



REFERENCE: 16/3/3/1/B5/2/1016/23
NEAS REFERENCE: WCP/EIA/0001241/2023
DATE: **18 SEPTEMBER 2023**

The Head of Department
Western Cape Government: Department of Transport and Public Works
9 Dorp Street
CAPE TOWN
8000

Attention: Mr. Dirk Immelman

Tel: (021) 483 0580
Email: Dirk.Immelman@westerncape.gov.za

Dear Sir

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT (“EIA”) REGULATIONS, 2014: THE PROPOSED UPGRADE OF THE R46 (TR22/2) BETWEEN KM 0.85 AND KM 3.51, CERES

1. With reference to the above application, the Department hereby notifies you of its decision to **grant** Environmental Authorisation and **adopt** the Maintenance Management Plan, attached herewith, together with the reasons for the decision.
2. In terms of Regulation 4 of the EIA Regulations, 2014, you are instructed to ensure, within 14 days of the date of the Environmental Authorisation, that all registered interested and affected parties (“I&APs”) are provided with access to and reasons for the decision, and that all registered I&APs are notified of their right to appeal.
3. Your attention is drawn to Chapter 2 of the Appeal Regulations, 2014, which prescribes the appeal procedure to be followed. This procedure is summarised in the attached Environmental Authorisation.

Yours faithfully

MR. ZAAHIR TOEFY

DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)
DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

CC: (1) Mr C Dalgliesh (SRK)
(2) Mr D Nasson (Witzenberg Municipality)

Email: cdalgliesh@srk.co.za
Email: david@witzenberg.gov.za



REFERENCE: 16/3/3/1/B5/2/1016/23
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ENVIRONMENTAL AUTHORISATION

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED): THE PROPOSED UPGRADE OF THE R46 (TR22/2) BETWEEN KM 0.85 AND KM 3.51, CERES

With reference to your application for the abovementioned, find below the outcome with respect to this application.

DECISION

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended), the Competent Authority herewith **grants Environmental Authorisation** to the applicant to undertake the listed activities specified in section B below with respect to the Preferred Design Alternative, as described in the Basic Assessment Report ("BAR"), dated June 2023.

In terms of the NEMA, viz, the EIA Regulations, 2014 (Listing Notices 1 and 3 of 2014 in Government Gazette No. 40772 of 7 April 2017) the Competent Authority hereby **adopts the Maintenance Management Plan** for the Proposed upgrade of the R46 (TR22/02), Ceres, dated March 2023

The applicant for this Environmental Authorisation is required to comply with the conditions set out in section E below.

A. DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION

Western Cape Government: Department of Transport and Public Works
c/o Mr. Dirk Immelman
9 Dorp Street
CAPE TOWN
8000

Tel.: (021) 483 0580

Email: Dirk.Immelman@westerncape.gov.za

The abovementioned applicant is the holder of this Environmental Authorisation and is hereinafter referred to as “**the holder**”.

B. LIST OF ACTIVITIES AUTHORISED

Listed Activities	Activities/Project Description
<p>EIA Regulations Listing Notice 1 of 2014 –</p> <p>Activity Number: 19</p> <p>The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse –</p> <p>but excluding where such infilling, depositing, dredging, excavation, removal or moving—</p> <p>(a) will occur behind a development setback;</p> <p>(b) is for maintenance purposes undertaken in accordance with a maintenance management plan;</p> <p>(c) falls within the ambit of activities 21 in this Notice, in which case that activities applies;</p> <p>(d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or</p> <p>(e) where such development is related to the development of a port or harbour, in which case activities 26 in Listing Notice 2 of 2014 applies.</p>	<p>More than 10m³ of material will be removed from and/or deposited into the watercourses traversed by the road to undertake the proposed upgrades and maintenance activities.</p>
<p>EIA Regulations Listing Notice 1 of 2014 –</p> <p>Activity Number: 56</p> <p>The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre-</p> <p>(i) where the existing reserve is wider than 13,5 meters; or</p> <p>(ii) where no reserve exists, where the existing road is wider than 8 metres; excluding where widening or lengthening occur inside urban areas.</p>	<p>The road reserve is 30 m wide. The existing road will be widened on both sides, which will cumulatively exceed a 6m width.</p>
<p>EIA Regulations Listing Notice 3 of 2014 –</p> <p>Activity Number: 18</p> <p>The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre.</p> <p>i. Western Cape</p> <p>i. Areas zoned for use as public open space or equivalent zoning;</p> <p>ii. All areas outside urban areas:</p> <p>(aa) Areas containing indigenous vegetation;</p>	<p>The existing road will be widened on both sides, which will cumulatively exceed a 4m width and indigenous vegetation is present in the aquatic habitats associated with the two natural watercourses within the development footprint.</p>

<ul style="list-style-type: none"> (bb) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or iii. i. Inside urban areas: <ul style="list-style-type: none"> (aa) Areas zoned for conservation use; or (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority. 	
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The abovementioned list is hereinafter referred to as “**the listed activities**”.

The holder is herein authorised to undertake the following alternative that includes the listed activities as it relates to the development:

The proposal entails the upgrading of the R46 (also known as TR22/2) comprising the following components:

Upgrade of the R46 between km0.85 and km3.55 (2.70 km section of road) in Ceres on either side of the road by widening the existing road and upgrading four key intersections along the route, mostly within the 30m wide proclaimed road reserve. The following existing stop/go intersections will be upgraded to signalised intersections:

1. TR22/2 and Bon Chretien Street;
2. TR22/2 and Ezelfontein Road (DR1447);
3. TR22/2 and Vredebes Western Access; and
4. TR22/2 and Chris Hani Drive.

The widened road will provide additional lanes to accommodate the upgraded intersections, a pedestrian walkway and a cycle lane. The roadway cross-section will include 3.7m through lanes and a 3.4m turning lane at intersections. A 2m wide walkway/sidewalk will be constructed separate from the roadway and provision will be made for cyclists, either within 2.4m wide surfaced road shoulders or separate cycle paths.

The full length of the road will be edged on both sides with a barrier kerb and channel. Kerb inlets will be installed to discharge stormwater from the road into a covered concrete chute through the full width of the walkway which in turn will discharge into the open longitudinal drains. Concrete-lined open trapezoidal stormwater channels will be installed alongside the road edge. Stormwater pipes will be placed underneath roads to convey stormwater runoff. The minor pipe culvert (450mm diameter pipe) and associated headwall structure at km2.60 will be replaced, and stormwater manholes will be constructed, where required. Minimal expropriation of narrow strips of land (approximately 0.3ha) is required outside the existing proclaimed 30m wide road reserve to accommodate stormwater infrastructure.

To accommodate the new upgraded road width, an existing 3 050mm X 1 550mm major culvert will be extended by approximately 4m at km1.81. The inlet and outlet headwall structures will be replaced, and the culvert will be extended at both ends.

The service infrastructure that are located within the route footprint will be relocated and/or re-installed underneath the new walkway, as required.

C. SITE DESCRIPTION AND LOCATION

The listed activities will be undertaken along various properties between km0.85 and km3.51 of the R46 (also known as TR22/2) and will mostly be restricted to the proclaimed road reserve.

The SG21 digit codes for the properties that are subject to expropriation are:

Erf No. 8047	C01900010000804700000
Erf No. 9599	C01900010000959900000
Erf No. 8028	C01900010000802800000
Erf No. 9602	C01900010000960200000
Erf No. 10332	C01900010001033200000
Erf No. 4973	C01900010000497300000
Erf No. 3738	C01900010000373800000
Erf RE/4954	C01900010000495400000

Starting Point Co-ordinates:

Latitude	Longitude
33° 21' 54.72" S	19° 19' 10.56" E

Middle Point Co-ordinates:

Latitude	Longitude
33° 21' 28.79" S	19° 19' 54.48" E

End Point Co-ordinates:

Latitude	Longitude
33° 21' 08.97" S	19° 20' 45.24" E

Refer to Annexure 1: Locality Map and Annexure 2: Site Plan.

The above is hereinafter referred to as "**the site**".

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

SRK Consulting South Africa (Pty) Ltd
c/o Christopher Dalgliesh
Private Bag X18
RONDEBOSCH
7701

Tel: 021 659 3060

Email: cdalgliesh@srk.co.za

E. CONDITIONS OF AUTHORISATION

Scope of authorisation

1. The holder is authorised to undertake the listed activities specified in Section B above in accordance with and restricted to the Preferred Design Alternative, as described in the BAR dated June 2023 on the site as described in Section C above.
2. The holder must commence with, and conclude, the listed activities within the stipulated validity period which this Environmental Authorisation is granted, or this Environmental Authorisation shall lapse and a new application for Environmental Authorisation must be submitted to the competent authority.

This Environmental Authorisation is granted for-

- (a) A period of **five years** from the date of issue, during which period the holder must commence with the authorised listed activities.
 - (b) A period of **ten (10) years**, from the date the holder commenced with the authorised listed activities, during which period the authorised listed activities must be concluded.
3. The holder shall be responsible for ensuring compliance with the conditions by any person acting on his/her behalf, including an agent, sub-contractor, employee or any person rendering a service to the holder.
 4. Any changes to, or deviations from the scope of the alternative described in section B above must be accepted or approved, in writing, by the Competent Authority before such changes or deviations may be implemented. In assessing whether to grant such acceptance/approval or not, the Competent Authority may request information in order to evaluate the significance and impacts of such changes or deviations, and it may be necessary for the holder to apply for further authorisation in terms of the applicable legislation.

Written notice to the Competent Authority

5. Seven calendar days' notice, in writing, must be given to the Competent Authority before commencement of construction activities.
 - 5.1 The notice must make clear reference to the site details and EIA Reference number given above.
 - 5.2 The notice must also include proof of compliance with the following conditions described herein:

Conditions: 6, 7 and 11.

Notification and administration of appeal

6. The holder must in writing, within 14 (fourteen) calendar days of the date of this decision–
 - 6.1 notify all registered Interested and Affected Parties ("I&APs") of –

- 6.1.1 the outcome of the application;
 - 6.1.2 the reasons for the decision as included in Annexure 3;
 - 6.1.3 the date of the decision; and
 - 6.1.4 the date when the decision was issued.
- 6.2 draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations, 2014 (as amended) detailed in Section G below;
- 6.3 draw the attention of all registered I&APs to the manner in which they may access the decision;
- 6.4 provide the registered I&APs with:
- 6.4.1 the name of the holder (entity) of this Environmental Authorisation,
 - 6.4.2 name of the responsible person for this Environmental Authorisation,
 - 6.4.3 postal address of the holder,
 - 6.4.4 telephonic and fax details of the holder,
 - 6.4.5 e-mail address, if any, of the holder, and
 - 6.4.6 contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered I&APs in the event that an appeal is lodged in terms of the 2014 National Appeals Regulations (as amended).
7. The listed activities, including site preparation, must not commence within 20 (twenty) calendar days from the date the applicant notified the registered I&APs of this decision. In the event that an appeal is lodged with the Appeal Authority, the effect of this Environmental Authorisation is suspended until the appeal is decided i.e. the listed activities, including site preparation, must not commence until the appeal is decided.

Management of activities

- 8. The draft Environmental Management Programme ("EMPr") submitted as part of the application for Environmental Authorisation is hereby approved and must be implemented.
- 9. The EMPr must be included in all contract documentation for all phases of implementation.
- 10. The Maintenance Management Plan ("MMP") adopted as part of this Environmental Authorisation must be implemented.

Monitoring

- 11. The holder must appoint a suitably experienced environmental control officer ("ECO") before commencement of any land clearing or construction activities to ensure compliance with the EMPr and the conditions contained herein.
- 12. The ECO must report on compliance with the EMPr to this Department and the relevant authorities, in writing, on a monthly basis during the construction phase.

13. A copy of the Environmental Authorisation, EMPr, MMP, audit reports and compliance monitoring reports must be kept at the site of the authorised activities, and must be made available to anyone on request, including a publicly accessible website.
14. Access to the site referred to in Section C must be granted, and the environmental reports mentioned above must be produced, to any authorised official representing the Competent Authority who requests to see it for the purposes of assessing and/or monitoring compliance with the conditions contained herein.

Auditing

15. In terms of Regulation 34 of the NEMA EIA Regulations, 2014 (as amended), the holder must conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation, the EMPr and submit Environmental Audit Reports to the Competent Authority. The Environmental Audit Report must be prepared by an **independent person** (other than the ECO appointed in terms of condition 10 above or the appointed Environmental Assessment Practitioner) and must contain all the information required in Appendix 7 of the NEMA EIA Regulations, 2014 (as amended).

The holder must undertake environmental audits and submit an environmental audit to the Department within six months after the construction phase commenced. The final Environmental Audit Report must be submitted to the Competent Authority within three months after completion of the construction phase.

The holder must, within 7 days of the submission of each of the above-mentioned reports to the Competent Authority, notify all potential and registered I&APs of the submission and make the report available to anyone on request and on a publicly accessible website (if applicable).

Specific Conditions

16. Should any heritage remains be exposed during excavations or any other actions on the site, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape. Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from Heritage Western Cape.

Heritage remains include: meteorites, archaeological and/or palaeontological remains (including fossil shells and trace fossils); coins; indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artifacts and bone remains; structures and other built features with heritage significance; rock art and rock engravings; and/or graves or unmarked human burials including grave goods and/or associated burial material.

17. A qualified archaeologist and/or palaeontologist must be contracted where necessary (at the expense of the holder) to remove any heritage remains. Heritage remains can only be disturbed by a suitably qualified heritage specialist working under a directive from the relevant heritage resources authority.
18. The relevant requirements with respect to occupational health and safety must be adhered to at all times.

F. GENERAL MATTERS

1. Notwithstanding this Environmental Authorisation, the holder must comply with any other statutory requirements that may be applicable when undertaking the listed activities.
2. Non-compliance with a condition of this Environmental Authorisation or EMPr may render the holder liable to criminal prosecution.
3. If the holder does not commence with the listed activities within the period referred to in Condition 2, this Environmental Authorisation shall lapse for those activities, and a new application for Environmental Authorisation must be submitted to the Competent Authority. If the holder wishes to extend the validity period of the Environmental Authorisation, an application for amendment in this regard must be made to the Competent Authority prior to the expiry date of the Environmental Authorisation.
4. The holder must submit an application for amendment of the Environmental Authorisation to the Competent Authority where any detail with respect to the Environmental Authorisation must be amended, added, substituted, corrected, removed or updated. If a new holder is proposed, an application for Amendment in terms of Part 1 of the EIA Regulations, 2014 (as amended) must be submitted.

Please note that an amendment is not required if there is a change in the contact details of the holder. In this case, the Competent Authority must only be notified of such changes.

5. The manner and frequency for updating the EMPr is as follows:

Amendments to the EMPr must be done in accordance with Regulations 35 to 37 of the EIA Regulations 2014, (as amended) or any relevant legislation that may be applicable at the time.

G. APPEALS

Appeals must comply with the provisions contained in the National Appeal Regulations 2014 (as amended).

1. An appellant (if the holder of the decision) must, within 20 (twenty) calendar days from the date on which notification of the decision was sent to the holder by the Competent Authority–
 - 1.1. Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations 2014 (as amended) to the Appeal Administrator; and
 - 1.2. Submit a copy of the appeal to any registered I&APs, any Organ of State with interest in the matter and the decision-maker i.e. the Competent Authority that issued the decision.
2. An appellant (if NOT the holder of the decision) must, within 20 (twenty) calendar days from the date on which the holder of the decision sent notification of the decision to the registered I&APs–
 - 2.1. Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations 2014 (as amended) to the Appeal Administrator; and
 - 2.2. Submit a copy of the appeal to the holder of the decision, any registered I&AP, any Organs of State with interest in the matter and the decision-maker i.e. the Competent Authority that issued the decision.

3. The holder of the decision (if not the appellant), the decision-maker that issued the decision, the registered I&AP and the Organs of State must submit their responding statements, if any, to the appeal authority and the appellant within 20 (twenty) calendar days from the date of receipt of the appeal submission.
4. The appeal and the responding statement must be submitted to the address listed below:

By post: Western Cape Ministry of Local Government, Environmental Affairs and Development Planning
Private Bag X9186
CAPE TOWN
8000

By facsimile: (021) 483 4174; or

By hand: Attention: Mr Marius Venter (Tel: 021 483 2659)
Room 809
8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

Note: For purposes of electronic database management, you are also requested to submit electronic copies (Microsoft Word format) of the appeal, responding statement and any supporting documents to the Appeal Authority to the address listed above and/ or via e-mail to DEADP.Appeals@westerncape.gov.za.

5. A prescribed appeal form as well as assistance regarding the appeal processes is obtainable from Appeal Authority at: Tel. (021) 483 3721, E-mail DEADP.Appeals@westerncape.gov.za or URL <http://www.westerncape.gov.za/eadp>.

H. DISCLAIMER

The Western Cape Government, the Local Authority, committees or any other public authority or organisation appointed in terms of the conditions of this Environmental Authorisation shall not be responsible for any damages or losses suffered by the holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

Your interest in the future of our environment is appreciated.

Yours faithfully

MR. ZAAHIR TOEFY

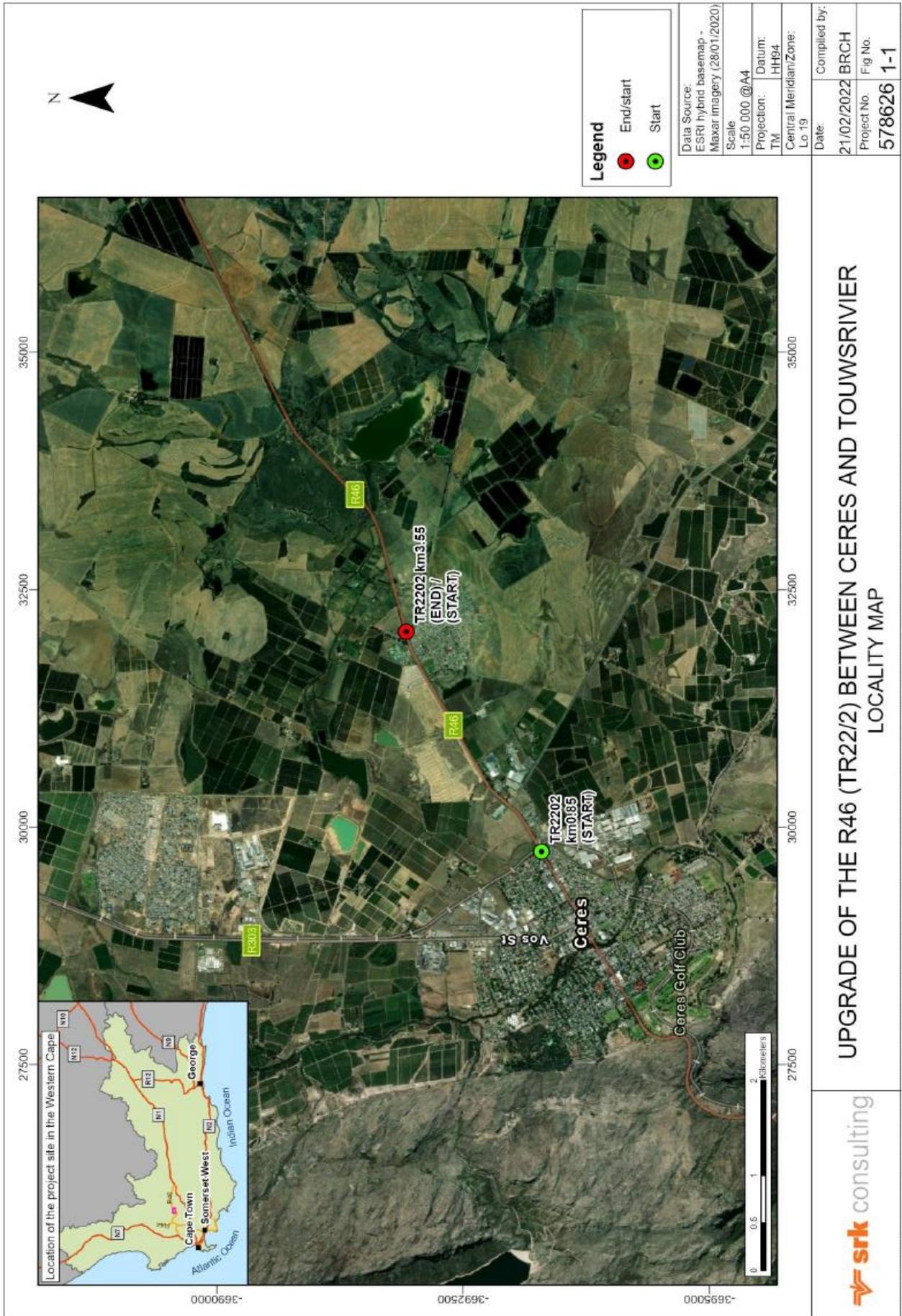
DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)

DATE OF DECISION: 18 SEPTEMBER 2023

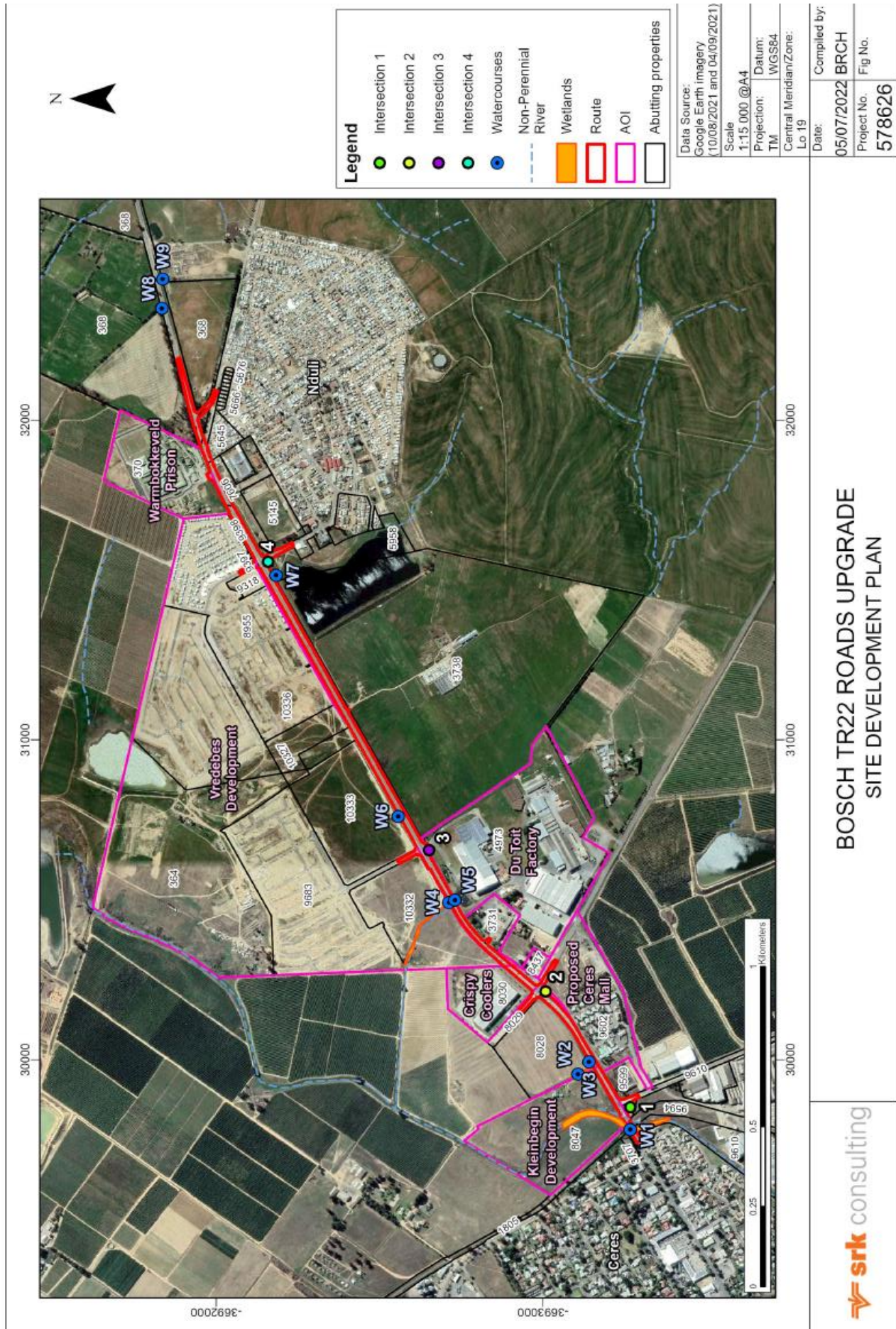
CC: (1) Mr C Dalgliesh (SRK)
(2) Mr D Nasson (Witzenberg Municipality)

Email: cdalgliesh@srk.co.za
Email: david@witzenberg.gov.za

ANNEXURE 1: LOCALITY MAP



ANNEXURE 2: SITE PLAN



BOSCH TR22 ROADS UPGRADE SITE DEVELOPMENT PLAN





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Route

Point	Latitude	Longitude
1	-33° 21' 54.72"	19° 19' 10.56"
2	-33° 21' 52.9194"	19° 19' 13.7994"
3	-33° 21' 51.48"	19° 19' 17.4"
4	-33° 21' 49.6794"	19° 19' 20.6394"
5	-33° 21' 48.2394"	19° 19' 23.8794"
6	-33° 21' 46.08"	19° 19' 27.12"
7	-33° 21' 43.92"	19° 19' 29.6394"
8	-33° 21' 41.3994"	19° 19' 32.16"
9	-33° 21' 38.8794"	19° 19' 34.6794"
10	-33° 21' 36.7194"	19° 19' 37.56"
11	-33° 21' 35.2794"	19° 19' 41.1594"
12	-33° 21' 33.4794"	19° 19' 44.4"
13	-33° 21' 32.0394"	19° 19' 47.6394"
14	-33° 21' 30.5994"	19° 19' 51.2394"
15	-33° 21' 28.7994"	19° 19' 54.48"
16	-33° 21' 27.3594"	19° 19' 58.0794"
17	-33° 21' 25.9194"	19° 20' 1.32"
18	-33° 21' 24.1194"	19° 20' 4.5594"
19	-33° 21' 22.6794"	19° 20' 8.1594"
20	-33° 21' 20.88"	19° 20' 11.4"
21	-33° 21' 19.44"	19° 20' 14.9994"
22	-33° 21' 17.9994"	19° 20' 18.24"
23	-33° 21' 16.2"	19° 20' 21.48"
24	-33° 21' 14.76"	19° 20' 25.0794"
25	-33° 21' 13.32"	19° 20' 28.32"
26	-33° 21' 11.8794"	19° 20' 31.9194"
27	-33° 21' 10.8"	19° 20' 35.5194"
28	-33° 21' 9.7194"	19° 20' 39.12"
29	-33° 21' 8.9994"	19° 20' 43.08"
30	-33° 21' 8.64"	19° 20' 45.24"

Data Source:
ESRI Basemap

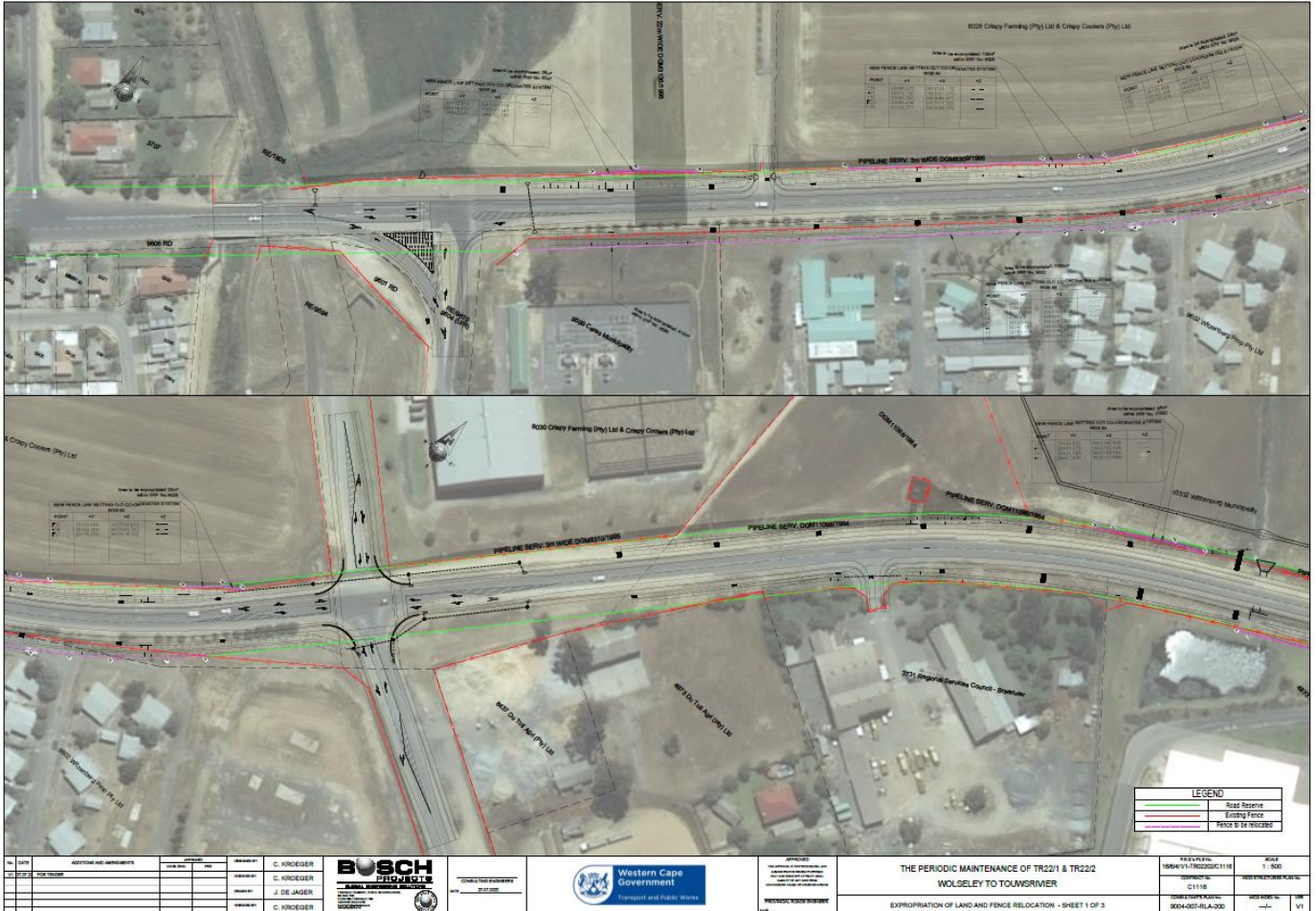
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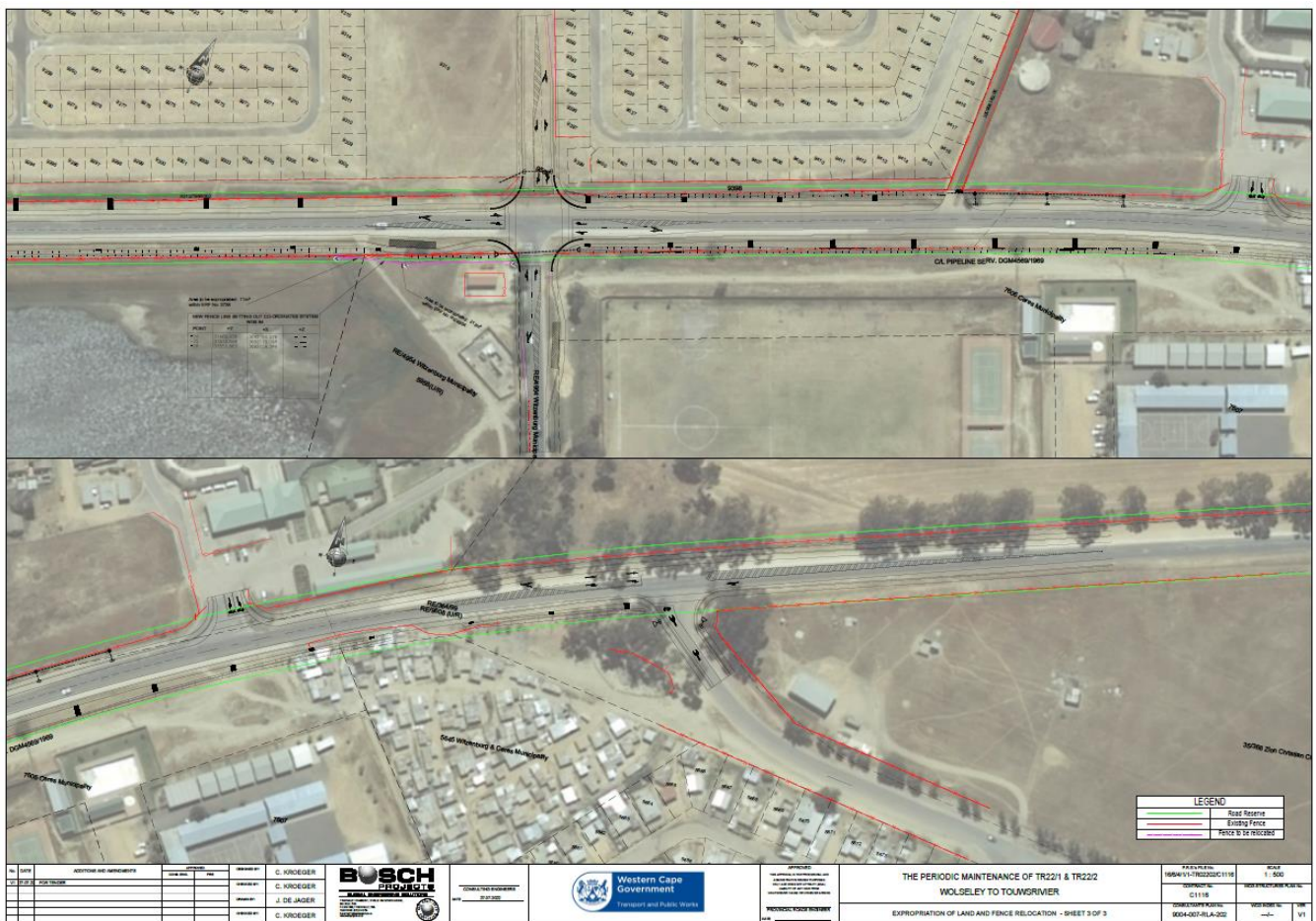
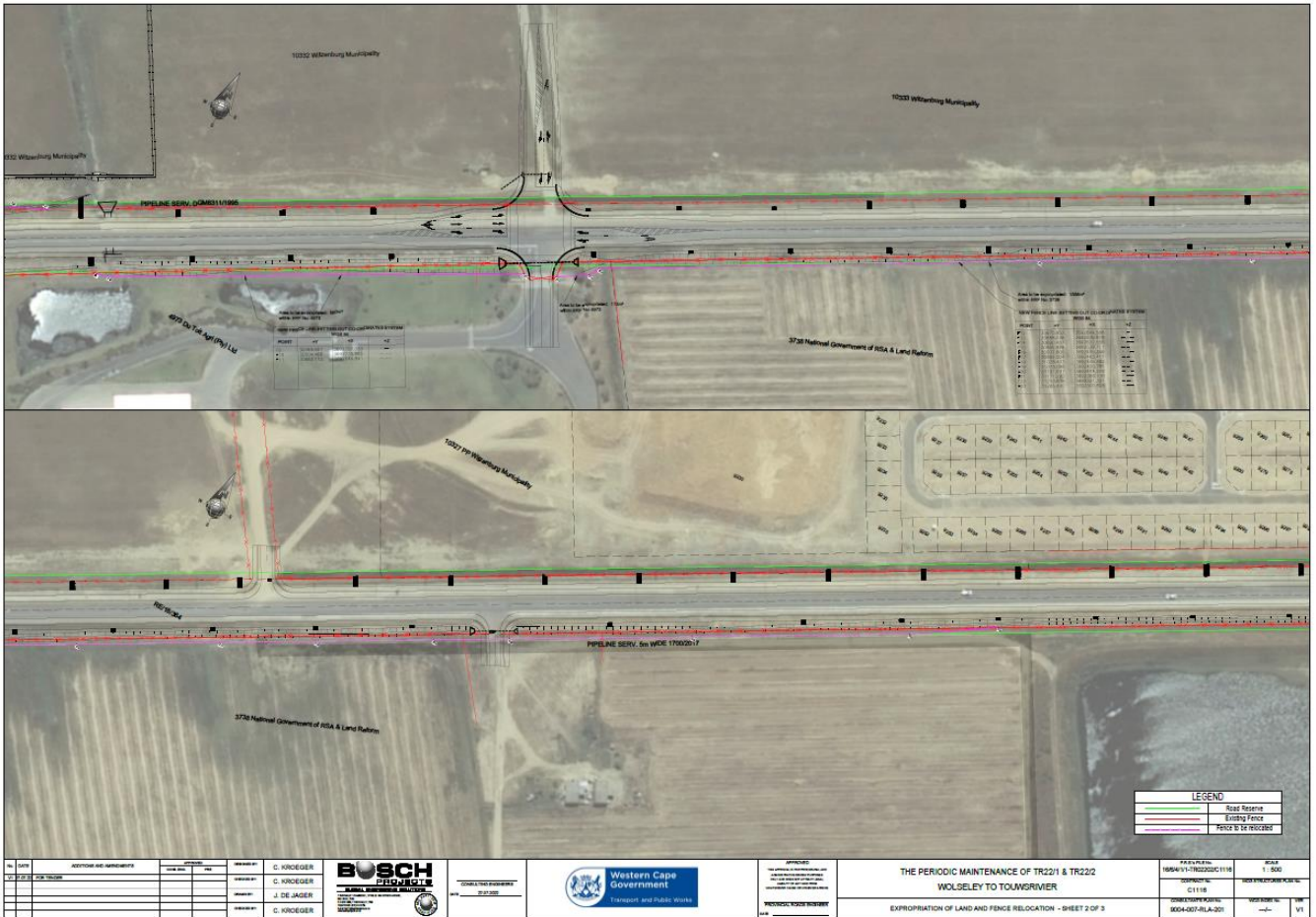
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Central Meridian/Zone:
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Date: 29/04/2022 Complied by: GROS
Project No. 578626 Fig No.



**BOSCH TR22 2 ROADS UPGRADE
ROUTE MAP**





ANNEXURE 3: REASONS FOR THE DECISION

In reaching its decision, the Competent Authority considered, *inter alia*, the following:

- a) The information contained in the Application Form dated 2 March 2023 and the EMPr and MMP submitted together with final BAR dated June 2023 and received on 2 June 2023.
- b) Relevant information contained in the Departmental information base, including the Guidelines on Public Participation and Alternatives (dated March 2013);
- c) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998);
- d) The comments received from I&APs and responses to these, included in the BAR dated June 2023; and
- e) The balancing of negative and positive impacts and proposed mitigation measures.

All information presented to the Competent Authority was taken into account in the consideration of the application for Environmental Authorisation. A summary of the issues that were considered to be the most significant for the decision is set out below.

1. Public Participation

The public participation process included:

- identification of and engagement with I&APs;
- fixing notice boards at the site where the listed activities is to be undertaken and public areas on 12 May 2022 and 9 September 2022;
- giving written notice to the owners and occupiers of land adjacent to the site where the listed activities is to be undertaken, the municipality and ward councillor, and the various Organs of State having jurisdiction in respect of any aspect of the listed activities on 12 May 2022 and 9 September 2022;
- the placing of a newspaper advertisement in the 'Witzenberg Herald' on 9 September 2022; and
- circulating the first in-process draft BAR and amendment draft BAR to I&APs from 9 September and 13 January 2023, respectively, and the second in-process draft BAR from 3 March 2023.

The Department is satisfied that the Public Participation Process that was followed met the minimum legal requirements and the comments raised and responses thereto were included in the comments and response report.

Specific alternatives, management and mitigation measures have been considered in this Environmental Authorisation and EMPr to adequately address the concerns raised.

2. Alternatives

A number of detailed design alternatives were considered, which included the following options:

Road widening design layout alternatives, as follows:

- Option 1: Signalising Intersections 1 and 2; Stop controls for Intersections 3 and 4; A cycle lane on both sides separate from the walkway.
- Option 2: Signalising Intersections 1 and 2; Stop controls for Intersections 3 and 4; A shared walkway and cycle lane north of the R46.

- Option 3: Signalising Intersections 1 – 4; and
- Option 4: Roundabouts at Intersections 1 – 4.

Stormwater infrastructure design alternatives considered the following:

- Unlined open drains; and
- Lined open drains.

The use of unlined drains was eliminated since it is unfeasible. It poses maintenance constraints due to the ground conditions and the flat gradients in the area would result in the unlined drains becoming inundated. This causes pooling / flooding resulting in pedestrians utilising the road instead of the flooded walkways, which is a safety risk (this is based on the current situation where open drains are located).

Option 4 (roundabouts at Intersections 1 – 4) was eliminated by the applicant as a feasible option since the R46 is a strategic route for abnormal loads transporting infrastructure associated with wind energy facilities. Roundabouts would not be able to accommodate the large trucks transporting abnormal loads.

A combination of Options 1 – 3, which were all deemed feasible alternatives that could be implemented, was necessary since it will address the range of upgrades that are required along the route. This resulted in the following preferred alternative:

Preferred Design Alternative (Herewith authorised)

The preferred alternative entails the upgrade of the R46 (TR22/2) between km0.85 and km3.55 (a 2.7km section of road) in Ceres on either side of the road by widening the existing road and upgrading a maximum of four key intersections along the route. The majority of the upgrades will be within the 30m wide proclaimed road reserve. The following existing stop/go intersections will be upgraded to signalised intersections:

1. TR22/2 and Bon Chretien Street;
2. TR22/2 and Ezelfontein Road (DR1447);
3. TR22/2 and Vredebes Western Access; and
4. TR22/2 and Chris Hani Drive.

The widened road will provide additional lanes to accommodate the upgraded intersections. The roadway cross-section will include 3.7m through lanes and a 3.4m turning lane at intersections. A 2m wide walkway/ sidewalk will be constructed separate from the roadway and provision will be made for cyclists, either within 2.4m wide surfaced road shoulders or separate cycle paths.

The full length of the road will be edged on both sides with a barrier kerb and channel. Kerb inlets will be installed to discharge stormwater from the road into a covered concrete chute through the full width of the walkway which in turn will discharge into the open longitudinal drains. Concrete-lined open trapezoidal stormwater channels will be installed alongside the road edge. Stormwater pipes will be placed underneath roads to convey stormwater runoff. The minor pipe culvert (450mm diameter pipe) and associated headwall structure at km2.60 will be replaced, and stormwater manholes will be constructed, where required. Minimal expropriation of narrow strips of land (approximately 0.3ha) is required outside the existing proclaimed 30m wide road reserve to accommodate stormwater infrastructure.

To accommodate the new upgraded road width, an existing 3 050mm X 1 550mm major culvert will be

extended by 4.125m at km1.81. The inlet and outlet headwall structures will be replaced, and the culvert will be extended at both ends.

The service infrastructure that are located within the route footprint will be relocated and/or re-installed underneath the new walkway, as required.

"No-Go" Alternative

The no-go alternative was considered. However, if the upgrades are not undertaken, the road would remain unsafe for road users and will continue to deteriorate. The existing and future capacity constraints will also not be addressed.

3. Impact Assessment and Mitigation measures

3.1 Activities need and desirability

The area is currently experiencing rapid urban expansion and the Department of Transport and Public Works therefore needs to undertake upgrades to the R46 to accommodate the urban expansion in the area and enable the continued and safe use for all road users. The project will therefore address existing and future capacity constraints on an existing road, provide an opportunity for upgrading and maintenance of existing motorised and non-motorised transport infrastructure and cater for the needs of the community by improving road infrastructure and road safety. This is in line with the objectives in the Witzenberg Municipality's Spatial Development Framework and Integrated Development Plan, which include providing adequate resources to settlements and maintaining stable and efficient road infrastructure. The specialist studies conducted during the basic assessment process and input obtained during the public participation process have informed the preferred development alternative to ensure that the best practicable environmental option that avoids and mitigate potential impacts is implemented.

3.2 Biophysical Impacts

Historically, the site contained Ceres Shale Renosterveld vegetation, which is classified as critically endangered. However, the general area has been subjected to extensive agricultural activity, industry and urban development and consequently there are only small remnant patches of indigenous vegetation along this section of the R46. The development footprint is mostly within the existing proclaimed road reserve and has undergone extensive disturbance as a result of "edge effects" from the existing road and high pedestrian traffic. Based on the findings of the Terrestrial Biodiversity Compliance Statement dated 2022, undertaken by Capensis, the terrestrial habitats are in a transformed and degraded state and dominated by weedy species. The impacts of the proposed development are therefore of a low significance and deemed acceptable from a botanical impact perspective.

Two watercourses (named W1 and W4) and seven artificial drainage channels (named W2, W3 and W5 – W9) are located alongside or traversed by the section of the road that will be upgraded. Based on the findings of the Aquatic Biodiversity Impact Assessment dated July 2022, undertaken by Liz Day Consulting (Pty) Ltd, the Ecological Importance and Sensitivity ("EIS") of the nine affected aquatic ecosystems ranges between negligible and low, which is as a result of past disturbance. The EIS for W1 and W4 is rated as low and very low, respectively. W1 is densely vegetated with an indigenous *Phragmites australis* reedbed on its upstream (northern) side. The channel on the downstream side of road has been reno-lined and supports less indigenous vegetation, comprising mainly *Typha capensis* bulrush, with some *Phragmites australis*. The remainder of the watercourses along the route are transformed and degraded with little to no indigenous vegetation remaining. The proposed development will result in the loss or degradation of freshwater habitat. There would however be no impact on W1, W8 and W9 during the

construction phase of the road upgrade as it is located outside the road upgrade footprint. Maintenance activities will, however, take place at W1 and W4. The extension of the culvert at W4 will ensure that the ecological function of the river is not compromised, as the flow will not be restricted by the road upgrade. The freshwater specialist concluded that the proposed development is acceptable from a freshwater impact perspective. Although the assessed impact significance ratings show that without mitigation measures, impact significance would not be likely to be greater than Low (negative), the cumulative and indirect impacts identified suggest that mitigation measures should be applied, as part of best practice. The specialist's recommended mitigation measures were therefore addressed in the preferred alternative and have been incorporated in the relevant sections of the EMP that will be implemented during the construction and operational phases.

A Water Use Licence Application ("WULA") in terms of the National Water Act, 1998 (Act 38 of 1998) was submitted to the Breede-Gouritz Catchment Management Agency that will further consider the watercourse related impacts.

Furthermore, a MMP has also been compiled to address routine maintenance activities taking place in the affected stretch of the watercourses. The maintenance of the structures authorised in this Environmental Authorisation forms part of this MMP. It must be noted that the accepted maintenance activities only relate to the activities described in the MMP. Should any new activities and associated infrastructure, not included in the MMP, require maintenance and if any of the applicable listed activities are triggered, an Environmental Authorisation must be obtained prior to the undertaking of such activities. It remains the responsibility of the proponent to determine if any other listed activities are triggered and to ensure that the necessary Environmental Authorisation is obtained.

The fact that the MMP is adopted by the Competent Authority does not absolve the applicant from its general "duty of care" set out in Section 28(1) of the NEMA, which states that *"Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment."* (Note: When interpreting their "duty of care" responsibility, cognisance must be taken of the principles of sustainability contained in Section 2 of NEMA).

The development will result in both negative and positive impacts.

Negative Impacts:

- The proposed development will result in disturbance of the freshwater resources present within the site. The impact significance has been reduced to an acceptable level with the implementation of the recommended mitigation measures, the preferred alternative, and adherence to the EMP.
- Construction activities will have a temporary impact on residents alongside the route who will be exposed to the visual, dust and noise impacts associated with a construction site. These impacts will, however, be mitigated to a satisfactory level with the implementation of the recommended mitigation measures and adherence to the EMP.

Positive impacts:

- The proposed upgrades will ensure road stability and that the road remains safe and available for public use well into the future.
- The proposed works will create temporary employment opportunities during the construction phase.

4. National Environmental Management Act Principles

The National Environmental Management Principles (set out in section 2 of the NEMA, which apply to the actions of all organs of state, serve as guidelines by reference to which any organ of state must exercise any function when taking any decision, and which must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment), *inter alia*, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;
- the consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;
- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
- the resolving of actual or potential conflicts of interest between organs of state through conflict resolution procedures; and
- the selection of the best practicable environmental option.

5. Conclusion

In view of the above, the NEMA principles, compliance with the conditions stipulated in this Environmental Authorisation, and compliance with the EMPr, the Competent Authority is satisfied that the proposed listed activities will not conflict with the general objectives of integrated environmental management stipulated in Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and that any potentially detrimental environmental impacts resulting from the listed activities can be mitigated to acceptable levels.

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