



Gauteng Department of Agriculture and Rural Development (GDARD)

Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2010 (Version 1)

List of all organs of state and State Departments where the draft report has been submitted, their full contact details and contact person

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2010.
 2. This application form is current as of 2 August 2010. It is the responsibility of the EAP to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
 3. **A draft Basic Assessment Report must be submitted to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken. The draft reports must be submitted to the relevant State Departments and on the same day, two CD's of draft reports must also be submitted to the Competent Authority (GDARD) with a signed proof of such submission of draft report to the relevant State Departments.**
 4. The report 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. The report is in the form of a table that can extend itself as each space is filled with typing.
 5. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
 6. An incomplete report shall be rejected.
 7. 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.
 8. Five (5) copies (3 hard copies and 2 CDs-PDF) of the final report and attachments must be handed in at offices of the relevant competent authority, as detailed below.
 9. No faxed or e-mailed reports will be accepted. Only hand delivered or posted applications will be accepted.
 10. Unless protected by law, and clearly indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.
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DEPARTMENTAL DETAILS

Gauteng Department of Agriculture and Rural Development
Attention: Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
P.O. Box 8769
Johannesburg
2000

Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
18th floor Glen Cairn Building
73 Market Street, Johannesburg

Admin Unit telephone number: (011) 355 1345
Department central telephone number: (011) 355 1900

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

(For official use only)

File Reference Number:						
Application Number:						
Date Received:						

* Submission to State Departments (Number 3 above)

Has a draft report for this application been submitted to all State Departments administering a law relating to a matter likely to be affected as a result of this activity?

YES

Is a list of State Departments referred to above been attached to this report?

YES

if no, state reasons for not attaching the list.

SECTION A: ACTIVITY INFORMATION

1. ACTIVITY DESCRIPTION

Project title (must be the same name as per application form):

Proposed Upgrade of road K46 Phase 2 between the PWV5 and the N14, Diepsloot Area, Johannesburg Metropolitan Municipality

Background

The project entails the second phase of the upgrade of the existing K46 (R511/ William Nicol Road between the PWV5 (Zeven street area) in the south and N14 interchange (Summit road area) in the north (see image below). The basic planning and route design of the upgrade of the K46 was performed in 1990 in anticipation of future development in the vicinity and the required road infrastructure. The Gauteng Provincial Department of Roads and Transport (GPDRT the Applicant) is in the process of route proclamation and the adjacent land owners received notice of the expropriation.

Road design considerations

A traffic analysis of the K46 William Nicol Drive corridor determined the most appropriate and cost effective road design to accommodate the anticipated traffic flows (15-20 years) as well as the most efficient interchange layout of William Nicol and the new planned east-west freeway (PWV5).

The full extent of new developments (Steyn City, Century Riversands, Tanganani, Cradle City at Lanseria and Northern Farms developments), the anticipated 2030 Regional Road Network and the Gauteng Province Planning Department were taken into account in terms of the proposed road and interchange designs.

Road design

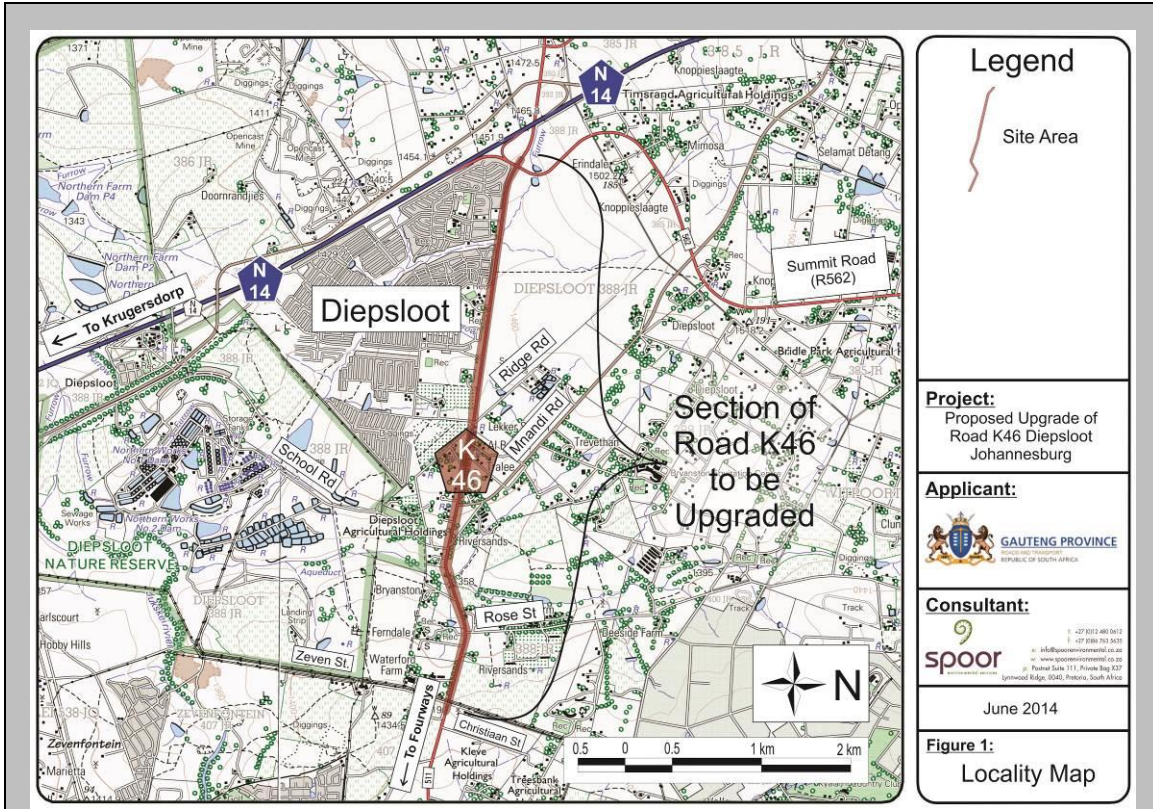
a) Carriage way

Road K46 will be upgraded from the existing single lane in both directions to a dual carriage way (two to three lanes in each direction) with a road reserve of 62 metres. The proposed upgrade will extend over a distance of 6-7 kilometres from the PWV 5 (area of Zeven Street) to the N14 Highway to the north. See Locality map included below and Appendix A.

The upgrade project will include the relevant street furniture (e.g. street lighting, litter bins, traffic signage and safety barriers in the required areas), Bus and Taxi pick-up areas with associated structures, traffic signalling, storm water channels and discharge structures.

b) Walkways

Comment during the public participation process revealed the requirement for pedestrian walkways alongside the R511. A 2.5m wide paved walkways on both sides of the alignment were subsequently included into the design.



c) Water crossings

The proposed upgrade of the K46 will include two water crossings over water courses:
 i. the first water crossing occurs at approximately 900m from the K46 (R511)/ Summit Road crossing
 ii. the second water crossing at 3.6km from here over the Diepsloot River.

In both cases the crossings of the proposed road over the water courses will consist of a reinforced concrete box culvert structure.. A Water Use Licence Application will also be submitted to the Department of Water Affairs in terms of Section 21(c) and (i) of the National Water Act, 1998, (Act 36 of 1998) for the crossing of the said drainage courses.

d) Access roads to adjacent properties

The Specialist Traffic Engineer explained in the Traffic Impact Assessment that the paramount objective of the proposed K46 Phase II Upgrade project was to increase the regional traffic mobility in the area. In order to achieve this, the Traffic Impact Assessment determined the optimal required road design and infrastructure. The proposed design provides access to adjacent properties via specific signalized intersections provided along the required road safety and design standards. Access road to the adjacent properties includes gravel roads consisting of a 16m road reserve and a 6m wide road surface.

Construction phase

The construction activities associated with the proposed upgrade of the K46 will include the required construction camp including site offices and facilities, temporary sanitation facilities, construction vehicle parking, material holding and laydown areas, etc. Extensive existing construction camps were established for Phase I of the K46 upgrade and these areas will in all likelihood be used for Phase II as well. Detailed mitigation specifications will be included in the project Environmental Management Programme Report (EMPr) in the case that the existing construction camps and facilities are not used.

Select the appropriate box

The application is for an upgrade of an existing development The application is for a new development Other, specify

Does the activity also require any authorisation other than NEMA EIA authorisation?

YES NO

If yes, describe the legislation and the Competent Authority administering such legislation

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- i) *Water Use Licence Approval: National Water Act (NWA) (Act No 36 of 1998) – Department of Water Affairs (DWA),*
- ii) *National Heritage Resources Act, Act 25 of 1999 – South African Heritage Resources Agency (SAHRA)*

If yes, have you applied for the authorisation(s)?

YES	NO
YES	NO

If yes, have you received approval(s)? (attach in appropriate appendix)

2. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
National Environmental Management Act No. 107 of 1998 as amended.	National & Provincial	27 November 1998
<p><u>National Environmental Management Act, Act No. 107 of 1998</u></p> <p><u>GN R 544, 18 June 2010 – Notice 1 (18)</u> <i>The infilling or depositing of any material of more than 5 cubic meters into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock from</i></p> <p style="padding-left: 40px;">(i) a watercourse;</p> <p><u>GN R 544, 18 June 2010 – Notice 1 (39)</u> <i>The expansion of</i></p> <p style="padding-left: 40px;">(iii) bridges;</p> <p><i>within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, where such expansion will result in an increased development footprint but excluding where such expansion will occur behind the development setback line.</i></p> <p><u>GN R 544, 18 June 2010 – Notice 1 (40)</u> <i>The expansion of</i></p> <p style="padding-left: 40px;">(iv) infrastructure by more than 50 square metres</p> <p><i>within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, but excluding where such expansion will occur behind the development setback line.</i></p> <p><u>GN R 546, 18 June 2010 – Notice 3 (13)</u> <i>The clearance of an area of 1 hectare or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation, except where such removal of vegetation is required for:</i></p> <p style="padding-left: 40px;">(d) In Gauteng</p> <p>v. Sites identified as irreplaceable or important in the Gauteng Conservation Plan.</p> <p><u>GN R 546, 18 June 2010 – Notice 3 (19)</u> <i>The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre.</i></p> <p style="padding-left: 40px;">(b) In Gauteng:</p> <p>vi. All sites identified as irreplaceable or important in terms of the applicable Gauteng Conservation Plan;</p> <p><u>GN R 546, 18 June 2010 – Notice 3 (24)</u> <i>The expansion of</i></p>	<p><i>Department of Environmental Affairs and Tourism</i> <i>(Gauteng Department of Agriculture, and Rural Development for this project specifically)</i></p>	<p>27 November 1998</p>

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<p>(d) infrastructure where the infrastructure will be expanded by 10 square metres or more where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.</p> <p>(b) In Gauteng: v. Sites identified as irreplaceable or important in the Gauteng Conservation Plan;</p>		
<p>Integrated Environmental Management: Integrated Environmental Management (IEM) is a philosophy, which prescribes a code of practice for ensuring that environmental considerations are fully integrated into all stages of the development process. This philosophy aims to achieve a desirable balance between conservation and development (Integrated Environmental Management (IEM) is a philosophy, which prescribes a code of practice for ensuring that environmental considerations are fully integrated into all stages of the development process. This philosophy aims to achieve a desirable balance between conservation and development (Department of Environmental Affairs: DEAT, 1992). The IEM guidelines intend endearing a proactive approach to sourcing, collating and presenting information at a level that can be interpreted at all levels.</p>	Department of Environmental Affairs (DEA)	1998
<p>National Water Act (NWA) (Act No 36 of 1998)</p>	Department of Water Affairs – Provincial	September 2004
<p>National Heritage Resource Act, 1999 (Act No. 25 of 1999) for the:</p> <ul style="list-style-type: none"> • construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300 m in length; • construction of a bridge or similar structure exceeding 50 m in length; and • any development, or other activity which will change the character of an area of land, or water – <ul style="list-style-type: none"> (1) exceeding 10 000 m² in extent; (2) involving three or more existing erven or subdivisions thereof; or (3) involving three or more erven, or subdivisions thereof, which have been consolidated within the past five years. 	South African Heritage Resources Association (SAHRA).	1999
<p>Principles of the Development Facilitation Act</p>	DFA of South Africa	1995
<p>Working for Wetlands Programme Construction Environmental Management Programme (CEMP)</p>	SANBI – National	September 2010
<p>City of Johannesburg Metropolitan Municipality Regional Spatial Development Framework (RSDF) for Region A.</p>	City of Johannesburg Metropolitan Municipality (CJMM)	2010-11
<p>Integrated Development Plan (IDP) for the City of Johannesburg</p>	City of Johannesburg Metropolitan Municipality (CJMM)	2003
<p>Consolidated Johannesburg Town Planning Scheme</p>	City of Johannesburg Metropolitan	2011

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Integrated Waste Management Plan	Municipality (CJMM) City of Johannesburg Metropolitan Municipality (CJMM)	2011
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3. ALTERNATIVES

Describe the proposal and 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. The determination of whether the 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.

The no-go option must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. **Do not** include the no go option into the alternative table below.

Note: 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. Provide a description of the alternatives considered

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other(provide details of "other")	Description
1	Proposal	<p><i>The project entails the second phase of the upgrade of the existing K46 (R511/ William Nicol road between the PWV5 (Zeven street) in the south and N14 interchange (Summit road) in the north. Road K46 will be upgraded from the existing single lane in both directions to a duel carriage way (two to three lanes in each direction) with a road reserve of 62 metres accommodating pedestrian access with a <u>2.5m paved walkway</u>.</i></p> <p><i>Comment during the public participation process revealed the requirement for pedestrian walkways alongside the R511. A 2.5m wide paved walkways on both sides of the alignment were subsequently included into the designs. By providing walkways, pedestrians' safety is increased dramatically.</i></p>
2	Design Alternative:	<p><i>The project entails the second phase of the upgrade of the existing K46 (R511/ William Nicol road between the PWV5 (Zeven street) in the south and N14 interchange (Summit road) in the north. Road K46 will be upgraded from the existing single lane in both directions to a duel carriage way (two to three lanes in each direction) with a road reserve of 62 metres with <u>no pedestrian walkways</u>.</i></p> <p><i>Prior to the public participation process being conducted for the road, the initial design layout plan did not accommodate any pedestrian access along the K46.</i></p>
3	Scheduling Alternative:	<p><i>A number of scheduling alternatives were considered for the project. These are as follows:</i></p> <ul style="list-style-type: none"> <i>❖ The greatest noise will be generated during the construction phase of the development. Construction activities will be scheduled to take place during office hours on weekdays with no construction being allowed after hours, on weekends or on public holidays,</i> <i>❖ The construction phase of the project will involve earth moving. This will cause loose top soils, which may result in silt laden storm water runoff during downpours and associated degradation of water quality in local water bodies. For this reason the construction phase of the project will be scheduled (as far as this is possible) to take place during the winter months when there will be less precipitation and therefore less runoff across the site</i>

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In the event that no alternative(s) has/have been provided, a motivation must be included in the table below.

Key reasons why no other alternatives were considered:

- ❖ *The proposed road upgrade of the K46 Road Phase 2 will be constructed on and along the existing alignment of the R511 (William Nicol Road) in areas that has been transformed considerably from an environmental point of view. Impacts related to a similar footprint but located in an un-transformed environment will be negligible in comparison.*
- ❖ *The proposed route upgrade will be constructed along a route for which the basic planning and design has been performed during 1990 already. Public and private stakeholders were also notified of this route alignment during this time.*
- ❖ *The proposed upgrade of the K46 Road Phase 2 forms part of the City of Johannesburg 2030 Regional Road Network Masterplan to increase north south mobility for current and anticipated future traffic.*
- ❖ *The proposed pedestrian walkways along the K46 will create safe access between newly created bus stations and taxi pick-up points.*
- ❖ *The above aspects will create an efficient carriage way on a regional level and ensure a safer pedestrian environment for the local community.*

NOTE: The numbering in the above table must be consistently applied throughout the application report and process

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the total physical size (footprint) of the proposal as well as alternatives. Footprints are to include all new infrastructure (roads, services etc.), impermeable surfaces and landscaped areas:

Proposed activity

Size of the activity:

N/A – linear activity

Alternatives:

Alternative 1 (if any)

N/A – linear activity

Alternative 2 (if any)

N/A – linear activity

Ha/ m²

or, for linear activities:

Proposed activity

Length of the activity:

Alignment approximately 6-7km in length with a 62 metre road reserve

- ❖ *The upgrade the K46 road to a dual carriage way, two to three lanes per direction, between the PWV5 and the N14. The approximate length of the upgrade of the K46 road is between 6km and 7km.*
- ❖ *The construction of paved pedestrian walkways on both sides of the upgraded K46 road from the PWV5 and the N14. The approximate length of paved walkway is between 6km and 7km on each side of the road.*
- ❖ *Gravel surfaced access roads will be provided at designated access point to provide access to adjacent properties.*

Alternatives:

Alternative 1 (if any)

N/A – linear activity

Alternative 2 (if any)

N/A – linear activity

k/km

Indicate the size of the site(s) or servitudes (within which the above footprints will occur):

Proposed activity

Size of the site/servitude:

N/A – linear activity

Alternatives:

Alternative 1 (if any)

N/A – linear activity

Alternative 2 (if any)

N/A – linear activity

5. SITE ACCESS

Proposal

Does ready access to the site exist, or is access directly from an existing road?

YES	NO
m	

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

N/A

Include the position of the access road on the site plan.

Alternative 1

Does ready access to the site exist, or is access directly from an existing road?

YES	NO
m	

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

N/A – See section 3 Alternatives

Include the position of the access road on the site plan.

Alternative 2

Does ready access to the site exist, or is access directly from an existing road?

YES	NO
m	

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

N/A – See section 3 Alternatives

Include the position of the access road on the site plan.

PLEASE NOTE: Points 6 to 8 of Section A must be duplicated where relevant for alternatives

Section A 6-8 has been duplicated

0

Number of times

(only complete when applicable)

6. SITE OR ROUTE PLAN

A detailed site or route (for linear activities) 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:

- the scale of the plan, which must be at least a scale of 1:2000 (scale cannot be larger than 1:2000 i.e. scale cannot be 1:2500 but could where applicable be 1:1500)
- the property boundaries and numbers of all the properties within 50m of the site;
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- the exact position of each element of the application as well as any other structures on the site;
- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, septic tanks, storm water infrastructure and telecommunication infrastructure;
- walls and fencing including details of the height and construction material;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100m of the site or sites including (but not limited thereto):
 - Rivers and wetlands;
 - the 1:100 and 1:50 year flood line;
 - ridges;
 - cultural and historical features;
 - areas with indigenous vegetation (even if it is degraded or infested with alien species);
- for gentle slopes the 1m 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
- the positions from where photographs of the site were taken.
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the 32m position from the bank to be clearly indicated)

7. 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 the appropriate Appendix. It should be supplemented with additional photographs of relevant features on the site, where applicable.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 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. To be attached in the appropriate Appendix.

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

Note: Complete Section B for the proposal and alternative(s) (if necessary)

Further:

Instructions for completion of Section B for linear activities

- 1) For linear activities (pipelines etc.) it may be necessary to complete Section B for each section of the site that has a significantly different environment.
- 2) Indicate on a plan(s) the different environments identified
- 3) Complete Section B for each of the above areas identified
- 4) Attach to this form in a chronological order
- 5) Each copy of Section B must clearly indicate the corresponding sections of the route at the top of the next page.

Section B has been duplicated for sections of the route times

Instructions for completion of Section B for location/route alternatives

- 1) For each location/route alternative identified the entire Section B needs to be completed
- 2) Each alternative location/route needs to be clearly indicated at the top of the next page
- 3) Attach the above documents in a chronological order

Section B has been duplicated for location/route alternatives times
(complete only when appropriate)

Instructions for completion of Section B when both location/route alternatives and linear activities are applicable for the application

Section B is to be completed and attachments order in the following way

- All significantly different environments identified for Alternative 1 is to be completed and attached in a chronological order; then
- All significantly different environments identified for Alternative 2 is to be completed and attached chronological order, etc.

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Section B - Section of Route (complete only when appropriate for above)

Section B – Location/route Alternative No. (complete only when appropriate for above)

1. PROPERTY DESCRIPTION

Property description:

Road K46 (R511 William Nicol) Phase 2 lies between the PWV5 (Zeven Street Area) in the south and the N14 (Summit Road) in the north, Diepsloot Area, Johannesburg Metropolitan Municipality

(Farm name, portion etc.)

2. 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 decimal degrees. The degrees should have at least six decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

Alternative:

Latitude (S):	Longitude (E):
°	°

In the case of linear activities:

Alternative:

Latitude (S):	Longitude (E):
25°55.012 S	28°01.507 E
25°56.601 S	28°01.195 E
25°58.248 S	28°01.033 E

- Starting point of the activity
- Middle point of the activity
- End point of the activity

For route alternatives that are longer than 500m, please provide co-ordinates taken every 250 meters along the route and attached in the appropriate Appendix

Addendum of route alternatives attached **YES**

3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

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
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4. LOCATION IN LANDSCAPE

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

Ridgeline	Plateau	Side slope of hill/ridge	Valley	Plain	Undulating plain/low hills	River front
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5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

a) Is the site located on any of the following?

- Shallow water table (less than 1.5m deep)
- Dolomite, sinkhole or doline areas
- Seasonally wet soils (often close to water bodies)
- Unstable rocky slopes or steep slopes with loose soil
- Dispersive soils (soils that dissolve in water)
- Soils with high clay content (clay fraction more than 40%)
- Any other unstable soil or geological feature
- An area sensitive to erosion

YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO

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(Information in respect of the above will often be available at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

b) are any caves located on the site(s) YES NO

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	Longitude (E):
°	°

c) are any caves located within a 300m radius of the site(s) YES NO

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	Longitude (E):
°	°

d) are any sinkholes located within a 300m radius of the site(s) YES NO

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	Longitude (E):
°	°

If any of the answers to the above are "YES" or "unsure", specialist input may be requested by the Department

6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 3)? YES NO

Please note: The Department may request specialist input/studies in respect of the above.

7. GROUND COVER

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

Indicate the types of groundcover present on the site and include the estimated percentage found on site

Natural veld - good condition % =	Natural veld with scattered aliens % =	Natural veld with heavy alien infestation % = 50	Veld dominated by alien species % =	Landscaped (vegetation) % =
Sport field % =	Cultivated land % =	Paved surface (hard landscaping) % = 17 %	Building or other structure % = 3 %	Bare soil % = 30%

Please note: The Department may request specialist input/studies depending on the nature of the groundcover and potential impact(s) of the proposed activity/ies.

Are there any rare or endangered flora or fauna species (including red list species) present on the site YES NO

If YES, specify and explain:

Flora

The study area falls within the Egoli Granite Grassland vegetation type which holds an endangered conservation status as a result of its presence in Gauteng mainly and the high development pressure here. Two main habitat units were identified during the assessment namely wetland habitat and transformed habitat. Vegetation in both of the vegetation types were found to be in a severe state of degradation along the proposed route of the upgrade. Hypoxis hemerocallidea - the Star flower or the Star Lily is an orange listed plant in terms of its protection status and was encountered along the route. Rescue relocation will need to be performed for this specie before construction commences. (See Appendix G(iv))

Fauna

Detailed investigations were made into the various categories of fauna including the mammal, bird, reptiles, amphibian and insect components. The specialist reported that no faunal species, deemed to be threatened in terms of the Gauteng State of the Environment Report 2004 or the IUCN 2013, were identified during the site survey. Wetlands associated with non-perennial rivers and drainage lines provide ideal habitats for many faunal species, particularly small mammals, bird and amphibious species. Egoli Granite Grassland found to the east of the proposed linear development opposite Diepsloot, provides habitat for RDL and sensitive species such as Tyto capensis (Grass Owl), Metisella meninx (Marsh Sylph), and Pyxicephalus adspersus (Giant Bullfrog). It is therefore imperative that any viable remnant patch of original Egoli Granite Grassland must be protected from transforming land uses. (See Appendix G(iv))

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Are there any rare or endangered flora or fauna species (including red list species) present within a 200m (if within urban area as defined in the Regulations) or within 600m (if outside the urban area as defined in the Regulations) radius of the site.	YES	NO
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If YES, specify and explain:

<p>Flora <i>Hypoxis hemerocallidea</i> (Star Lily) was the only species that was encountered during the site assessment. <i>Boophae disticha</i> (Bushman Poison Bulb) is the most likely Red Data List floral species to occur in the surrounding area, provided that suitable habitat is available. It is proposed that should the development footprint of the linear development encroach into the areas where the communities of <i>Hypoxis hemerocallidea</i> were found, that these species should be rescued and relocated to the channelled valley bottom wetland feature associated with the Diepsloot River. (See Appendix G(iv)).</p> <p>Fauna No threatened Red Data List avifaunal species were identified during the site survey. However, one threatened species was considered to have a greater than 60% Probability of Occurrence (POC) of utilizing the subject property, predominantly for foraging purposes, namely <i>Tyto capensis</i> (African Grass Owl). No Red Data List amphibian species were identified during the site survey and the probability of such species occurring is low, with the exception of <i>Pyxicephalus adspersus</i> (Giant Bullfrog), which has an increased likelihood of being present, and calculated a POC of 70%. Personal communications with a resident of Diepsloot in early January 2014 indicated that <i>P. adspersus</i> does occur within the immediate vicinity of the proposed linear development. If any threatened fauna species were found, these species should be rescued and relocated to the most appropriate habitat associated with the Diepsloot River. (See Appendix G(iv)).</p>		
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Are there any special or sensitive habitats or other natural features present on the site?	YES	NO
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If YES, specify and explain:

<p>The Diepsloot River and five wetland areas were identified along the length of the proposed linear development. Two wetlands occurring at the far north of the proposed linear development, close to the N14 highway, were deemed to be artificially created due to storm water run-off from the N14 highway, and as a result, were not included in the assessment. Two wetlands were located slightly further south of the artificial wetland features, within the Diepsloot township area, and one wetland, associated with the Diepsloot River, was identified at the far south of the proposed linear development. The wetland features within the subject property were classified as channelled and un-channelled valley bottom wetland during the field assessment:</p> <p>The condition of the wetlands and Diepsloot River are described below:</p> <ul style="list-style-type: none"> ❖ The wetland and riparian habitat is mostly transformed due to erosion, sedimentation and alien encroachment. ❖ The wetlands assessed calculated scores of 1.2 in the wetland function assessment, indicating that the wetlands provide moderate levels of ecological services and functioning. ❖ The Present Ecological State (PES) of the Diepsloot River was calculated using the Index of Habitat Integrity for South African floodplain and channelled valley bottom wetland types (Department of Water Affairs and Forestry Resource Quality Services, 2007). The score obtained indicated that the PES of the Diepsloot River is a Category C (moderately modified). ❖ The PES of the wetlands was assessed utilising the WET-Heath method according to MacFarlane et. al., 2008. The scores obtained from this assessment indicate that the PES of all three wetland features assessed is Category C. However, it is the opinion of the ecologists that the two wetland features located within the Diepsloot township area are more accurately described as Category C/D. ❖ The Ecological Importance and Sensitivity (EIS) of the wetland features and the Diepsloot River were all calculated as falling within Class C, indicating moderate levels of ecological importance and sensitivity on a local scale. (See Appendix G(iv)). 		
--	--	--

Was a specialist consulted to assist with completing this section	YES	NO
---	------------	----

If yes complete specialist details
 Name of the specialist:

	<p>Scientific Aquatic Services: S. van Staden N. Cloete A. Mileson E. van der Westhuizen</p>
Qualification(s) of the specialist:	<p>S. van Staden Pr Sci Nat (Ecological Sciences) 400134/05 BSc. Hons (Aquatic Health) (RAU); M.Sc. Environmental Management (RAU)</p>

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Postal address: 91 Geldenhuis Road
Malvern East Ext 1

Postal code: 2007

Telephone: 011 616 7893 Cell:

E-mail: admin@sasenvironmental.co.za Fax: 086 724 3132

Are any further specialist studies recommended by the specialist? YES NO

If YES, specify: N/A

If YES, is such a report(s) attached? YES NO

If YES list the specialist reports attached below

N/A

Signature of specialist:  Date: 2014-05-27

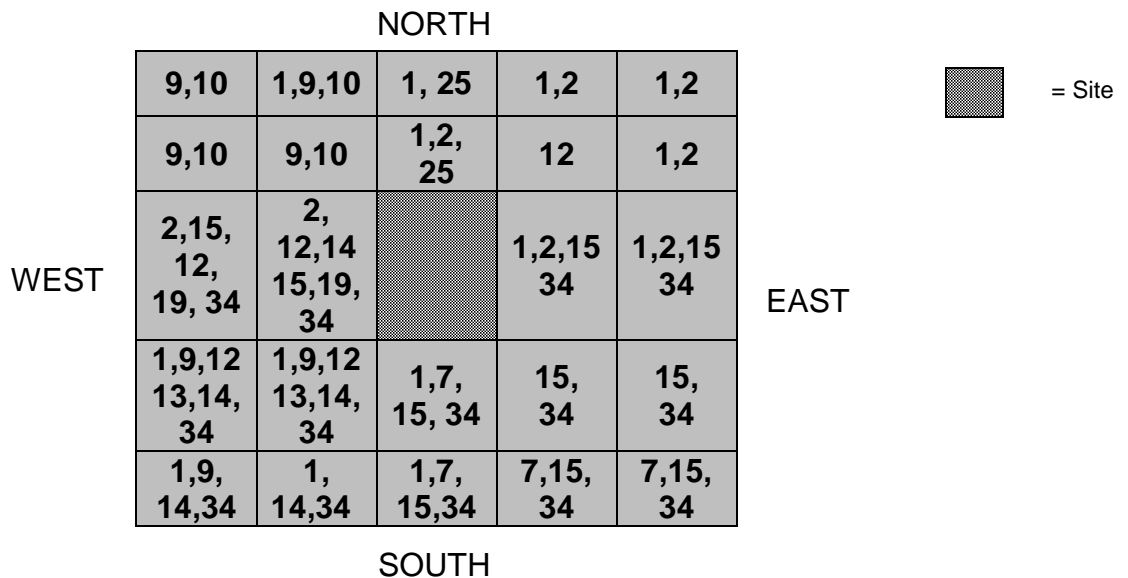
Please note; If more than one specialist was consulted to assist with the filling in of this section then this table must be appropriately duplicated

8. LAND USE CHARACTER OF SURROUNDING AREA

Using the associated number of the relevant current land use or prominent feature from the table below, fill in the position of these land-uses in the vacant blocks below which represent a 500m radius around the site

1. Vacant land	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	7. Agriculture	8. Low density residential	9. Medium to high density residential	10. Informal residential
11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	15. Light industrial
16. Heavy industrial ^{AN}	17. Hospitality facility	18. Church	19. Education facilities	20. Sport facilities
21. Golf course/polo fields	22. Airport ^N	23. Train station or shunting yard ^N	24. Railway line ^N	25. Major road (4 lanes or more) ^N
26. Sewage treatment plant ^A	27. Landfill or waste treatment site ^A	28. Historical building	29. Graveyard	30. Archeological site
31. Open cast mine	32. Underground mine	33. Spoil heap or slimes dam ^A	34. Small Holdings	
Other land uses (describe):				

NOTE: Each block represents an area of 250m X250m



Note: More than one (1) Land-use may be indicated in a block

Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity/ies. Specialist reports that look at health & air quality and noise impacts may be required for any feature above and in particular those features marked with an "A" and with an "N" respectively.

Have specialist reports been attached
If yes indicate the type of reports below

YES	NO
-----	----

9. SOCIO-ECONOMIC CONTEXT

Describe the existing social and economic characteristics of the area and the community condition as baseline information to assess the potential social, economic and community impacts.

General

The City of Johannesburg Metropolitan Municipality covers an area of 1,645 square kilometres stretching from Orange Farm in the south to Midrand in the north. It manages the local governance of Johannesburg, and is divided into several branches and departments in order to expedite services for the city. Seven regions have been established which are operationally responsible for the delivery of health care, housing, sports and recreation, libraries, social development, and other local community-based services. (CoJ IDP 2013 – 2016). The K46 Road Phase 2 upgrade falls within Region A of the Municipality. Region A is still largely undeveloped with large tracts of land. Increased density and pressure for developments in many parts of the region are causing the infrastructure capacity constraints and a threat to the biodiversity of the environment. The predominant land uses include, but are not limited to, industries, conference and hospitality facilities, low to high-density residential areas and environmental conservation areas. Sub area 3 of Region A mainly consists of agricultural holdings, farm portions and high density residential areas (i.e. Diepsloot) with informal settlement and trade on its fringes. The Northern Johannesburg Waste Water Treatment facility is also located in the area (joburg.co.za/region a).

Demographics

The demographics of Johannesburg are evidence of a large and ethnically diverse metropolitan area. As the largest city in South Africa, its population is defined by a long history of local and international migration. Johannesburg is home to more than 4 million people, accounting for about 36% of Gauteng population and 8% of the national population. Region A has a population of 250 000, with 56 000 residing in Diepsloot Settlement. 24 percent of the Region A's residents are between the ages of 20 and 29. Low levels of school education in Diepsloot are responsible for an unemployment rate of over 50 % while the 70 percent live below the poverty line.
(http://www.joburg.org.za/index.php?option=com_content&view=article&id=632%3Aregion-a&catid=46&Itemid=116&limitstart=1)

Health

When examining issues of health, statistics show that the number of people with HIV has begun to decline since 2004. In addition, the TB cure rate in Johannesburg has improved from 56% in 2002 to 82% in the past financial year. However, the City is aware that "South Africa at large still has one of the highest per capita HIV prevalence and infection rates and is experiencing one of the fastest growing AIDS epidemics in the world". HIV/AIDS has a devastating effect on the social and economic development of the city's population and the City will therefore persist with its efforts in this area, specifically through its home based care programmes and the ARV rollout programme. In addition, the 'quadruple burden of disease' remains a serious challenge for the City. This includes HIV/AIDS, communicable diseases, non-communicable diseases, and injuries. It is now clear that while HIV/AIDS needs specific interventions, the City also faces massive challenges relating to deaths by non-communicable diseases. (CoJ IDP 2013 – 2016).

Unemployment

Census 2011 quotes an official unemployment rate in South Africa of 29.8% and at the expanded definition: 40%. The highest unemployment rate is among black Africans – the expanded definition of the unemployment gave a rate of 52.9% for African women and 39.8% for African men. The unemployment rate amongst coloured women was 34.4% and for Indian women it was 23%. In contrast, the expanded unemployment rate among white men was 8.1% and 12.5% among white women. (CoJ IDP 2013 – 2016). These national statistics also reflect similar challenges in the City of Johannesburg. Unemployment in Johannesburg calculated on official figures is approximately 25% in 2011 down from approximately 29.6% in 2001. Using the broader definition that includes discouraged workers, the rate is pushed to above 30% in 2011. Youth unemployment remains a major challenge both nationally (above 35%) and for the City.

Low education levels and slow formal sector growth are two of the major causes of youth unemployment. The vast majority of the youthful population in Johannesburg has only a matric certificate preventing access to the labour market. (CoJ IDP 2013 – 2016). The formal sector employs 29.9% of the City's population, while the informal sector employs approximately 3.2% of the CoJ population in 2011. There is a significant employment of the City's population by private households. Approximately 65.8% of the household heads in Johannesburg are employed. The significant number of the population not economically active pushes the dependency ratio up significantly. Quantec reported the dependency ratio in the City as 45.3% in 2011. (CoJ IDP 2013 – 2016).

The Diepsloot Settlement's high level of poverty and unemployment has unregulated informal trade as a result. (joburg.co.za/region a, p.18). Numerous developments ranging from residential, office, retail and industrial ventures are planned in sub area 3 over the next 10 to 20 years. This growth of development will increase the region's wealth as well as create numerous job opportunities for the local community. In addition to the sub area 3's development, two frameworks (the Diepsloot Government UDF and Diepsloot Activity Street UDF) have been developed to increase the quality of life of Diepsloot's residents. (joburg.co.za/region a)

Traffic

The current road situation shows a definite insufficient north-south capacity (K46 William Nicol, R55, R512, N1) as well as in the east-west direction (R564, N4, N1, K56). In 2012, the K46 carried 1800-2000 vehicles in each directions per hour during peak times (single lanes with small intersections).

Planned office, retail, residential and industrial developments in the area (over 10 to 20 years) will increase the morning peak traffic in 2015 by 2950 and the afternoon peak traffic by 3360. By 2030 the morning peak traffic will increase by 14720 and the afternoon peak traffic by 16760. The existing road infrastructure within the region (including the K46) is inadequate to cater for the increased development and indicates that development should be accompanied by road infrastructure upgrades. (joburg.co.za/region a)

The upgrade of the K46 forms part of the 2030 Regional Road Network of Johannesburg and will contribute to the north-south mobility. The upgrade of the K46 to a dual carriage ways will push up the capacity to 4000 vehicles per hour per direction in peak times. The system as it is designed now carries 8000 cars per hour per direction in peak times, ensuring high mobility along the route.

10. CULTURAL/HISTORICAL FEATURES

Please be advised that if section 38 of the National Heritage Resources Act 25 of 1999 is applicable to your proposal or alternatives, then you are requested to furnish this Department with written comment from the South African Heritage Resource Agency (SAHRA) – Attach comment in appropriate annexure

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-

- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- (b) the construction of a bridge or similar structure exceeding 50m in length;
- (c) any development or other activity which will change the character of a site-
 - (i) exceeding 5 000 m2 in extent; or
 - (ii) involving three or more existing erven or subdivisions thereof; or
 - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
 - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
- (d) the re-zoning of a site exceeding 10 000 m2 in extent; or
- (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

Are there any signs of culturally (aesthetic, social, spiritual, environmental) or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or paleontological sites, on or close (within 20m) to the site?

YES	NO
-----	----

If YES, explain:

N/A

If uncertain, the Department may request that specialist input be provided to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist if one was already appointed:

There are no important cultural heritage resources, sites or graves on or near the proposed development site.

Will any building or structure older than 60 years be affected in any way?

YES	NO
YES	NO

Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

If yes, please attached the comments from SAHRA in the appropriate Appendix

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The Environmental Assessment Practitioner must follow any relevant guidelines adopted by the competent authority in respect of public participation and must at least –

- 1(a) Fix a site notice at a conspicuous place, on the boundary of a property where it is intended to undertake the activity which states that an application will be submitted to the competent authority in terms of these regulations and which provides information on the proposed nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations on the application may be made;
- 1(b) inform landowners and occupiers of adjacent land of the applicant's intention to submit an application to the competent authority;
- 1(c) inform landowners and occupiers of land within 100 metres of the boundary of the property where it is proposed to undertake the activity and whom may be directly affected by the proposed activity of the applicant's intention to submit an application to the competent authority;
- 1(d) inform the ward councillor and any organisation that represents the community in the area of the applicant's intention to submit an application to the competent authority;
- 1(e) inform the municipality which has jurisdiction over the area in which the proposed activity will be undertaken of the applicant's intention to submit an application to the competent authority; and
- 1(f) inform any organ of state that may have jurisdiction over any aspect of the activity of the applicant's intention to submit an application to the competent authority; and
- 1(g) place an advertisement in one local newspaper and any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of these regulations.

2. LOCAL AUTHORITY PARTICIPATION

Local 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. The planning and the environmental sections of the local authority must be informed of the application at least thirty (30) calendar days before the submission of the application to the competent authority (GDARD).

Has any comment been received from the local authority?

YES	NO
-----	----

If "YES", briefly describe the comment below (also attach any correspondence to and from the local authority to this application):

Ward Councillors

- ❖ *Ward 94 & 112 - Ms Sellinah Nthabiseng Maja, the administrator of Ward 94 and 112, forwarded Cllr John Mendelsohn's email address and asked to be cc'ed on all communications with the councillor. No comment has been received from Cllr Mendelsohn to date.*
- ❖ *Ward 95 & 113 - Cllr Nhlaka Mathenjwa replied and indicated that she will forward the BID to the relevant councillors.*
- ❖ *Ward 96 - Neo Masemene replied and commented that the project does not fall within Ward 96 and stated that in spite thereof, she will forward the BID to Cllr. Matome Makwofane. No comment to date has been received from Cllr Makwofane.*

Local Authority

No comments were received from the Metro Police, the South African Police Service, the Emergency Service Section, the Department of Environment and Infrastructure and the Johannesburg Roads Agency.

See Appendix E_2-E_6

If "NO" briefly explain why no comments have been received

N/A

3. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the activity, site or property, such as servitude holders and service providers, should be informed of the application at least thirty (30) calendar days before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?

YES	NO
-----	----

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

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

PHASE 1 Public Participation Process (PPP)

Summary of comments received in response to the Background Information Document (distributed between end October to early November 2013 and up to date) and the Public Participation Meeting held on the 21st of May 2014.

Government Departments

- ❖ *The Northern Regional Office of South African National Roads Agency Limited (SANRAL) replied that no national roads are affected.*
- ❖ *The South African Heritage Resources Agency (SAHRA) requested that the draft Basic Assessment Report must be submitted on the SAHRA Information System on the Internet.*
- ❖ *No comments were received from the Department of Water Affairs nor the Gauteng Department of Community Safety to date.*

Other NGOs, CBOs, Conservancies, Residential Association, Service Providers

❖ *Eskom*

Eskom distributed the BID and the Public Open Meeting invitation internally but no comments have been received from their Transmissions Department to date.

❖ *Telkom*

Mr. Hendricks responded by requesting a locality map.

❖ *Rand Water*

Wayleave Information

Working within the Rand Water servitude will require a wayleave – the standard conditions for their wayleave procedure was forwarded to the EAP.

Sewerage

Rand Water was concerned about sewerage removal off site.

Erosion

Rand Water requires retention and stilling ponds as part of the design to slow down high peak flows. Water should pass over the pipeline without eroding the surface or compromise the area around the pipe. Damp areas above and near the pipe caused by water should not attract animal traffic – dissipation stilling ponds should be checked all traversing along and over Rand Water pipelines. Leaks from other service could possibly cause ground stability to change. Mrs. Andrews forwarded the storm water design details to the EAP.

Immediate Neighbours and Adjacent Landowners

General

- ❖ *Widening of the K46 was welcomed by a number of I&APs;*
- ❖ *A request was received to have public meetings early in the evenings;*
- ❖ *One-on-one meetings with directly affected parties was requested;*
- ❖ *Some of the stakeholders requested the EAP to inform additional stakeholders as stipulated in the BA registration form;*
- ❖ *The process on lodging a formal complaint was requested.*

Documentation and information requested by the I&APs

- ❖ *Status of the RoD;*
- ❖ *Date at which the BAR goes out for comment to I&APs and the process of obtaining a copy for review;*
- ❖ *Access to specific or all of the specialist studies;*
- ❖ *The GPDRT's contact details were requested in terms of the proclamation process;*
- ❖ *Clear road design plans as clarification to part of property affected in terms of infrastructure and access;*
- ❖ *The minutes of the public open meeting were requested by one of the I&AP's who could not attend.*

Biodiversity

- ❖ *An I&AP commented that the widening of the road will reduce wetlands and an existing dam on PTN 125 of the Farm Diepsloot 388JR endangering fauna in the area. A slight alignment of the road was requested;*
- ❖ *This I&AP also enquired as to what mitigation measures will be put in place to protect vulnerable species?*
- ❖ *Another I&AP enquired as to the likelihood of conserving indigenous trees along Ridge Road with in terms of the construction of the new access road.*

Security

- ❖ *An I&AP enquired as to the management of security during & after construction in general and specifically during the construction of new property boundary walls.*

Resource management

- ❖ *An I&AP enquired as to the depletion or contamination of private groundwater resources as a result of the project, as no municipal water is available.*

Service Providers

- ❖ *An I&AP enquired an indication on whether Johannesburg Water has been informed of development;*
- ❖ *An I&AP enquired an indication on whether municipal water would be used during construction;*
- ❖ *An I&AP enquired an indication on how services like sewerage, water and Telkom lines would be moved.*

Waste management

- ❖ *The management of pollution & refuse was queried.*

Expropriation and Proclamation Process

I&APs requested detail on:

- ❖ *Clarification of the responsible entity handling the expropriation process of the relevant sections of affected properties;*
- ❖ *What proclamation is and how is the expropriation of the relevant sections of affected properties handled;*
- ❖ *Compensation for infrastructure lost as result of the development, be it a residence, studio, workshop, carport, borehole or boundary wall;*
- ❖ *Compensation for loss of income due to reduced property size;*
- ❖ *Compensation for the relocation of machinery;*
- ❖ *The timeframe of the expropriation process for the relevant sections of affected properties;*
- ❖ *GPDR's response to resistance to proclamation of the relevant sections of affected properties.*

Road design

I&APs requested detail on:

- ❖ *The possibility of the road alignment changing on PTN 125 so that the affected portion of land and infrastructure does not have to be expropriated;*
- ❖ *The Entity or person to consult on the disputes concerning the closure of accesses;*
- ❖ *The effect of the upgrade on access to properties as some of the existing access roads will be closed off on completion of the road;*
- ❖ *The owner of Holding 10 requested a re-alignment of the access road to the north of Holding 10 in order to conserve the boreholes, pump stations and electrical connections;*
- ❖ *The possibility that alternative access can be created from the proposed road upgrade;*
- ❖ *The possibility of a "slip-on slip-off" access scenario being allowed from the K46 for a service station;*
- ❖ *The inclusion of sufficient cycle and pedestrian access as part of the proposed upgrade of the K46 Road;*
- ❖ *Implementation of traffic calming structures like traffic lights, circles and calming areas;*
- ❖ *The current flow of the traffic on the William Nicol Road and the new dual carriage way's carrying capacity;*
- ❖ *The width of the median of the proposed upgrade of K46 Road and the possible use of the median for the development of a Rea Vaya Bus System;*
- ❖ *The extent of the K46 project (start and end of the project) and how it ties in the master plan for the area;*
- ❖ *The inclusion of the Rose intersection as part of the K46 Road Upgrade;*
- ❖ *The inclusion of the construction of View Road as part of the K46 Road Upgrade.*

Construction

I&APs requested detail on:

- ❖ *The traffic management measures during construction to ensure minimized disruption to the adjacent landowners;*
- ❖ *An indication on the timeframe of the project in terms of the approval of the budget, the tender release date and the start and end date of construction.*
- ❖ *The appropriate access to properties during construction phase.*

The EAP responded to each of the aspects raised above. The detailed responses are included in Appendixes E_4 and E_6 of this draft Basic Assessment Report.

If "NO" briefly explain why no comments have been received

N/A

4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

The Environmental Assessment 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 and ratepayers associations. 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.

The practitioner must record all comments and respond to each comment of the public / interested and affected party before the application is submitted. The comments and responses must be captured in a Comments and Responses Report as prescribed in the regulations and be attached to this application.

5. APPENDICES FOR PUBLIC PARTICIPATION

All public participation information is to be attached in the appropriate Appendix. The information in this Appendix is to be ordered as detailed below

Appendix 1 – Proof of site notice

Appendix 2 – Written notices issued to those persons detailed in 1(b) to 1(f) above

Appendix 3 – Proof of newspaper advertisements

Appendix 4 – Communications to and from persons detailed in Point 2 and 3 above

Appendix 5 – Minutes of any public and/or stakeholder meetings

Appendix 6 - Comments and Responses Report

Appendix 7 –Comments from I&APs on Basic Assessment (BA) Report

Appendix 8 –Comments from I&APs on amendments to the BA Report

Appendix 9 – Copy of the register of I&APs

Appendix 10 – Comments from I&APs on the application

Appendix 11 - Other

SECTION D: RESOURCE USE AND PROCESS DETAILS

Note: Section D is to be completed for the proposal and alternative(s) (if necessary)

Instructions for completion of Section D for alternatives

- 1) For each alternative under investigation, where such alternatives will have different resource and process details (e.g. technology alternative), the entire Section D needs to be completed
- 4) Each alternative needs to be clearly indicated in the box below
- 5) Attach the above documents in a chronological order

Section D has been duplicated for alternatives 0 times
(complete only when appropriate)

Section D Alternative No. "insert alternative number" (complete only when appropriate for above)

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

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? (Unknown) m³

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

The waste is generally not contaminated and will therefore be dumped at the nearest DWA registered local municipal landfill site with sufficient capacity by the principal construction contractor himself. The contractor will be instructed via the EMPr to liaise with the City of Johannesburg Waste Management Section prior to any construction activities commencing on site. Specialised waste such as oils, lubricants, fuels and other chemicals will be collected and handled by a specialist hazardous waste removal contractor. See project specific EMPr: Appendix H.

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

At the nearest DWA registered local municipal landfill site.

Will the activity produce solid waste during its operational phase? YES NO
If yes, what estimated quantity will be produced per month? m³

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

N/A

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity? YES NO

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

Solid waste will be disposed at the nearest DWA registered local municipal landfill site.

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

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

- ❖ *Materials sourced from the site (top soil) will be used for the site rehabilitation and landscaping post construction.*
- ❖ *The EMPr further specifies that waste generated during the construction phase should be sorted into the various categories (glass, paper, metals and plastics) and the relevant local recycling contractors should be contacted to remove this waste on a weekly basis.*
- ❖ *The contractors must supply the principle construction Contractor with a monthly report indicating the types and volumes of waste removed from site. (See Appendix H)*

Liquid effluent (other than domestic sewage)

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? m³

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)?

YES	NO
YES	NO
N/A m ³	

Will the activity produce any effluent that will be treated and/or disposed of on site?

If yes, what estimated quantity will be produced per month?

If yes describe the nature of the effluent and how it will be disposed.

N/A

Note that if effluent is to be treated or disposed on site 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:

N/A

Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?

YES	NO
m ³	

If yes, what estimated quantity will be produced per month?

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)?

YES	NO
-----	----

Will the activity produce any effluent that will be treated and/or disposed of on site?

YES	NO
-----	-----------

If yes describe how it will be treated and disposed off.

Sewerage produced during the construction phase will be dealt with via mobile toilets that will be supplied and maintained by a private contractor. The project will not require a connection to the local sewerage network during the construction or operational phase.

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

YES	NO
YES	NO

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

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:

Dust during construction of the road upgrade.

2. WATER USE

Indicate the source(s) of water that will be used for the activity

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

N/A liters

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix

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

YES	NO
------------	----

If yes, list the permits required

- i) Section 21(c) of the NWA Act No 36 of 1998 Impeding or diverting the flow of water in a watercourse,
- ii) Section 21(i) of the NWA Act No 36 of 1998 Altering the bed, banks, course or characteristics of a water course.

If yes, have you applied for the water use permit(s)?

YES	NO
-----	-----------

If yes, have you received approval(s)? (attached in appropriate appendix)

YES	NO
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3. POWER SUPPLY

Please indicate the source of power supply e.g. Municipality / Eskom / Renewable energy source

Construction phase:

A Mobile generator will be used by the contractor where necessary. The generator will also be supplied and maintained by the contractor for the duration of its use.

Operational phase:

During operation streetlight and traffic lights will be connected to the City of Johannesburg Metropolitan

Municipality power grid.

If power supply is not available, where will power be sourced from?

Construction phase:

See Above.

Operational phase:

Eskom supplies other areas in region A, subarea 3, especially the areas of Diepsloot and can be considered as an alternative.

4. ENERGY EFFICIENCY

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

Construction Phase:

- *Best practice guidelines for sustainable development will be encouraged regarding use of fuels for electrical generators as well as the use of electricity on site (e.g. unnecessary lights and appliances being switched off on the construction site when not in use and after hours).*

Operational Phase:

Streetlights - Energy efficient lighting consoles should be specified in the designs

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

N/A

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2006, 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.

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

Ward Councillors

- ❖ *The Ward Councillor of Ward 96 stated that he believes the project does not fall within his ward.*

Government Departments

- ❖ *The SAHRA requested that the application be submitted on the digital application medium on the internet.*
- ❖ *The Northern Regional Office of South African National Roads Agency Limited (SANRAL) replied that no national roads are affected.*

Other NGOs, CBOs, Conservancies, Residential Association, Service Providers

- ❖ *Eskom*

Eskom distributed the BID and the Public Open Meeting invitation internally but no comments have been received from their Transmissions Department to date.

- ❖ *Telkom*

Mr. Hendricks responded by requesting a locality map.

- ❖ *Rand Water*

Wayleave Information

Working within the Rand Water servitude will require a wayleave – the standard conditions for their wayleave procedure was forwarded to the EAP.

Sewerage

Rand Water was concerned about sewerage removal off site.

Erosion

Rand Water requires retention and stilling ponds as part of the design to slow down high peak flows. Water should pass over the pipeline without eroding the surface or compromise the area around the pipe. Damp areas above and near the pipe caused by water should not attract animal traffic – dissipation stilling ponds should be checked all traversing along and over Rand Water pipelines. Leaks from other service could possibly cause ground stability to change. Mrs. Andrews forwarded the storm water design details to the EAP.

Immediate Neighbours and Adjacent Landowners

General

- ❖ *Widening of the K46 was welcomed by a number of I&APs;*
- ❖ *A request was received to have public meetings early in the evenings;*
- ❖ *One-on-one meetings with directly affected parties was requested;*
- ❖ *Some of the stakeholders requested the EAP to inform additional stakeholders as stipulated in the BA registration form;*
- ❖ *The process on lodging a formal complaint was requested.*

Documentation and information requested by the I&APs

- ❖ *Status of the RoD;*
- ❖ *Date at which the BAR goes out for comment to I&APs and the process of obtaining a copy for review;*
- ❖ *Access to specific or all of the specialist studies;*
- ❖ *The GPDRT's contact details were requested in terms of the proclamation process;*
- ❖ *Clear road design plans as clarification to part of property affected in terms of infrastructure and access;*
- ❖ *The minutes of the public open meeting were requested by one of the I&AP's who could not attend.*

Biodiversity

- ❖ *An I&AP commented that the widening of the road will reduce wetlands and an existing dam on PTN 125 of the Farm Diepsloot 388JR endangering fauna in the area. A slight alignment of the road was requested;*
- ❖ *This I&AP also enquired as to what mitigation measures will be put in place to protect*

vulnerable species?

- ❖ *Another I&AP enquired as to the likelihood of conserving indigenous trees along Ridge Road with in terms of the construction of the new access road.*

Security

- ❖ *An I&AP enquired as to the management of security during & after construction in general and specifically during the construction of new property boundary walls.*

Resource management

- ❖ *An I&AP enquired as to the depletion or contamination of private groundwater resources as a result of the project, as no municipal water is available.*

Service Providers

- ❖ *An I&AP enquired an indication on whether Johannesburg Water has been informed of development;*
- ❖ *An I&AP enquired an indication on whether municipal water would be used during construction;*
- ❖ *An I&AP enquired an indication on how services like sewerage, water and Telkom lines would be moved.*

Waste management

- ❖ *The management of pollution & refuse was queried.*

Expropriation and Proclamation Process

I&APs requested detail on:

- ❖ *Clarification of the responsible entity handling the expropriation process of the relevant sections of affected properties;*
- ❖ *What proclamation is and how is the expropriation of the relevant sections of affected properties handled;*
- ❖ *Compensation for infrastructure lost as result of the development, be it a residence, studio, workshop, carport, borehole or boundary wall;*
- ❖ *Compensation for loss of income due to reduced property size;*
- ❖ *Compensation for the relocation of machinery;*
- ❖ *The timeframe of the expropriation process for the relevant sections of affected properties;*
- ❖ *GPDRT's response to resistance to proclamation of the relevant sections of affected properties.*

Road design

I&APs requested detail on:

- ❖ *The possibility of the road alignment changing on PTN 125 so that the affected portion of land and infrastructure does not have to be expropriated;*
- ❖ *The Entity or person to consult on the disputes concerning the closure of accesses;*
- ❖ *The effect of the upgrade on access to properties as some of the existing access roads will be closed off on completion of the road;*
- ❖ *The owner of Holding 10 requested a re-alignment of the access road to the north of Holding 10 in order to conserve the boreholes, pump stations and electrical connections;*
- ❖ *The possibility that alternative access can be created from the proposed road upgrade;*
- ❖ *The possibility of a "slip-on slip-off" access scenario being allowed from the K46 for a service station;*
- ❖ *The inclusion of sufficient cycle and pedestrian access as part of the proposed upgrade of the K46 Road;*
- ❖ *Implementation of traffic calming structures like traffic lights, circles and calming areas;*
- ❖ *The current flow of the traffic on the William Nicol Road and the new dual carriage way's carrying capacity;*
- ❖ *The width of the median of the proposed upgrade of K46 Road and the possible use of the median for the development of a Rea Vaya Bus System;*
- ❖ *The extent of the K46 project (start and end of the project) and how it ties in the master plan for the area;*
- ❖ *The inclusion of the Rose intersection as part of the K46 Road Upgrade;*
- ❖ *The inclusion of the construction of View Road as part of the K46 Road Upgrade.*

Construction

I&APs requested detail on:

- ❖ *The traffic management measures during construction to ensure minimized disruption to the adjacent landowners;*
- ❖ *An indication on the timeframe of the project in terms of the approval of the budget, the tender release date and the start and end date of construction.*
- ❖ *The appropriate access to properties during construction phase.*

The EAP responded to each of the aspects raised above. The detailed responses are included in Appendixes E_4 and E_6 of this Basic Assessment Report.

Summary of response from the practitioner to the issues raised by the interested and affected parties
(A full response must be provided in the Comments and Response Report that must be attached to this report):

The summary below provides a quick overview of the responses made by the EAP on the principle comments raised by the stakeholders. Feedback in this report represents that included up to the submission of the draft BAR.

Ward Councillors

- ❖ *The EAP replied that a small portion of the project falls within Ward 96, but the larger part in Ward 95. Cllr. Mathenjwa was contacted and a BID was provided.*

Local Authorities

- ❖ *The EAP received no comments from the local authorities to date.*

Government Departments

- ❖ *The EAP subsequently submitted the required information SAHRA required on the SAHRIS information system.*

Other NGOs, CBOs, Conservancies, Residential Association, Service Providers

- ❖ *Telkom*
A more detailed map was requested which was provided.

- ❖ *Rand Water*

Wayleave

The standard conditions for their wayleave procedures were noted and sent to the Design Engineers.

Sewerage

In terms of the sewerage issue, the EAP replied by stating that the project will not require connection to the local sewerage network. Sewerage produced during the construction phase will be dealt with via mobile toilets that will be supplied and maintained by a private contractor.

Storm water

Storm water dissipation structures, which includes energy dissipation as well as stilling ponds, will be included in the road design. Rand Water was requested to forward their requirements and detail on how they would require the project to deal with storm water, which was forwarded to the Project Design Engineer, Mr. G Smit.

Immediate Neighbours and Adjacent Landowners

General

- ❖ *The public open meeting was scheduled early in the evening as requested;*
- ❖ *Direct one-on-one meetings with concerned landowners were held on request;*
- ❖ *The EAP contacted and informed the additional stakeholders as requested by certain I&APs;*
- ❖ *The EAP together with the Design Engineer and the GPDRT met with the I&AP on Holding 10, bringing about respite to the concerns of the stakeholder.*

Documentation and information requested by the I&APs

- ❖ *The ROD could not be forwarded to the I&AP as it is not available yet;*
- ❖ *The Draft BAR is scheduled to be put out for comment at the end of June 2014. Copies will be made available to I&APs via the internet and a hard copy and CD at a local community facility;*
- ❖ *Specific or all of the specialist studies requested were forwarded to the relevant I&APs;*
- ❖ *The GPDRT's contact details were forwarded to the relevant I&APs;*
- ❖ *Clear road design plans as clarification to parts of properties affected in terms of infrastructure and access were forwarded by the EAP to relevant I&APs;*
- ❖ *The public open meeting's minutes were forwarded to the relevant I&APs.*

Biodiversity

- ❖ *The proposed road alignment and access at this point subsequently changed as a result of the future planned Rose Road Intersection. This realignment causes a smaller section of the drainage way to be influenced at this point. In addition the specialist Biodiversity Study did not*

find any wetland habitat on PTN 125 of the Farm Diepsloot 388JR. However, specific mitigation and rehabilitation measures have been developed as part of the project specific Environmental Management Programme Report (EMPr) which deals with the environmental management of sensitive areas during the construction and operation phase of the project. These aspects were all communicated at the public open meeting.

- ❖ A thorough assessment of the site was done by the specialist and consulted the list of species that should be found in the habitat according to documented records of the area. Impact specific mitigation measures were developed for each impact.
- ❖ The design engineer illustrated that the access road to Ridge Road would not extent to the area where the subject indigenous trees are growing and that there is therefore no need to remove them.

Security

- ❖ In terms of security, continuity, traffic and all the other relevant issues and concerns from the local community's side the EAP explained that during the construction process this will also be managed through the channels of the community forum, the community representative and the community liaison officer. Aspects such as security is regarded as a serious possible impact in the environmental impact assessment and is also inserted in the environmental management plan in this fashion. The EMPr is written into the environmental authorization, if and when this is granted and the contractor will be monitored on a weekly to monthly basis in terms of his performance against the mitigation measures in the EMPr. This will be communicated to the Resident Engineer and ultimately to the GPDRT.

Resource Management

- ❖ Aspects related to enquiries related to resource management are managed via detailed mitigation measures in the BAR and EMPr to be distributed to them for their perusal.

Service Providers

- ❖ The EAP has informed Rand Water Board of the development.
- ❖ Telkom and other services within the road reserve will follow normal wayleave procedures stating where their services are and requirements on how the contractor will have to move those services.
- ❖ The Principle Contractor (PC) usually obtains authorization from the local Municipality to use municipal water from a metered point. Any other water use needs to be obtained via formal approval with the owner of the resource before use.

Waste management

- ❖ Pollution and refuse are managed via detailed mitigation measures in the BAR and EMPr to be distributed to them for their perusal.

Expropriation and Proclamation process

- ❖ The EAP will receive the public's comments and assist with enquiries as far as possible. The physical process will be managed by the GPDRT, who will appoint professional Valuers to carry out the process.
- ❖ The GPDRT proclaimed the road with the right to expropriate (the GPDRT do not take ownership of the relevant sections of affected properties). Intent to proclaim the relevant sections of affected properties were approved by the MEC. Comments were received from the I&APs by the EAP and the professional team and some of the access roads were amended to incorporate the requirements of the adjacent owners where this was possible. During the next few weeks (following the date of the meeting) the MEC will approve the Intent to Proclaim and publish the proclamation. Notices were sent out to the affected landowners during June 2014. Each affected property will be visited and evaluated individually according to the specific impact of the K46 road on the property itself and its infrastructure, erected legally or illegally. A Valuation Report will be compiled where after GPDRT will make the landowner a compensation offer for the relevant sections of the affected properties. The GPDRT can also request the landowner to make the GPDRT an offer, which may be approved by the Department or negotiated.
- ❖ Compensation has been addressed by the EAP in the previous statement.
- ❖ The expropriation process will take six months – the Department plans to proclaim in June

2014. The process was delayed by other developments along the road.

- ❖ The GPDRT will respond to each situation of resistance towards the proclamation process. The GPDRT will attempt to settle the matter out of court.

Road design

- ❖ The proposed road alignment and access to PTN 125 changed as a result of the future planned Rose Road Intersection. This realignment causes the access road that were firstly situated on the border of PTN 125 and the Remainder of PTN 11 of the Farm Diepsloot 388JR to move southwards to the border of the Remainder of PTN 11 and PTN 124 of the Farm Diepsloot 388JR, thus the property is no longer be affected. This was communicated at the Public Open Meeting.
- ❖ The road has been designed for high mobility thus limiting local access roads (intersections @ min 600m) and therefor access roads to surrounding properties for the K46 Phase II upgrade have been fixed along specified road safety standards. The EAP stated that any comments could be directed to the EAP, who will try to assist with information as far as possible. The road design Engineer will be consulted on more specialist requests. Meetings can be arranged to raise concerns and discuss options and details for individual properties.
- ❖ The EAP together with the GPDRT representatives and the Design Engineer reviewed the I&APs of Holding 10's request to create an alternative road from the proposed road upgrade. An alternative was found to pass the infrastructure on Holding 10 without loss to infrastructure.
- ❖ In terms of the slipway from the K46, the application for a service station is separate from this BA process. The GPDRT is not authorised to answer yes or no at this stage and a separate application will have to be made by the I&AP.
- ❖ In terms of the requests for a pedestrian walkway, the road design was changed to include a 2.5m pedestrian walkway on both sides of the proposed alignment.
- ❖ In terms of traffic calming structures during the construction phase, this is managed via the proposed mitigation measures included in the BAR and EMPr documents and enacted by the local authority on authorization. Traffic control during the operational phase would be managed via the various traffic control measures (speed law enforcement, signalized intersections etc.) measures specified by the Traffic Impact Assessment and included in the road design.
- ❖ The Traffic Engineer reported at the public meeting that 2012, 1800-2000 vehicles travelled in each directions per hour during peak times (single lanes with small intersections). A dual carriage ways will push up the capacity to 4000 vehicles per hour per direction in peak times. The system as it is designed now will carry 8000 cars per hour per direction in peak times.
- ❖ Width of the median of the proposed upgrade of K46 Road will be 14 meters and could possibly be used for the development of a Rea Vaya Bus System.
- ❖ Phase II K46's construction will commence where Phase I ends, near to the Steyn City Developments and continues north to the N14 intersection. A set of the Phase II K46 design drawings can be made available from the EAP. The EAP can also provide the I&APs with the contact details of JRA to obtain the Roads Master Plan for the surrounding area.
- ❖ The K46's construction contract only provides access to the proposed Rose Road Intersection, as well as temporary access during construction and will not be included in the construction but the intersection itself will not be constructed as part of the K46 Phase II construction contract.
- ❖ View Road will form part of the K46 Road Upgrade.

Construction

- ❖ Refer to the section describing measures in terms of Security in the summary above.
- ❖ The budget of the project has been approved. The tender is scheduled to be put out by the end of the year with construction scheduled to start in February 2015 followed by a 22 month construction period.
- ❖ Access to properties during construction phase will be maintained by the PC.

The detailed comments and responses are included in Appendixes E_4 and E_6 of the draft BAR.

2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE

Briefly describe the methodology utilised in the rating of significance of impacts

Parameters	Description
Extent	<p><i>Refers to the physical or geographical size that is affected by the impact. It can be categorised into the following ranges:</i></p> <ul style="list-style-type: none"> ➤ <i>Onsite – Within specific site boundary (weight value – 1)</i> ➤ <i>Local – Within municipal boundary (weight value – 2)</i> ➤ <i>Regional – Outside municipal boundary (weight value – 3)</i>
Duration	<p><i>Time span associated with impact:</i></p> <ul style="list-style-type: none"> ➤ <i>Short term – 1 Year or less (weight value – 1)</i> ➤ <i>Medium term – 1-5 Years (weight value – 2)</i> ➤ <i>Long term – Longer than 5 Years (weight value – 3)</i>
Probability	<p><i>The likelihood of an impact occurring:</i></p> <ul style="list-style-type: none"> ➤ <i>Unlikely – 0% - 45% chance of the potential impact occurring (weight value – 1)</i> ➤ <i>Possible – 46% - 75% chance of the potential impact occurring (weight value – 2)</i> ➤ <i>Likely – >75% chance of the potential impact occurring (weight value – 3)</i>
Intensity	<p><i>The severity of an impact on the receiving environment:</i></p> <ul style="list-style-type: none"> ➤ <i>Low – Natural and/or cultural processes continue in a modified way and is reversible (weight value – 1)</i> ➤ <i>Medium – Natural and/or cultural processes stop and is partially reversible (weight value – 2)</i> ➤ <i>High – Natural and/or cultural processes disturbed to an irreversible state (weight value – 3)</i>
Significance of Impact	<p><i>Adding the extent, duration, intensity and probability together provides the significance of the impact:</i></p> <p>1 – 4 = Low 5 – 8 = Medium 9 – 12 = High</p>

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the construction phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Proposal
PRE-CONSTRUCTION AND CONSTRUCTION PHASE
BIO-PHYSICAL ENVIRONMENT

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
<p>Start of construction phase:</p> <p>Local employment</p>	<p>High (positive)</p>	<ul style="list-style-type: none"> ➤ Members of the local community should be employed. On-the-job training should form part of the employment period and contract, to contribute to skills development. An equal 	<p>High (positive)</p>

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Security	High (negative)	<p>number of males and females should be employed.</p> <ul style="list-style-type: none"> ➤ Local authorities (e.g. Joburg Metro Municipality, Diepsloot SA Police, Joburg Metro EMS Departments) as well as the surrounding land owners must be notified of the commencement of the construction activities by the Principle Contractor (PC) well in advance of the actual start of the activities (At least 4 weeks). The contractor must, at the relevant community liaison meeting, communicate the dangers of the construction site and that the site is specifically out of bounds for small children. 	Medium (negative)
	Medium (negative)	<ul style="list-style-type: none"> ➤ Detailed contact sheets with the relevant contact no's of all the relevant contact personnel as well as the local EMS departments must be placed in the PC's offices and the relevant other congregating areas at the construction camp for easy access in the case of emergency. This contact detail and its locality must also be communicated to the construction phase personnel at the relevant meetings and tool box talks. 	Low (negative)
	Medium (negative)	<ul style="list-style-type: none"> ➤ Full documentation (ID, contact details and of next of kin) of all construction personnel must be kept on file at the site office and no unauthorized persons may be allowed on site. 	Low (negative)
Environmental awareness	Medium (negative)	<ul style="list-style-type: none"> ➤ Environmental awareness workshops must be held for all employees to ensure that Stakeholders and Staff understand their responsibilities and to adhere to the content of the EMP (See Appendix H). 	Low (negative)
Availability of EMP	Low	<ul style="list-style-type: none"> ➤ The EMP is drafted in such a manner that Section 8 can be reproduced (photocopied) and handed out to the relevant project managers, site managers, contractors and sub-contractors who must use it as a monitoring tool whereby check-ups (weekly or monthly, whichever is applicable) can be performed and added to a final monthly report or project completion report to track the monitoring of the project effectively over the lifetime of the construction phase of the development. 	Low
Ablution facilities	Medium (negative)	<ul style="list-style-type: none"> ➤ Sufficient temporary ablution facilities in the form of chemical toilets (one for every 15 workers) must be provided for all workers during the construction phase of the development. The contractor shall be entirely responsible for enforcing their use and for maintaining such latrines in a clean, orderly and sanitary condition. These facilities shall be positioned within walking distance from wherever employees are employed on the works. 	Low (negative)

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Proper personal conduct	High (negative)	<ul style="list-style-type: none"> ➤ Activities such as littering, informal settlement, loud music and other ill-mannered behaviour will be regarded as unacceptable and it will be the responsibility of the various contractors and other employers to ensure that workers under their supervision conduct themselves appropriately. These actions must be reported to the ECO who will see to the issuing of the relevant fines. See Appendix 2 of the EMP. 	Low (negative)
	Low	<ul style="list-style-type: none"> ➤ A complaints register must be maintained on site. Complaints must be discussed at each of the construction Technical Meetings and specific responsibility must be assigned to manage each complained. The responsible parties must report back at the following Technical Meeting as to the progress in terms of the management of each complaint up until it is resolved. The relevant penalties must be levied in terms of non-compliance to this management measure. 	Low
Access & Security	High (negative)	<ul style="list-style-type: none"> ➤ The whole of the construction site should preferably be fenced off. Additionally the contractor must provide suitably visible signage informing people that the site is a construction site and private property and that no access is allowed for any unauthorized persons. 	Low (negative)
Construction camp:			
Security	High (negative)	<ul style="list-style-type: none"> ➤ Local authorities (e.g. Joburg Metro Municipality, Diepsloot SA Police, Joburg Metro EMS Departments) as well as the surrounding land owners must be notified of the commencement of the construction activities by the PC well in advance of the actual start of the activities (At least 6 weeks). The contractor must, at the relevant community liaison meeting, communicate the dangers of the construction site and that the site is specifically out of bounds for small children. 	Low (negative)
Informal traders	Low (negative)	<ul style="list-style-type: none"> ➤ Plan for informal traders on the construction site to avoid potential problems on site. Signs prohibiting other hawkers from operating illegally on / adjacent to the site must be erected. 	Low (negative)
Specific site selection for the construction camps	Medium (negative)	<ul style="list-style-type: none"> ➤ The construction camps within the larger construction site must be fenced and provided with a security guard. No casual access may be allowed here. Full documentation (ID, contact details and of next of kin) of all personnel must be kept on file at the site office and no 	Low (negative)

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
	Medium (negative)	<p>unauthorized persons may be allowed on site.</p> <p>➤ An array of possible sites can be considered for the locations of the construction camps within the larger construction site. The principle to be followed is that the camps must be situated practically but in an area where the site is already significantly disturbed. The location of this site must be communicated to the ECO who should then perform a screening of the site.</p>	Low (negative)
Removal of plant material	Medium (negative)	<p>➤ The chosen site for the construction camp must not be located less than 100m horizontally from any drainage way and outside of the 100 year flood line of any of these drainage ways. (See Appendix I)</p>	Low (negative)
Flora and Faunal species	Medium (negative)	<p>➤ Vegetation clearance for the erection of the construction camps must be kept to an absolute minimum and must adhere to the footprint of an area no larger than the camps themselves.</p>	Low (negative)
	Medium (negative)	<p>➤ No damage and/or removal/ trapping/snaring of indigenous plant or animal material for cooking or any other purposes will be allowed. See Appendix 1 of the EMP. (Also See Fauna and Flora Section)</p>	Medium (negative)
Fires	High (negative)	<p>➤ Care must be taken to prevent veld fires. A designated cooking area must be established where cooking will be performed. This area must be supplied with a permanent fire extinguisher which is in working order. Cooking may only be performed with gas or electrical stoves.</p>	Low (negative)
Possible contamination by fuels and other construction materials	Medium (negative)	<p>➤ Adequate water, sanitation and solid waste disposal facilities must be provided or arranged for prior to human habitation of the site. Solid waste should be sorted into categories and that which is not suited to be dumped in an appropriate waste skip at the temporary facility e.g. cement must be dumped at a recognized registered waste disposal facility designed for this purpose.</p>	Low (negative)
Waste	Medium (negative)	<p>➤ Solid waste should be sorted into categories and those not suited to be dumped in an appropriate waste skip at the temporary facility (E.g. cement and chemicals) must be dumped at a recognized waste disposal facility designed for this purpose. A suitable site must be selected for the waste skip site and this site should only contain materials that do not pose any risk in terms of surface or sub surface environmental contamination (e.g. building rubble). This site must also be suitably rehabilitated after completion of the construction activities.</p>	Low (negative)

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Temporary Fuel Tank	High (negative)	➤ The on-site Fuel tank should be accommodated in a watertight bunker, which is able to carry the total volume of the tank itself. Should an accidental puncture of the fuel tank occur, the appropriate specialist (e.g. Procon - See Appendix 3 of the EMP) should be contacted immediately for clear up operations. The top soils and sub soils of the site of the spillage must be removed in total and be disposed of at a fittingly licensed facility by the specialist and be filled up to the top of the excavation with healthy soils.	Low (negative)
Construction vehicles	Medium (negative)	➤ Construction vehicles and equipment must also be checked and maintained on a regular basis (weekly) to ensure that no environmental contamination is brought about by oil, fuel or hydraulic fluid leakages	Low (negative)
	High (negative)	➤ All fuel and lubricant oriented areas (for storage and waste) at the service site (e.g. diesel tanks, workshop shed, and compressor shed) must be constructed with impervious concrete floors and oil and fuel resistant walls, with watertight sumps at the end of the catchment drains of these areas. Sumps must be pumped into suitable containers and removed by an appropriate specialist, to a suitably licensed waste disposal facility.	Low (negative)
Possible contamination from construction camp	Medium (negative)	➤ An earth berm or drainage ditch must be constructed around the construction camp (@ 500mm high) to prevent storm water entering from outside the camp and to prevent contaminated water leaving the camp. This earth berm must also be maintained throughout the construction phase.	Low (negative)
Site Rehabilitation	Medium (negative)	➤ Total rehabilitation must be done on and around the site and the appropriate authority (GDARD) must be informed of the completion of the construction phase in order for the necessary inspections to take place.	Low (negative)
Cutting & blasting:			
Cut and fill sites	Medium (negative)	➤ Specific cut and fill sites should be inspected by a qualified engineer, and signed off as stable and safe for work before construction commences.	Low (negative)
Use of explosives	Medium (negative)	➤ Cognisance should be taken of the recommendations contained in the Geotechnical investigation, specifically with reference to potentially collapsible soils.	Low (negative)
	Medium (negative)	➤ Where the excavation work involves the use of explosives, a method statement must be developed in accordance with the applicable explosives legislation, The Explosives Act 2003 (Act 15 of 2003) by an appointed person who is competent in the use of	Low (negative)

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Rehabilitation of site	Medium (negative)	<p>explosives for excavation work and the contractor shall ensure that the procedures therein are followed.</p> <ul style="list-style-type: none"> ➤ Where there is a reasonable possibility of damage to power and telephone lines or any other property, the contractor shall suitably adapt his method of blasting and the size of charges and shall use adequate protective measures, such as cover blasting, to limit the risk of damage as far as possible. Specific requirements relating to certain services may be included in the Project Specifications. 	Medium-Low (negative)
	Medium (negative)	<ul style="list-style-type: none"> ➤ Vibrations caused by blasting operations must be recorded by one or more blasting seismographs of a type as approved by the Engineer and in positions as described by the specialist blasting Consultant. 	Medium-Low (negative)
	Medium	<ul style="list-style-type: none"> ➤ A photographic record shall be kept by the blasting Consultant of all properties that may be affected by the blasting operations. 	Low
	Medium (negative)	<ul style="list-style-type: none"> ➤ The Engineer shall be given 24 hours' notice by the Contractor before each blasting operation is carried out. 	Low (negative)
	Medium (negative)	<ul style="list-style-type: none"> ➤ Material (only natural) from cutting should be used for the shaping of earth berms or for landscaping. 	Low (negative)
Climate:			
High rainfall in 24 hours	High (negative)	<ul style="list-style-type: none"> ➤ A construction management plan should be implemented to specify appropriate time for construction activities to commence (preferably May to early September). 	Medium - Low (negative)
Storm water runoff	Medium (negative)	<ul style="list-style-type: none"> ➤ Special attention must also be given to the design of the storm water structures at the discharge ends of the storm water system so as not to cause erosion damage where this system interfaces with the Wetlands and the Diepsloot River. 	Low (negative)
Other weather related conditions	High (negative)	<ul style="list-style-type: none"> ➤ Ensure that the founding structures of the structures are constructed during a time of stable soil conditions, and the construction detailing (e.g. piping) are able to withstand frost during the winter months. 	Low (negative)
	High (negative)	<ul style="list-style-type: none"> ➤ Attention must furthermore be given to the construction details of structures planned for the proposed development to be able to deal with the incidence of lightning strikes during electrical storms. All safety precautions specified by the NHBRC must be met. 	Medium (negative)
Geology and soils:			
Construction detailing	Medium (negative)	<ul style="list-style-type: none"> ➤ All construction detailing must be done in accordance with the geotechnical 	Low (negative)

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Topsoil protection	Medium (negative)	<p>engineering report. (See Appendix G(iii))</p> <ul style="list-style-type: none"> ➤ Topsoil (top 300mm layer minimum) must be protected in accordance with the detailed recommendations included in the EMPr. Also see Hydrology. 	Low (negative)
Excavations & safety	High (negative)	<ul style="list-style-type: none"> ➤ When excavations are being done, potential collapsible soils and materials must be pointed out by the engineering geologist and the necessary precautions must be taken especially during the wet season. 	Low (negative)
Soil contamination via construction vehicles or other plant.	Medium (negative)	<ul style="list-style-type: none"> ➤ Vehicles and construction plant must be inspected and maintained on a regular basis (weekly) to ensure that soils are not being contaminated by leakages or other pollutants. 	Low (negative)
	Medium (negative)	<ul style="list-style-type: none"> ➤ All construction materials which may cause soil and sub soil contamination must be kept in suitable watertight containers and these containers must be checked regularly by the ECO. 	Low (negative)
Hydrology:			
Site drainage	Medium (negative)	<ul style="list-style-type: none"> ➤ A construction management plan should be implemented to specify appropriate time for the bulk of the construction activities to commence (preferably May to early September) 	Low (negative)
	Medium (negative)	<ul style="list-style-type: none"> ➤ Special attention must be given to site drainage details, where large structures are to be constructed qualified engineers must inspect the alignment and adequate drainage structures must be designed and constructed to avoid subsurface water saturation and possible structural failure. 	Low (negative)
Scouring and erosion resulting from increased volumes and velocities of storm water across the site	Medium (negative)	<ul style="list-style-type: none"> ➤ Storm water drainage structures must be designed by qualified engineers and in a way the disposes of the site storm water in a safe matter, which is not harmful to the surrounding environment in any way. Typical precautionary measures include street layouts parallel to the contours, sufficient infiltration structures to reduce overall storm water build up at the lowest point of the site and storm water energy dissipaters in major storm water channels. (See EMPr Appendix 4) 	Low (negative)
	Medium (negative)	<ul style="list-style-type: none"> ➤ Maximum infiltration must be attained at each specific building site and infiltration structures must be designed and constructed to this effect to limit the overall increase in storm water volume and velocity as far as possible. 	Low (negative)
Siltation of downstream water	Medium (negative)	<ul style="list-style-type: none"> ➤ Special attention must also be given to the 	Medium (negative)

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
<p>bodies and storm water management structures.</p> <p>Possible groundwater pollution from leaking sewer systems, site establishment, and vehicle service area.</p> <p>Excavations in the wetland and river areas</p>	<p>High (negative)</p> <p>High (negative)</p>	<p>design of the storm water structures at the discharge ends of the storm water system so as not to cause erosion damage where this system interfaces with the Wetland areas and the Diepsloot River. (See EMPr Appendix 4)</p> <p>➤ On site waste disposal and pit latrines must strictly be prohibited during the construction phase and disposal must be carried out with standard sealed chemical toilets and waste disposal containers.</p> <p>➤ Soils removed in the wetland areas and in the Diepsloot riverbed must be excavated and stored as close as possible to the excavation area but outside of the 1:100 year floodline area of any drainage way. After construction has been completed these area must be rehabilitated in line with the recommendations of the Wetland Delineation Report (Appendix G(iv)). Specifically the soils in the area must be replaced in the same order than in which it was excavated.</p>	<p>Low (negative)</p> <p>Medium (negative)</p>
<p>Vegetation and animal life</p> <p>Penalties for damage to the site environment</p> <p>Significant fauna and flora on site</p>	<p>Medium (negative)</p> <p>High (negative)</p> <p>Medium (negative)</p>	<p>➤ All construction workers and visitors to the site should be informed of the penalties associated with killing or interfering with any small game, bird, reptile or amphibian specie that could become trapped in the trenches. (See EMPr Appendix 1).</p> <p>➤ (<i>Hypoxis hemerocallidea</i>) African Potato or Star Lily and Bushman Poison Bulb (<i>Boophane disticha</i>) are Red Data Listed (RDL) species identified by the biodiversity specialist to occur along the construction area. In terms of faunal species the Specialist reported that habitat for the African Grass Owl (<i>Tyto capensis</i>) and Giant Bullfrog (<i>Pyxicephalus adspersus</i>), also exist on site. Prior to ground breaking a biodiversity Specialist must be appointed to perform a walkthrough along the alignment and especially in the sensitive areas and identified habitat areas and clear the area of any sensitive faunal or floral species. Any species found must be relocated to suitable areas along a relocation plan. The Biodiversity Rescue and Relocation Unit of the GDARD must be contacted in this regard.</p> <p>➤ The presence of these species must be communicated during the environmental awareness training as well as the appropriate procedure to follow when these species are encountered by construction</p>	<p>Medium (negative)</p> <p>Low (negative)</p> <p>Low (negative)</p>

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Alien invasive vegetation	Medium (negative)	<p>staff. Posters disclosing identifiable pictures of these species must be displayed at a suitable location at the construction camp during the construction period.</p> <ul style="list-style-type: none"> ➤ Any small game or other bird, reptile or amphibian specie that becomes trapped in the trenches or in any construction related activity may not be harmed and must be placed in a suitable container. The relevant Gauteng conservation department or closest SPCA must then be contacted to come and remove the animal. This Parks Department or SPCA will then bear the responsibility to relocate the specie to a suitable habitat. 	Low (negative)
	Medium (negative)	<ul style="list-style-type: none"> ➤ Proliferation of alien and invasive species is expected within disturbed areas. These species should be eradicated and controlled to prevent their spread beyond the proposed Diepsloot route. Alien plant seed dispersal within the top layers of the soil within footprint areas, that will have an impact on future rehabilitation, has to be controlled. 	Low (negative)
	Low (negative)	<ul style="list-style-type: none"> ➤ Removal of the alien and weed species encountered along the alignment must take place in order to comply with existing legislation (amendments to the regulations under the Conservation of Agricultural Resources Act, 1983 and Section 28 of the National Environmental Management Act, 1998). Removal of species should take place throughout the construction, operational and rehabilitation/ maintenance phases. 	Low (negative)
SOCIO-ECONOMIC ENVIRONMENT:			
Disruption of services:			
Notification of start of construction phase.	Medium (negative)	<ul style="list-style-type: none"> ➤ Surrounding landowners and other relevant stakeholders (Service providers) must be notified well in advance (4 weeks) in terms of any services interruptions which might affect them. 	Medium (negative)
Temporary lack of services.	High (negative)	<ul style="list-style-type: none"> ➤ Detailed contact sheets with the relevant contact no's of all the relevant contact personnel as well as the local EMS departments must be placed in the PC's offices and the relevant other congregating areas at the construction camp for easy access in the case of emergency. This contact detail and its locality must also be communicated to the construction phase 	Medium (negative)

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
	Medium (negative)	<p>personnel at the relevant meetings and tool box talks.</p> <ul style="list-style-type: none"> ➤ A complaints register must be maintained on site. Complaints must be discussed at each of the construction Technical Meetings and specific responsibility must be assigned to manage each complained. The responsible parties must report back at the following Technical Meeting as to the progress in terms of the management of each complaint up until it is resolved. The relevant penalties must be levied in terms of non-compliance to this management measure. 	Low (negative)
	High (negative)	<ul style="list-style-type: none"> ➤ The PC and the PM must ensure that they are in contact with the relevant services providers where services will need to be moved and that the required wayleave authorizations are in place before the services are moved. 	Low (negative)
<p>Loss of business opportunities:</p> <p>Ease of access to businesses alongside road K46 during construction</p>	High (negative)	<ul style="list-style-type: none"> ➤ Business ventures alongside road K46 must be notified well in advance of the estimated start of the construction activities. 	Medium (negative)
	High (negative)	<ul style="list-style-type: none"> ➤ The PC must prepare a list of the properties alongside the alignment from where commercial activities are operated and must ensure that these activities are provided with sufficient temporary access at all times during the construction phase. 	Medium (negative)
	Medium (negative)	<ul style="list-style-type: none"> ➤ A complaints register must be maintained on site. Complaints must be discussed at each of the construction Technical Meetings and specific responsibility must be assigned to manage each complained. The responsible parties must report back at the following Technical Meeting as to the progress in terms of the management of each complaint up until it is resolved. The relevant penalties must be levied in terms of non-compliance to this management measure. 	Low (negative)
	High (negative)	<ul style="list-style-type: none"> ➤ Business owners along the route must be provided with the contact detail of the relevant agent of the PC where access related issues can be reported and resolved speedily. 	Medium (negative)
<p>Noise:</p> <p>Daily construction time</p>	High (negative)	<ul style="list-style-type: none"> ➤ Construction activities must be restricted to between 08:00 in the mornings and 05:00 in the evening and not on any weekend or public holidays. This must be monitored by the ECO and fines must be levied for non-compliance. See Appendix 2 of the EMP. 	Low (negative)

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Completion dates	Medium (negative)	➤ Authorities and surrounding I&AP's must be notified well in advance if the timely completion of the proposed construction phase necessitates that construction activities must occur outside of the usual time frames.	Low (negative)
Proper personal conduct	High (negative)	➤ Activities such as loud music and other ill-mannered behaviour must not be allowed. This behaviour will be regarded as unacceptable and it will be the responsibility of the various contractors and other employers to ensure that workers under their supervision conduct themselves appropriately	Low (negative)
Noise generated by construction activities	Medium (negative)	➤ Construction vehicles and equipment must be checked regularly and maintained in a proper working condition to minimise noise that these vehicles may make if in disrepair.	Low (negative)
Air Quality:			
Dust suppression	Medium (negative)	➤ Dust suppression must be performed according to the seasonal changes and according to the prevailing site-specific circumstances via a dust suppression watering truck, on the site roads, construction camps and other construction areas.	Low (negative)
Speed restrictions	Medium (negative)	➤ The bulk of the site roads will consist of dirt roads during construction, therefore the development management must contain strict recommendations as to the allowed speeds on these roads.	Low (negative)
Preservation of site vegetation	Low (negative)	➤ Vegetation along roads and landscaping of the larger development environment will help improve air quality over the long-term and must therefore be retained and replanted wherever disturbed as far as possible.	Low (negative)
Visual Environment:			
Proper personal conduct	Low (negative)	➤ The entire construction site including the construction camps must be kept free of litter at all times. Unsightly construction waste must be removed to the appropriate waste disposal facility as soon as this is possible during the construction phase of the project. (See EMPr Appendix 1)	Low (negative)
Screening via vegetation	Medium	➤ Indigenous vegetation must be used to screen negative visual aspects of structures. Screening vegetation must however not be obtrusive to the Egoli Granite grassland character of the site.	Medium
Traffic:			
Unsafe traffic conditions	High (negative)	➤ Construction phase activities such as lane diversions, temporary intersections, heavy construction vehicles on the road, will disrupt the normal flow of traffic. The PC must	Medium (negative)

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Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Pedestrian safety	High (negative)	<p>ensure that sufficient warnings and notices is applied in the area to warn motorists towards these conditions.</p> <ul style="list-style-type: none"> ➤ Local authorities (e.g. the Joburg Metro Municipality, local Diepsloot Police, Joburg EMS Departments) as well as the surrounding land owners must be notified of the commencement of the construction activities at least 4 weeks before the actual start of the activities. ➤ The whole construction site should preferably be fenced off during construction. The PC must in addition provide suitably visible signage (visible for both motorists and pedestrians) along the entire site, informing people that the site is under construction and that no access is allowed for any unauthorised persons. Areas where construction has to take place must be clearly demarcated to ensure that only these areas are stripped. ➤ Areas where construction has to take place must be clearly demarcated to ensure that only these areas are stripped. 	Medium (negative)
Archaeological findings: Significant material	Low (negative)	<ul style="list-style-type: none"> ➤ The specialist Cultural Historic Assessment found that the site has no culturally historically significant structures or elements. 	Low (negative)
	High (negative)	<ul style="list-style-type: none"> ➤ Employees, contractors and construction workers should be informed to report any unusual finds during the construction and occupational phases, to the ECO in order to implement the correct procedures according to the South African Heritage Resources Act to conserve these finds appropriately. This issue must be brought forward during the environmental awareness workshops. 	Low (negative)
OCCUPATIONAL PHASE			
BIO-PHYSICAL ENVIRONMENT			
Employment opportunities: Local labour	High (positive)	<ul style="list-style-type: none"> ➤ Members of the local community should be employed during the operational phase. On-the-job training should form part of the employment period and contract, to contribute to skills development. An equal number of males and females should be employed. 	High (positive)
Climate & hydrology:			

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Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Storm water management plan	Medium (positive)	➤ A storm water management plan must be devised, implemented and updated during the occupational phase to monitor the effect of the road's storm water runoff into the local hydrological system. See EMPr – Appendix H)	Medium (positive)
Maintenance	Medium (positive)	➤ Routine maintenance of the storm water infrastructure and especially the discharge structures must be done on a monthly basis in the year post construction and from there on a yearly basis to ensure the integrity and functioning of the installed storm water infrastructure.	Medium (positive)
Geology and soils: Topsoil	Medium (negative)	➤ Topsoils conserved during the construction process must be used in the rehabilitation process. Topsoils used in this rehabilitation must be stored as close as possible to the area where it is excavated and must be returned from the areas where it was excavated as far as possible during rehabilitation.	Low (negative)
Storm water management and erosion control	High (positive)	➤ All areas left barren post construction must be covered with a grass layer as prescribed in Appendix 4 of the EMPr (Appendix H). A vegetative cover without any barren areas must be established after construction and repairs must be performed up until this cover is established.	High (positive)
Monitoring and maintenance.	High (positive)	➤ The PC must include a sum in his tender in order to be able the perform maintenance on the rehabilitated areas for a period of one year after construction or until the desired vegetation cover has been achieved. Yearly inspections and maintenance can then be performed by the GPDRT.	High (positive)
	High (positive)	➤ The total construction area must be included in the inspection to ensure that no erosion occurs along the alignment.	High (positive)
Vegetation and animal life: Indigenous landscaping	High (positive)	➤ The Applicant and the PC must use only indigenous vegetation as part of the rehabilitation and decorative landscaping along the new alignment to increase the biodiversity of the site during the occupational phase of the proposed development.	High (positive)
Alien invasive vegetation control	Medium (negative)	➤ Proliferation of alien and invasive species is expected within disturbed areas. These species should be eradicated and controlled to prevent their spread beyond the proposed Diepsloot route. Alien plant seed dispersal within the top layers of the soil within footprint areas, that will have an impact on future rehabilitation, has to be controlled.	Low (negative)

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Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
	Medium (negative)	<ul style="list-style-type: none"> ➤ Removal of the alien and weed species encountered along the alignment must take place in order to comply with existing legislation (amendments to the regulations under the Conservation of Agricultural Resources Act, 1983 and Section 28 of the National Environmental Management Act, 1998). Removal of species should take place throughout the construction, operational and rehabilitation/ maintenance phases. 	Low (negative)

SOCIO-ECONOMIC ENVIRONMENT

Noise:	Medium	<ul style="list-style-type: none"> ➤ The Body Co-operate must give guidelines as to the noise policy that will govern the development and ensure the residents are aware of it during the occupational phase. 	Low to non-existent
Traffic: Increase traffic flow	High (positive)	<ul style="list-style-type: none"> ➤ The primary objective of the proposed road upgrade is to increase the regional traffic mobility via the construction of an enhanced local motorway. 	High (positive)
Increased road safety via upgrade intersections	High (positive)	<ul style="list-style-type: none"> ➤ Although the traffic impact assessment found that local accessibility will decrease as a result of the increased regional mobility afforded by the proposed new K46 Phase II alignment, this new alignment will bring significantly enhanced traffic infrastructure including suitably signalized intersections. 	High (positive)
Increased pedestrian safety	High (positive)	<ul style="list-style-type: none"> ➤ The addition of the 2.5m pedestrian walkways on both sides of the alignment as well as the previously constructed raised pedestrian bridges and the signalized intersections will increase ease of pedestrian access and general pedestrian safety dramatically 	High (positive)

Alternative 1: N/A See Section A3

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:

Alternative 2 :N/A See Section A3

Potential impacts:		Proposed mitigation:	Significance rating of impacts after mitigation:

Alternative 3: N/A See Section A3

Potential impacts:	Significance	Proposed mitigation:	Significance

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Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
	rating of impacts:		rating of impacts after mitigation:

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

- *The Specialist Traffic Impact Study – (Gi)*
- *The Specialist Archaeological Assessment. – (G_ii)*
- *The Specialist Geo Technical Report – (Appendix G_iii)*
- *The Civil Engineering Structures Report – (G_iv)*
- *The Specialist Biodiversity Study - (G_v)*

3. IMPACTS THAT MAY RESULT FROM THE DECOMMISSIONING AND CLOSURE PHASE

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the decommissioning and closure phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Proposal

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
<i>Decommissioning of the proposed road is not foreseen.</i>			

Alternative 1 *N/A*

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:

Alternative 2 *N/A*

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

N/A

4. CUMULATIVE IMPACTS

Describe potential impacts that, on their own may not be significant, but is significant when added to the impact of other activities or existing impacts in the environment. Substantiate response:

Habitat loss

Sections of sensitive wetland and riverine area will be lost as a result of the road alignment being constructed over these sections. The sections of wetland and riverine area are however small in

coverage and it is believed that the related impact will not be significant if the mitigation measures in the project BAR and EMPr are implemented.

Increased volumes of Storm Water Run-off

The development of the proposed road will increase the total paved surface in the area which will reduce surface area available for the infiltration of storm water and will increase the volume of storm water that flows over the site into the local drainage ways. The increased volumes of storm water can cause erosion of the local top soils as well as associated siltation of the Diepsloot River and the wetlands in the area if not managed appropriately. Detailed mitigation and site rehabilitation measures have been developed to curb these impacts and it is believed that the prescribed measures will all but remove any noteworthy related impacts.

Increased Traffic Mobility

The primary goal of the proposed K46 Phase II road upgrade development is to increase the traffic mobility in the local and regional area. Severe traffic congestion as a result of local residential densification was anticipated which prompted the preliminary planning and design for route K46 that was completed in 1990 already planning. A Specialist Traffic Impact assessment was also conducted for the purposes of the proposed road upgrade development and the required alignment and intersections were designed. Although local ease access will decrease, the planning and design were set out to provide all the local properties with access.

5. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that sums up the impact that the proposal 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.

Proposal

Environmental impacts associated with the proposed road upgrade development would chiefly be limited to the construction phase of the project, and will therefore be of a temporary nature. Impacts caused as a result of the construction phase of the proposed project can be minimised to an acceptable level, provided that the mitigation and rehabilitation measures included in the BAR and EMPr are strictly adhered to.

Socio-economically the development would have long term positive impacts during its operational phase (therefore permanently) by contributing towards the local socio-economic environment through the addition of increased mobility. The benefit would be regional and local. Although the proposed upgrade will create negative impacts in the short terms during the construction phase it is believed that the local communities will reap the long term benefit through increased access to the Diepsloot area. Although not on a grand scale, the proposed development will also create a number of new employment opportunities, which could provide noteworthy skills development opportunities in the short term (during construction), as well as sustained opportunities (maintenance) over the longer term.

Alternative 1

N/A

Alternative 2

N/A

No-go (compulsory)

The No-go alternative is not considered a viable option in the short to long term development of the area. Residential developments and development applications alongside the total length of the proposed road K46 upgrade are in various phases of approval and some are already in advanced stages of construction. Upon completion, the added traffic from these developments is sure to render the current road alignment of the section of road K46 from the Seven road area to the N14 interchange congested to a state where it is sure to be impossible to travel along for the majority of the day. Therefore it is believed that the temporary benefit of not having to deal with the discomfort of the construction phase and the associated impacts does not weigh up to the long term benefit of increased traffic mobility, increased traffic safety and increased access to economic opportunity which this upgrade may bring.

6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

The bulk of the anticipated environmental impacts would be limited to the construction phase of the

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project, and will therefore be of a temporary nature. Impacts caused as a result of the construction phase of the proposed Road K46 Phase II upgrade can be minimised to an acceptable level, provided that the mitigation and rehabilitation measures included in the BAR and EMPr are strictly adhered to.

Primary anticipated impacts to occur during the during construction phase include:

- ❖ Possible temporary loss of ease of access,
- ❖ Possible disruptions in services provision,
- ❖ Possible security issues related to construction activity,
- ❖ Soil erosion,
- ❖ Siltation of local water bodies,
- ❖ Damage to wetland and riverine areas,
- ❖ Loss of access to commercial activities along route,
- ❖ Dust generation,
- ❖ Noise generation,
- ❖ Temporary decrease in local traffic safety during construction,
- ❖ Risks to road and pedestrian safety.

Socio-economically it is believed that the proposed road upgrade would have positive impacts during operation (therefore permanently) by contributing towards its local socio-economic environment through increased traffic mobility, traffic safety and ease of access to the local residential areas and commercial activities. It is believed that the principle benefit would be to the local communities. Although not on a grand scale, the proposed development will create a number of new employment opportunities, which could provide noteworthy skills development opportunities in the short term (during construction), as well as sustained opportunities (maintenance) over the longer term.

For alternative:

N/A

Having assessed the significance of impacts of the proposal and alternative(s), please provide an overall summary and reasons for selecting the proposal or preferred alternative.

- ❖ The preliminary planning and design for the upgrade of road K46 Phase II has been performed and approved in 1990 already,
- ❖ The proposed upgrade of the K46 Road Phase 2 forms part of the City of Johannesburg 2030 Regional Road Network Masterplan to increase north south mobility for current and anticipated future traffic.
- ❖ Current and future residential and to a lesser extent commercial development in the area will create large volumes of traffic which the current K46 road alignment will not be able to manage without the upgrade,
- ❖ The addition of the paved pedestrian walkways and bridges will increase the ease of access to the multitude of pedestrians using the alignment on a daily basis,
- ❖ It is believed that the additional traffic infrastructure will increase the road safety of this stretch of road,
- ❖ It is believed that the proposed upgrade will increase local as well as regional access in the longer term and that this would bring increased economic activity to the area.

7. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the Environmental Assessment Practitioner).

YES

NO

If "NO", indicate the aspects that require further assessment before a decision can be made (list the aspects that require further assessment):

N/A

If "YES", please list any 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:

- ❖ **Timeous notification of surrounding landowners and commercial activities –**
Surrounding landowners and business owners must be notified of the progress of the various phases of the development and ultimately the start of the construction phase in order for them to make the necessary arrangements,

- ❖ **Timeous notification of relevant service providers** – Eskom, Telkom, Rand Water and all of the other service providers who manage services in the area must be notified well in advance of the start of the construction phase in order for these service providers to make the necessary temporary arrangements. Services interruptions must at all cost be limited.
- ❖ **Notification of the local EMS Departments** – Local authorities (e.g. Joburg Metro Municipality, Diepsloot SA Police, Joburg Metro EMS Departments) must be notified of the commencement of the construction activities by the PC well in advance of the actual start of the activities (At least 4 weeks). The contractor must, at the relevant community liaison meeting, communicate the dangers of the construction site.
- ❖ Detailed contact sheets with the relevant contact no's of all the relevant contact personnel as well as the local EMS departments must be placed in the PC's offices and the relevant other congregating areas at the construction camp for easy access in the case of emergency. This contact detail and its locality must also be communicated to the construction phase personnel at the relevant meetings and tool box talks.
- ❖ **Delineated Wetland Areas and Diepsloot River Area** – Construction in the wetland areas and in the course of the Diepsloot River must be limited as far as possible. Cognisance must be taken of the recommended mitigation and rehabilitation measures in the Specialist Wetland Delineation Report. The recommended mitigation and rehabilitation measures provided in the EMPr must also be implemented.
- ❖ **Presence of sensitive Floral and Faunal species** - (*Hypoxis hemerocallidea*) Star Lily and Bushman Poison Bulb (*Boophane disticha*) are Red Data Listed (RDL) species identified by the biodiversity specialist to occur along the construction area. In terms of faunal species the Specialist reported that habitat for the African Grass Owl (*Tyto capensis*) and Giant Bullfrog (*Pyxicephalus adspersus*), also exist on site. Prior to ground breaking a biodiversity Specialist must be appointed to perform a walkthrough along the alignment and especially in the sensitive areas and identified habitat areas and clear the area of any sensitive faunal or floral species. Any species found must be relocated to suitable areas along a relocation plan. The Biodiversity Rescue and Relocation Unit of the GDARD must be contacted in this regard.
- ❖ The presence of these species must be communicated during the environmental awareness training as well as the appropriate procedure to follow when these species are encountered by construction staff. Posters disclosing identifiable pictures of these species must be displayed at a suitable location at the construction camp during the construction period.
- ❖ Any indigenous vegetation which fall within the areas to be developed, as well as all of the significant indigenous vegetation which does not fall under the areas to be developed (Riverine area) must be retained or transplanted under the supervision of the specialist. Special attention must be given to ensure that the vegetation in these areas are not disturbed for any purposes i.e. firewood.
- ❖ **Environmental Management Programme Report (EMPr)** - The site specific recommendations and mitigation measures as pointed out in the EMPr should be made a condition of the authorization. (Appendix H),
- ❖ **Site inspection after completion of the construction phase** - The appointed PC and the applicant him/herself must lastly provide the ECO and the relevant authorities of a photographic record after the completion of the proposed project to prove that all the rehabilitation and site clearing actions have been performed and that the site was left in a safe and neat manner.

8. ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT (EMPr)

If the EAP answers yes to Point 7 above then an EMP is to be attached to this report as an Appendix

EMPr attached

YES

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

It is required that if more than one item is enclosed that a table of contents is included in the appendix

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Route position information

Appendix E: Public participation information

Appendix F: Water use license(s) authorisation, SAHRA information, service letters from municipalities, water supply information

Appendix G: Specialist reports

Appendix H: EMPr

Appendix I: Other information

CHECKLIST

To ensure that all information that the Department needs to be able to process this application, please check that:

- Where requested, supporting documentation has been attached;
- All relevant sections of the form have been completed; and