Alternative S1:

Flat	~~1:50 — 1:20~~	~~1:20 — 1:15~~	~~1:15 — 1:10~~	~~1:10 — 1:7,5~~	~~1:7,5 — 1:5~~	~~Steeper than 1:5~~

Location in landscape

Indicate the landform(s) that best describes the site:

[redacted]

2.7 Undulating plain / low hills

[redacted]

Groundwater, Soil and Geological stability of the site

Is the site(s) located on any of the following (tick the appropriate boxes)?

	Alternative S1:	
Shallow water table (less than 1.5m deep)	~~YES~~	**NO**
Dolomite, sinkhole or doline areas	~~YES~~	**NO**
Seasonally wet soils (often close to water bodies)	~~YES~~	**NO**
Unstable rocky slopes or steep slopes with loose soil	~~YES~~	**NO**
Dispersive soils (soils that dissolve in water)	~~YES~~	**NO**

Soils with high clay content (clay fraction more than 40%)	~~YES~~	**NO**
Any other unstable soil or geological feature	~~YES~~	**NO**
An area sensitive to erosion	~~YES~~	**NO**

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. (Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted).

1.2 BIOLOGICAL ENVIRONMENT - Alternative S1:

Groundcover

Indicate the types of groundcover present on the site:

The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Natural veld^E - Very disturbed overgrazed.	~~Natural veld with scattered aliens~~^{E}	~~Natural veld with heavy alien infestation~~^{E}	~~Veld dominated by alien species~~^{E}	~~Gardens~~
~~Sport field~~	~~Cultivated land~~	~~Paved surface~~	~~Building or other structure~~	~~Bare soil~~

If any of the boxes marked with an "^{E} "is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn't have the necessary expertise.

1.3 SOCIO-ECONOMIC ENVIRONMENT

Land use character of surrounding area

Indicate land uses and/or prominent features that does currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

~~1.3.1 Natural area~~
~~1.3.2 Low density residential~~
~~1.3.3 Medium density residential~~

~~1.3.4 High density residential~~
~~1.3.5 Informal residential~~^{A}
~~1.3.6 Retail commercial & warehousing~~
~~1.3.7 Light industrial~~
~~1.3.8 Medium industrial~~ ^{AN}
~~1.3.9 Heavy industrial~~ ^{AN}
~~1.3.10 Power station~~
~~1.3.11 Office/consulting room~~
~~1.3.12 Military or police base/station/compound~~
~~1.3.13 Spoil heap or slimes dam~~^{A}
~~1.3.14 Quarry, sand or borrow pit~~
~~1.3.15 Dam or reservoir~~
~~1.3.16 Hospital/medical centre~~
~~1.3.17 School~~
~~1.3.18 Tertiary education facility~~
~~1.3.19 Church~~
~~1.3.20 Old age home~~
~~1.3.21 Sewage treatment plant~~^{A}
~~1.3.22 Train station or shunting yard~~ ^{N}
~~1.3.23 Railway line~~ ^{N}
~~1.3.24 Major road (4 lanes or more)~~ ^{N}
~~1.3.25 Airport~~ ^{N}
~~1.3.26 Harbour~~
~~1.3.27 Sport facilities~~
~~1.3.28 Golf course~~
~~1.3.29 Polo fields~~
~~1.3.30 Filling station~~ ^{H}
~~1.3.31 Landfill or waste treatment site~~
~~1.3.32 Plantation~~
1.3.33 Agriculture
~~1.3.34 River, stream or wetland~~
~~1.3.35 Nature conservation area~~
~~1.3.36 Mountain, koppie or ridge~~
~~1.3.37 Museum~~
~~1.3.38 Historical building~~
~~1.3.39 Protected Area~~
~~1.3.40 Graveyard~~
~~1.3.41 Archaeological site~~
1.3.42 Other land uses (describe) – Farmland

If any of the boxes marked with an "^{N} "are ticked, how will this impact / be impacted upon by the proposed activity? **No**

If any of the boxes marked with an "^{An}" are ticked, how will this impact / be impacted upon by the proposed activity? **No**
If YES, specify and explain:
If YES, specify:

If any of the boxes marked with an "^{H}" are ticked, how will this impact / be impacted upon by the proposed activity. **No**
If YES, specify and explain:
If YES, specify:

Waste, effluent, emission and noise management

(a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	**YES**	~~**NO**~~
If yes, what estimated quantity will be produced per month?	**2m^3 (6 weeks construction period only)**	

How will the construction solid waste be disposed of (describe)?

Loaded and transported by a suitable, roadworthy commercial vehicle to the nearest registered landfill site.

Where will the construction solid waste be disposed of (describe)?

At a suitable registered landfill site within the immediate area.

Will the activity produce solid waste during its operational phase?	~~YES~~	**NO**
If yes, what estimated quantity will be produced per month?	m^3	

How will the solid waste be disposed of (describe)?

-

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

-

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?	~~YES~~	**NO**

If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility?	~~YES~~	**NO**

If yes, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

(b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	~~YES~~	**NO**
If yes, what estimated quantity will be produced per month?	m^3	
Will the activity produce any effluent that will be treated and/or disposed of on site?	~~YES~~	**NO**

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility?	~~YES~~	**NO**

If yes, provide the particulars of the facility:

Facility name:	-		
Contact person:	-		
Postal address:	-		
Postal code:	-		
Telephone:	-	Cell:	-
E-mail:	-	Fax:	-

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

Will the activity release emissions into the atmosphere?	YES	NO

(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

~~If yes, is it controlled by any legislation of any sphere of government?~~

YES	~~NO~~
~~YES~~	**NO**

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the emissions in terms of type and concentration:

Non-ionised electromagnetic fields with power density < 10W/m² (Department of Health Guidelines based on International Commission on Non-Ionising Radiation Protection (ICNIRP) and World Health Organisation (WHO) guidelines.

(d) Generation of noise

Will the activity generate noise?

If yes, is it controlled by any legislation of any sphere of government?

YES	~~NO~~
~~YES~~	**NO**

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the noise in terms of type and level:

Minimum noise generation will emanate from the installed air conditioners at a <60dB noise level. The level of noise generation is well within the acceptable norm and will not cause a disturbance to the surrounding environment.

(e) Water Use

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es)

municipal	water board	groundwater	river, stream, dam or lake	other	**the activity will not use water**

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate

the volume that will be extracted per month:

Does the activity require a water use permit from the Department of Water Affairs?

litres	
~~YES~~	**NO**

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

(f) Energy Efficiency

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

High technological mobile telecommunication operating systems are in principle designed for minimum, cost effective energy consumption in order to preserve resources and to optimise the financial yield generated by the base station.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

Alternative energy sources have not been taken into account in the design of the activity.

1.4 CULTURAL ENVIRONMENT

Cultural/Historical Features

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including	YES	**NO**
Archaeological or palaeontological sites, on or close (within 20m) to the site?	Uncertain	
If YES, explain:	-	
If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.		
Briefly explain the findings of the specialist:	-	
Will any building or structure older than 60 years be affected in any way?	YES	**NO**
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES	**NO**

If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.

2. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES – IN TERMS OF *Regulation 22 sub-regulation 2 (e) of the EIA Regulations, 2010*

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline:	Administering authority:	Date:
National Environmental Managment Act (NEMA) No. 107 of 1998 & related regulations & guidelines	**Mpumalanga Province Department of Economic Development, Environment and Tourism**	**27/11/1998**
Civil Aviation Act, 2009 (Act No. 13 of 2009)	**South African Civil Aviation Authority**	**2009**
Approval in terms of town planning schemes and/or National Buidling Regulations	**Nkangala District Municipality (Steve Tshwete Local Municipality)**	**Unknown**
Occupational Health and Safety Act (No. 85 of 1993)	**Department of Labour**	**1993**
National Veld and Forest Fire Act (No. 101 of 1998)	**Department of Water and Environmental Affairs**	**1998**
National Heritage Resources Act (No. 25 of 1999)	**South African Heritage Resources Agency**	**1999**

3. PUBLIC PARTICIPATION – IN TERMS OF *Regulation 22 sub-regulation 2 (f) of the EIA Regulations, 2010*

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

(a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the competent authority) at a place conspicuous to the public at the boundary or on the fence of—
  (i) the site where the activity to which the application relates is or is to be undertaken; and
  (ii) any alternative site mentioned in the application;
(b) giving written notice to—
  (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
  (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
  (v) the municipality which has jurisdiction in the area;
  (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
  (vii) any other party as required by the competent authority;
(c) placing an advertisement in—
  (i) one local newspaper; or
  (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
(d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and
(e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to—
  (i) illiteracy;
  (ii) disability; or
  (iii) any other disadvantage.

3.1 Content of Advertisements and Notices

A notice board, advertisement or notices must:

(a) indicate the details of the application which is subjected to public participation; and

(b) state—
- (i) that the application has been submitted to the competent authority in terms of these Regulations, as the case may be;
- (ii) whether basic assessment or scoping procedures are beingapplied to the application, in the case of an application for environmental authorisation;
- (iii) the nature and location of the activity to which the application relates;
- (iv) where further information on the application or activity can be obtained; and
- (iv) the manner in which and the person to whom representations in respect of the application may be made.

3.2 Placement of Advertisements and Notices

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the competent authority in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of the EIA regulations.

Advertisements and notices must make provision for all alternatives.

3.3 Determination of Appropriate Measures

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

3.4 Comments and response report

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to this application. The comments and response report must be attached under Appendix E.

3.5 Authority Participation

Please note that a complete list of all organs of state and or any other applicable authority with their contact details must be appended to the basic assessment report or scoping report, whichever is applicable.

Authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input.

List of authorities informed:

South African Heritage Resources Agency (SAHRA) **Steve Tshwete Local Municipality** **Nkangala District Municipality** **Mpumalanga Tourism and Parks Agency (MTPA)**

List of authorities from whom comments have been received:

None

3.6 Consultation with other Stakeholders

Note that, for linear activities, or where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that subregulation to the extent and in the manner as may be agreed to by the competent authority.

Proof of any such agreement must be provided, where applicable.

Has any comment been received from stakeholders?	YES	**NO**

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

-

4. NEED AND DESIRABILITY– IN TERMS OF *Regulation 22 sub-regulation 2 (g) of the EIA Regulations, 2010*

ACTIVITY MOTIVATION

1(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	**R 500 000**	
What is the expected yearly income that will be generated by or as a result of the activity?	**Unknown**	
Will the activity contribute to service infrastructure?	**YES**	NO
Is the activity a public amenity?	YES	**NO**
How many new employment opportunities will be created in the development phase of the activity?	**0**	
What is the expected value of the employment opportunities during the development phase?	**R0**	
What percentage of this will accrue to previously disadvantaged individuals?	**0%**	
How many permanent new employment opportunities will be created during the operational phase of the activity?	**0**	
What is the expected current value of the employment opportunities during the first 10 years?	**R0**	
What percentage of this will accrue to previously disadvantaged individuals?	**0%**	

(b) Need and desirability of the activity

Motivate and explain the need and desirability of the activity (including demand for the activity):

NEED:			
1.	Was the relevant provincial planning department involved in the application?	**YES**	NO
2.	Does the proposed land use fall within the relevant provincial planning framework?	YES	**NO**
3.	If the answer to questions 1 and / or 2 was NO, please provide further motivation / explanation:		
	Cellular telecommunication technology is an integral part of modern daily life and licensed cellular telecommunication service operators have an obligation in terms of their license agreements, as stipulated by national government, to provide the services throughout South Africa within the allocated bandwidth spectrum. The cellular telecommunication user base is still increasing (quantitative growth) and users must be enabled to choose the services rendered by any of the licensed operators anywhere in South Africa (choice and availability). The expansion of service types and content (content & technology growth) furthermore requires continuous equipment and network fine-tuning, upgrades and expansion. The user base also expects a continuous quality service to be provided and therefore network capacity and capabilities are under constant review to maintain or improve quality coverage (qualitative growth). **MTN (Pty) Ltd network and radio planners have identified an essential requirement in terms of the above objectives in the immediate surroundings of the planned base station in this area. MTN (Pty) Ltd is committed to preventing the proliferation of telecommunication installations and the sharing of the infrastructure by other telecommunication service providers is promoted wherever possible and existing structures will be utilized if such supports and is suitable for the establishment of a required base station.**		

DESIRABILITY:			
1.	Does the proposed land use / development fit the surrounding area?	**YES**	NO
2.	Does the proposed land use / development conform to the relevant structure plans, SDF and planning visions for the area?	**YES**	NO
3.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	**YES**	NO
4.	If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation:		
	-		
5.	Will the proposed land use / development impact on the sense of place?	YES	**NO**
6.	Will the proposed land use / development set a precedent?	YES	**NO**
7.	Will any person's rights be affected by the proposed land use / development?	YES	**NO**
8.	Will the proposed land use / development compromise the "urban edge"?	YES	**NO**
9.	If the answer to any of the question 5-8 was YES, please provide further motivation / explanation.		
	-		

5. ALTERNATIVES– IN TERMS OF *Regulation 22 sub-regulation 2 (h) of the EIA Regulations, 2010*

FEASIBLE AND REASONABLE ALTERNATIVES – Please refer to the motivation that no feasible and reasonable alternatives exists for this particular activity attached in *Appendix G* of this Basic Assessment Report.

"alternatives", in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

(a) the property on which or location where it is proposed to undertake the activity;
(b) the type of activity to be undertaken;
(c) the design or layout of the activity;
(d) the technology to be used in the activity;
(e) the operational aspects of the activity; and
(f) the option of not implementing the activity.

Describe alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

5.1 ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.
List alternative sites, if applicable.

Alternative:	**Latitude (S):**		**Longitude (E):**	
Alternative S1[1]	**26°**	**05.559'**	**29°**	**48.022'**

In the case of linear activities:

Alternative:	**Latitude (S):**		**Longitude (E):**	
Alternative S1 (preferred or only route alternative)				
• Starting point of the activity	°	'	°	'
• Middle/Additional point of the activity	°	'	°	'
• End point of the activity	°	'	°	'

---

[1] "Alternative S" refer to site alternatives.

Alternative S2 (if any)

• Starting point of the activity	°	'	°	'
• Middle/Additional point of the activity	°	'	°	'
• End point of the activity	°	'	°	'

Alternative S3 (if any)

• Starting point of the activity	°	'	°	'
• Middle/Additional point of the activity	°	'	°	'
• End point of the activity	°	'	°	'

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

5.2 PHYSICAL SIZE OF THE ACTIVITY

Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

Alternative:	**Size of the activity:**
Alternative S1	**81m^2**

or, for linear activities:

Alternative:	**Length of the activity:**
Alternative A1[2] (preferred activity alternative)	m
Alternative A2 (if any)	m
Alternative A3 (if any)	m

Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative:	**Size of the site/servitude:**
Alternative S1	**165.2949 H**

5.3 SITE ACCESS

~~Does ready access to the site exist?~~	**YES**	~~NO~~
If NO, what is the distance over which a new access road will be built	-	

Describe the type of access road planned:

-

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

---

[2] "Alternative A" refers to activity, process, technology or other alternatives.

5.4 SITE OR ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.

The site or route plans must indicate the following:

5.4.1 the scale of the plan which must be at least a scale of 1:500;

5.4.2 the property boundaries and numbers of all the properties within 50 metres of the site;

5.4.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;

5.4.4 the exact position of each element of the application as well as any other structures on the site;

5.4.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;

5.4.6 all trees and shrubs taller than 1.8 metres;

5.4.7 walls and fencing including details of the height and construction material;

5.4.8 servitudes indicating the purpose of the servitude;

5.4.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):

- rivers;
- the 1:100 year flood line (where available or where it is required by DWA);
- ridges;
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or invested with alien species);

5.4.10 for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and

5.4.11 the positions from where photographs of the site were taken.

5.5 SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this form. It must be supplemented with additional photographs of relevant features on the site, if applicable.

5.6 FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

5.7 ADVANTAGES AND DISADVANTAGES OF THE PROPOSAL AND ALTERNATIVES

5.7.1 ADVANTAGES:			
1.	Will the land use / development have any benefits for society in general?	**YES**	NO
2.	Explain:		

	The immediate benefits of the activity to society in general can be summarized as follows: • **Increased and improved national MTN coverage footprint enabling users to communicate on the MTN network wherever they are.** • **Additional fulfilment of one of government's objectives to ensure the establishment of national communication network grids and services as part of a sustainable economic growth pattern.**		
	-		
	-		
3.	Will the land use / development have any benefits for the local communities where it will be located?	**YES**	NO
4.	Explain:		
	The motivation and benefits to society in general above apply to the local community directly. It will furthermore ensure that the communication capability and capacity of the local community will keep pace with the ever growing and availability of communication facilities nationwide.		
	-		
	-		

5.7.2 DISADVANTAGES:

1.	Will the land use / development have any disadvantages for society in general?	YES	**NO**
2.	Explain: **The area has a very low population density and the proposed activity will also be located on a road that is not used by many motorists, therefore the possible negative impacts such health concerns and visual impact have no significance for society in general and in the EAP's opinion is not a disadvantage to them.**		
	-		
	-		
3.	Will the land use / development have any disadvantages for the local communities where it will be located?	YES	**NO**
4.	Explain: **The area has a very low population density and the proposed activity will also be located on a road that is not used by many motorists, therefore the possible negative impacts such health concerns and visual impact have a very low significance for local communities and in the EAP's opinion is not a disadvantage to them.**		
	-		
	-		

6 & 7. IMPACT ASSESSMENT AND MITIGATION MEASURES – IN TERMS OF *Regulation 22 sub-regulation 2 (i) – (j) of the EIA Regulations, 2010*

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2010, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

-

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report as Annexure E):

-

IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed.

IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN PHASE

List the potential site alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, including impacts relating to the choice of site alternatives.

Alternative S1:

Direct impacts:

PHYSICAL:

1. **Safety aspects: The following safety aspects were taken into consideration in planning the base station:**
   - **Position & height in terms of official airports, helipads and air traffic routes as determined by SACAA. Mitigated in terms of the SACAA prescribing day & night markings.**
   - **General installation safety for the general public, owners, technicians etc.: Engineering services incorporated in the design of the mast, foundations and other design and construction safety aspects of the base station;**
   - **Base station to be surrounded with a 2.4m high galvanised steel palisade fence to prevent unauthorised access to the base station area and mast.**
2. **Visual impact: Evaluation of structure type, height & position, taking into consideration the purpose and objective of the planned activity in terms of mobile telecommunication coverage area and quality of coverage. New base station with 54m lattice telecommunication mast painted red and white selected as most appropriate based on:**
   - **Investigation of sharing existing infrastructure:**
     The specific site requirements needed by MTN are:
     - **Physical space for two sets of antennae, two microwave dishes and 14 feeder cables;**
     - **Wind load capacity for above mentioned equipment;**
     - **Minimum height of 54m; and**
     - **Space and load capacity for future upgrading or advances in technology.**

     No existing facility or infrastructure within range that can fulfil the required capacity in terms of the coverage objectives.
   - **54m height required to achieve maximum coverage objectives in the**

specific environment and therefore reducing the need for additional base stations to achieve/maintain the same coverage within the coverage target area;

- Facility sharing capacity incorporated in design to make provision for and promote the sharing of infrastructure in order to prevent the proliferation of masts;
- Lattice type structure most suitable to fulfil the coverage objectives of the base station due to the coverage range required and the high flexibility of utilising the mast height for varying antennae installation configurations due to the specific characteristics of the area;
- Lattice design mast painted red & white provides maximum mitigation with maximum visibility from the air to prevent aircraft accidents (day & night markings prescribed by the SACAA for masts above 45m height). Red & white lattice mast provides low mitigation of the visual impact on the short range viewpoints from the ground due to the high visibility of the colour of the mast and the technical appearance of the mast structure. The population density of the area is low and therefore this impact is of very low significance. Red & white lattice mast provides high mitigation of the medium to long range visual impact from the ground due to the blending capability of the more transparent type mast against the sky background, but not maximum due to the red and white colour of the mast being visible over a long distance.
- 2.4m high galvanised steel palisade fence to provide maximum mitigation of the short to long range visual impact of the telecommunication base station due to the blending capability with the surrounding environment and against the sky background.

BIOLOGICAL:

The vegetation of the study area is disturbed by mainly overgrazing. No tall trees or sensitive vegetation will be removed from the study area.

SOCIO-ECONOMIC:

Site position has been determined based on the requirement to deliver mobile telecommunication signal coverage and availability within the target area enabling the residents, business entities and the general public within the area to select and maintain quality telecommunication services and connectivity via the MTN mobile telecommunication network. MTN (Pty) Ltd is obliged to fulfil their licence terms and conditions, as determined by government, in providing mobile telephony and related services on a reliable national network grid.

Indirect impacts:

The property coverage and development potential has been taken into consideration in selecting the position of the activity. The exact position of the activity on the property was determined, in consultation with the property owner, to minimise the possible impact on existing operations and future development plans or phases. Therefore the commercial value of the property is maintained.

Electricity will be supplied from the existing electricity grid. Minimum usage due to economical and energy efficient design.

Cumulative impacts:

No cumulative impacts relating to the design and planning phases are applicable.

Indicate mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative S1

1. **Prescribed SACAA day and night markings.**
2. **Transparent lattice type mast painted red and white.**
3. **Galvanised steel palisade fence enclosure.**
4. **Provision for infrastructure sharing.**

List the potential activity/technology alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase:

Alternative A1

Direct impacts:

There are no activity or technology alternatives for the establishment of mobile telecommunication base stations.

Indirect impacts:

-

Cumulative impacts:

-

Indicate mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative S1:

There are no activity or technology alternatives for the establishment of mobile telecommunication base stations.

No-go alternative (compulsory)

Direct impacts:

Status quo.

Indirect impacts:

Status quo.

Cumulative impacts:

Status quo.

IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION PHASE

List the potential site alternative related impacts (as appropriate) that are likely to occur as a result of the construction phase:

Alternative S1:

Direct impacts:

Construction of the telecommunication base station will extend over a period of approximately 6 weeks only;

1. **Increased activity and traffic at the property including material delivery and work team movements.**
2. **Minimum disruption of operations within the vicinity as the base station is located in an area with low activity.**
3. **Increased workplace accident risk due to the mere occurrence of the activity.**
4. **Creation of dust and disturbance of specific soil layers due to earthwork activities.**
5. **Erosion and contamination of topsoil.**
6. **Generation of standard building rubble & the transportation thereof to the appropriate licensed landfill site.**
7. **Generation of construction noise created by earthwork machinery and other applicable tooling used for the establishment of the base station.**

Indirect impacts:

Additional waste at appropriately certified dumping site.

Cumulative impacts:
Construction activity.

Indicate mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative S1:

1. **&2. Specific arrangements with property owner to minimise disruption of normal activities.**
3. **Implement & maintain specific construction site safety measures in accordance with the applicable clauses of the OHS Act.**
4. **Implement specific construction measures to prevent dust e.g. regular sprinkling bare areas with water as needed.**
5. **Prevent and minimise construction waste generation. Transport construction waste on a regular basis to the appropriate landfill site.**
6. **Store topsoil separately for appropriate landscaping distribution on completion of construction. Prevent pollution and contamination and erosion of topsoil by covering it with water proof covering when experiencing rainy or windy conditions. Service construction vehicles and machinery before construction to ensure that no oil or fuel will leak onto soil.**
7. **Minimise noise generation to absolute minimum. Service vehicles and machinery before start of construction to ensure proper working condition. Construction activities should not be allowed outside normal working hours or on Sundays and Public Holidays.**

List the potential activity/technology alternative related impacts (as appropriate) that are likely to occur as a result of the construction phase:

Alternative A1

Direct impacts:
There are no activity or technology alternatives for the establishment of mobile telecommunication base stations.
Indirect impacts:
-
Cumulative impacts:
-

Indicate mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative A1:

There are no activity or technology alternatives for the establishment of mobile telecommunication base stations.

No-go alternative (compulsory)

Direct impacts:
Status quo.
Indirect impacts:
Status quo.
Cumulative impacts:
Status quo.

IMPACTS THAT MAY RESULT FROM THE OPERATIONAL PHASE

List the potential site alternative related impacts (as appropriate) that are likely to occur as a result of the operational phase:

Alternative S1

Direct impacts:
1. **Increased electricity consumption on the existing supply grid.**

2. **Noise generation by air conditioning units and by backup generator if electricity supply fails.**
3. **Non-ionised electromagnetic fields emissions on allocated frequency.**
4. **Increase in potential air traffic obstacles.**
5. **Visual impact of the 54m lattice mast painted red and white on short, medium and long distance observation.**
6. **Increased mobile telecommunication network capacity.**

Indirect impacts:

1. **Minute increase in electricity generation base material usage.**
2. **Increased use of quality telecommunication services with the appropriate revenue increase and potential increased economic activity and financial returns.**

Cumulative impacts:

1. **Increased telecommunication infrastructure availability and quality.**

Indicate mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative S1

1. **Economical electricity consumption design.**
2. **Scheduled preventative maintenance program implementation and control.**
3. **Maintain level of non-ionised electromagnetic field emissions within International Commission on Non-Ionising Radiation Protection (ICNIRP) & World Health Organisation (WHO) guidelines.**
4. **Installation/application and maintenance of day & night markings as prescribed by SACAA to reduce potential air traffic safety impact. Civil Aviation Association application submitted. Required for all masts higher than 45m. *(Refer to Appendix G5).***
5. **Red & white lattice mast provides low mitigation of the visual impact on the short range viewpoints from the ground due to the high visibility of the colour of the mast and the technical appearance. The population density of the area is low and therefore this impact is of very low significance. Red & white lattice mast provides high mitigation of the medium to long range visual impact from the ground due to the blending capability of the more transparent type mast against the sky background, but not maximum due to the red and white colour of the mast being visible over a long distance.**
6. **2.4m high galvanised steel palisade fence to provide maximum mitigation of the short to long range visual impact of the telecommunication base station due to the blending capability with the surrounding environment and against the sky background.**

List the potential activity/technology alternative related impacts (as appropriate) that are likely to occur as a result of the operational phase:

Alternative A1

Direct impacts:

There are no activity or technology alternatives for the establishment of mobile telecommunication base stations.

Indirect impacts:

-

Cumulative impacts:

-

Indicate mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative A1:

There are no activity or technology alternatives for the establishment of mobile telecommunication base stations.

No-go alternative (compulsory)

Direct impacts:
Status quo.
Indirect impacts:
Status quo.
Cumulative impacts:
Status quo.

IMPACTS THAT MAY RESULT FROM THE DECOMMISSIONING AND CLOSURE PHASE

List the potential site alternative related impacts (as appropriate) that are likely to occur as a result of the decommissioning or closure phase:

Alternative S1

Direct impacts:

1. **Establishment of new mobile telecommunication infrastructure elsewhere to fill the network coverage gap caused by decommissioning.**
2. **Creation of waste due to decommissioning.**
3. **Disturbed area.**

Indirect impacts:
Potential waste of resources.

Cumulative impacts:
None

Indicate mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative S1

1. **Ensure planned base station fulfils planned and required network parameters i.e. prevent decommissioning.**
2. **If decommissioning is required the site area must be rehabilitated to its original state.**

List the potential activity/technology alternative related impacts (as appropriate) that are likely to occur as a result of the decommissioning and closure phase:

Alternative A1

There are no activity or technology alternatives for the establishment of mobile telecommunication base stations.
Direct impacts:
-
Indirect impacts:
-
Cumulative impacts:
-

Indicate mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative A1

There are no activity or technology alternatives for the establishment of mobile telecommunication base stations.

No-go alternative (compulsory)

Direct impacts:

Status quo.
Indirect impacts:
Status quo.
Cumulative impacts:
Status quo.

ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Alternative S1

The positive impact of the proposed activity will, taking into consideration the implementation of mitigating measures to minimise the negative impacts on the environment, have a positive overall impact.

Physical impacts:

1. **The planning & design of the telecommunication base station is considerate of operational and public demand needs and is done on the principle of minimising any negative impacts on the receiving environment.**
2. **The negative impacts during the construction phase, as indicated earlier in the assessment report, are temporary and will not have a long term effect on the proposed development or immediate area. These impacts will last for a maximum of approximately 6 weeks only.**
3. **The permanent visual impact of a lattice mast painted red and white is a contributing negative impact of the proposed activity on the receiving environment. Red & white lattice mast provides low mitigation of the visual impact on the short range viewpoints from the ground due to the high visibility of the colour of the mast and the technical appearance of the mast structure. The population density of the area is low and therefore this impact is of very low significance. Red & white lattice mast provides high mitigation of the medium to long range visual impact from the ground due to the blending capability of the more transparent type mast against the sky background, but not maximum due to the red and white colour of the mast being visible over a long distance.**
4. **2.4m high galvanised steel palisade fence to provide maximum mitigation of the short to long range visual impact of the telecommunication base station due to the blending capability with the surrounding environment and against the sky background.**
5. **The site is designed for use by additional telecommunication service providers. This mitigation measure will possibly prevent the establishment of additional base stations by other operators within the immediate area.**

BIOLOGICAL:

The vegetation of the study area is disturbed by mainly overgrazing. No tall trees or sensitive vegetation will be removed from the study area.

Socio-economic impacts:

The local electricity supply grid can accommodate the additional load required by the base station. The base station design requires a 3-phase electricity supply at a maximum demand of 80A.

No other feasible for the objective of the proposed mast exists. Motivation for exemption from assessing alternatives attached as *Appendix G6.*

8. ANY INPUTS AND RECOMMENDATIONS MADE BY SPECIALISTS TO THE EXTENT THAT MAY BE NECESSARY – IN TERMS OF *Regulation 22 sub-regulation 2 (k) of the EIA Regulations, 2010* - Not in the scope of this application

9. THE EMPR IS ATTACHED AS APPENDIX F - IN TERMS OF *Regulation 22 sub-regulation 2 (l) of the EIA Regulations, 2010*

10. ASSUMPTIONS, UNCERTAINTIES AND GAPS IN KNOWLEDGE – IN TERMS OF *Regulation 22 sub-regulation 2 (m) of the EIA Regulations, 2010*

The information in this report is sufficient for the purposes of providing the department with sufficient information to make an informed decision to grant approval or not.

The nature of an impact study is always based on predicting the impacts of a proposed activity / development based on knowledge that can be substantiated and where there are gaps in knowledge, there are uncertainties and assumptions are also made.

There are no significant gaps in knowledge in this impact study. The only uncertainty due to a gap in knowledge in this impact study includes the health effects of non-ionised electromagnetic fields with power density $< 10W/m^2$ emitted from telecommunication antennae, but not the listed activity i.e. the mast. The EAP is not aware of any authenticated studies existing currently and therefore we refer to the Department of Health Guidelines based on the International Commission on Non-Ionising Radiation Protection (ICNIRP) and the World Health Organisation (WHO) guidelines. According to these guidelines the non-ionised electromagnetic fields emitted by antennae mounted on telecommunication masts are well below the recommended level and is therefore improbable to have harmful effects on the health of human beings.

11. A REASONED OPINION AS TO WHETHER THE ACTIVITY SHOULD OR SHOULD NOT BE AUTHORISED, AND IF THE OPINION IS THAT IT SHOULD BE AUTHORISED, ANY CONDITIONS THAT SHOULD BE MADE IN RESPECT OF THAT AUTHORISATION – IN TERMS OF *Regulation 22 sub-regulation 2 (n) of the EIA Regulations, 2010*

The Environmental Assessment Practitioner is of the opinion that the activity may be authorised due to:

- **Should the activity not be authorised it will result in an incomplete network hampering and restricting communication quality and quantity on the network.**
- **The negative impacts on the surrounding environment are not significant.**

Recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

1. **Telecommunication base station with a 54m *lattice* mast *painted red and white (Alternative 1)* to be established on the Alternative 1 proposed position indicated on attached plans.**
2. **Measures to be implemented for the duration of the construction period to prevent unauthorised access to the construction site.**
3. **Dust suppression measures to be implemented during earthworks.**
4. **Construction only to take place within normal daytime working hours.**
5. **The contractor must provide chemical toilets during the construction phase.**
6. **Telecommunication base station to be enclosed with a 2.4m high galvanised steel palisade fence.**
7. **Required electricity connection point to be established in consultation with the property owner and electricity supplier.**
8. **Topsoil to be stored separately for appropriate landscaping distribution on completion of construction.**
9. **All the prevention and mitigation measures described in this report and in the EMPR must be implemented and monitored.**

12. Any representations, and comments received in connection with the application or the basic assessment report;	***Refer to Appendix E***
13. The minutes of any meetings held by the EAP with interested and affected parties and other role players which record the views of the participants;	**No meeting was held during the public participation process.**
14. Any responses by the EAP to those representations, comments and views;	***Refer to Appendix E***
15. Any specific information required by the competent authority; and	**The EAP received no request for specific information from the department.**
16. Any other matters required in terms of sections 24(4)(a) and (b) of the Act.	**No other matters required to the EAP's knowledge.**

SECTION E: CONSULTATION WITH OTHER STATE DEPARTMENTS – IN TERMS OF *Regulation 22 sub-regulation 2 (f) (iii) of the EIA Regulations, 2010*

Provide a list of all State Departments / Organs of State that have been consulted and registered as interested and affected parties, and to whom draft reports have been submitted for comment. **Proof of submission / delivery of the draft report to all State Department / Organs of State must be attached to this document.**

Department:	**Steve Tshwete Local Municipality**		
Contact person:	**Mr WD Fouche**		
Postal address:	**P.O.Box 14, Middelburg**		
Postal code:	**1050**	**Cell:**	**-**
Telephone:	**(013) 249 7000**	**Fax:**	**(013) 243 2550**
E-mail:	**council@stevetshwetelm.gov.za**		

Department:	**Nkangala District Municipality**		
Contact person:	**Mr. T.C. Makola**		
Postal address:	**P O Box 437, Middelburg**		
Postal code:	**1050**	**Cell:**	**-**
Telephone:	**-**	**Fax:**	**013 – 249 2087**
E-mail:	**-**		

Department:	**South African Heritage Resources Agency**		
Contact person:	**Dumisani Sibayi / Phillip Hine**		
Postal address:	**P O Box 4637, Cape Town**		
Postal code:	**8000**	**Cell:**	**-**
Telephone:	**(021) 462 4502**	**Fax:**	**(021) 462 4509**
E-mail:	**dsibayi@sahra.org.za / phine@sahra.org.za**		

Department:	**Mpumalanga Tourism and Parks Agency**		
Contact person:	**Kholofele**		
Postal address:	**Private Bag X11338, Nelspruit**		
Postal code:	**1200**	**Cell:**	**-**
Telephone:	**(013) 759 5300**	**Fax:**	**(013) 755 4104**
E-mail:	**-**		

SECTION F: APPENDICES

The following appendices must be attached to the basic assessment report as appropriate:

Appendix A: Site plan(s) – **IN TERMS OF** ***Regulation 22 sub-regulation 2 (c) of the EIA Regulations, 2010***

Appendix B: Photographs – **IN TERMS OF** ***Regulation 22 sub-regulation 2 (c) of the EIA Regulations, 2010***

Appendix C: Facility illustration(s) – **IN TERMS OF** ***Regulation 22 sub-regulation 2 (c) of the EIA Regulations, 2010***

Appendix D: Specialist reports – **IN TERMS OF** ***Regulation 22 sub-regulation 2 (k) of the EIA Regulations, 2010 – No specialist input required***

Appendix E: Comments and Response Report – **IN TERMS OF** ***Regulation 22 sub-regulation 2 (f) (iv) and 2 (o) and (q) of the EIA Regulations, 2010***

Appendix F: Environmental Management Programme (EMPR) – **IN TERMS OF** ***Regulation 22 sub-regulation 2 (l) of the EIA Regulations, 2010***

Appendix G: Other information

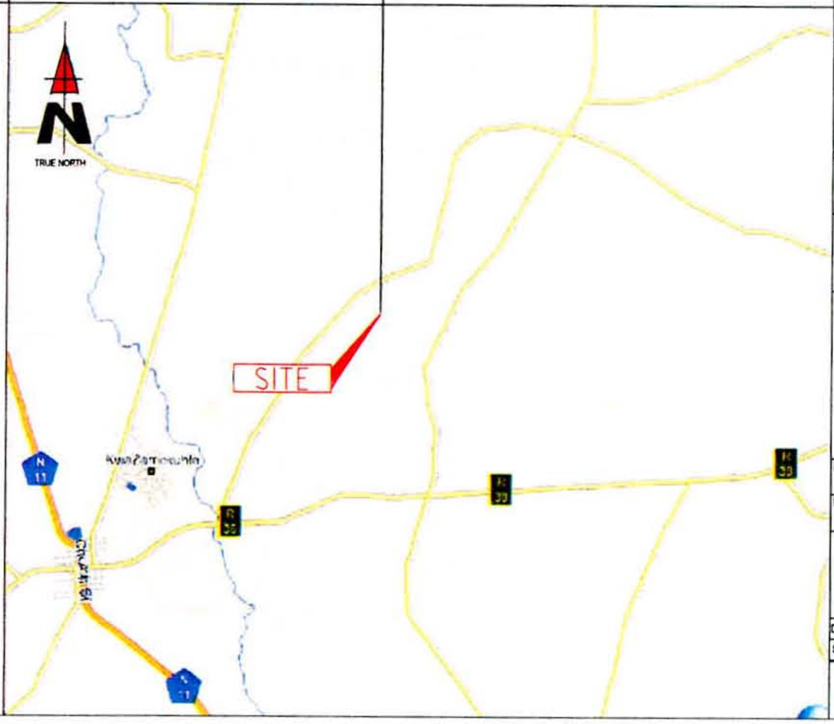
G1: Public Participation – **IN TERMS OF** ***Regulation 22 sub-regulation 2 (f) of the EIA Regulations, 2010***

G1 – Public Participation – Proof of Site Notice
G2 – Public Participation – Proof of Written Notices to I&AP
G3 – Public Participation – Proof of Newspaper Advertisement
G4 – Public Participation – Register of I&APs
G5 – South African Civil Aviation Authority Information
G6 – Motivation for exemption from assessing reasonable or feasible alternatives, as contemplated in subregulation 22 (2) (h) - **IN TERMS OF *Regulation 22 sub-regulation 4 of the EIA Regulations, 2010***

Appendix A: Site Plans

T9508

VLAKFONTEIN FARM



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Block B, Hadefields Complex
Hatfield, 0083

Tel. +27 (12) 342 2900
Fax: +27 (12) 342 9208

Postnet Suite 146
Private Bag X15
Menlo Park

SITE NAME:

VLAKFONTEIN FARM

BASE STATION NUMBER:

T9508

REV	DATE	BY	DESCRIPTION
A	21/11/2011	MY	FIRST ISSUE

NOTES:

OWNER: SCHEEPERS JOHANNES PETRUS

STRICTLY COMPANY CONFIDENTIAL

PROPERTY DESCRIPTION:

PORTION 3 OF THE FARM VLAKFONTEIN 176 IS

COORDINATES:

LAT : 26° 05' 33.55" S
LONG: 29° 48' 01.34" E

PROJECT:

NEW 9x9m TELECOMMUNICATION BASESTATION WITH A 54m LATTICE MAST FOR MTN (PTY) LTD

ADDRESS:

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R34 WONDERFONTEIN GRAVEL ROAD,
HENDRINA,
MPUMALANGA

INFRASTRUCTURE PLANNING SERVICES

414 Rustic Road
Silvertondale
0184

Tel. +27 (12) 804 1504/6
Fax: +27 (12) 804 7072
admin@infraplan.co.za

P.O. Box 32017
Totiusdal
0134

RFQ NO.:

152058

PROJECT NUMBER:

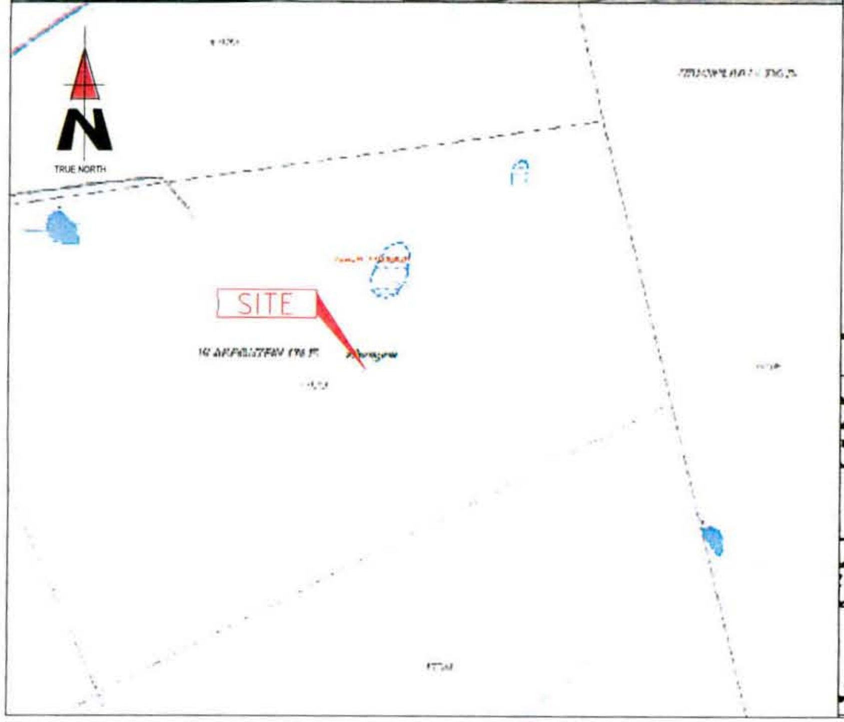
120164

DRAWINGS MUST NOT BE SCALED. ONLY FIGURED DIMENSIONS TO BE USED. DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCEMENT OF WORK.

ALL WORK TO BE PERFORMED ACCORDING TO MTN BTS SITE INFRASTRUCTURE SPECIFICATION RI/01/1001 ISSUE 1 REVISION 0 NOVEMBER 2007

DRAWN: MELISSA YOUNG	DATE: 21/11/2011
SCALE: NTS	REF. NO: 812/T9508

LOCALITY MAP
SHEET 1 OF 10

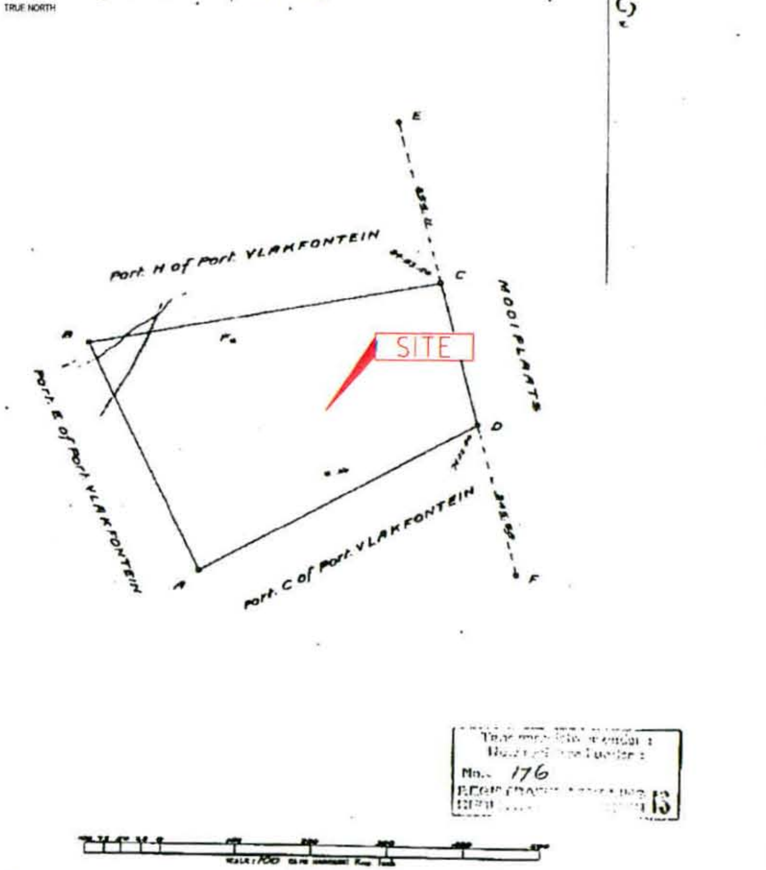


pproved Form for a Sub-Division of a Farm or portion of a Farm.

File 6863/1

S.G. No. A1530/12

		ANGLES		(Y) CO-ORDINATES	(X)
.41	A	37 30	A	− 239.25	− 418.05
.69	B	39.00	B	+ 64.59	− 261.70
.13	C	06.10	C	+ 147.45	− 726.14
.31	D	37.20	D	− 38.91	− 776.64
			E	+ 489.18	− 633.18
			F	− 372.47	− 867.58



No. 176

13

The above Figure lettered A B C D represents Morgen 589 Square Roods of land, being Portion B of Portion of the Farm
VLAKFONTEIN N°68

the Diagram S.G. No. A 175/1899 framed by Surveyor V. A. Prins in Nov. 1898

of Transfer No. 905/1873 dated 1/7/1873 made in favour of S. W. Neethling

District of Middelburg Ward Olifants River Province of Transvaal. Bounded as indicated above.

were pointed out by W. H. Neethling & Surveyor C. V. Neser and have been properly erected according to law.

Surveyed in March 1912

by me, Land Surveyor.

Examined. The numerical data of this sufficiently ascertained.

Maxwell Edwards

Examiner of Diagrams.

Approved

Surveyor-General.

Surveyor-General's Office, Pretoria. 23 MAY 1912

This Diagram belongs to Deed of Transfer No. 5233/13 made this day in favour of

Registrar of Deeds

Deeds Office, Pretoria.

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Hatfield, 0083

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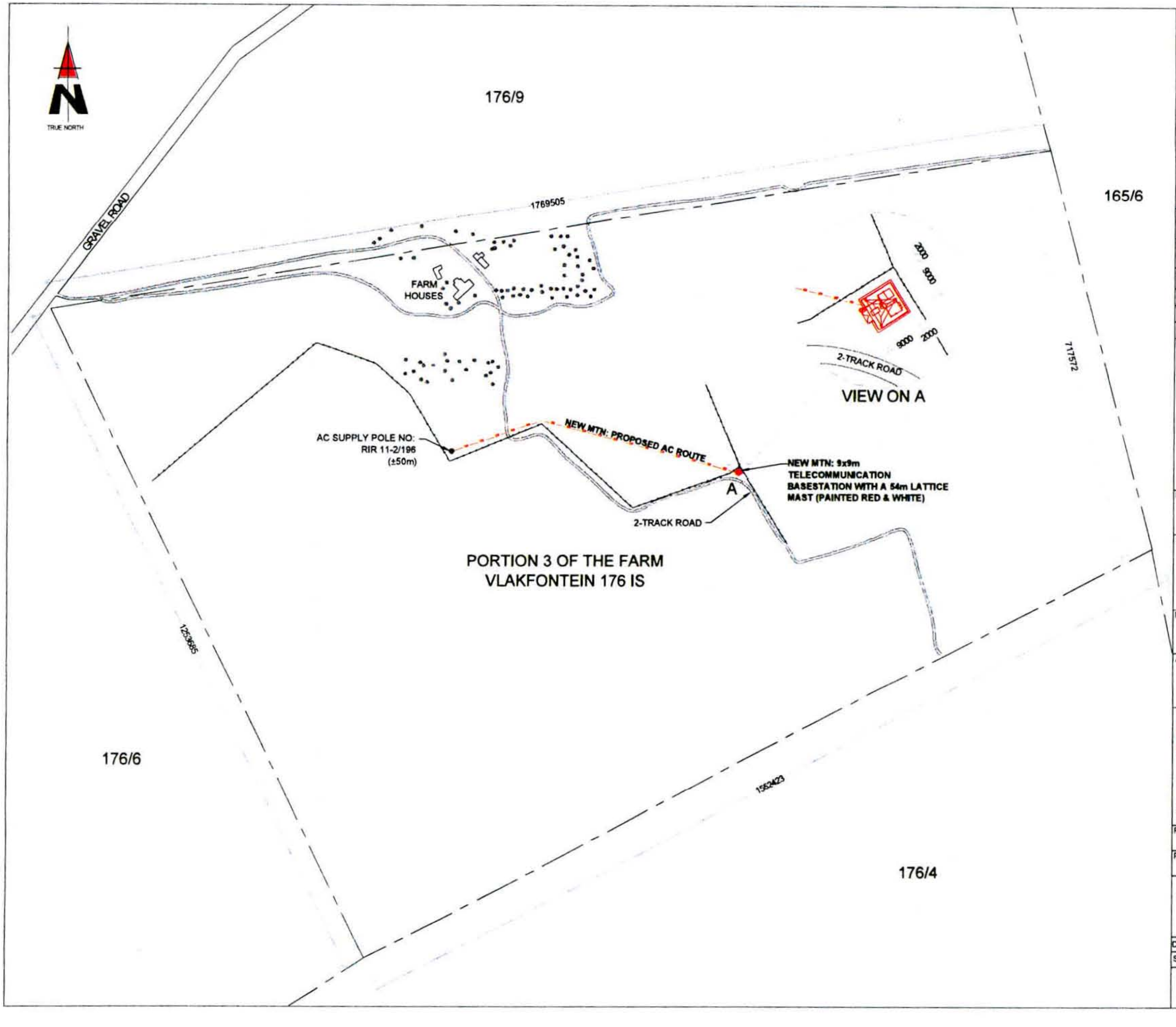
CADASTRAL INFO
SHEET 2 OF 10



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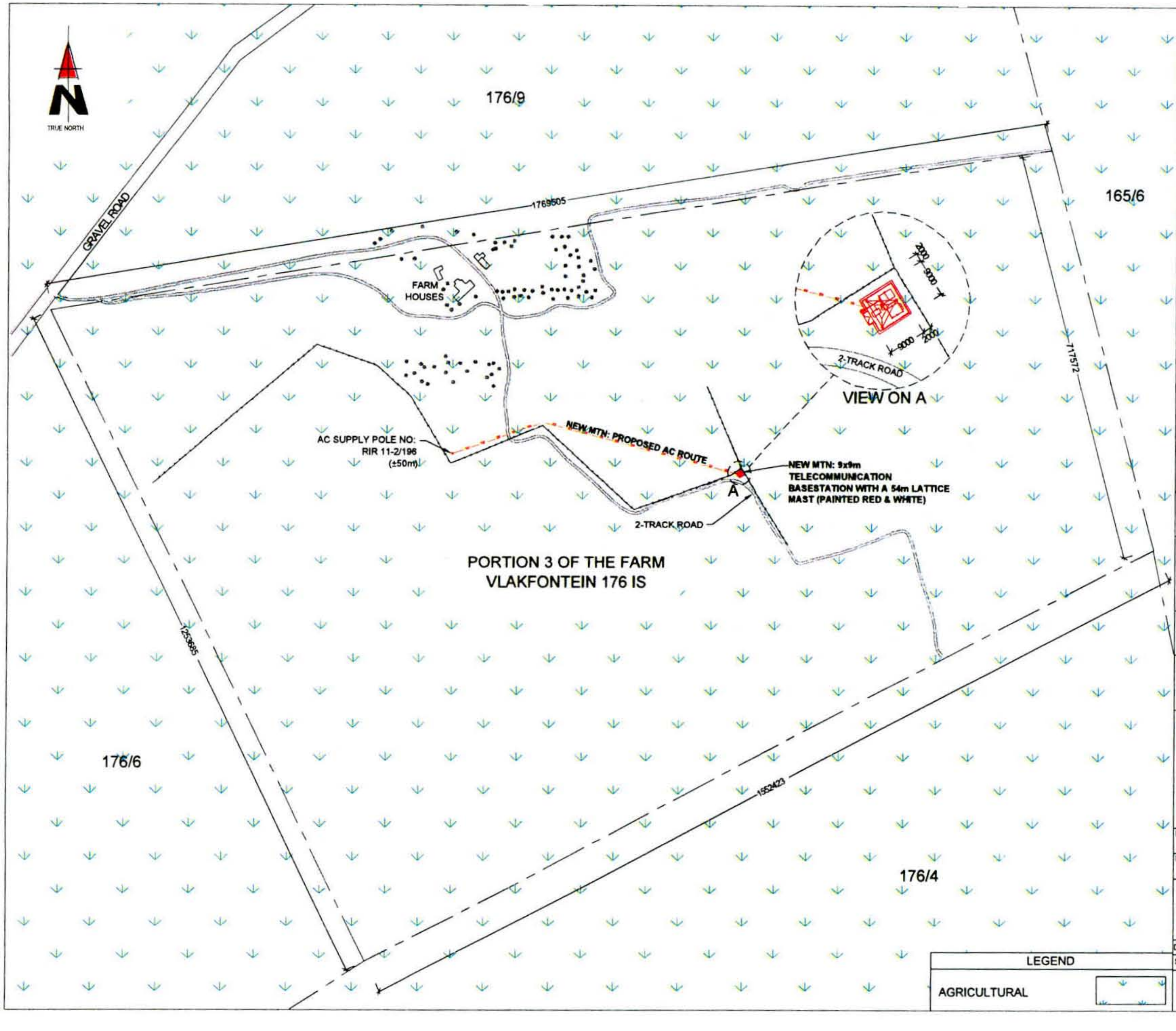
REF. NO: 812/T9508

SITE DEVELOPMENT PLAN
SHEET 3 OF 10



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DATE: 21/11/2011
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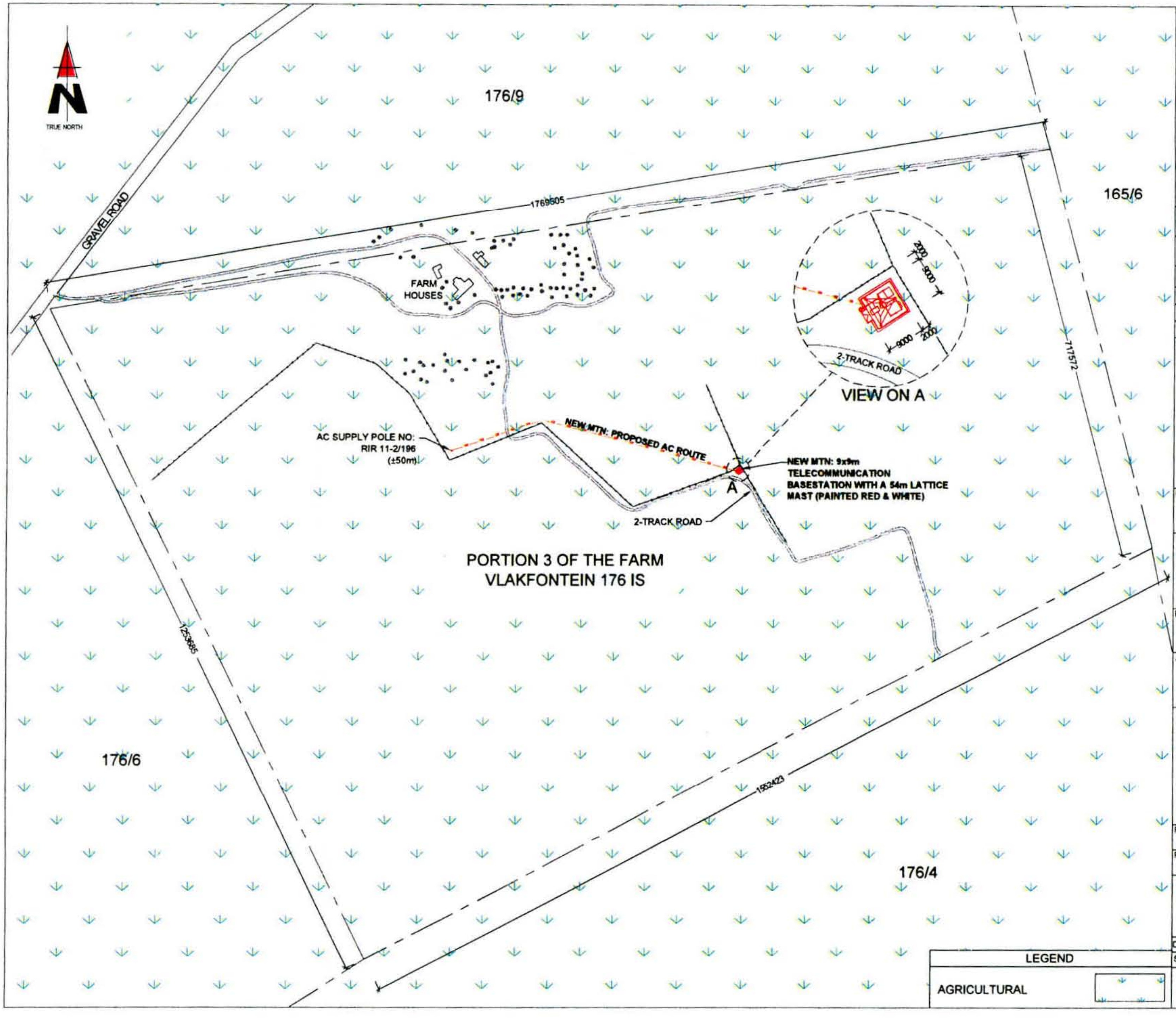
ZONING MAP
SHEET 4 OF 10



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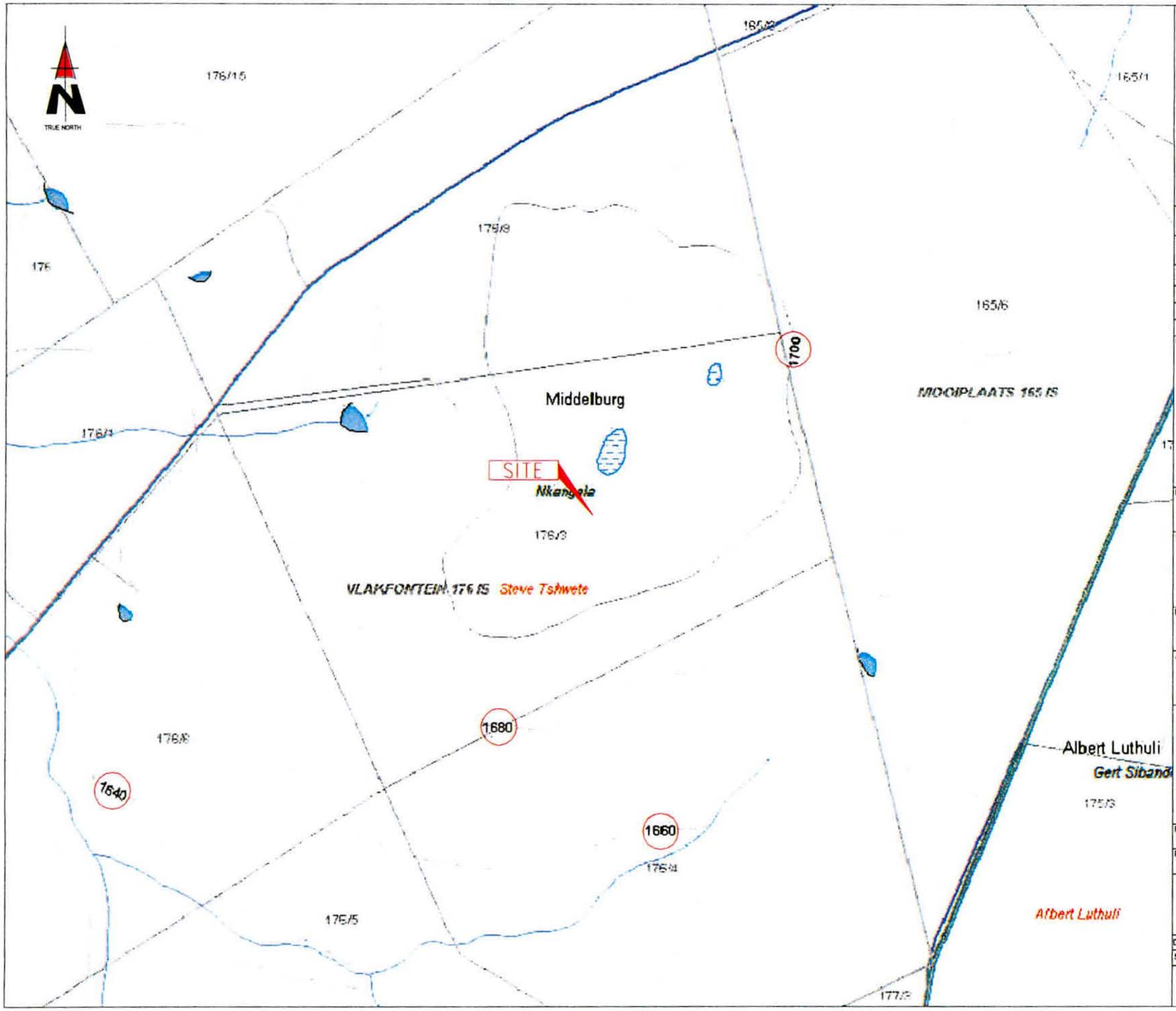
CURRENT LAND USE
SHEET 5 OF 10



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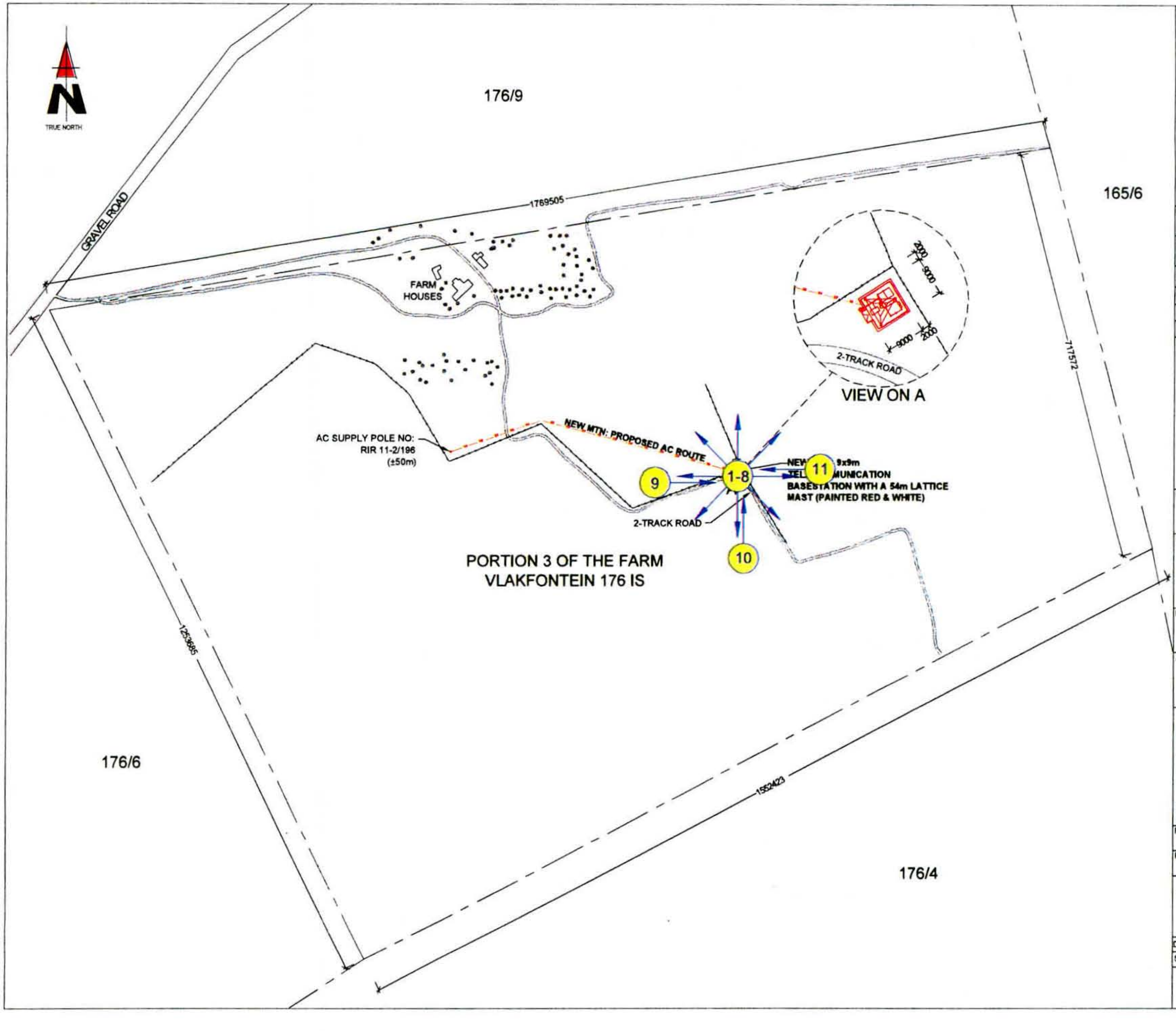
CONTOUR INTERVAL

SHEET 6 OF 10

Appendix B: Site Photographs



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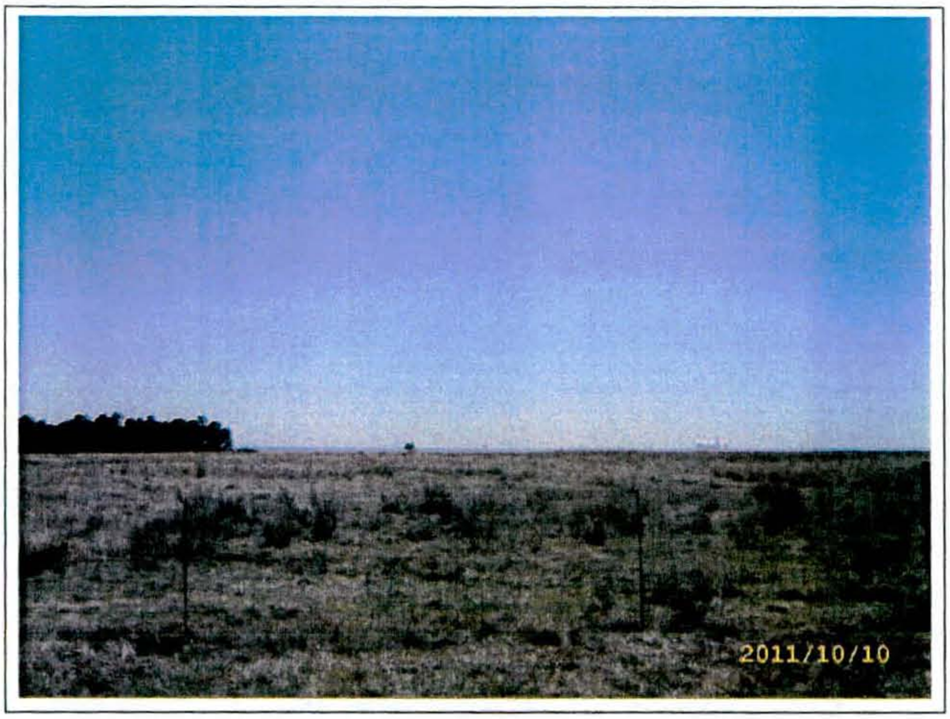
SCALE: 1: 5000
REF. NO: 812/T9508

SITE PHOTOGRAPHS
SHEET 7 OF 10

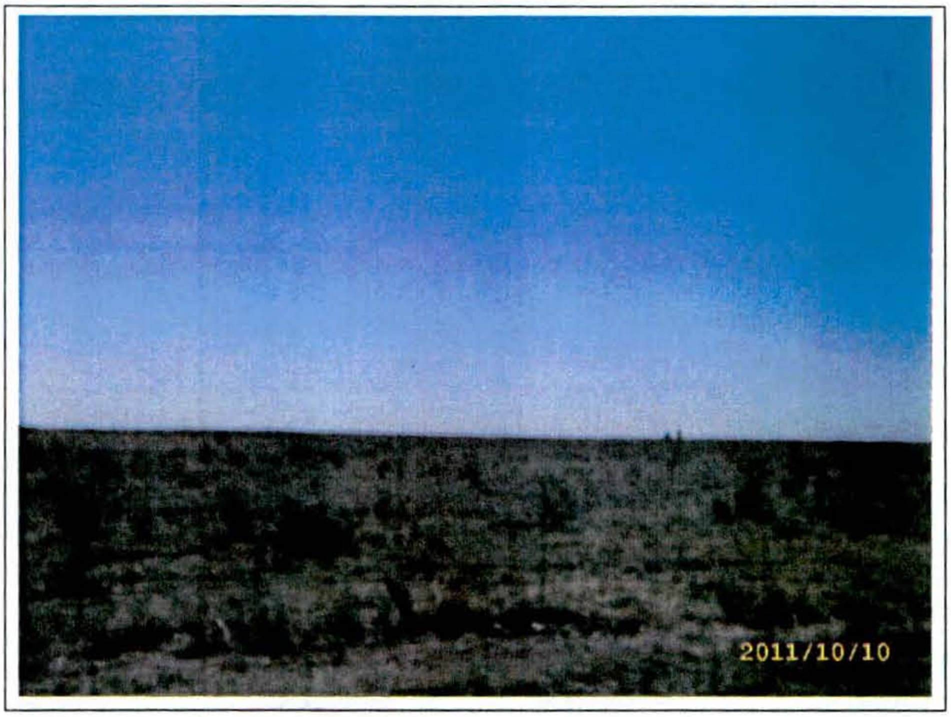
SITE PHOTOGRAPHS



1. Panoramic view from the site direction North

2. Panoramic view from the site direction North East

SITE PHOTOGRAPHS



3. Panoramic view from the site direction East

4. Panoramic view from the site direction South East

SITE PHOTOGRAPHS

5. Panoramic view from the site direction South

6. Panoramic view from the site direction South West

SITE PHOTOGRAPHS

7. Panoramic view from the site direction West

8. Panoramic view from the site direction North West

SITE PHOTOGRAPHS

9. View on basestation position direction North

10. View on base station position direction East

SITE PHOTOGRAPHS

11. View on base station position direction South

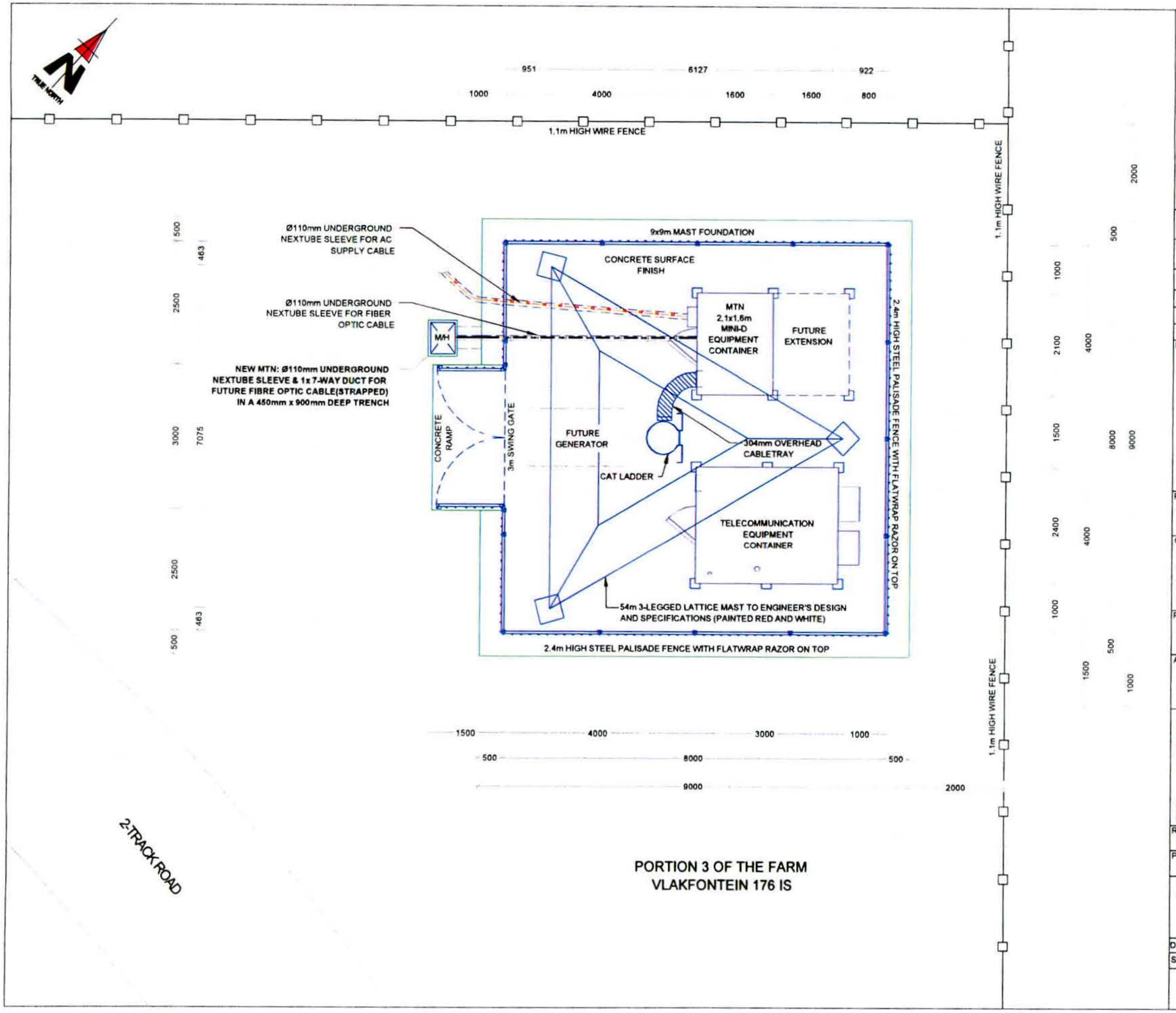
12. View on base station position direction West

SITE PHOTOGRAPHS


2011/10/10

13. General view on site establishment area

Appendix C: Facility Illustrations



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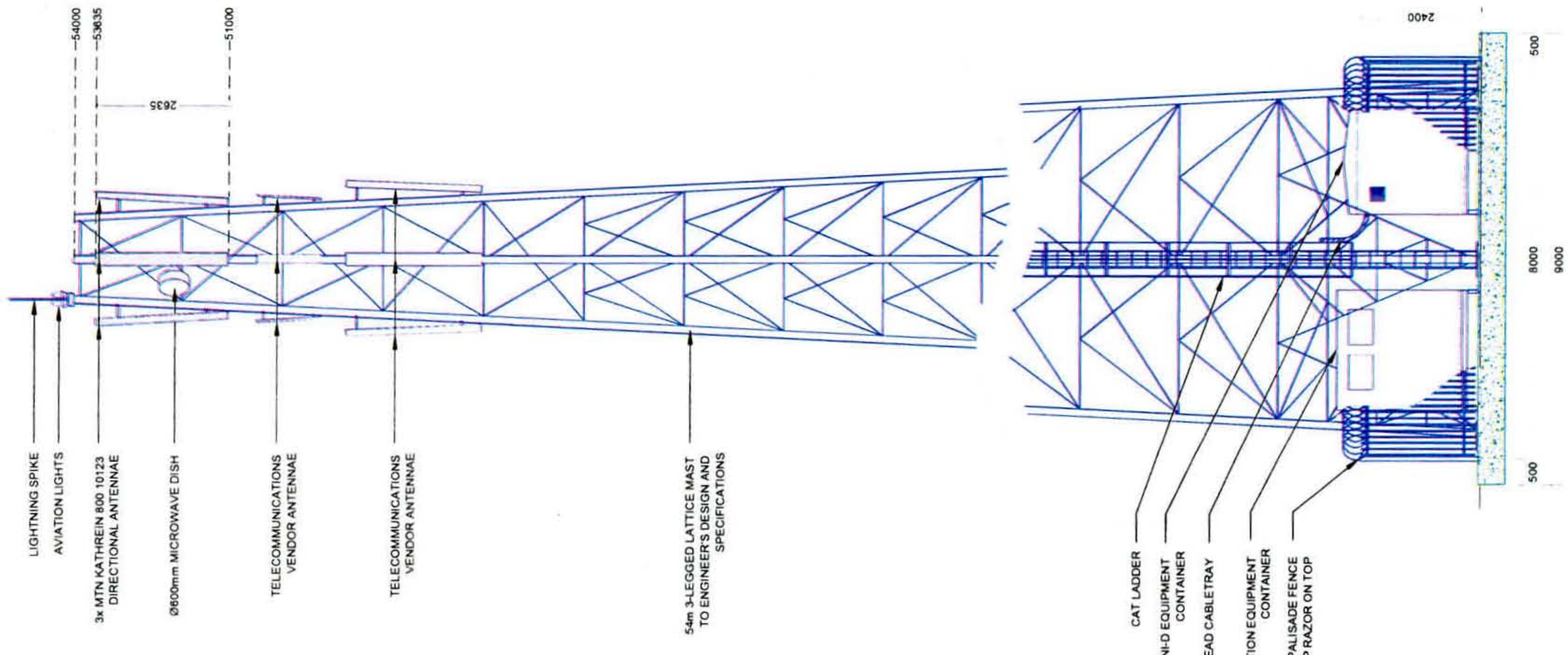
SITE DETAIL
SHEET 8 OF 10

MTN ANTENNAE KEY

SECTOR	AZIMUTH	ANTENNA	HEIGHT - BOTTOM (m)	MECH. TILT	ELEC. TILT	FEEDER SIZE	FEEDER LENGTH (m)
1	60°	K800 10123	51			7/8"	± 55
2	180°	K800 10123	51			7/8"	± 55
3	300°	K800 10123	51			7/8"	± 55



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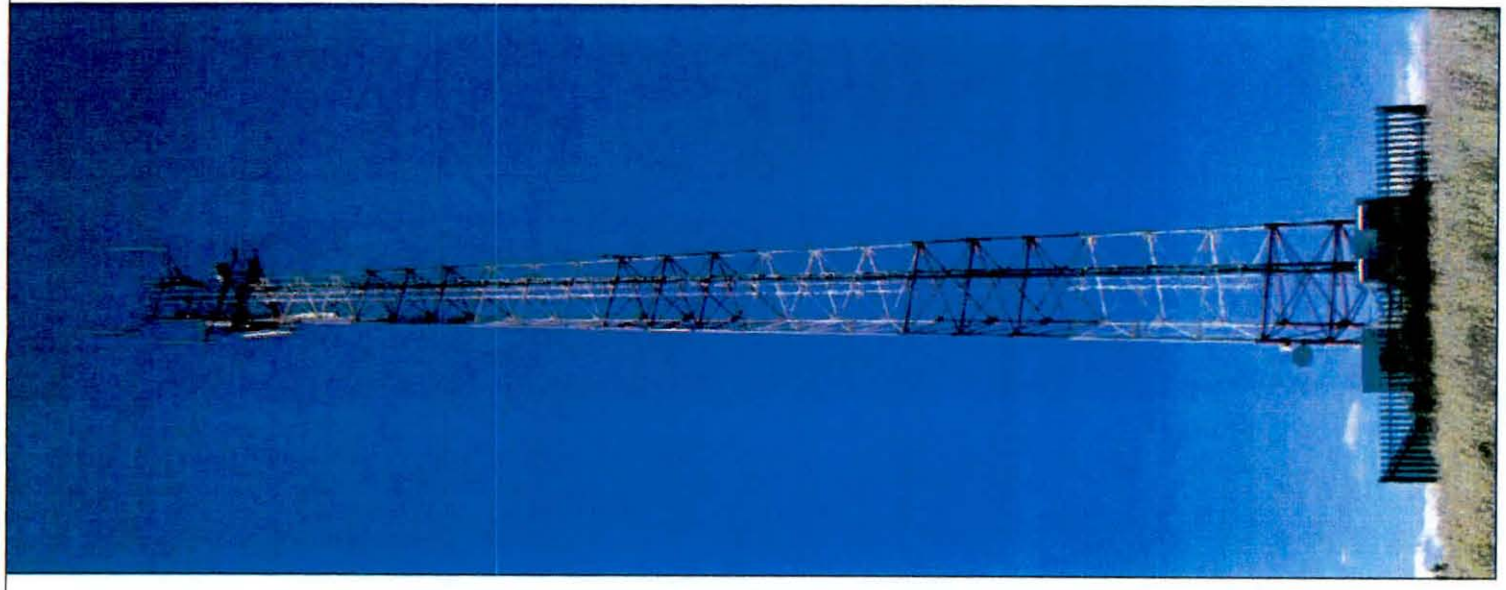
NORTH-EAST ELEVATION
SHEET 9 OF 10



TYPICAL 3-LEGGED LATTICE MAST
(PAINTED RED & WHITE)

MTN

1267 Pretorius Street
Block B, Hadefields Complex
Hatfield, 0083

Tel. +27 (12) 342 2900
Fax: +27 (12) 342 9208

Postnet Suite 146
Private Bag X15
Menlo Park

SITE NAME:

VLAKFONTEIN FARM

BASE STATION NUMBER:

T9508

REV	DATE	BY	DESCRIPTION
A	21/11/2011	MY	FIRST ISSUE

NOTES:

OWNER: SCHEEPERS JOHANNES PETRUS

STRICTLY COMPANY CONFIDENTIAL

PROPERTY DESCRIPTION:

PORTION 3 OF THE FARM VLAKFONTEIN 176 IS

COORDINATES:

LAT : 26° 05' 33,55" S
LONG: 29° 48' 01,34" E

PROJECT:

NEW 9x9m TELECOMMUNICATION BASESTATION WITH A 54m LATTICE MAST FOR MTN (PTY) LTD

ADDRESS:

VLAKFONTEIN HENDRINA,
R34 WONDERFONTEIN GRAVEL ROAD,
HENDRINA,
MPUMALANGA

INFRASTRUCTURE PLANNING SERVICES

414 Rustic Road
Silvertondale
0184

Tel. +27 (12) 804 1504/6
Fax: +27 (12) 804 7072
admin@infraplan.co.za

P.O. Box 32017
Totiusdal
0134

RFQ NO.:

152058

PROJECT NUMBER:

120164

DRAWINGS MUST NOT BE SCALED. ONLY FIGURED DIMENSIONS TO BE USED. DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCEMENT OF WORK.

ALL WORK TO BE PERFORMED ACCORDING TO MTN BTS SITE INFRASTRUCTURE SPECIFICATION RI/01/1001 ISSUE 1 REVISION 0 NOVEMBER 2007

DRAWN: MELISSA YOUNG	DATE: 21/11/2011
SCALE: NTS	REF. NO: 812/T9508

FACILITY ILLUSTRATION
SHEET 10 OF 10

Appendix D: Specialist Reports – Not Applicable

Appendix E: Comments and responses report

Interested & Affected Parties Register / Comments and Responses Report

Site number: T9508
Site Name: Vlakfontein
EIA reference no.: 17/2/3 N-123

Interested and Affected Parties Register							Comments and Responses Report	
No.	**Date**	**Name**	**Address**	**Contact detail**	**Reacted to:**	**Record of initial I&AP registration**	**Issues raised / Comments received**	**EAP Response**
1	2012/02/10	The Municipal Manager, Steve Tshwete Local Municipality, Mr. WD Fouche	PO Box 14, Middelburg, 1050	Tel: (013) 249 7000 Fax: (013) 249 7072	NA	Auto I&AP	No comments received	No comments received
2	2012/02/02	The Ward Councillor, Clr EF Mathebula, Ward 3	PO Box 14, Middelburg, 1050	Fax: (013) 243 2550	NA	Auto I&AP	No comments received	No comments received
3	2012/02/10	Nkangala District Municipality, Mr. T.C. Makola	P.O. Box 437, Middelburg	Tel: (013) 249 2087	NA	Auto I&AP	No comments received	No comments received
3	2012/02/02	South African Civil Aviation Authority (SACAA)	Private Bag x73, Halfway House 1685	Tel: (011) 545 1000 Fax: (011) 545 1451	NA	Auto I&AP	Approval not received yet	Application submitted
4	2012/02/02	South African Heritage Resources Agency (SAHRA)	P.O. Box 4637, Cape Town, 8000	Tel: (021) 462 4502 Fax: (021) 462 4509	NA	Auto I&AP	No comments received	No comments received
5	2012/02/02	Mpumalanga Tourims and Parks Agency (MTPA)	Private Bag X 11338, Nelspruit, 1200	Tel: (013) 759 5445 Fax: (013) 755 4014	NA	Auto I&AP	No comments received	No comments received

Appendix F: EMPR

Environmental Management Programme (EMPR)

(Compiled and Submitted in terms of the National Environmental Management Act (Act 107 of 1998))

MobileTelephone Networks (Pty) Ltd

Project Reference Number:

T9508 Vlakfontein Farm

March 2012

DOCUMENT APPRAISAL

Reference No.		**Responsible Person**	**Signature**	**Date**
Stage of Document	**Final**			
Document Compilation				
Document Review				
Document Authorisation				

Department Reference Number: 17/2/3 N-123

CONTENTS PAGE

EXECUTIVE SUMMARY

The proponent, MTN (Pty) Ltd, intends **the establishment of a telecommunication mast.**

The Department of [insert department details] requested that an Environmental Management Plan (EMPR) be prepared for the proposed project, which addresses all phases of the proposed project, for submission to them [for approval]. The scope of environmental management described in this EMPR pertains to the project as a whole and aims to integrate environmental planning, design, construction and operational activities on the site.

The EMPR has as its basis the recommendations listed in the Basic Assessment Report. It is important to note that the project and the implementation of environmental specifications is an ongoing process that is dynamic in nature. This EMPR forms part of the contractual obligation between the Contractor and the proponent, MTN (Pty) Ltd.

1 INTRODUCTION

1.1 Background and Brief Project Description

The proposed project involves **the establishment of a telecommunication mast.**

Torbiouse Solutions cc was appointed to compile the Environmental Management Plan in respect of the proposed project.

1.1.1 Aims of the EMPR

The purpose of the EMPR is to set environmental targets for the Contractor and reasonable standards against which the Contractor's performance in this regard can be measured during construction. This document will form the basis for the environmental specifications that the Constructor is obliged to comply with during construction of the proposed project. This document will thus form a binding agreement between the Contractor and MTN (Pty) Ltd.

The EMPR addresses issues in order to ensure that all environmental aspects are carefully considered and monitored and adverse impacts managed. It is important to note that the development and implementation of environmental specifications is ongoing and the EMPR is typically dynamic in nature.

1.1.2 Contents of the EMPR

The EMPR consists of the following sections:

Chapter 1: Introduction: This section includes the project background, aims of this EMPR and describes the contents of this EMPR.

Chapter 2: Administration and regulation of environmental obligations: This section identifies the proposed mechanisms for monitoring compliance with the EMPR and reporting thereof.

Chapter 3: Environmental Specifications: Construction Phase: This section includes environmental specifications relating to the construction phase of the project.

Chapter 4: Environmental Specifications: Operational Phase: This section includes environmental specifications relating to the operational phase of the project.

Chapter 5: Environmental Specifications: Decommissioning Phase: This section includes environmental specifications relating to the decommissioning of the site.

Chapter 6: Emergency Response Plan: This section provides a summary of responses to emergency situations

2 ADMINISTRATION AND REGULATION OF ENVIRONMENTAL OBLIGATIONS

2.1 Environmental Site Agent

The Environmental Site Agent (ESA) is the person, appointed by the Contractor on behalf of the Applicant or the Environmental Consultant appointed on behalf of the Applicant, involved with the project and all projects within the operational region of the Contractor and who is responsible for the implementation of the environmental management plan. This person is therefore responsible for the environmental issues involved with the construction phase of the project. The ESA will be required to oversee a number of sites at any given time and is required to manage his/her time effectively to ensure that he/she fulfils his/her environmental obligations in respect of all sites.

The ESA must be a person with adequate environmental knowledge to understand and implement this management plan. It is required that the ESA reports to the Applicant (MTN (Pty) Ltd) irrespective of who appointed the ESA. The ESA has the authority to stop works if in his/her opinion there is a serious threat to or impact on the environment, caused directly from the construction operations. This authority is to be limited to emergency situations where consultation with the HOD Implementation and/or Property Supervisor and/or National Property Manager is not immediately available. In all such work stoppage situations, the ESA is to inform the HOD Implementation and/or Property Supervisor and/or National Property Manager of the reasons for the stoppage as soon as possible thereafter.

Upon failure by the Contractor and/or his employees to show adequate consideration to the environmental aspects of this EMPR, the ESA may recommend the suspension of works pending an investigation by the HOD Implementation and/or Property Supervisor and/or National Property Manager.

2.2 Environmental Awareness Training for Site Personnel

All Contractor teams involved in work on the project are to be briefed on their obligations towards environmental controls and methodologies in terms of this EMPR prior to the commencement of work. The briefing will take the form of an on site talk, when an RFQ (Request for Quotation) site survey is set up, and shall be demonstrated by the ESA. The education / awareness programme should be aimed at all levels of employees within the Contractor team. (See "Do's and Don'ts" summary sheet).

2.3 On Site Communication Procedure

2.3.1 Environmental Awareness Training for Site Personnel

The Site Instruction book entries will be used for the recording of general site instructions as they relate to the work taking place on site. It will also be used for the issuing of stop work orders for the purposes of immediately halting any particular activities of the Contractor in lieu of the environmental risk that they may pose.

2.3.2 Record Keeping

All records relating to the implementation of this EMPR must be kept on site; on the MTN Operating System and archived at an adequate archive facility where it is safe and can be retrieved easily. These records should be kept for two years and should at any time be available for scrutiny by any relevant authorities.

2.3.3 Photographs

It is recommended that photographs are taken on the site prior to, during and immediately after construction as a visual reference. These photographs should be stored with other records related to this EMPR and on the MTN Operating System. If captured in digital format, hard copies must be kept with all other records relevant to the implementation of this EMPR. In particular, the Contractor and ESA are responsible for taking photographs of the environmental aspects of environmentally sensitive areas for use in rehabilitation processes.

2.3.4 Environmental Audit Report

An Environmental Audit Report is a report completed by the ESA and signed off by the HOD Implementation and/or the Property Supervisor and/or National Property Manager, and then sent to the relevant authorities, by the ESA, stating the completion of the project and compliance with the EMPR and conditions.

2.4 Basic Rules of Conduct

The following list represents the basic "Do's and Dont's" towards environmental awareness, which all participants in this project must consider whilst carrying out their tasks and duties. These are not exhaustive and serve as a quick reference aid. NOTE: **All new site personnel must attend an**

environmental awareness presentation. Please inform your foreman or manager if you have not attended such a presentation alternatively contact the ESA.

DO:

- ✓ Use the toilet facilities provided – report dirty or full facilities;
- ✓ Clear your work areas of litter and building rubbish at the end of each day – use the waste bins provided and ensure that litter will not blow away;
- ✓ Report all fuel or oil spills immediately and stop the spill continuing;
- ✓ Dispose of cigarettes and matches carefully. (Littering is an offence);
- ✓ Confine work and storage of equipment to the immediate work area and within the site boundary;
- ✓ Where possible use a drip tray under vehicles and machinery and empty drip trays after rain and throw away where instructed;
- ✓ Use all safety equipment and comply with all safety procedures;
- ✓ Ensure a working fire extinguisher is immediately at hand if any "HOT WORK" is undertaken e.g. welding, grinding, gas cutting etc;
- ✓ Try to avoid producing dust – wet dry ground and soil;

DONT:

- × Make any fires;
- × Enter any fenced off or marked area;
- × Allow cement or cement bags to blow around;
- × Allow waste, litter, oils or foreign materials into the stormwater channels;
- × Litter or leave food laying around;
- × Make loud noises around the site. Report or repair noisy vehicles
- × Damage or cut down any trees or plants without permission.

2.5 Internal Review and Auditing

The Contractor and ESA shall establish an internal review procedure to monitor the progress and implementation of the EMPR during the construction phase. All audits will be signed off by the HOD Implementation and/or Property Supervisor and/or National Property Manager.

Where necessary, and upon the recommendation of the ESA and/or the Contractor, procedures that require modification will be changed to improve the efficiency of the EMPR. All modifications to the EMPR shall be approved by the Department before; if possible, any changes or adjustments to the EMPR are implemented. Any material changes or adjustments to the EMPR shall be registered accordingly on MTN's operating system.. Adjustment and update of the original EMPR document is not required when these *ad hoc* changes are made.

At the conclusion of the project an environmental audit report shall be compiled by the ESA, and signed off by HOD Implementation and/or Property Supervisor and/or National Property Manager and submitted to the Department by the ESA. This report shall be compiled by the ESA, in collaboration with the Contractor and/or the Environmental Consultant and/or the Applicant.. It shall, as a minimum, outline the implementation of the EMPR during the construction phase, and highlight any problems and issues that arose during the construction period to report, on a formal basis, the lessons learnt from this project.

3 ENVIRONMENTAL SPECIFICATIONS: CONSTRUCTION PHASE

3.1 Site Demarcation

The "site" refers to the total area where the contract will take place and any other area reasonably required by the Contractor to undertake the construction activities in order to fulfil the contract. Areas where construction is prohibited are referred to as 'no-go' areas. 'No-go' areas identified on site include all areas outside of the footprint of the base station as well as environmentally sensitive sites. The environmental sensitivity of the area should be ascertained and then the position and orientation of the BTS site as per the approved drawings should be pegged out. 'No-go' areas should be demarcated to prevent environmental degradation thereto. This responsibility rests with the ESA and/or the Contractor.

The Contractor shall be responsible for any clean-up and/or rehabilitation of all areas impacted outside the site and within the 'no-go' areas.

3.2 Construction Facilities

3.2.1 Construction Camp

Construction crews may not stay on site overnight unless special permission has been obtained from the landowner. In the event that the landowner has given such permission, the position of the construction camp shall be agreed by the ESA and Contractor.

3.2.2 Toilet Facilities

The Contractor shall provide suitable sanitary arrangements (chemical toilets), which shall be located within the construction camp and/or in the construction footprint (where applicable) of the BTS. The siting of toilets shall be done in consultation with the ESA to ensure ease of access. Where required, toilet/s shall be secured to prevent them blowing over.

The Contractor shall be responsible for ensuring that all ablution facilities are maintained in a clean and sanitary condition to the satisfaction of the ESA. The Contractor shall provide toilet paper. The Contractor shall appoint a suitable sub-contractor to empty toilets on a regular basis. The sub-contractor and Contractor shall ensure that there is no spillage when the chemical toilets are cleaned and that the contents are properly removed from site.

The Contractor shall be responsible for enforcing the use of these facilities. Performing ablutions outside of established toilet facilities is strictly prohibited.

3.2.3 Water Provision

The Contractor shall be responsible for ensuring that there is access to clean drinking water for all employees on site. The use of water in rivers, dams, ponds etc. as drinking water is strictly forbidden.

3.2.4 General Aesthetics

All construction areas must be kept neat and tidy at all times. Different materials and equipment must be kept in designated areas and storing/stockpiling shall be kept orderly.

3.3 Site Clearing

3.3.1 Vegetation Clearing

Before clearing of vegetation, the Contractor shall ensure that all litter and non-organic material is removed from the area to be cleaned. All vegetation that may not be removed must be clearly identified and demarcated. Where the surrounding flora is required to be protected from traffic, the entire construction area should be fenced off with a temporary 1.8m fence. The fence should be removed upon completion of construction. This responsibility rests with the Contractor and the ESA. The use of herbicides is prohibited.

3.3.2 Site Access

All access to and from the BTS shall be on demarcated roads (where possible). The route for permanent access to the site shall be determined prior to construction, and shall be pegged out accordingly. Photographs shall be taken indicating the route detail. Rehabilitation of secondary roads must be conducted by the Contractor. No machinery may disturb any vegetation along side any road.

3.3.3 Trenching

All trenching must completed in such a manner as to limit damage to the surrounding environment. If required in the authorisation, trenching is to be done by hand.

3.4 Materials Handling and Storage

3.4.1 Handling

The Contractor shall ensure that all suppliers and their delivery drivers are aware of procedures and restrictions in terms of this EMPR. The Contractor (and suppliers) shall ensure that all materials are appropriately secured to ensure safe passage between destinations. Loads shall have appropriate cover to prevent spillage from the vehicle during transit. The Contractor shall be responsible for any clean-up resulting from the failure by his employees or suppliers to properly secure transported materials. The Contractor shall ensure that delivery drivers are supervised during offloading.

3.4.2 Storage of Construction Materials

The Contractor shall ensure that areas for storage of construction materials are determined in consultation with the ESA and adequately demarcated. All construction materials including but not limited to building material shall be stored on such demarcated areas.

3.4.3 Storage of Equipment

Drip trays shall be provided for stationary plant (such as compressors, pumps, generators etc.) and for "parked" plant (e.g. mechanised equipment).

3.5 Refuelling and Maintenance

3.5.1 Refuelling

Where reasonably practicable, plant and vehicles shall be refuelled using suitable equipment (e.g funnels) and the necessary drip trays.

3.5.2 Maintenance

All vehicles and equipment shall be kept in good working order and serviced regularly. Leaking equipment shall be removed from the site. All maintenance of equipment and vehicles shall be performed off site. No washing of plant and equipment shall be undertaken on site.

3.6 Accidental Leaks and Spills

The Contractor shall ensure that his employees are aware of the procedure to be followed for dealing with spills and leaks. Any accidental leak or spill of fuel, oil or any other hazardous substance must be reported immediately to the ESA to ensure that the best remediation method is quickly implemented.

In the event of a hydro-carbon spill, the source of the spillage shall be isolated and the spillage contained. The area shall be cordoned off and secured. The Contractor shall ensure that there is always a supply of absorbent material readily available to absorb / breakdown spills.

The Contractor shall be liable to arrange for professional service providers to clear the area affected by the spill, if required.

3.7 Waste Management

3.7.1 Solid Waste

Solid waste includes all construction waste (cement bags, tags, wrapping materials, cans, wire, nails, etc.) and surplus food, food packaging, organic waste etc. The Contractor shall be responsible for the establishment of a solid waste control and removal system that is acceptable to the ESA in order to prevent the spread of waste in, and beyond, the construction area. An integrated waste management approach shall be used, based on the principles of waste minimisation, reduction, reuse and recycling of materials. Containers for glass, paper, metals and plastics shall be provided, if sufficient solid waste is generated. The construction camp area (if applicable) is particularly suited for this purpose.

The Contractor shall provide vermin and weatherproof bins (with lids) of sufficient number and capacity to store solid waste produced on a daily basis. The lids shall be kept firmly on the bins at all times. Bins shall be located in areas where there is a concentration of labour and shall be easily