

**4.3****ERF 523, CORNER OF R43 & R326, STANFORD: PROPOSED CONSENT USE AND DEPARTURE: MESSRS WARREN PETTERSON TOWN- AND REGIONAL PLANNING CONSULTANTS ON BEHALF OF OVERBERG AGRI BEDRYWE (PTY) LTD****523 SSS (4145)****P Roux****19 November 2019****(028) 313 8900****Hermanus Administration****1. EXECUTIVE SUMMARY**

Applications were received on 20 November 2018 from Messrs Warren Petterson Town- and Regional Planning Consultants (WPP) on behalf of Overberg AGRI Bedrywe (Pty) Ltd, applicable to Erf 523, Stanford for the following:

- ❖ application in terms of Section 16(2)(o) for a consent use in order to erect a transmission tower on the above property;
- ❖ application in terms of Section 16(2)(b) for a departure to exceed the applicable 10,5m height restriction in order to accommodate the proposed 25m high transmission tower, and
- ❖ application in terms of Section 16(2)(b) for a departure in order to encroach the height restriction applicable to boundary enclosures from 2,1m to 2,4m to erect a palisade fence.

A Locality Plan of the property concerned is attached as Annexure A. Motivation Report from the applicant in support of the proposal is attached as Annexure B and the Site Development Plan is attached as Annexure C.

**2. DECISION AUTHORITY**

Municipal Planning Tribunal

**3. BACKGROUND / SITE HISTORY**

Erf 523, further named as the subject property, is zoned Business Zone 2: General Business Bulk Zone 2, measures 2,0325 ha and is located at the junction of the R43 and the R326 within Stanford. The property is developed with a petrol station and Overberg AGRI which is a wholesaler of agricultural products.

**4. SUMMARY OF APPLICANT'S MOTIVATION**

Only the key points of the Motivation Report are summarised as follows (the detailed report is attached as Annexure B):

- ❖ Application is made for consent use in terms of the Zoning Scheme in terms of Section 16(2)(o) for the purpose of erecting a transmission tower on the above property.
- ❖ Application is also made for a departure in terms of Section 16(2)(o) for the purpose of the relaxation of the height restriction from 10,5m to 25m as well as 2,1m to 2,4m to erect a palisade fence;
- ❖ The application comprises of the following parameters:

- a 25m tree mast;
  - 3 x 3 sector antennas attached to the mast;
  - microwave dishes attached to the mast;
  - 3 x Equipment containers, and
  - a 2,4m high palisade fence;
  - the total ground coverage of the Freestanding Base Telecommunication Station (FSBTS) is 64m<sup>2</sup>;
- ❖ The maximum height within the Business Zone 2: General Business Bulk Zone 2 zoning is 10,5m and it is proposed to encroach the height restriction with 14,5m. No security cameras will be placed on the mast.
  - ❖ Access will be obtained from the R326.
  - ❖ The FSBTS will be surrounded by the 2,4m tall palisade fence. Equipment will be secured in the container units and will be kept locked at all times.
  - ❖ Power to the installation will be from onsite electrical supply.
  - ❖ The proposed application does not trigger any listed activities in terms of the National Environmental Management Act.
  - ❖ The proposed application is motivated in terms of the planning principles of SPLUMA and LUPA and the Overstrand's IDP.
  - ❖ The proposed site was located in a nominal point as identified by the network planners.
  - ❖ In modern day society the dependency on communicative technology becomes increasingly higher due to society's utilization of more mobile devices and more than one (1) device per household which mainly rely on internet connectivity.
  - ❖ Due to factors including densification, urbanization, and influx of seasonal guests over festive seasons and holidays in a tourist attractive place like Onrus, Hermanus, Gansbaai, Franskraal and Van Dyksbaai dropped calls and poor network coverage (related to both voice and data) are experienced. Stanford is a central point to these towns.
  - ❖ The coverage in areas are very limited LTE, LTE Advanced, and fixed LTE coverage and the proposed free standing base station will increase the amount of coverage in this area.
  - ❖ The increase in network strength will aid the local businesses and can unlock growth potential which will have a positive economic impact. Residents, businesses and commuters will have a more secure connection to emergency services and armed response which will have a huge social impact.
  - ❖ The surrounding land uses are agricultural and residential land uses.
  - ❖ The proposed base station will not interfere with the current use of the property and there are no negative impacts on the surrounding land uses and environment.
  - ❖ No trees need to be removed to build the base station and no buildings with heritage value will be affected.
  - ❖ The proposal will have no impact on external engineering services, on transport or traffic related considerations, or on the biophysical environment.
  - ❖ Every possible measure has been taken to make the design as aesthetically pleasing as possible.
  - ❖ The proposed roll out of telecommunication infrastructure is undertaken to upgrade and improve the network coverage and quality to all customers.
  - ❖ Location for telecommunication infrastructure is primarily chosen within areas where a need exists for coverage. If there is no need then no company will invest. The fact that there are a few telecommunication infrastructures in the surrounding area supports the statement that there is a clear need for coverage in the area.

- ❖ The existing site was selected for several reasons, namely:
  - it is situated between planned and existing sites;
  - there is a huge demand by cellular users in this area and the surrounding base stations are unable to provide an acceptable level of coverage;
  - it is accessible to contractors during construction and maintenance;
  - the proposal and location of the base station is the best solution to the coverage problem;
  - the proposal is secure due to its locality, and
  - it will serve the complaint area (the area with the lowest levels of cellular reception due to locality and high volumes of users) optimally;
- ❖ It is also dependent on a willing landlord scenario. The theoretical best position is determined by the radio engineers. Often several properties are targeted before a willing landlord is discovered that terms can be agreed with.
- ❖ The impact of the site, proposed height of 35m (it is believed that this is an error on the applicant's part) is designed as a camouflaged tree, thereby reducing the visual impact. The equipment can be colour coded to match the backdrop to further mitigate the visual impact and blend with the surroundings.
- ❖ The proposal will have no detrimental impact on the surrounding properties and will provide an essential service to the surrounding community.
- ❖ Currently scientific research is yet to produce conclusive evidence suggesting adverse health effects associated with, working with or living close to cellular technology.
- ❖ The City of Cape Town (it is believed this statement was an error on the applicant's part) is more than welcome to take its own readings once the cellular communication infrastructure is operational.
- ❖ Communication companies deliver an important service to the wider public and in terms of their licence with ICASA they have to meet certain standards to retain their licence of which one is to supply adequate network coverage to their customers.
- ❖ Visual impact assessment was done and the following was concluded from the study:
  - Within the short distance the impact will be high; however given the fact that the mast will be camouflaged as a tree the visual impact will be moderate as trees are scattered across the landscape.
  - From the short to long distance zone the impact will be low due to Visual Absorption Capacity of the area, limited observers within these zones, the built up environment and the undulating topography of the area.
  - Moderate impact on residence living within 1km radius as well as commuters.
  - The following mitigation measures can assist minimising the visual impact:
    - avoid shiny materials;
    - the tree mast should look like the surrounding trees as far as possible;
    - tree branches should be dense, and
    - mitigation measures in order to minimise lighting impacts

Lastly mitigation measures were stipulated to limit the impact of the construction phase.

## 5. ADMINISTRATIVE COMPLIANCE

Methods of advertising		Date published	Closing date for comments
Local newspaper	Yes	17 April 2019	24 May 2019
Notices	Yes	17 April 2019	24 May 2019
Ward councillor	Yes	17 April 2019	24 May 2019
Total objections	<b>Two (2)</b>		
Was public participation undertaken in accordance with Section 46 - 50 of the By-Law on Municipal Land Use Planning?			<b>Yes</b>
Was the application processed correctly?			<b>Yes</b>
Is the proposal consistent with the principles referred to in Chapter 2 of SPLUMA and Chapter VI of LUPA? (can be elaborated further below)			<b>Yes</b>

## 6. SUMMARY OF COMMENTS FROM ORGANS OF STATE AND/OR MUNICIPAL DEPARTMENTS

Name	Date received	Summary of comments	Recommendation
Eskom	2/05/2019	No objection.	Positive
Traffic	7/05/2019	Will assist where needed.	Positive
District Health	17/05/2019	No objection.	Positive
Environmental Affairs & Development Planning : Directorate Development Management (Region 2)	20/05/2019	Annexure F.	Positive
Environmental Section	24/05/2019	Does not have any implications on NEMA.	Positive
Department of Transport and Public Works	27/05/2019	Annexure G.	Positive
Engineering Services	29/05/2018	Annexure H.	Positive
Building Department	4/06/2019	No objection.	Positive

Environmental Affairs & Development Planning : Directorate Environmental Affairs and Development Planning (Region 1)	14/06/2019	Annexure I.	Positive
Telkom	6/06/2019	Annexure J.	Positive
Fire Services	26/06/2019	Approval is subject that provision is made for 1 x Dry chemical Powder Fire extinguisher.	Positive

## 7. SUMMARY OF COMMENTS RECEIVED DURING PUBLIC PARTICIPATION

Two (2) letters of objection were received – One (1) letter of objection was received from Stanford Ratepayers (SRP) and the second letter was received from Stanford Heritage Committee (SHC). It should be noted that the letter from SRP is in support of the letter of objection submitted by SHC and therefore the main grounds of objection will be summarised as provided by SHC. The main point of objection are as follow:

- **Little or no reference is made in the Visual Impact Assessment (VIA) that Stanford is a proclaimed Heritage Area. Neither of the reports noted the character, aesthetic and townscape attributes of Stanford which underpins its tourism and the village's raison d'être (reason or purpose of existence). The industrial type tower (and container base) near the entrance is considered inappropriate on both visual and heritage terms and could negatively affect the economy.**

### **Applicant's comment**

Within the VIA references are made to the facts that Stanford is a proclaimed Heritage Area and that it is heavily dependent on tourism (Section 7.1 in the VIA). Further, table 8 refers to area or route of high scenic, cultural, historical significance and that the expected visual impact will be moderate. Table 8 was developed by DEA&DP and forms part of the Department's Guidelines for Involving a Visual and Aesthetic Specialist as part of the EIA process. The subject property is already developed with the AGRI Corporation and fuelling station which adds clutter near the entrance and the accumulated impact is mitigated as no more visual clutter will be created should the mast be placed on natural land. The visual specialist is familiar with the area and has conducted numerous projects.

### **Town Planner's comment**

It is agreed that the VIA make reference to the fact that Stanford Village is a Heritage Area. However, the VIA only provides a limited amount of mitigation measures in order to limit the impact of the proposed mast on the character of the town. The opinion is held that the proposal of a tree mast on a site/property

with no trees (or even tall trees) on it is a misguided mitigation measure. The proposed tree mast would have worked in an area with dense foliage and trees, such as the Hermanus Golf Course, but in this case the subject property does not lend itself to the proposed mitigation measure.

- **No mention is made to the existing mast in Stanford or the existing mast cannot be used, or why the mast cannot be removed if the new mast is erected.**

#### **Applicant's comment**

The existing mast was taken into account in identifying the Cumulative Impact of the proposed development. The existing mast is a Telkom Exchange site, which means it is solely used for their purposes. They do not allow for any other types of equipment to be placed on their infrastructure. There is a good possibility that Telkom do not have approval for the existing mast.

#### **Town Planner's comment**

The statement made by the applicant is not agreed with. The existing mast in Stanford is managed by subsidiary of Telkom, Gyro Group who has confirmed that the tower is open for co-location. Previous approved building plans indicate that the tower was approved by the Stanford Municipality. Further, it is noted that in the applicant's motivation the existing mast is not indicated nor was it considered when motivating the desirability of the proposed location.

- **Only two (2) construction options are proposed (mono pole or tree mast), no alternative sites are mentioned which should have been investigated in order to determine the preferred site. This is a shortcoming of the application.**

#### **Applicant's comment**

Telecom developers have a site selection methodology which takes into account numerous factors in order to locate the best practical site; however, compliance with NEMA is adhered to as design alternatives were investigated.

#### **Town Planner's comment**

No additional information was provided by the applicant to show where the alternative sites are which were considered by the developers. The other sites which were considered might have a lessor visual impact.

- **No reason is provided why the tower with its industrial connection could not have been located in the Stanford Industrial Area which has more appropriate zoning and which is more centrally located to serve the wider community.**

#### **Applicant's comment**

Please note that the existing mast on which MTN and Vodacom is currently situated are currently 1,8km south of the industrial area. The Overberg Agri site is located north of the existing mast and will accordingly provide coverage to a different area.

### Town Planner's comment

The applicant provided limited data for the location of the proposed tower. It seems more to be a case of a willing tenant versus the impact of the tower on the character of the town. And as stated earlier the existing mast is available for co-location

- **VIA report is misdirected in that it provides unnecessary or meaningless information, such as the geology of the region, real issues such as urban design and town scape, particularly within 500m to 1km distance, with a recognised Scenic Route (R43), residential areas and rural vineyards all in close proximity. Visual aspects from 5km away would tend to have less of a veering on visual impact in this particular case.**

### Applicant's comment

The VIA was prepared in accordance with Government Regulation 326 of 7 April 2017 and the Western Cape Guidelines for including Visual and Aesthetic Specialists in the EIA Process. Information such as Geology, Climate and Vegetation must be included in the report. Clear mention is made in the VIA that the mast will be highly visible within the Short Distance Zone as well as from the R43 and R326 and residence in the area. The tree mast looks like the surrounding trees. The proposed development will not stand out as there are trees scattered in the landscape. A great example will be the mast situated next to the R43 near Hermanus Lagoon.

### Town Planner's comment

The proposed mitigation measure, i.e. to disguise the mast as a tree, is not a site specific mitigation measure. The proposed tree mast will stand out as a single monolithic tree (mast) which does not blend with its surroundings, especially when observing it from the R43 and the R326, as seen in the photos below the area where the tree mast is proposed is void from tall trees. As stated previously the proposed approach would have been better suited in an area where there is dense tree growth. Further, the R43 and the R326 is considered scenic drives/links and therefore the over cluttering the skyline should therefore be avoided. The applicant's motivation and the VIA does not adequately address this constraint.





- **Viewpoints as indicated in the VIA report is random and unnecessarily far away from the proposed mast. Critical viewpoints such as from residential areas, entrance of the village, village green have not been included. Consultation with local heritage/conservation bodies could have informed the location of the viewpoints.**

#### **Applicant's comment**

Viewpoints were selected based on a digital elevation model which illustrated where the mast will have the most impact. The aim of the photos is to aid the assessment of visual absorption and to inform the community. Should the SHC feel that the points be investigated then it will be done by the specialist.

#### **Town Planner's comment**

How the viewpoints where determined, is noted.

- **SHC does not agree with the visual impact significance ratings contained in the report as the specialist has either not understood the main visual and heritage issues of the study area or has underplayed their significance in terms of impacts.**

#### **Applicant's comment**

Mythology used is outlined in Tables 6 and 7. The specialist remained objective and is aware of the Heritage and Visual Issues and can defend each rating. The specialist is willing to communicate with SHC.

#### **Town Planner's comment**

The conclusion of the VIA is a bit contradictory, the first sentence states that visual impact in the Short Distance Zone will be high. However, in the second sentence it is stated that the visual impact from the Short to Long Distance Zone will be low. It is noted that a moderate rating is provided within 1km radius. However, on page 23 of the VIA it is stated that the impact is very high. The moderate rating in the Short Zone is not agreed with due to the proposed site not having any tall or large vegetation. All dwellings facing the R43 and commuters making use of the R43 and the R326 will have full view of the mast in the short

distance. From within the Stanford village itself the mast will be have some impact from specific locations where buildings and natural plant growth does not obscure a person's view.

- **Visual mitigation measures contained in the VIA are trivial as it would be difficult to visually mitigate the proposed tower. Dressing up the mast as a tree which is unlike any other in the area is questioned. Most of the mitigation measures deal with the construction site which will have a small or limited time impact.**

#### **Applicant's comment**

A tree mast is the best mitigation, a Monopole-, lattice pole, and water tower mast would have a greater visual impact than a mast camouflaged as a tree. The tree mast used in the report is a visual impression and subject to change. Although the construction period is considered short, if not mitigated, it can become irritating

#### **Town Planner's comment**

Nowhere in the motivation is it stated that the proposed tree mast used in the report is a visual impression and subject to change. The statement that the tree mast is the best mitigation option is not agreed with, a limited selection of masts (designs) were proposed which are widely found and used. Given the character and site selection a unique approach should have been used. As stated previously: *to disguise the mast as a tree is not a site specific mitigation measure, the proposed tree mast will stand out as a single monolithic tree (mast) which does not blend with its surroundings.*

- **No plans or details of the proposed tower and related containers were provided with the documentation – Annexure A was missing from the report, therefore I&AP have no indication of what these would look like at close range.**

#### **Applicant's comment**

Plans were included in the Motivation Report and available for viewing at the Overstrand Municipality. The VIA includes photographs of what the structure will possibly look like once constructed.

#### **Town Planner's comment**

The SHC knows that if the committee requires any additional information they can obtain it from the Town Planning Department. However, from what is on record all the required documentation including the plans, motivation and the VIA was included with the notice.

- **SHC believe that the documentation of the application is incomplete, has not considered alternative sites, and has not included public participation; therefore the application is not supported. It is also recommended that the application be resubmitted to HWC with the findings of the SHC.**

**Applicant's comment**

In conclusion we would like to emphasise the positive contribution the base station will have on the community:

- Mobile connection is essential for numerous businesses and something that successful business men and women cannot live without. Hence the need for mobile communication network coverage in this area.
- A vast majority of the households depend on the services of the cellular telecommunication providers, including internet and social networking media. With such a high demand for their products, it follows that service providers are responsible for supplying a high level of network coverage.
- Mobile communication is important for safety and security in modern society, if the service coverage is poor then contacting emergency services is a difficult task.

**Town Planner's comment**

It is clear from the conclusion reached by the SHC that the committee is not in support of the proposed application. The applicant aimed to address the comments made. The comment and responses thereto will be considered in the desirability of the application.

**8. SUMMARY OF APPLICANT'S REPLY TO COMMENTS**

See Point 7 above.

**9. MUNICIPAL ASSESSMENT OF COMMENTS**

Please refer to previous section. It is noted that Municipal and Government Departments were positive regarding the proposed application.

**10. MUNICIPAL PLANNING EVALUATION (REFER TO RELEVANT CONSIDERATIONS GUIDELINE)****10.1 Background**

N/A

**10.2 (In)consistency with the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013)**

The application is in line with the planning objectives applicable to this application.

The objectives relating to:

Spatial Justice

The application will not further perpetuate spatial injustices. It will be aimed to provide an equal opportunity to communication services for tourists visiting the area and the village's inhabitants.

Spatial sustainability

The subject property is located within the urban edge, thus no urban sprawl will occur. The applicant states that the proposal will be a benefit to the sustainability of the following three (3) facets, namely: economic, social and environmental. No natural habitat is impacted upon and it will thus have no negative influence on the environment.

Efficiency

The applicant motivates that the proposed telecommunication infrastructure will be situated optimally in the area in terms of the existing town and its planned expansion.

Spatial resilience

The application will ensure that the existing resource (land) is used to its maximum in an affordable manner and it is in line with the Overstrand Municipality's forward planning documents.

Good administration

The application followed the required planning procedures and a good public participation process has been followed.

**10.3 (In)consistency with the principles referred to in Chapter VI of the Land Use Planning Act, 2014 (Act 3 of 2014)**

Same as Point 10.2 above.

**10.4 (In)consistency with the IDP/Various levels of SDF's/Applicable Policies**

The applicant motivated that the proposal aligns itself with the IDP due to Telecommunication Infrastructure being a benefit to tourism in the area and in turn also to the poor people in the area. Further a network of Telecommunication Infrastructure can aid disaster management co-ordination.

Although a VIA was submitted, the mitigation measures described, does not adequately address the impact of the proposed mast on the scenic links as contained in the SDF and Growth Management Strategy.

**10.5 (In)consistency with guidelines prepared by the Provincial Minister**

N/A

**10.6 Impact on Municipal engineering services**

The existing services are available and have been viewed positively by the Engineering Department.

**10.7 Outcomes of investigations/applications i.t.o other legislation**

N/A

**10.8 Existing and proposed zoning comparisons and considerations**

The Overstrand Zoning Scheme Regulations provide for telecommunication installations as a consent use on the subject property, subject to compliance

with the applicable development parameters. The proposed transmission tower will exceed the prescribed 10,5m height restriction with 14,5m which is regarded as a considerable encroachment of the height restriction.

#### **10.9 Additional Planning Motivation for Removal of Restrictive Condition**

N/A

### **11. THE DESIRABILITY OF THE PROPOSAL**

Firstly, two (2) errors are found in the motivation which needs to be corrected. In the first draft of the motivation the applicant motivated for a 35m tall telecommunication mast, however after the initial submission of the application it was requested that the applicant provide additional information. Thereafter an updated copy was submitted and the proposed height changed from 35m to 25m. It is evident that the applicant did not change all the wording correctly as the motivation on page 22 and the VIA still refers to the 35m height. The aforementioned being stated, in the introduction of the application it is stated that the height restriction applied for is 25m. Secondly on page 25 the applicant in error refers to City of Cape Town and not the Overstrand Municipality.

Under Section 7 of this report the objection and the comments thereon were considered and discussed. From the objection it is evident that SHC is not in support of the application. The applicant aimed to address the issues raised, but however, the opinion is held most of the comments could not be adequately addressed.

From a town planning point of view the following is noted from the comments and responses received thereto:

- The VIA makes reference to the fact that Stanford Village is a Heritage Area however, the VIA only provides a limited amount of mitigation measures in order to limit the impact of the proposed mast on the character of the town i.e. disguising the mast as tree. The opinion is held that the proposal of a tree mast on a site/property with no trees on it is a misguided mitigation measure and not site specific. The proposed tree mast would have worked in an area with dense foliage and trees, such as the Hermanus Golf Course, but in this case the subject property does not lend itself to the proposed mitigation measure. Further, the R43 and the R326 is considered scenic drives/links and therefore over cluttering the skyline should be avoided. The applicant's motivation and the VIA does not adequately address this constraint.
- There is an existing telecommunication mast in Stanford which is managed by subsidiary of Telkom who has confirmed in writing that the tower is open for co-location. The applicant's motivation did not discuss or consider the existing mast in the need and desirability of the proposal.
- No additional information was provided by the applicant to show where the alternative sites are which were considered by the developers. The other sites which were considered might have a lessor visual impact than the current site.
- The applicant provided limited data or concrete data (area specific statistics) in terms of the reasons for the location of the proposed tower for the service providers. It seems more to be a case of a willing tenant was found for the placement of the proposed mast. Without additional information or area specific statistics the true rational behind the proposed location of the mast cannot be adequately assessed.

- The conclusion of the VIA is contradictory, the first sentence states that visual impact in the Short Distance Zone will be high. However, in the second sentence it is stated that the visual impact from the Short to Long Distance Zone will be low. It is noted that a moderate rating is provided within a 1km radius (with mitigation measures in place). However, in the figure on page 23 of the VIA it is stated that the impact is very high. Therefore the moderate rating in the Short Zone is not agreed with due to the proposed site not having any tall or large vegetation in order to aid the proposed mitigation measure. All dwellings facing the R43 and commuters making use of the R43 and the R326 will have full view of the mast in the short distance. From within the Stanford Village itself the mast will be somewhat obscured however, from specific locations the mast will be visible where buildings and natural plant growth does not obscure a person's view.

Considering the aforementioned points the opinion is held that the subject property is situated in an area where site specific mitigation measures must be implemented in order to lessen the visual impact on the commuters and Stanford Village. Further, the fact that there is an existing mast in Stanford, which is approved by the Municipality, void the applicant's whole motivation to procure an additional site closer to the north of Stanford. It stands to reason it will be better for Stanford that the existing mast is upgraded as it has an established visual impact, opposed to developing a new mast which will further clutter the skyline

Further to the above-mentioned points; the applicant's motivation for the proposed installation states that there is a high demand for the telecommunication service. No concrete data or evidence is provided to substantiate this claim. It is also noted that the applicant's motivation states on page 16 that the dropped calls and lack of coverage is in other suburbs and towns surrounding Stanford i.e. Onrus, Hermanus, Gansbaai, Franskraal and Van Dyksbaai. The rationale for using factors which influence coverage in other towns to motivate desirability for is not understood and flawed. The current need for Stanford should have been at the forefront of the application. Further, when perusing the same coverage maps, as provided with the application, on the various carriers' websites a different picture is shown indicating that there is 4G/LTE coverage for Stanford. Considering the abovementioned the applicant failed to demonstrate the need for the location of the proposed telecommunication apparatus.

Given the aforementioned the opinion is held that the proposed location of the transmission apparatus is not desirable for Stanford. Further, should the proposed application for the transmission apparatus not be approved then it stands to reason that the proposed for the boundary wall height from 2,1m to 2,4m will also not be supported as it aims to secure the site for the transmission apparatus.

## 12. RECOMMENDATION

1. that the objections be noted;
2. that the applications submitted by Messrs Warren Petterson Planning Town- and Regional Planning Consultants on behalf of Overberg Agri Bedrywe (Pty) Ltd applicable to Erf 523, Stanford for the following:
  - application in terms of Section 16(2)(o) for a consent use in order to erect a transmission tower on the above property;

- application in terms of Section 16(2)(b) for a departure to exceed the applicable 10,5m height restriction in order to accommodate the proposed 25m high transmission tower, and
- application in terms of Section 16(2)(b) for a departure in order to for a departure in order to encroach the height restriction applicable to boundary enclosures from 2,1m to 2,4m to erect a palisade fence,

**not be approved** in terms of the provisions of Section 61 of the By-Law, and

3. that the applicant and objectors be notified of their right of appeal in terms of Section 78 of the Overstrand Municipality By-Law on Municipal Land Use Planning, 2015 with regard to the above decision.

### 13. REASONS FOR RECOMMENDATION

- ❖ The applicant failed to provide substantive evidence (area specific statistics) pertaining to the need of the proposed telecommunication apparatus.
- ❖ The applicant failed to consider the existing telecommunication tower which is situated in Stanford and the fact that it is open for co-location.
- ❖ The VIA makes reference to the fact that Stanford Village is a Heritage Area. However, the VIA provides an ineffective mitigation measure to limit the visual impact of the proposed mast on the character of the town i.e. disguising the mast as tree. The proposal of a tree mast on a site/property with no trees on it is not site specific mitigation measure. The proposal of a tree mast on a site/property with no trees on it is a misguided mitigation measure and not site specific. The proposed tree mast would have worked in an area with dense foliage and trees, such as the Hermanus Golf Course, but in this case the subject property does not lend itself to the proposed mitigation measure.
- ❖ The R43 and R326 are identified as scenic links in the Overstrand Spatial Development Framework, 2006 and the Growth Management Strategy, 2010. The R43 and R326 joins Stanford to other tourist destinations, on which residents and tourist travel each day and the proposed 25m high telecommunication tower disguised as a tree will have a visual impact on this routes. Therefore the over cluttering the skyline should therefore be avoided.

### 14. Annexures

Annexure A:	Locality Plan
Annexure B:	Motivation Report and Visual Impact Assessment
Annexure C:	Site Development Plan
Annexure D:	Objections
Annexure E:	Comment on objections
Annexure F:	Comment: Department of Environmental Affairs and Development Planning (Region 2)
Annexure G:	Comment: Department of Transport and Public Works
Annexure H:	Engineering Services
Annexure I:	Comment: Department of Environmental Affairs and Development Planning (Region 1)
Annexure J:	Comment: Telkom
Annexure K:	Email from Gyro Group – Regarding the Telkom mast

**AUTHOR**

Name :

**P ROUX**

SACPLAN Reg No:

**A/2246/2015**

Signature :

\_\_\_\_\_

Date:

\_\_\_\_\_

**REGISTERED PLANNER**

Name :

**S VAN DER MERWE**

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\_\_\_\_\_

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## LIST OF DEFINITIONS AND ABBREVIATIONS

This section represents the definitions and abbreviations that will be found in this application.

### DEFINITIONS:

**Please note:** For the purpose of this application and its associated descriptions and motivation, and unless it appears otherwise in the text, the terms used herein are as follows:

Table 1 - Definitions

<b>PROPERTY:</b>	Erf 523 Stanford
<b>CLIENT:</b>	Atlas Tower
<b>APPLICANT:</b>	Warren Petterson Planning
<b>OWNER:</b>	Overberg Agri Bedrywe Pty Ltd
<b>CONSENT USE</b>	means a land use permitted in terms of a particular zoning with the approval of the Municipality
<b>DEPARTURE</b>	means a permanent departure or a temporary departure
<b>SURVEYOR-GENERAL</b>	means the Surveyor-General as defined in the Land Survey Act

### ABBREVIATIONS:

**Please note:** For the purpose of this application and its associated descriptions and motivation, and unless it appears otherwise in the text, the terms used herein are as follows:

Table 2 - Abbreviations

<b>SPLUMA</b>	Spatial Planning and Land Use Management Act, 2013
<b>RBTS</b>	Rooftop Base Telecommunication Station
<b>FSBTS</b>	Freestanding Base Telecommunication Station
<b>TI</b>	Telecommunication Infrastructure
<b>TOA</b>	Top of Antenna
<b>SG-DIAGRAM</b>	Surveyor-General Diagram
<b>OMSDF</b>	Overstrand Municipal Spatial Development Framework, 2006
<b>OMIZS</b>	Overstrand Municipality Integrated Zoning Scheme, 2013
<b>IDP</b>	Integrated Development Plan, 2014

## SECTION A: BACKGROUND

### A.1. THE APPLICATION

Application is hereby made for the following:

- ✓ **Consent Use in terms of the zoning scheme** in terms of section 16(2)(a) of the Overstrand Municipality By-law on Municipal Land Use Planning, 2015 for the purpose of erecting a 25m FSBS.
- ✓ **Permanent Departure** in terms of section 16(2)(b) of the Overstrand Municipality By-law on Municipal Land Use Planning, 2015 for the purpose of the relaxation of the height restriction from 10.5m to 25.0m, as well as for the height restriction of the proposed pallsade fence from 2.1m to 2.4m, in order to allow for this mentioned consent.

### A.2. DETAILS OF THE DEVELOPMENT AREA

Table 3 - Details of the Development Area

<b>TITLE DEED DESCRIPTION</b>	ERF 523 STANFORD (A PORTION OF ERF 294), IN THE OVERSTRAND MUNICIPALITY, CALEDON DIVISION, PROVINCE OF THE WESTERN CAPE
<b>TITLE DEED NUMBER</b>	T43375/1981
<b>PROPERTY SIZE (m<sup>2</sup>)</b>	2.0325 hectares
<b>CURRENT ZONING (per OMIZS, 2013)</b>	Business Zone 2: General Business
<b>OWNER OF PROPERTY</b>	Overberg Agri Bedrywe Pty Ltd

## SECTION B: CONTEXTUAL INFORMANTS

The following section includes information relating to the locality, current land use, zoning and surrounding area.

### B.1. LOCALITY

The property within the Municipality of Overstrand is located along the R326.



Figure 1 - Location of the property along the R326

### B.2. CURRENT LAND USE AND ZONING

Table 4 - Current land use and zoning

<b>CURRENT LAND USE</b>	The property is being used for as a service station and agrimark
<b>ZONING</b>	Business Zone 2: General Business

The property in question with the zoning of 'Business Zone 2: General Business' has the following primary rights and rights by means of a consent use application:

### 7.1 BUSINESS ZONE 1 & 2: GENERAL BUSINESS (B1 and B2)

#### Use of the property

7.1.1 The following use restrictions apply to property in this zone:

- (a) **Primary uses** are: business premises, conference facility, flats (above ground floor), guest house, hotel, place of assembly, place of instruction, rooftop base station;
- (b) **Consent uses** are: adult entertainment business, bottle store, crematorium, dwelling unit, flats (on ground floor), funeral parlour, informal trading, institution, motor repair garage, place of entertainment, recreational facilities, residential building, second dwelling unit, service station, transmission tower, transport use, utility services, warehouse.

*Figure 2 - Extract of General Business 2*

### B.3. SURROUNDING AREA

The subject property is located in Stanford.

The R43 to the west and the R326 to the south serve as the main distributors. The R43 runs from Botrivier in a southern direction and connects to Fisherhaven, Hawston, Vermont, Onrus River, Hermanus, Stanford, Gansbaai, Franskraal and Pearly Beach, and eventually connects to the R319 close to Bredasdorp. The R326 connects to the N2 in close proximity to Riviersonderend.

The surrounding land uses in the area are predominantly utilised for agriculture purposes to the east and south, as well as business and residential purposes to the west. The properties in the nearby surrounding are also being utilised for other activities such as restaurants, wine farms and accommodation. The property directly west on the opposite side of the R43 is also utilised as a service station.



*Figure 3 - Service station on the opposite side of the R43*

## SECTION C: DEVELOPMENT PROPOSAL

### C.1. APPLICATION SPECIFICATIONS

The client (Atlas Tower) wishes to apply for consent and a permanent departure (relaxation of height restriction) in order to erect a FSBTS.

#### C.1.1 Development Concept

The application comprises the following proposed development parameters:

- ✓ A 25m tree type mast,
- ✓ 3 x 3-sector antennas attached to the mast,
- ✓ Microwave dishes attached to the mast,
- ✓ 3 x Equipment containers, and
- ✓ A 2.4m high palisade fence.

The total ground coverage of the FSBTS 64m<sup>2</sup>.

#### C.1.2 Height Restriction Relaxation

In terms of the property's zoning of 'Business Zone 2', a maximum height above base level of 10.5m to top of roof (please read together with the OMIZS, 2013:68). The FSBTS is proposed at a height of 25m.

(d) Height

- (i) The maximum height of a building measured from the base level to the top of the roof is determined in accordance with the bulk zone as specified in the table below:

Bulk Zone	Height	Storeys
Bulk Zone 1 (B1)	14,0 m	4
Bulk Zone 2 (B2)	10,5 m	3

- (ii) Earth banks and retaining structures shall comply with 16.6.

Figure 4 - Height restrictions (OMIZS, 2013:68)

The FSBTS is exceeding the current maximum height above base level with 14.5m. However, this will not obstruct the existing utility services, landscaping etc.

The mast will not intrude on the privacy rights of any of the surrounding property owners. No security camera will be placed on the mast which can overlook onto any other properties.

A height departure will also be required for the 2.4m palisade fence. The allowed height is 2.1m in terms of the zoning scheme, but the fences are produced at a standard height of 2.4m.

## C.2. ACCESS

Access to the proposed FSBS will be obtained via the existing access point to the property located along the R326.



Figure 5 - Access to site

## C.3. SECURITY

The entire base station site will be surrounded by a 2.4m tall Palisade fence with an access gate that will be locked at all times. The proposed equipment will be secure inside the equipment units that will be kept locked at all times. The antennas will be secure given their position at the top of the mast.

These measures rule out the possibility of any public access to the equipment and serve to protect the equipment from being vandalized. Similar security measures are implemented at similar installations and have proved to be very effective.

## C.4. POWER

Power for the FSBS will be obtained from the available on-site electrical supply to the property. Advances in technology (telecommunication related equipment) enable the FSBS to utilise less electricity.



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## C.5. ENVIRONMENTAL REGULATIONS

Environmental and social sustainability are regulated by The National Environmental Management Act (Act 107 OF 1998) (NEMA) - published in Government Notice No. R324. When read together with the National Environmental Management Act Regulations Listing Notice 3 of 2017 (promulgated 08 December 2014), an Environmental Impact Assessment (EIA) or Environmental Authorization (EA) is only applicable in the following circumstances:

Listing Notice 3, Activity 3: The development of masts or towers of any material or type used for telecommunication broadcasting or radio transmission purposes where the mast or tower;

- (a) is to be placed on a site not previously used for this purpose; and
- (b) will exceed 15 metres in height,

but excluding attachments to existing buildings and masts on rooftops.

In the Western Cape

- I. All areas outside urban areas; or
- II. Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority, or zoned for a conservation purpose, within urban areas, or
- III. Areas zoned for use as public open space or equivalent zoning within urban areas.

An application has been submitted to the Department of Environmental Affairs and Land Use Planning to determine the applicability of NEMA. On 9 October 2018 a letter was received from DEADP, stating that the proposed development does not trigger any listed activities in terms of NEMA.

## SECTION D: POLICY AND LEGISLATION

### D.1. SPATIAL PLANNING AND LAND USE MANAGEMENT ACT, 2013

This application complies with the land development principles (Chapter 2, SPLUMA, 2013) as referred to in section 42 of the *Spatial Planning Land Use Management Act, 2013* (Act 16 of 2013) (SPLUMA):

Table 5 - Compliance of application with Principles 7a-7e of SPLUMA, 2013

	HOW DOES THIS APPLICATION COMPLY WITH THIS PRINCIPLE?
<b><i>Principle 7a: Spatial Justice</i></b>	In a broader sense, spatial justice refers to an intentional incorporation of spatial (geographical) aspects. This refer to the fair and equally distributed services and enhanced accessibility of these services. The aim of this proposal is to provide excellent communication service to tourists visiting the area and the inhabitants of the area.



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<p><b>Principle 7b:</b> <i>Spatial Sustainability</i></p>	<p>Spatial sustainability is an explicit concept which describe the relations between environmental, economic and socio-cultural facets related to a societal environment. Enhanced signal in an area will promote all three the dimensions of sustainability (economic, social and environmental facets). Economically, businesses in the area will benefit from enhanced connectivity. The social facet is addressed as more people will have access to emergency services (e.g. Healthcare, Police, Fire response etc.). The third dimension (Environmental facets) will be promoted as the sensible placement of telecommunication base stations and the possibility of co-location will limit the amount of base stations should there be sufficient signal in an area.</p>
<p><b>Principle 7c:</b> <i>Spatial Efficiency</i></p>	<p>Spatial efficiency relates to the concept of minimum distance to be travelled between a specific location and intended destination. The proposed FSTBS is placed in the area (optimally situated between planned and existing stations) with a reason. This reason is to incorporate various factors (e.g. amount of users, quality of service etc.) when considering the placement in order to promote effectiveness and is not merely placed by random.</p>
<p><b>Principle 7d:</b> <i>Spatial Resilience</i></p>	<p>Spatial resilience can be defined as the ability of a region to withstand possible arising shocks (e.g. economic crisis, social disruptions etc.). However, the FSTBS will be a service that will always be necessary. In a state of crisis, communication plays an integral role in a societal environment.</p>
<p><b>Principle 7e:</b> <i>Good administration</i></p>	<p>This installation will be lawful and reasonable, following an equal and fair public participation process in order to incorporate the views and opinions of all relevant parties.</p>

## D.2. INTEGRATED DEVELOPMENT PLAN, 2014

The IDP (2014) refers to the enhancement of TI in order to provide the Overstrand Municipal area with enhanced communicative technologies especially with regard to fibre-optic communication connectivity required for a pro-poor Tourism as stipulated on page 90 (IDP, 2014.)

The International Centre for Responsible Tourism advocates "Pro-poor Tourism" – an approach towards tourism which ensures that "local poor people are able to secure economic benefits from tourism in a fair and sustainable manner Robson, S and Highton, S, 2004). Pro-poor tourism can benefit local poor people in three ways: It can bring economic gain through employment and micro-enterprise development; infrastructure such as roads, water and electricity supply, telecommunications and waste management can be improved; and poor people can be engaged in decision-making.

Figure 6 - Extract: Page 90 of the OMIDP, 2014

Furthermore, improved TI will contribute to the better coordination of Disaster Management as it will allow emergency service to be contacted and connected to any area in distress when needed – as stipulated on page 230 of the OMIDP, 2014.



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This application is in line with this vision of the Overstrand Municipality as the TI installed on the said property will provide these sought-after services (e.g. Pro-poor Tourism and Disaster Management).

**12.2.3 DISASTER MANAGEMENT COORDINATOR:**

- a. Establish and maintain required telecommunications links
- b. Identify available resources for disaster management purposes.
- c. Establish and maintain a resources database.
- d. Ensure effective media liaison.
- e. Coordinate all communication to and from incident.
- f. Compilation of pro-active departmental disaster management programmes to support risk reduction or elimination.
- g. Rendering support and advice throughout all phases of disaster management planning activities.
- h. Disaster Management Plan forms an integral part of the IDP.

*Figure 7 - Extract: Page 230 of the OMDP, 2014*

## SECTION E: MOTIVATION

This section is seen as the motivation of the application as it provides information with regard to the need and desirability, development parameters, site characteristics, visual impact, health and safety and alternative candidates relating to this specific application.

### E.1. BACKGROUND

Over recent years' cellular communication in South Africa has evolved from merely a means of convenience to an essential business tool, means of communication and safety measure. Initial high tariff rates limited the accessibility of the product and its service. However, over time more reasonable consumer tariffs and packages have been introduced, making cellular communications more accessible to a much larger sector of the population.

Data usage on the mobile networks is also becoming faster, more affordable, and more accessible. User behaviour patterns are continuously changing in reaction to cheap internet, new data intensive smartphones, data intensive applications and websites, and an increasingly social-media-driven society. These factors resulted in the average consumer data usage doubling every year.

Cellular service providers are taking steps to improve their network by keeping abreast with the advances in communication technology and providing increased capacity in terms of coverage in the areas where there is an increased demand. MTN, Vodacom and Cell C strives to make this technology available to a wider spectrum of the population.

Newer technology such as LTE provides faster internet to more users which alleviates the pressure on the base station, however its range is very limited. A single old generation GSM voice based base station could cover dozens of kilometres. The new LTE base stations have a maximum coverage range of 500m depending on the number of users.

#### UHF Bands used by SA Mobile Carriers

- 900Mhz (GSM, UMTS-3G, 3.5G)
- 1800Mhz (GSM, LTE)
- 2100Mhz (UMTS-3G, 3.5G)
- 2300Mhz (LTE –Telkom only)

*Figure 8 - Frequencies used for different services*

The congestion of existing sites together with the decrease in its coverage range necessitates that the distance between base stations decreases, resulting in the need for construction of new freestanding and rooftop cellular base stations.

## Frequency

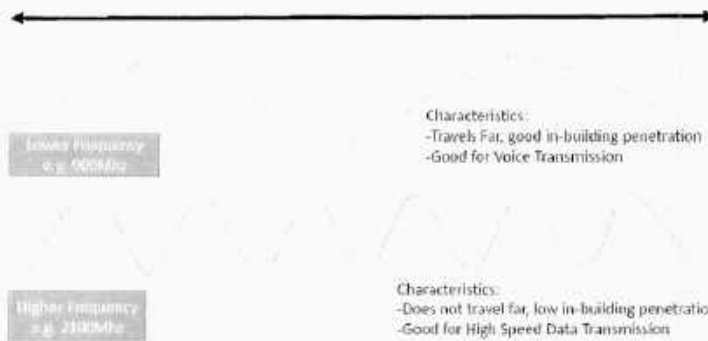


Figure 9 - Different frequencies impact on the coverage range of base station

It is estimated that cellular network operators in South Africa will build more than 4000 new base stations over the next 5 years.

The proposed site is located at a nominal point as identified by network planners. By utilizing sites located at the networks' nominal points the number of future base stations is limited and an effective service network can be developed.

### E.2. ATLAS TOWER MOTIVATION

Atlas Tower (Pty) Ltd is a company operating as an independent telecommunication infrastructure owner in South Africa. Atlas Tower's business model is to assess the location and placement of all existing telecommunication infrastructure, identify where additional infrastructure is required and supply the required infrastructure as the need arise to the various telecommunication service providers (MTN, Vodacom, Cell C and Telkom Mobile). We build and invest in vertical and rooftop-based telecommunication infrastructure. Atlas Tower's growing portfolio is currently at approx. 550 towers and counting. Atlas Tower's portfolio has been built up over the past 4 years, where 90% of our assets are built by us and the balance is obtained through M&A's.

Within the Republic of South Africa, Atlas Tower has constructed 550 cellular towers to date and we have 32 which are currently in construction. The lease up ratio (number of tenants per cellular tower) currently sits at 1.98 with an average cellular tower age of 12months.

We believe this lease up ration is a testament to Atlas Tower's ability to cater to all mobile network operators and internet service provider (ISP's) needs. The MNOs need the best networks, at record speeds to compete for subscribers. We understand this need and run a little faster building infrastructure quickly.



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The process which the application site has followed can be divided into 4 milestones:

**Milestone 1:** Identify a candidate site (zoning, available space, requirements of MNO's, RF requirements, elevation, competing structures, power source etc.)

**Milestone 2:** Put site into negotiation (negotiation with said land owners regarding commercial terms etc.)

**Milestone 3:** Secure site via signed lease agreement

**Milestone 4:** Commence with permitting

Only after milestone 3 can the location be placed on a marketing list to all our clients. To date Atlas Tower has not entered into an agreement with any client to utilize our proposed cellular tower. The reason for this is we cannot confirm the exact date the site will be RFO (ready for occupation). For the most part our clients do not enter into agreement with Atlas Tower without some sort of proof land use or building plan approval has been granted. For now, we are forecasting the site to our clients and once we have any sort of formalized approval the drawing up of contracts can commence.

Within the Overstrand Municipality we have not constructed a single cellular tower. In relation to our overall number within the Western Cape it is clear that we have not been successful within the said Municipality, but this also confirms our competitors and clients have also not been successful either. We are confident this investment will gain the sort of returns our investors are expecting. Simply put if you build a site in the Overstrand Municipality you are albeit guaranteed of a solid lease up ration and tremendous returns on your initial investment.

### E.3. DEVELOPMENT MOTIVATION

Please read together with previous sections in this application. This consent use and height restriction relaxation in order to allow for the erection of a FSBS should be supported based on the following grounds:

#### E.3.1. Need and Desirability

In a modern-day society, the dependency on communicative technology becomes increasingly higher. This is due to the society's utilisation of more mobile devices and more than one device per household which mainly relies on internet connectivity (e.g. smartphones, portable computers, tablets/ipads etc.). These devices are used for multiple purposes including socialisation, business related uses and accessibility to important emergency services.

Due to factors including densification, urbanisation and influx of seasonal guests especially over festive seasons and holidays, in tourist attractive places like the Onrus, Hermanus, Gansbaai, Franskraal, Birkenhead and Van Dyksbaai, dropped calls and poor network coverage (related to both voice and data) are experienced. Stanford is a central point connecting to all of these holiday areas and should therefore provide tourists, as well as the inhabitants, with excellent cellular coverage.

Telkom Mobile has indicated to Atlas Tower that they are looking for an option for co-location in Stanford. The other service providers should follow soon.



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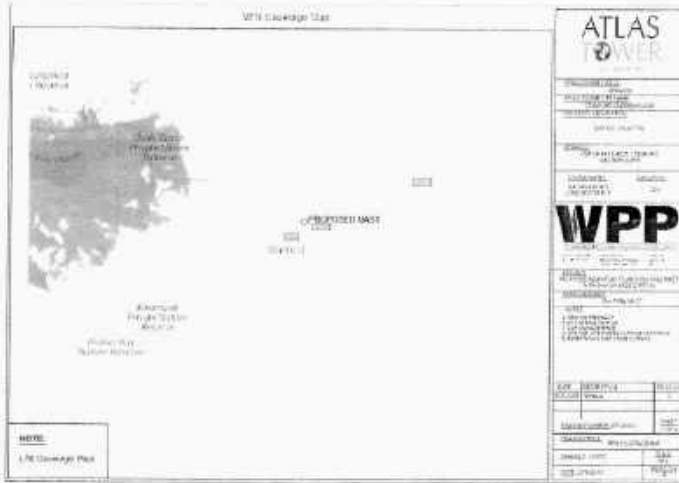


Figure 10 - MTN service coverage for the area of Stanford



Figure 11 - Cell C coverage for the area of Stanford



### E.3.2. Site selection methodology

The current roll out of telecommunication infrastructure by cellular network providers is undertaken to upgrade and improve network coverage and quality to all customers. Telecommunication networks experience peak demand in the evenings between 18:00 and 23:00. This is because during these times people are at their homes and use internet intensive devices. Thus, a large portion of the network upgrade is aimed at residential areas. Business and other activity areas have been prioritised over the past 20 years, for commercial reasons and given the fact that legislation and policies steered proposals of this nature, towards non-residential areas. Due to the tourism value of the said area, upgrading the coverage of LTE, 4G technology and accessibility to Fibre will be beneficial for Stanford within the Greater Overstrand area. This area includes tourist and economic attractions which include wineries, estates and route towards tourist destinations along the coast. Telecommunication networks experience peak demand in the holidays and festive seasons. Thus, a large portion of the network upgrade is aimed at areas with tourism and economic potential.

When choosing a site for a telecommunication base station, service providers are guided by nominal points indicating the areas where poor signal is being experienced.

#### E.3.2.1. Choice of site

These points are selected because of an increase of customer complaints, within an area. As an increase in the number of users occurs, the area which is covered by the existing network decreases, leading to poorer network coverage. Figures 14-16 strive to explain how the need for an increase in cellular infrastructure evolves in a typical urban area.

*Cellular infrastructure explained (example):*

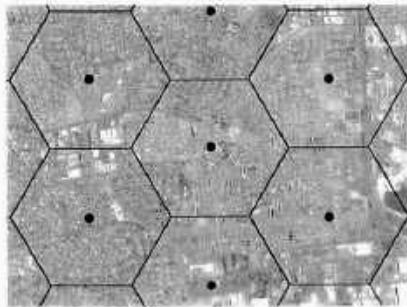


Figure 13 - Initial coverage (cell) provided by Telecommunication Base Stations

Figure 14 is an illustration of optimum network and data coverage. This is explained by envisioning the octagonal shape of a honeycomb (cells).

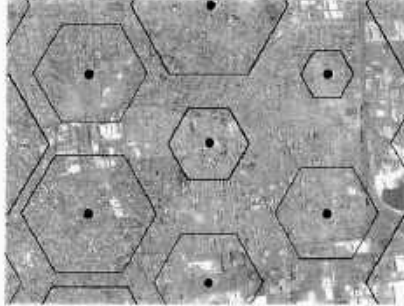


Figure 14 - Coverage decreases due to increases in network users - cell size decreases

*As network users increase, the cells shrink which leads to gaps within this network of cells. This leads to dropped calls, weak/limited signal and the failure to access the latest technologies in communication innovations.*

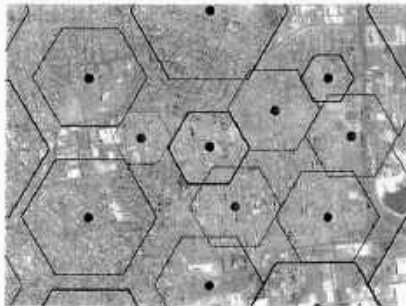


Figure 15 - Additional telecommunication base stations required to fill the gaps

*Gaps between cells require new/additional telecommunication base stations to be placed in these gaps to retain good network coverage*

Locations for telecommunication infrastructure are primarily chosen within areas where a need exists for coverage (refer to Figure 15). If a need for coverage does not exist in a specific area, no company would invest capital to build a telecommunication base station in the said area. The fact that there are only a few telecommunication base stations in the surrounding area supports the statement that there is a clear need for coverage in the area.

The need for coverage is however not the only determining factor when identifying a possible position for a telecommunication base station. Other determining factors include altitude, zoning and the visual impact of the proposed base station.—Distance away from existing base stations in the surrounding area is also an influencing factor.



- The proposal is secure due to its locality, and
- Most importantly it will serve the complaint area (the area with the lowest levels of cellular reception due to locality and high volumes of users) optimally.

It is important to note that the nature of such development is dependent on a "willing landlord" scenario. The theoretically best position is determined by the radio engineers and the closest properties that adhere to the above guidelines are targeted. Often several properties are targeted before a willing landlord is discovered that terms can be agreed with.

#### E.3.4. Visual Impact

The proposed FSTBS will create an opportunity for other service providers to co-locate, as other structures of this height do not exist in this area.

The impact of the site, proposed at the height of 35m is designed as a camouflaged tree, thereby reducing the visual impact.

In addition, the proposed equipment can be colour coded to match the backdrop to further mitigate the visual impact and ultimately blend in with its surroundings.



Figure 17 - Superimposition of the proposed FSTBS.



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Illustrated in Figure 18 is a superimposition of the proposed FSTBS which indicates that the mast will neatly blend in with the surrounding environment.

#### E.3.5. Health concerns

Recent development shown the concerned among the public related to the health effect of RF radiation emitting from the Freestanding Base Telecommunication Station (FBTS). This is obvious from the frequent report in the newspaper and the electronics media concerning the complaint of residence nearby FBTSs. As results, the telecommunication company has faced many problems and protest from the public in the installation of new FBTS.

Along with popularity of mobile telephones and other devices, the increase in number of FBTSs installations in the country provide better coverage services to consumer have raised anxiety to the general public about whether it have an adverse effect on human health. They are generally perceived as hazardous because of the radiation they produced. Misconceptions are held by the general public in South Africa about the radiation (non-ionising radiation) of the electromagnetic waves used for telecommunications especially from FBTSs. This perception has often led to public opposition on the construction and existence of these facilities in many parts of the country. The general public often misunderstand the concept that non-ionizing radiation (produced by the FBTS) can cause cancer and other health related issues. Although both forms of energy are correctly called radiation, their biological effects are vastly different. Half-true or inaccurate information written in web sites, newspaper and circulated materials by some groups of people with vested interest has caused a lot of opposition by public on the development of telecommunication infrastructures.

Current research on telecommunications base stations has reached a point whereby scientists are satisfied that the base stations do not pose a health threat. Research on handsets is however ongoing, as it is deemed that placing the handset against your head could pose a greater threat to health. Mobile phones are low powered radiofrequency transmitters. They operate at frequencies between 450 and 2700 MHz. The handset only transmits power when turned on. Using the phone in areas of good reception decreases exposure as it allows the phone to transmit at reduced power.

In a statement made by the World Health Organisation (WHO) it is stated that effects from base stations and wireless networks are so low that the temperature increases are insignificant and do not affect human or animal health.

The WHO in 2004 said:

*"In the area of biological effects and medical applications of non-ionizing radiation approximately 25,000 articles have been published over the past 30 years. Despite the feeling of some people that more research needs to be done, scientific knowledge in this area is now more extensive than for most chemicals. Based on a recent in-depth review of the scientific literature, the WHO concluded that current evidence does not confirm the existence of any health consequences from exposure to low level electromagnetic fields." – World Health Organization (WHO) – website: <http://www.who.int/peh-emf/research/database/en/>*



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Radio waves are emitted by numerous instruments including microwave ovens and television screens inside our households. Walking along any street exposes us to RF emissions. RF emissions are part of modern day society and scientists continuously monitor the impacts of these.

ICNIRP (International Commission on Non-Ionizing Radiation Protection), an independent scientific organization established in 1992 published guidelines providing a means of limiting and guiding human exposure to electromagnetic fields. These guidelines have become the world standard for human exposure to electromagnetic fields. ICNIRP considers both the thermal and non-thermal effects of RF exposures as well as all other identified hazards of RF exposure. Cellular equipment needs to comply with all the regulations of ICNIRP as well as the WHO and also National Legislation governing the use of this equipment and the emissions of radio waves. Cellular companies monitor the health impact of their base stations carefully, and spend large sums of money researching this topic annually.

South Africa's Department of Health has also published EMF exposure limit guidelines. These are based on guidelines endorsed by the ICNIRP. Emissions from all existing and proposed base stations are in compliance with these guidelines and are far below international standards.

A statement made by the Department of Health dated 23 June 2015 on the Health Effects of cellular communications base stations states the following (see letter attached in application):

*"Considering the very low exposure levels and research results collected to date, there is no convincing scientific evidence that the weak RF signals from base stations and wireless networks cause adverse health effects".*

Also mentioned in the statement of the Department of Health another WHO fact sheet was published in June 2011 and reviewed in October 2014 (i.e. *Electromagnetic fields and public health: mobile phones* viewable online at <http://www.who.int/mediacentre/factsheets/fs193/en/> ) and subsequently concluded the following:

*"A large number of studies have been performed over the last two decades to assess whether mobile phones pose a potential health risk. To date, no adverse health effects have been established as being caused by mobile phone use."*

Further on in the document (attached in application), the Department of Health goes on to say that:

*"The Department is therefore satisfied that the health of the general public is not being compromised by their exposure to the microwave emissions of cellular base stations. This also means that local and other authorities, in considering the environmental impact of any particular base station, do not need to and should not attempt, from a public health point of view, to set any restrictions with respect to parameters such as distance to the mast, duration of exposure, height of the mast, etc."*

Furthermore, a test done by the City's Department: City Health – Specialised Services at a similar installation in Camps Bay proved that emissions from base stations are a mere fraction of a percentage point of the ICNIRP guideline. The test was also conducted by EMSS, a private company specialising in



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this RF emission testing. This study as an example is available on request. The City of Cape Town is more than welcome to take its own readings once the cellular communications infrastructure is operational.

We are therefore of the opinion that all health aspects regarding the proposed base station were taken into consideration and that this proposal will not be in violation of any individual's constitutional right to an environment that is not harmful to their health or general wellbeing.

#### SECTION F: CONCLUSION

We would like to emphasise the positive contribution this base station will have on the immediate area of Stanford as well as the surrounding community and passing commuters:

- Most households in the surrounding area depend on the services of the cellular telecommunications providers, including internet and social networking media (Facebook, Twitter etc.). With such a high demand for their products, it follows that service providers are responsible for supplying a high level of network coverage.
- please note that the residents in the area are not the only ones being provided with these services. Visitors to the area, businesses and daily commuters will benefit by having access to improved communication facilities.
- Mobile communication has become an important safety and security element in modern society. In an emergency, such as housebreaking, medical alert or fire, a member of a household can quickly and easily contact the emergency services for help. However, if the coverage of mobile service providers' is poor, then contacting emergency services becomes a difficult task.

Finally, we would like to emphasize that communications companies deliver an important service to the wider public, and in terms of their license with ICASA they have to meet certain standards in order to retain their licenses. One of these standards is to supply adequate network coverage to their demanding customers. The proposal also allows for all other service providers to share this installation and refrain from constructing another base station in this area.

Please notify us should any additional information be required. We look forward to your positive consideration of this application.



**EXECUTIVE SUMMARY**

Enviroworks was appointed by Warren Petterson Planning to compile the Visual Impact Assessment (VIA) for the proposed Stanford Tree Mast in order to determine the Visual Impact of the proposed telecommunication base station. This VIA Report was compiled in accordance with the Guidelines for involving a Visual and Aesthetic Specialist in the EIA process (DEA&DP, 2005). This Guideline was developed by the Western Cape Department of Environmental Affairs and Development Planning (DEA&DP) to be implemented as best practise.

**PROJECT DESCRIPTION**

The proposed project entails the development of a thirty five metre (35 m) Tree Mast on Erf 523 in Stanford, Western Cape Province. Attached to the mast will be six (6) triband antennae with three (3) transmission dishes and a Navigation Light attached to the top of the mast. At ground level three (3) concrete plinths will be constructed to which two (2) telecommunication equipment containers and one (1) equipment cabinet will be installed. The total development footprint for the proposed project is sixty four square metres (64 m<sup>2</sup>) surrounded by a two point four meter (2.4 m) palisade fence. Power will be obtained from the Overstrand Local Municipality.

Since the introduction of LTE in South Africa in 2012 there has been greater need for access to faster data. Higher penetration of LTE data in educational, residential, commercial and business areas has led to lower subscription fees which in itself provide economic sustainability and development. When selecting a site, special consideration is given to the geographical aspects so that the cellular infrastructure is positioned to ensure optimal functionality and availability to the customer.

Warren Petterson Planning pride themselves in ensuring that a positive impact is created in terms of the social and economic wellbeing in the area and will endeavour to erect a base station in such a manner so that it does not detract from the aesthetics in the surrounding area.

**DESIGN ALTERNATIVES**

Two design alternatives are proposed, as detailed below.

**Alternative 1: Construction of a thirty five meter (35 m) Tree Mast - Preferred option**

The Tree Mast is a singular tube measuring in at thirty five meters (35 m) in height, with the antennas mounted on the upper end of the tower. A Tree Mast has a slim line design like a Monopole Mast; however, the antennae will be covered with tree branches and the pole will be camouflaged to resemble a tree trunk. Due to its design it blends into the surrounding environment more effectively. The mast will provide for the co-location, allowing multiple operators to use the same mast as a base station. This will reduce the demand for base stations in the same location.

As the proposed development will be situated within the urban edge of the town of Stanford the Tree Mast is considered to be the preferred design alternative. Figure 1 and 2 has been included in order to provide the reader with a visual impression of a Tree as well as a Monopole Mast.



Figure 1: Visual Impression of a Tree Mast.

**Alternative 2: Construction of a thirty five meter (35 m) Monopole Mast**

The Monopole Mast is a singular tube measuring in at thirty five meters (35 m) in height, with the antennas mounted on the upper end of the tower. A Monopole Mast has a slim line design in order to minimise the visual exposure. The mast will provide for the co-location, allowing multiple operators to use the same mast as a base station. This will reduce the demand for base stations in the same location. Monopole Masts can be painted green, which will further aid in reducing its visual impact. The principles as set out in the City of Cape Town's Draft Telecommunication Infrastructure Policy: April 2015, will be implemented. The Policy states that a general rule for new freestanding telecommunication masts, a slim line monopole should be used in an urban context.



Figure 2: Visual Impression of a Monopole Mast.

## CONCLUSION AND RECOMMENDATIONS

The visual impact within the short distance zone will be high; however given the fact that the mast will be camouflaged as a tree the visual impact can be described as moderate as trees within the study area are scattered across the landscape. From the short to long distance zone the impact will be low due to factors including the Visual Absorption Capacity of the area, limited observers within these zones, the built up environment and the undulating topography of the area.

If all mitigation measures are implemented by the Developer the visual impact will be moderate on residence residing within an one kilometer (1 km) radius as well as to commuters making use of the R43 and R326 and tourists visiting the surrounding tourist attractions.

The following mitigatory considerations can assist in minimising the visual impact:

- Avoid shiny materials in structures. Where possible shiny metal structures should be darkened or screened to prevent glare;
- The Proposed Tree Mast should be constructed in such a manner that it looks like the surrounding trees in the area as far as possible;
- Tree branches around the antennas should be dense in order to minimise the visual exposure;
- Mitigation to minimise lighting impacts include the following:
  - Shielding the sources of light by physical barriers (walls, vegetation or structures itself);
  - Limit mounting heights of lighting fixtures, or alternatively using foot-lights or bollard level lights);
  - Make use of downward directional lighting fixtures;
  - Make use of minimum lumen or wattage in lights;
  - The navigation light at the top of the mast must be shielded to prevent disturbance to adjacent landowners; and,
  - Use motion sensors to activate lighting ensuring light is available when needed.

### Construction Phase:

- Access roads are to be kept clean;
- Site offices and structures should be limited to one location and carefully situated to reduce visual intrusions. Roofs should be grey and non-reflective;
- Construction camps as well as development areas should be screened with netting;
- Lights within the construction camp should face directly down (angle of 90°);
- Vegetation clearance should be limited to the development footprint only;
- Litter should be strictly controlled, as the spread thereof through wind could have a very negative visual impact;
- Avoid shiny materials in structures. Where possible shiny metal structures should be darkened or screened to prevent glare; and,
- Mitigation of visual impacts associated with the construction phase would entail proper planning, management and rehabilitation of the construction site. Mitigation measures include the following:
  - Reduce the time of construction through careful planning of logistics and ensure the productive implementation of resources;
  - Limit disturbance of the environment to the development footprint; and,
  - Limit construction activities to business hours (07:00 – 17:00).

**DECLARATION OF THE SPECIALIST**

I, **Christoff du Plessis, ID 911126 5012 084**, declare that I:

- am an Environmental Specialist at Enviroworks;
- act as an independent Specialist Consultant in the field of Visual Impacts;
- am assigned as Specialist Consultant by Warren Petterson Planning for this proposed project;
- I do not have or will not have any financial interest in the undertaking of the activity other than remuneration for work as stipulated in the terms of reference;
- remuneration for services by the proponent in relation to this proposal is not linked to approval by decision-making Authorities responsible for permitting this proposal;
- the consultancy has no interest in secondary or downstream developments as a result of the Authorisation of this project.
- have no and will not engage in conflicting interests in the undertaking of the Activity;
- undertake to disclose to the Client and the Competent Authority any material, information that have or may have the potential to influence the decision of the Competent Authority required in terms of the Environmental Impact Assessment Regulations 2017; and,
- will provide the Client and Competent Authority with access to all information at my disposal, regarding this project, whether favourable or not.

Christoff du Plessis  
021 527 7084



**SPECIALIST CV AND DETAILS**

Business name of Specialist:	Enviroworks
Specialist Name:	Christoff du Plessis
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**Christoff du Plessis****Relevant Qualifications**

Baccalaureus Scientiae (B.Sc) in Environmental Geography: University of the Free State (2014)

Baccalaureus Scientiae (B.Sc) in Environmental Management: University of South Africa (2018)

**Work Experience**

January 2015 – Present: Environmental Specialist at Enviroworks

**Key Specialist Experience****Visual Impact Assessment (VIA):**

- Visual Impact Assessment for the proposed 132kV approximately 32 kilometre Havard Powerline from the Cecilia- to Noorstad- Distribution Centre, Bloemfontein, Free State Province (Centlec).
- Visual Impact Assessment for the proposed Phalaborwa Wildlife Activity Hub, Kruger National Park, Limpopo Province (SANParks).
- Visual Impact Assessment for a 4.9ha Sand Mine on Portion 5 of the Farm Doornekraal No. 830, Western Cape Province (Greenmined Environmental).
- Visual Impact Assessment for the proposed development of the Klein Mooimaak Rest Camp, West Coast National Park, Western Cape Province (SANParks).
- Visual Impact Assessment for the proposed development of the R27 gate within the West Coast National Park, Western Cape Province (SANParks).
- Visual Impact Statement for the proposed development of the Buffeljagsrivier Monopole Mast, Western Cape Province (Highwave Consultants).
- Visual Impact Statement for the proposed development of the Robertson Monopole Mast, Western Cape Province (Coast to Coast Towers).
- Visual Impact Assessment for the proposed development of a 178 ha sand mine on the Farm Doornekraal No. 832, Western Cape Province (Greenmined Environmental).

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- Visual Impact Statement for the proposed development of the Roodekrans Monopole Mast, Gauteng Province (Coast to Coast Towers).
- Visual Impact Statement for the proposed development of the Bottelary Windmill Mast on Portion 25 of the Farm Klein Bottelary No. 17, Brackenfell South, Western Cape Province (Coast to Coast Towers).
- Visual Impact Assessment for the proposed development of the Metsimaholo Landfill Site on Portion 3 of the Farm Katbosch No. 93, Free State Province (Metsimaholo Local Municipality).
- Visual Impact Assessment for the proposed development of the Grabouw Monopole Mast on Portion 13 of the Farm Van Aries Kraal No. 455, Western Cape Province (Coast to Coast Towers).
- Visual Impact Assessment for the proposed development of the Muizenberg Monopole Mast on Erf 87093, Western Cape Province (Warren Petterson Planning).
- Visual Impact Assessment for the proposed development of the Simon's Town, Monopole Mast on Erf 560, Western Cape Province (Warren Petterson Planning).
- Visual Impact Assessment for the proposed development of the Maxwell Mast on Portion 7 of the Farm Jagersvlakte No. 292, Grabouw, Western Cape Province (Warren Petterson Planning).
- Visual Impact Assessment for the proposed development of the Gansbaai Mast on Erf 532, Western Cape Province (Coast to Coast Towers).

**Wetland Delineation Studies:**

- Wetlands Delineation study for the development of 13 borrow pits along National Road 8, Ladybrand, Free State Province (SANRAL).
- Wetland Delineation study for the development of a 12.5ha cemetery on Erf 4233, Western Cape Province (Theewaterskloof Local Municipality).
- Wetland Delineation study for the proposed development of an Agri-Hub near Cederville, Eastern Cape Province (Femplan).
- Wetland Delineation study for the proposed development of an Agri-Hub near Lambasi, Eastern Cape Province (Femplan).

**Stormwater Management Plans:**

- Stormwater Management Plan for the Agri-World Recycling Plant, Swellendam, Western Cape Province (Agri-World Recycling Plant).
- Stormwater Management Plan for the Klaasvoogds Granite Mine, Springbok, Northern Cape Province (Greenmined Environmental).
- Stormwater Management Plan for the Moreson Poultry Project, Brandfort, Free State Province (Moreson Poultry).
- Stormwater Management Plan for the Sintier Poultry Project, Bronkhorstspuit, Gauteng Province (Sintier Poultry).
- Stormwater Management Plan for the maintenance and extending of a canal near Karatera, Western Cape Province (Eden Municipality).

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**ABBREVIATIONS**

<b>CBA</b>	-	Critical Biodiversity Area
<b>DEA</b>	-	Department of Environmental Affairs
<b>DEA&amp;DP</b>	-	Department of Environmental Affairs & Development Planning
<b>DEM</b>	-	Digital Elevation Model
<b>DTM</b>	-	Digital Terrain Model
<b>EIA</b>	-	Environmental Impact Assessment
<b>ESA</b>	-	Ecological Support Area
<b>GIS</b>	-	Geographical Information System
<b>Km</b>	-	Kilometre
<b>M</b>	-	Metre
<b>MAP</b>	-	Mean Annual Precipitation
<b>MAT</b>	-	Mean Annual Temperature
<b>USGS</b>	-	United States Geological Survey
<b>UTM</b>	-	Universal Transverse Mercator
<b>VAC</b>	-	Visual Absorption Capacity
<b>VIA</b>	-	Visual Impact Assessment

### REQUIREMENTS OF A SPECIALIST REPORT

Appendix 6 of Government Notice Regulation 326 of 7 April 2017 outlines the basic requirements of a Specialist Report. Please refer to Table 1 below of all requirements.

Table 1: Requirements of a Specialist Report as set out in GN R. 326 of 07 April 2017.

REQUIREMENTS	YES/NO
A Specialist report prepared in terms of these Regulations must contain –	
a. Details of –	
i. The Specialist who prepared the report; and,	Yes
ii. The expertise of that Specialist to compile a specialist report including a curriculum vitae;	
b. A declaration that the Specialist is independent in a form as may be specified by the Competent Authority;	Yes
c. An indication of the scope of, and the purpose for which, the report was prepared;	
i. An indication of the quality and age of base data used for the Specialist Report;	Yes
ii. A description of existing impacts on site, cumulative impacts of the proposed development and levels of acceptable change;	
d. The duration, date and season of the site investigation and the relevance of the season to the outcome of the assessment;	Yes
e. A description of the methodology adopted in preparing the report or carrying out the specialised process inclusive of equipment and modelling used;	Yes
f. Details of an assessment of the specific identified sensitivity of the site related to the proposed activity or activities and its associated structures and infrastructure, inclusive of a site plan identifying site alternatives;	Yes
g. An identification of any areas to be avoided, including buffers;	Yes
h. A map superimposing the activity including the associated structures and infrastructure on the environmental sensitivities of the site including areas to be avoided, including buffers;	Yes
i. A description of any assumptions made and any uncertainties or gaps in knowledge;	Yes
j. A description of the findings and potential implications of such findings on the impact of the proposed activity or activities;	Yes
k. Any mitigation measures for inclusion in the EMP'r	Yes
l. Any conditions for inclusion in the Environmental Authorisation;	Yes
m. Any monitoring requirements for inclusion in the EMP'r or Environmental Authorisation;	N/A
n. A reasoned opinion –	
i. Whether the proposed activity, activities or portions thereof should be authorised;	Yes
ii. If the opinion is that the proposed activity, activities or portions thereof should be authorised, any avoidance, management and mitigation measures that should be included in the EMP'r, and where applicable, the closure plan;	
o. A description of any consultation process that was undertaken during the course of preparing the specialist report;	N/A
p. A summary and copies of any comments received during any consultation process and where applicable all responses thereto; and,	N/A
q. Any other information requested by the Competent Authority.	Yes

**VISUAL IMPACT EVALUATION CRITERIA CHECKLIST**

As per the Provincial Government of the Western Cape Guideline for involving Visual and Aesthetic Specialists in the EIA Process (DEA&DP, 2005), a high quality visual assessment should include the following criteria:

Table 2: Requirements of a Visual Impact Assessment.

REQUIREMENTS	YES/NO
Meet the minimum requirements for a visual assessment;	Yes
Is appropriate to the nature and scale of the proposed development;	Yes
Provides a full description of the environment and the project;	Yes
Considers the project within its wider context;	Yes
Provides a clear methodology using accepted conventions for visual assessment;	Yes
All sources of information and references are given;	Yes
Graphics, including maps and visual simulations, are clear;	Yes
Include both quantitative and qualitative criteria;	Yes
Cumulative visual impacts have been considered;	Yes
An evaluation of alternatives has been made;	Yes
An explanation of significance ratings, related to bench-marks, is given;	Yes
Recommendations for visual mitigation are sensible and practical;	Yes
Recommendations for monitoring programmes have been outlined;	Yes
The best practical environmental option has been considered;	Yes
All the visual issues raised in the scoping have been addressed;	Yes
A clear summary of mitigation measures, including essential and optional measures, is given.	Yes

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## 1 STUDY APPROACH

### 1.1 Methodology

The study was undertaken using Geographical Information System (GIS) software as a tool to generate a viewshed analyses and to apply relevant spatial criteria to the proposed development. A detailed Digital Elevation Model (DEM) for the study area (S35E18 & S35E19) was obtained from the United States Geological Survey. The methodology utilised to identify issues to the visual impact include the following activities:

- The creation of a detailed digital terrain model of the potentially affected environment;
- The identification of sensitive environments upon which the proposed telecommunication Base Station could have a potential impact on; and,
- The creation of viewshed analyses from the proposed Stanford Mast in order to determine the visual exposure and the topography's potential to absorb the potential visual impact. The viewshed analysis takes into account the dimension of the proposed Stanford Mast and was calculated at a height of thirty five meters (35 m).

This Report (Visual Impact Assessment) sets out to identify and quantify the possible visual impacts related to the proposed Stanford Mast, as well as offer potential mitigation measures where required. The following methodology has been adopted for the assessment of the Visual Impact Assessment:

- **Determine the Potential Visual Exposure**  
The visibility or visual exposure of any structure or activity is the point of departure for the VIA. It stands to reason that if the proposed infrastructure was not visible, no impact would occur. Viewshed analyses of the proposed structures indicate the potential visibility.
- **Determine Visual Distance/Observer Proximity to the facility**  
In order to refine the visual exposure of the proposed Stanford Mast on surrounding areas/receptors, the principle of reduced impact over distance is applied in order to determine the core area of visual influence for the structures.  
Proximity radii for the proposed facility are created in order to indicate the scale and viewing distance of the structures and to determine the prominence of the structures in relation to their environment.  
The visual distance theory and the observer's proximity to the Stanford Mast are closely related, and especially relevant, when considered from areas with a high viewer incidence and a predominantly negative visual perception of the proposed infrastructure.
- **Determine Viewer Incidence/Viewer Perception**  
The number of observers and their perception of a structure determine the concept of visual impact. If there are no observers, then there would be no visual impact. If the visual perception of the structure is favourable to all observers, the visual impact would be positive.  
It is therefore necessary to identify areas of high viewer incidence and to classify certain areas according to the observer's visual sensitivity towards the proposed infrastructure. It would be impossible not to generalise the viewer incidence and sensitivity to some degree, as there are many variables when trying to determine the perception of the observer; regularity of sighting, cultural background state of mind, and purpose of sighting which would create a myriad of options.
- **Determine the Visual Absorption Capacity of the Natural Vegetation**

This is defined as the capacity of the receiving environment to absorb the potential visual impact of the proposed development. The VAC is primarily a function of the vegetation, and will be high if the vegetation is tall, dense and continuous. Conversely, low growing sparse and patchy vegetation will have a low VAC.

The VAC would also be high where the Environment can readily absorb the structure in terms of texture, colour, form and light/shade characteristics of the structure. On the other hand, the VAC for a structure contrasting markedly with one or more of the characteristics of the environment would be low. The VAC also generally increases with distance, where discernible detail in visual characteristics of both environment and structure decreases.

The Digital Terrain Model utilised in the calculation of the visual exposure of the proposed Tree Mast does not incorporate the potential VAC of the natural vegetation of the region. It is therefore necessary to determine the VAC by means of the interpretation of the vegetation cover, supplemented with field observation.

➤ **Determine the Visual Impact Index**

The results of the above analyses are merged in order to determine where the areas of likely visual impact would occur. These areas are further analysed in terms of the previously mentioned issues (related to the visual impact) and in order to judge the magnitude of each impact.

➤ **Determine the Impact Significance**

The potential visual impacts identified and described are quantified in their respective geographical locations in order to determine the significance of the anticipated impact. Significance is determined as a function of the extent, duration, magnitude and probability.

## 1.2 Projections

Projected coordinate systems are defined by ArcGIS Resource Centre (The developers) as "*a flat, two dimensional surface. Unlike a geographical coordinate system, a projected coordinate system has constant lengths, angles, and areas across the two dimensions. A projected coordinate system is always based on a geographic coordinate system that is based on a sphere or spheroid*". Projected Coordinates systems are world based and thus the larger the area the larger the distortion. To minimise the distortion the Universal Transverse Mercator (UTM) coordinate reference system divides the Earth into 60 equal zones that are all 6 degrees wide in longitude from East to West. Stanford falls within the thirty four degree (34°) UTM Zone, thus the WGS84/UTM 534 (32734) was used as projection.

## 2 ASSUMPTIONS AND LIMITATIONS

- Information is assumed to be the latest available information.
- Visual impact studies and assessments depend, to some extent, on subjective judgements. The subjectivity, of the analysis relates to the value driven nature of VIA. However, to deal with subjectivity, the methodology of this VIA is explained and rating categories clearly defined.

**November 2018**

Locality Map:  
Stanford Mast

**Logging**

- Station
- Lightning rod

**CLASS**

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- 100

**COORDINATE**  
14° 36' 23" S  
24° 17' 27" E

**SCALE**  
1:1000

**PROJECTION**  
WGS 84 / UTM  
ZONES: 35S  
Datum: WGS 84  
Units: Meter

**ENVIRO**  
WORLDWIDE PROJECTS PRACTICE

**WPP**

Project No.:



**Visual Impact Assessment: Stanford Mast**

Proposed Development of a Telecommunication Base Station and Associated Infrastructure on Erf 523 in Stanford, Western Cape Province

Figure 3: Locality Map of the Proposed Stanford Mast, Western Cape Province.



### 3 SCOPE OF WORK

The determination of the potential visual impacts is undertaken in terms of nature, extent, duration, magnitude, probability and significance of the construction and operation phases of the proposed project. The study area for the visual assessment encompasses a geographical area of 130km<sup>2</sup> (extent of the maps) and includes a ten kilometre (10 km) buffer zone from the proposed Stanford Mast. The study area constitutes of local tourist attractions as stipulated below towards the north and east of the proposed development. The town of Stanford is situated towards the west of the proposed development with natural areas situated towards the south.

Anticipated issues related to the potential visual impact of the proposed Stanford Mast include the following:

- The visibility of the Mast to, and potential visual impact on, observers travelling along the R43 and R326;
- The visibility of the facility to, and potential visual impacts on tourists visiting Birkenhead Brewery, Havercorts, Sir Robert Stanford Estate and Boschrivier Wines;
- The visibility of the facility to, and potential visual impact on observers residing in the town of Stanford and surrounding areas;
- The visual absorption capacity of natural or planted vegetation as well as man-made topographical features;
- Potential visual impacts associated with the construction- and operational phase; and,
- The potential to mitigate visual impacts.

It is anticipated that the issues listed above may constitute a visual impact at a local scale.

### 4 THE AFFECTED ENVIRONMENT

The proposed Stanford Tree Mast will be situated on Erf 523, Stanford, Western Cape Province. The study area constitutes of residential areas as well as agricultural activities. The proposed development will be situated on the premises of Overberg Agri which is used for the purpose of a filling station as well.

#### 4.1 Topography, vegetation and hydrology

##### 4.1.1 Vegetation

The study area is described by Mucina & Rutherford, 2006, as undulating hills and plains covered with open to closed dwarf shrubland with occasional scattered tall shrubs. It is a diverse unit, with all structural fynbos types present, but with extensive areas of asteraceous fynbos dominated by low proteoid elements. Towards the south and north of the proposed development the open and closed dwarf shrubland can be observed; however, surrounding the proposed development are numerous tall shrubs and trees.

##### 4.1.2 Geology

The Geology is described by Mucina & Rutherford (2006) as "soils from the Glenrosa, Mispah, prismacutanic and pedocutanic soils, which are derived from Bokkeveld Shale, Cape granite (of the Hermanus Suite), and ferricrete and silcrete. Land types mainly include that of FB and Db". As per the Geology Map for South Africa (Please refer to Figure 5) the underlying geology consists of the following:

Table 3: Underlying Geology of the study area.

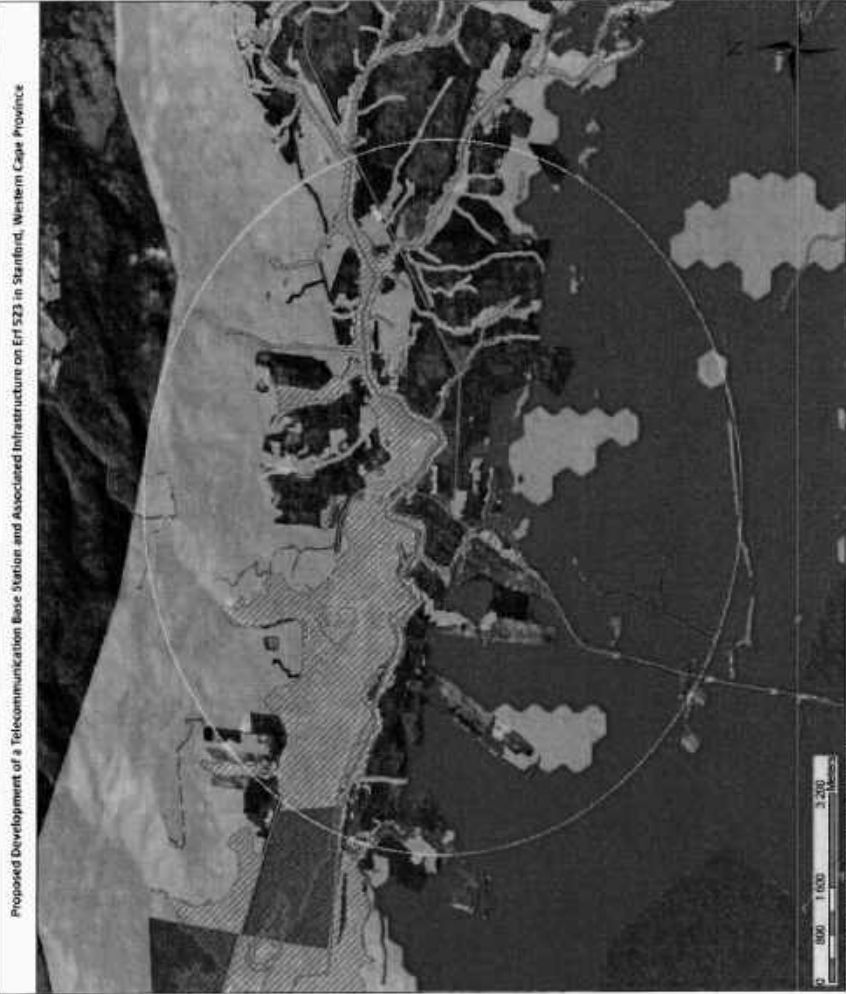
Reference	Description
002	Generally reddish, feldspathic and micaceous sandstone with subordinate

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	quartz arenite, mudrock, granulestone and conglomerate.
005	Three sandstone and three shale units.
021	Quartzite, shale, subordinate, subgreywacke.
031	Sandstone/quartzite, shale, conglomerate, minor jaspilite.
141	Pink, medium- to coarse-grained granite.
300	Unconsolidated calcareous sand (coasted dunes), minor palaeosols.
524	Shale, greywacke, quartzite, minor volcanic rocks.
600	Carbonatite, basalt, trachyte, andesite, rhyolite, volcanic breccia, agglomerate, ignimbrite and tuff.
700	Calcareous sandstone, clastic limestone, conglomerate and coquinite.

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**Sensitivity Map:  
Stanford Mast**

**Legend**

- Stanford
- All other areas

**CLASS**

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**Geographical Information**

DATE: 11/20/18  
 PROJECT: 865-001074-001  
 DRAWING: 865-001074-001-01  
 SCALE: 1:50,000

**Prepared by:** **enviro** WORLDWIDE

**Prepared for:** **WPP**

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Figure 4: Sensitivity Map of the Study Area.

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#### 4.1.3 Climate

The proposed project will be situated within the Elim Ferricrete Fynbos bio-region. The Mean Annual Precipitation (MAP) of the study area is five hundred and forty four millimetres (544 mm) mostly occurring in the winter months with the highest rainfall measured in the months of June to August (Mucina & Rutherford, 2006). The Mean Annual Temperature (MAT) recorded for the study area is sixteen degrees Celsius (16° C), with summer temperatures averaging at twenty five degrees Celsius (25.8° C).

### Ff1 1 Elim Ferricrete Fynbos

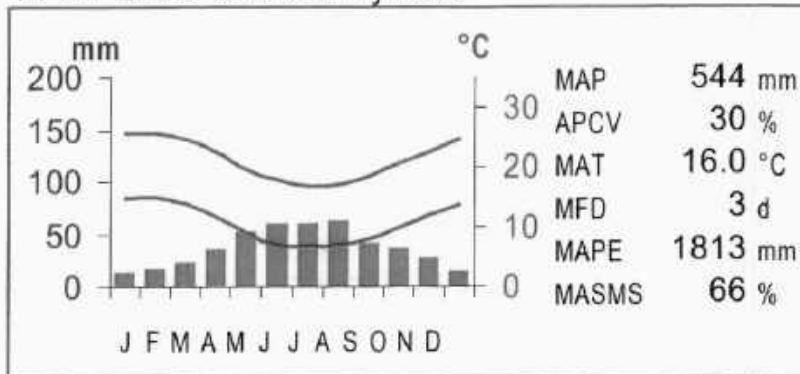


Figure 6: Climate Diagram for the Elim Ferricrete Fynbos.

## 5 RELEVANT LEGISLATION AND GUIDELINES

The following legislation and guidelines have been considered in the preparation of this report:

- This Visual Impact Assessment was undertaken in accordance with the Guidelines for Involving Visual and Aesthetic Specialists in EIA Processes, as issued by the Department of Environmental Affairs and Development Planning (DEA&DP).
- The Environmental Impact Assessment Regulation as outlined in Government Notice Regulation 326 of 7 April 2017.

## 6 DEVELOPMENT CATEGORY

As per the Guidelines for Involving Visual and Aesthetic Specialists in EIA Processes, the development categories are as follow:

Table 4: Development Categories.

Category 1	<p>Items listed in this category include:</p> <ul style="list-style-type: none"> <li>➤ Nature reserves;</li> <li>➤ Nature related recreation;</li> <li>➤ Camping;</li> <li>➤ Picnicking; and,</li> <li>➤ Trails and minimal visitor facilities.</li> </ul>
Category 2	<p>Items listed in this category include:</p> <ul style="list-style-type: none"> <li>➤ Low-key recreation/resort/residential type developments;</li> <li>➤ Small scale agriculture/nurseries/narrow roads; and,</li> <li>➤ Small scale infrastructure.</li> </ul>
Category 3	<p>Items listed in this category include:</p> <ul style="list-style-type: none"> <li>➤ Low density residential/resort type development;</li> </ul>

	<ul style="list-style-type: none"> <li>➤ Golf or polo estates; and,</li> <li>➤ Low to medium-scale infrastructure.</li> </ul>
Category 4	<p>These include:</p> <ul style="list-style-type: none"> <li>➤ Medium density residential development;</li> <li>➤ Sport facilities;</li> <li>➤ Small-scale commercial facilities/office parks;</li> <li>➤ One-stop petrol stations;</li> <li>➤ Light industry;</li> <li>➤ Medium scale infrastructure.</li> </ul>
Category 5	<p>These include:</p> <ul style="list-style-type: none"> <li>➤ High density township/residential developments;</li> <li>➤ Retail and office complexes;</li> <li>➤ Industrial facilities;</li> <li>➤ Refineries;</li> <li>➤ Treatment plants;</li> <li>➤ Power stations;</li> <li>➤ Wind energy farms;</li> <li>➤ Powerlines;</li> <li>➤ Freeways;</li> <li>➤ Toll roads;</li> <li>➤ Large scale infrastructure generally;</li> <li>➤ Large scale development of agriculture land and commercial tree plantations;</li> <li>➤ Quarrying and mining activities with related processing plants.</li> </ul>

Derived from Table 4, the proposed project falls within Category 2 (Small Scale Infrastructure). From the aforementioned Table 5 was compiled in order to determine the Visual Impact of any proposed development.

Table 5: Expected Visual Impact of the Proposed Development.

Type of Environment	Type of Development				
	Category 1	Category 2	Category 3	Category 4	Category 5
Protected/wild areas of international or regional significance.	Moderate visual impact expected	High visual impact expected	High visual impact expected	Very high visual impact expected	Very high visual impact expected
Areas or routes of high scenic, cultural, historical significance.	Minimal visual impact expected.	Moderate visual impact expected	High visual impact expected	High visual impact expected	Very high visual impact expected
Areas or routes of medium scenic, cultural or historical significance.	Little or no visual impact expected	Minimal visual impact expected.	Moderate visual impact expected	High visual impact expected	High visual impact expected
Areas or routes of low scenic, cultural or historical significance/disturbed.	Little or no visual impact expected.	Little or no visual impact expected	Minimal visual impact expected.	Moderate visual impact expected	High visual impact expected
Disturbed or degraded sites/run-down urban areas/wasteland.	Little or no visual impact expected	Little or no visual impact expected	Little or no visual impact expected	Minimal visual impact expected.	Moderate visual impact expected

From the table above, it is anticipated that the proposed Stanford Mast will have a moderate visual impact on the surrounding areas.

## 7 DESCRIPTION OF THE RECEIVING ENVIRONMENT

Landscape character is defined by the U.K Institute of Environmental Management and Assessment (IEMA) as the *"distinct and recognizable pattern of elements that occurs consistently in a particular type of landscape, and how this is perceived by people. It reflects particular combinations of geology, land form, soil, vegetation, land use and human settlement"* (GLVIA, 2002). According to DEA&DP Guideline Section 9.2, information describing the current state of the affected environment, as well as trends in the area, is required for visual input into the EIA process. The receiving environment was determined using the 2013-2014 South African National Land-Cover data as provided by the National Department of Environmental Affairs (DEA).

### 7.1 Sense of Place

The term *sense of place* captures the identity of places we recognize. It embraces natural and cultural features, the distinctive sights, sounds and experiences to the people residing in or nearby that place. Places with a strong sense of place have a clear identity and character that is recognisable by inhabitants and visitors alike.

Sense of place differs from place attachment by considering the social geographical context of place bonds and the sensing of place, such as aesthetic and a feeling of dwelling. An impact on the sense of place is one that alters the visual landscape to such an extent that the user experiences the environment differently, and more specifically, in a less appealing or less positive light.

Stanford is situated sixteen kilometers (16 km) to the south east of Hermanus, and was established in 1857 on the farm Kleine Riviers Valley owned by Sir Robert Stanford. Stanford serves as a perfect weekend getaway town as it borders the Klein River. The town as an entirety has been proclaimed as a Heritage Site due to its Cape Victorian and Edwardian building styles. The village holds the title of the 3<sup>rd</sup> most preserved village in the Western Cape, offering numerous outdoor adventures, beautiful Heritage and great character. The little town of Stanford is thus considered to have a historical sense of place primarily serving as a tourist destination with a very high aesthetic value.

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Figure 7: Land Cover Map of the Area.



## 8 RESULTS

### 8.1 Potential Visual Exposure (Preferred Mast Position)

The combined result of the viewshed analysis for the proposed Stanford Tree Mast is displayed on the map below (Figure 12). The visibility analysis was undertaken at the height of the Mast measuring in at thirty five metres (35 m), in order to simulate the view from the mast and to indicate prominence of the structures within the landscape. Furthermore; Figure 12 indicates proximity radii from the proposed Stanford Mast as a reference to determine the Visual Absorption Capacity. It must be noted that the Digital Terrain Model (DTM) utilised from the viewshed analysis does not include the effect of vegetation cover and built structures. These features may influence the visual exposure to some degree.

### 8.2 Stanford Preferred Mast Position

#### 8.2.1 0-1km (short distance)

As per Figure 12 (Viewshed Analysis) the proposed Stanford Mast will be highly visible within the one kilometre (1km) radii. The topography within the short distance zone can be described as undulating with elevation changes averaging ten meters (10 m), thus not limiting the visual exposure. Stanford encompasses the entire area between the north and south west of the proposed development. The mast will be highly visible to commuters traveling along the R326 and R43 within this zone as the Visual Absorption Capacity is considered to be low. The highest visual impact will be experienced by Birkenhead Brewery and Estate which is situated towards the north east of the development as well as residents residing directly adjacent to the R43 towards the west of the proposed development. To the south of the R326 there will be no visual exposure as the area consists of natural vegetation with one dwelling surrounded by trees. The proposed development will not look out of sort as there are numerous scattered trees within the short distance zone.

#### 8.2.2 1-2km (short to medium distance)

The visual impact of the proposed Stanford Mast will decrease within the short to medium distance. The proposed development will be visible from the southern suburbs of Stanford; however, the visual impact will be low due to the built up environment. From the Stanford industrial area situated towards the south west the proposed development will not be visible due to the high Visual Absorption Capacity. There will be no visual impact towards the west of the R43 and south of the R326 within the short to medium zone as there are no receptors within this area as it consists of natural vegetation predominantly low shrubs of fynbos. There will be no visual impact to observers traveling the R43 in this zone; however, the visual impact will be high traveling along the R326 towards Stanford. Boschvriër Wines (wine farm) is situated towards the east of the proposed development from where the visual impact will be moderate due to the high Visual Absorption Capacity of the study area in the background. Towards the north north east the visual impact will be low to residence within the area due to the undulating topography of the study area as well as the high Visual Absorption Capacity. Towards the north west there will be no visual impact as the R43 is situated at a higher elevation than Stanford and the high Visual Absorption Capacity of the study area. The overall visual impact within this zone is considered to be low.

#### 8.2.3 2-5km (medium to long distance)

Due to the undulating topography of the study area there will be no visual impact towards the east of the proposed development within the medium to long distance zone. Furthermore, to the aforementioned there will be no visual impact towards the south and south east of the proposed development as the area consist of natural vegetation with no observers situated within this area.

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Towards the south west the visual impact will be low due to the high Visual Absorption Capacity of the area and will be restricted to three and a half kilometers (3.5 km). Farm steads are present to the west of the proposed development; however, due to the built up environment and the Visual Absorption Capacity of the area the visual impact will be low. A mountain range is situated to the north of the proposed development from where it will be visible. There will be no visual impact as no hiking routes can be observed from satellite imagery and the one dwelling observed within this area is surrounded by dense tall trees.

**8.2.4 Greater than 5km (long distance)**

Visibility beyond five kilometres (5km) from the proposed Stanford Mast is expected to be negligible and low due to the distance between the object (proposed Stanford Mast) and the observer. As per the viewshed analysis the proposed project will only be visible from elevated vantage points situated towards the north west, the east and the south east. The visual exposure will be low due to the high Visual Absorption Capacity of the study area in the foreground as well as in the background.

**8.2.5 Conclusion**

The visual impact within the short distance zone will be high; however given the fact that the mast will be camouflaged as a tree the visual impact can be described as moderate as trees within the study area are scattered across the landscape. From the short to long distance zone the impact will be low due to factors including the Visual Absorption Capacity of the area, limited observers within these zones, the built up environment and the undulating topography of the area.

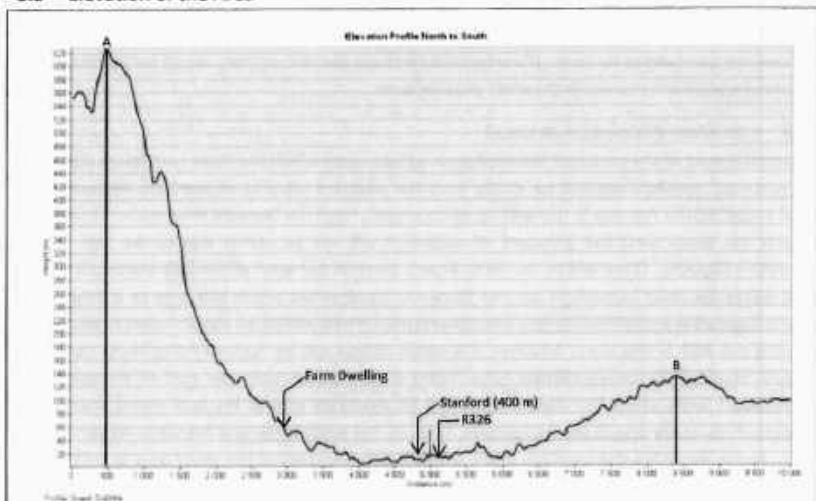
**8.3 Elevation of the Area**

Figure 8: Elevation Profile from North to South of the study area.

Figure 8 illustrates a cross section graph of the study area from north to south. The graph must be read in conjunction with Figure 12 in order to better understand the visual exposure. The graph has been compiled within a five kilometre (5 km) radius from the proposed mast. The proposed development will be visible towards the north over a distance of four and a half kilometers (4.5 km); however, the visual exposure will be restricted by Point A as it is situated six hundred and twenty meters (620 m) above sea level. Stanford is situated two hundred meters (200 m) towards the north and covers a distance of four hundred meters (400 m). Towards the south the proposed development will be visible over a distance of three and a half kilometers

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(3.5 km) where it will be restricted by Point B situated at an elevation of one hundred and twenty meters (120 m). However, the visual impact will be low as the R326 is the only development situated towards the south of the proposed development.

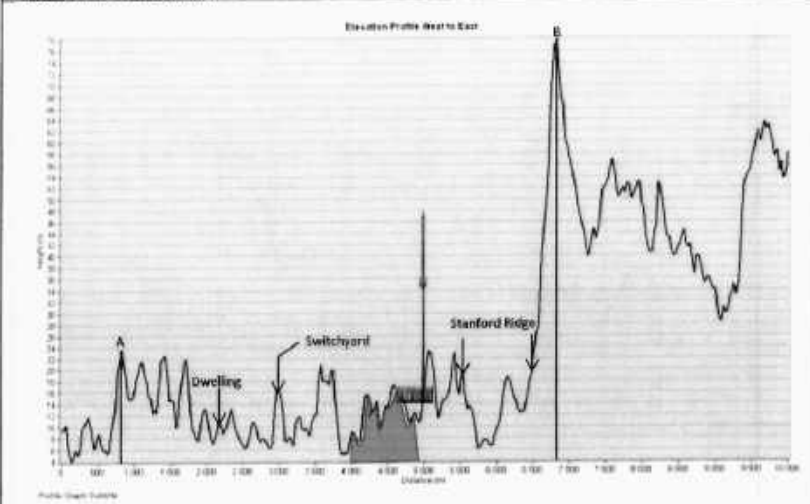


Figure 9: Elevation Profile from West to East of the study area.

Figure 9 illustrates the cross section of the study area from west to east. Towards the west the proposed development will be visible over a distance of four kilometers (4 km). Stanford is situated within one kilometers (1 km) from the proposed development as illustrated in red below. Beyond Stanford the visual impact will be low as there are only one (1) dwelling and a switchyard situated towards the west. Although the visual exposure will be limited by Point B within two kilometers (2 km) towards the east, the visual impact will be high as the mast will be visible from Stanford Ridge Estate situated within five hundred meters (500 m) towards the east.

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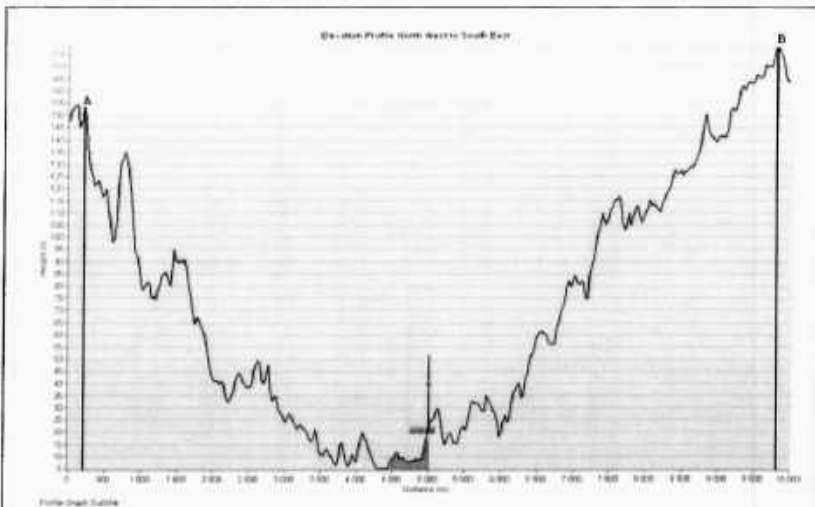


Figure 10: Elevation Profile from North West to South East of the study area.

Figure 10 illustrates the elevation from the north west towards the south east. The visual exposure towards the north west will be restricted to four kilometers (4 km) towards the north west; however, the visual impact will be moderate from this wind direction due to the undulating topography of the study area. Stanford is situated within five hundred meters (500 m) of the proposed development as marked in red in Figure 10. Scattered Farmsteads and farmslands are present towards the north west. Towards the south east there will be no visual exposure as the area consists of natural areas; however, Point B will restrict the visual exposure towards four and a half kilometers (4 km).

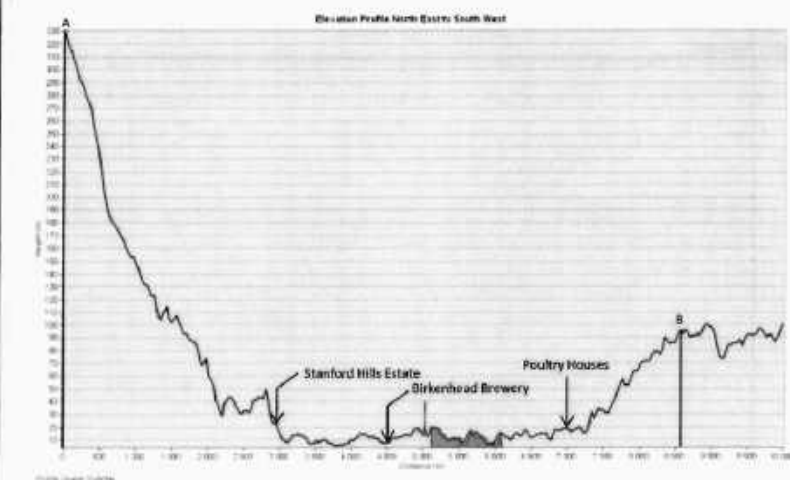


Figure 11: Elevation Profile from North East to South West of the study area.

Figure 11 illustrates the elevation of the study area from north east to south west. Towards the north east the proposed development will be visible within the five kilometers (5 km); however, from kilometer (km) three (3) onwards the area consist of natural mountainous areas. The visual exposure will be high for tourists visiting

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Birkenhead Brewery as well as Stanford Hills Estate. Stanford is situated three hundred meters (300 m) towards the south west of the proposed development. Beyond Stanford the only development present towards the south west are Poultry Houses; with the visual impact restricted to Point B situated at an elevation of ninety five meters (95 m). There will be no visual impact past the Poultry Houses as the area consists predominantly of natural areas.

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Figure 12: Viewshed Analysis of the proposed Stanford Mast.



## 9 VISUAL ABSORPTION CAPACITY

The following section provides a description of the viewshed analysis via photographic evidence taken at a height of one point eight metres (1.8m). This will enable the reader to understand the Visual Absorption Capacity (VAC) of the area and provide a visual reference. The Visual Absorption Capacity of the surrounding area is considered to be high from the north west and west; however, it will be low from east to south.



Figure 13: Photo Position 1 taken towards the west of the Proposed Development.

Figure 13 was taken five hundred meters (500 m) towards the west within the short distance zone of the proposed Stanford Mast. Due to the built environment together with a moderate Visual Absorption Capacity the top of the mast will be visible from Queen Victoria Street. The further the observer moves away from the R43 the mast will become less visible. The visual impact will be moderate from this vantage point.



Figure 14: Photo Position 2 taken towards the north west of the Proposed Development.

Figure 14 was taken seven hundred meters (700 m) towards the north west of the proposed development. Due to the observer being situated at a lower elevation of ten meters (10 m) above sea level and the high Visual Absorption Capacity of the surrounding there will be no visual impact. In order to justify the aforementioned, the background vegetation can readily absorb the Mast as it will be camouflaged as a Tree.



Figure 15: Photo Position 3 taken towards the north west of the Proposed Development.

Figure 15 was taken five hundred and nineteen meters (519 m) towards the north west of the proposed development. The area consists of dense vegetation with trees averaging ten meters (10 m) in height. The proposed development will be visible from this position; however, due to the natural background as illustrated in Figure 15 the visual impact will be mitigated to some degree. The visual impact is considered to be low.



Figure 16: Photo Position 4 taken towards the south west of the Proposed Development.

Photo Position 4 is situated nine hundred and fifty five meters (955 m) towards the south west of the proposed development. Depending on where the observer stands within this area the visual exposure can vary between no visual impact to a low impact. Photo 4 was taken close to the built up structure and thus there will be no visual impact; however, if the observer stands one hundred meters (100 m) to the right the visual impact will be low as the top of the mast will be visible. Due to the distance between the development and the observer attention may be drawn to the foreground thus limiting visual impact.



Figure 17: Photo Position 5 taken towards the east of the Proposed Development.

Photo 5 was taken one point six kilometers (1.634 km) towards the east of the proposed development. Photo Position 5 was taken from a height of twenty eight meters (28 m) above sea level with Stanford situated at sixteen meters (16 m) above sea level. Due to the elevation change the proposed development will be visible from this vantage point creating a high visual impact. As marked in red the background consists of dense vegetation creating a buffer to absorb the visual impact; however, the top half of the mast will be visible. The visual impact is mitigated to moderate due to the mast being camouflaged as a tree. Within the foreground the Visual Absorption Capacity of the study area is considered to be low, thus drawing the attention of the observer to the town of Stanford and the horizon.



Figure 18: Photo Position 6 taken towards the east of the Proposed Development.

Photo 6 was taken from the R326 three hundred meters (300 m) towards the south east of the proposed development. Due to the low Visual Absorption Capacity the visual impact from Photo Position 6 will be very high. Within the background tall trees and mountains are visible, aiding the visual impact to some degree. Given the height of the proposed development the mast will be visible from this position; however, the background might take some attention from the Mast. The overall visual impact from this position will be high.



Figure 19: Photo Position 7 taken towards the north of the Proposed Development.

Photo 7 was taken one hundred and seventy three meter (173 m) towards the north. The proposed development will be highly visible to the houses situated along the R 43. The Visual Absorption Capacity from this wind direction is considered to be extremely low. Due to the short distance between the proposed development and the observer the background, although natural, does not minimise the visual exposure as the tree will be viewed against the backdrop of sky.



Figure 20: Photo Position 8 taken towards the north of the Proposed Development.

Figure 20 was taken one point three kilometers (1.304 km) towards the north of the proposed Stanford Mast. The photo position is situated at an elevation nine meters (9 m) higher than that of the proposed development. The Visual Absorption Capacity is high due to dense tree cover situated in the foreground. The proposed development will not be visible from this vantage point due to the high VAC, undulating topography and the vegetated background.



Figure 21: Photo Position 9 taken towards the north west of the Proposed Development.

Figure 21 was taken one point eight kilometers (1.836 km) towards the north west along the R43. As per the viewshed analysis the proposed development will be visible from this vantage point. The Visual Absorption Capacity of the study area is considered to be high with natural vegetated areas and mountains in the background. The top of the mast will be visible; however, as the Mast will be camouflaged as a tree, it will blend in with the dense trees in the foreground. Due to the aforementioned the visual impact is considered to be low.

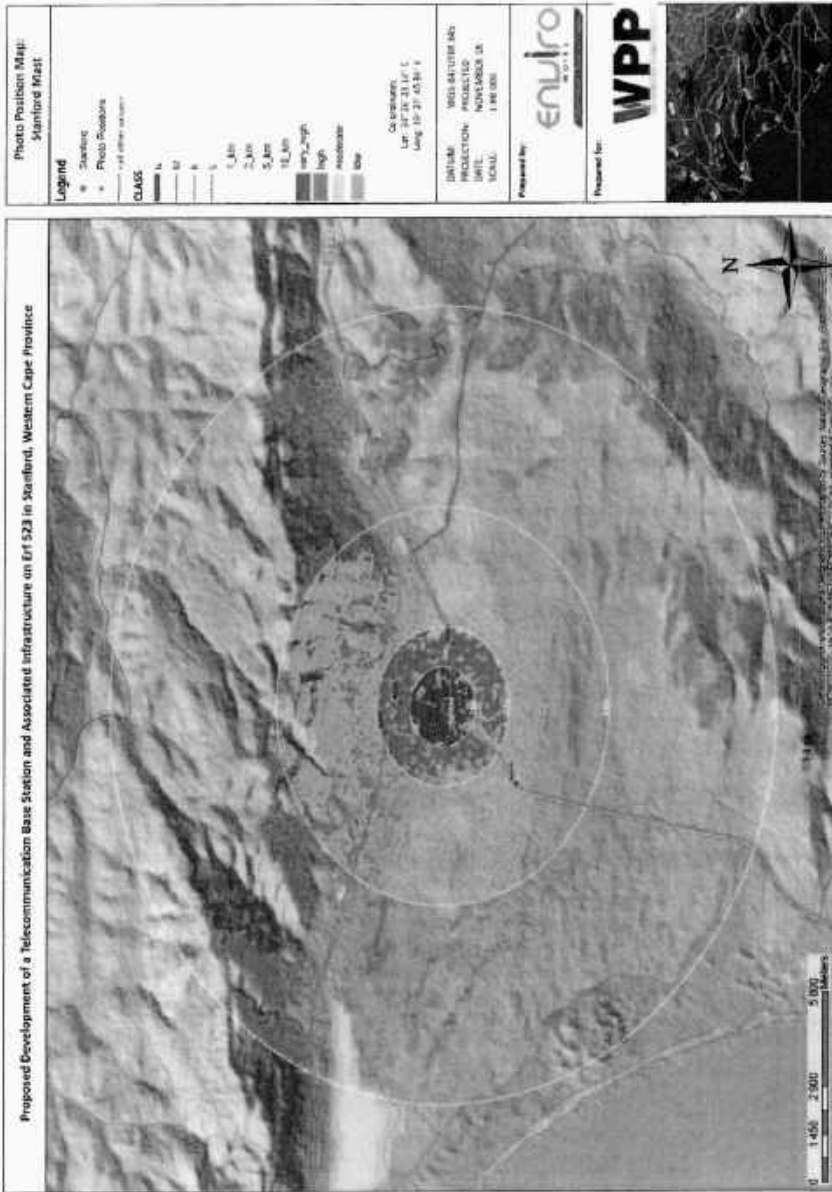


Figure 22: Photo Position 10 taken towards the south west of the Proposed Development.

Photo 10 was taken three kilometers (3 km) towards the south west of the proposed development. The Photo Position is situated at an elevation of one hundred meters (100 m) above sea level, looking down at the town of Stanford which is situated at an elevation of twenty meters (20 m) above sea level. The visual impact from this vantage point will be low due to the high Visual Absorption Capacity of the study area in the fore- and background. The attention of the observer will be focused on the road and thus it will be difficult to identify the mast from this distance.

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## 10 VISUAL IMPACT ASSESSMENT: IMPACT RATING METHODOLOGY

The previous section outlines all areas visible from the Stanford Tree Mast (viewshed analysis). This section will attempt to quantify these potential visual impacts in their respective geographical locations and in terms of the identified issues related to the visual impact. The methodology for the assessment of potential visual impacts states the nature of the potential visual impact (e.g. the visual impact on individuals who travel along the R43 as well as those residing within and visiting the project extent) and includes a table quantifying the potential significance of visual impact according to the following criteria:

- Duration of the impact (time scale);
- Extent of the impact (spatial scale);
- Degree to which the impact may cause irreplaceable loss of resources;
- Degree to which the impact can be reversed;
- Magnitude (or nature) of negative or positive impacts;
- Probability of the impact occurring;
- Cumulative Impacts; and the,
- Degree to which the impact can be mitigated.

The scales to be used to assess these variables and to define the rating categories are tabulated in the tables below.

Table 6: Evaluation components, ranking scales and descriptions (criteria).

Evaluation component	Ranking scale and description (criteria)
<b>DURATION</b>	<p><b>5 - Permanent</b></p> <p><b>4 - Long term:</b> Impact ceases after operational phase/life of the activity (&gt; 20 years).</p> <p><b>3 - Medium term:</b> Impact might occur during the operational phase/life of the activity (5 to 20 years).</p> <p><b>2 - Short term:</b> Impact might occur during the construction phase (&lt; 5 years).</p> <p><b>1 - Immediate</b></p>
<b>EXTENT</b> (or spatial scale / influence of impact)	<p><b>0 - None</b></p> <p><b>5 - International:</b> Beyond National boundaries.</p> <p><b>4 - National:</b> Beyond Provincial boundaries and within National boundaries.</p> <p><b>3 - Regional:</b> Beyond 5 km of the proposed development and within Provincial boundaries.</p> <p><b>2 - Local:</b> Within 5 km of the proposed development.</p> <p><b>1 - Site-specific:</b> On site or within 100 m of the site boundary.</p>
<b>IRREPLACEABLE</b> loss of resources	<p><b>5 - Definite</b> loss of irreplaceable resources.</p> <p><b>4 - High</b> potential for loss of irreplaceable resources.</p> <p><b>3 - Moderate</b> potential for loss of irreplaceable resources.</p> <p><b>2 - Low</b> potential for loss of irreplaceable resources.</p> <p><b>1 - Very low</b> potential for loss of irreplaceable resources.</p> <p><b>0 - None</b></p>
<b>REVERSIBILITY</b> of impact	<p><b>5 - Impact cannot</b> be reversed.</p> <p><b>4 - Low</b> potential that impact might be reversed.</p> <p><b>3 - Moderate</b> potential that impact might be reversed.</p> <p><b>2 - High</b> potential that impact might be reversed.</p> <p><b>1 - Impact will be</b> reversible.</p> <p><b>0 - No impact.</b></p>

Evaluation component	Ranking scale and description (criteria)
<b>MAGNITUDE</b> of <b>negative impact</b> (at the indicated spatial scale)	<p><b>10 - Very high:</b> Bio-physical and/or social functions and/or processes might be severely altered.</p> <p><b>8 - High:</b> Bio-physical and/or social functions and/or processes might be considerably altered.</p> <p><b>6 - Medium:</b> Bio-physical and/or social functions and/or processes might be notably altered.</p> <p><b>4 - Low:</b> Bio-physical and/or social functions and/or processes might be slightly altered.</p> <p><b>2 - Very Low:</b> Bio-physical and/or social functions and/or processes might be negligibly altered.</p> <p><b>0 - Zero:</b> Bio-physical and/or social functions and/or processes will remain unaltered.</p>
<b>MAGNITUDE</b> of <b>POSITIVE IMPACT</b> (at the indicated spatial scale)	<p><b>10 - Very high (positive):</b> Bio-physical and/or social functions and/or processes might be substantially enhanced.</p> <p><b>8 - High (positive):</b> Bio-physical and/or social functions and/or processes might be considerably enhanced.</p> <p><b>6 - Medium (positive):</b> Bio-physical and/or social functions and/or processes might be notably enhanced.</p> <p><b>4 - Low (positive):</b> Bio-physical and/or social functions and/or processes might be slightly enhanced.</p> <p><b>2 - Very Low (positive):</b> Bio-physical and/or social functions and/or processes might be negligibly enhanced.</p> <p><b>0 - Zero (positive):</b> Bio-physical and/or social functions and/or processes will remain unaltered.</p>
<b>PROBABILITY</b> (of occurrence)	<p><b>5 - Definite:</b> &gt;95% chance of the potential impact occurring.</p> <p><b>4 - High probability:</b> 75% - 95% chance of the potential impact occurring.</p> <p><b>3 - Medium probability:</b> 25% - 75% chance of the potential impact occurring.</p> <p><b>2 - Low probability:</b> 5% - 25% chance of the potential impact occurring.</p> <p><b>1 - Improbable:</b> &lt;5% chance of the potential impact occurring.</p>
<b>CUMULATIVE impacts:</b>	<p><b>High:</b> The activity is one of several similar past, present or future activities in the same geographical area, and might contribute to a very significant combined impact on the natural, cultural, and/or socio-economic resources of local, regional or national concern.</p> <p><b>Medium:</b> The activity is one of a few similar past, present or future activities in the same geographical area, and might have a combined impact of moderate significance on the natural, cultural, and/or socio-economic resources of local, regional or national concern.</p> <p><b>Low:</b> The activity is localised and might have a negligible cumulative impact.</p> <p><b>None:</b> No cumulative impact on the environment.</p>

Once the evaluation components have been ranked for each potential impact, the significance of each potential impact will be assessed (or calculated) using the following formula:

$$SP \text{ (Significance Points)} = (\text{Duration} + \text{Extent} + \text{Irreplaceability} + \text{Reversibility} + \text{Magnitude}) \times \text{Probability}$$

The maximum value is 150 significance points (SP). The unmitigated and mitigated scenarios for each potential environmental impact should be rated as per the table below.

Table 7: Definition of significance ratings (positive and negative).

Significance Points	Environmental Significance	Definition
100 - 150	High (H)	<p>An impact of high significance which could influence a decision about whether or not to proceed with the proposed project, regardless of available mitigation options.</p> <p><b>Cumulative Impact:</b> The activity is one of several similar past, present or future activities in the same geographical area, and might contribute to a very significant combined impact on the natural, cultural, and/or socio-economic resources of local, regional or national concern.</p>
40 - 99	Moderate (M)	<p>If left unmanaged, an impact of moderate significance could influence a decision about whether or not to proceed with a proposed project.</p> <p><b>Cumulative Impact:</b> The activity is one of a few similar past, present or future activities in the same geographical area, and might have a combined impact of moderate significance.</p>

Significance Points	Environmental Significance	Definition
		on the natural, cultural, and/or socio-economic resources of local, regional or national concern.
<40	Low (L)	An impact of low is likely to contribute to positive decisions about whether or not to proceed with the project. It will have little real effect and is unlikely to have an influence on project design or alternative motivation. <b>Cumulative impact:</b> The activity is localised and might have a negligible cumulative impact.
+	Positive Impact (+)	A positive impact is likely to result in a positive consequence/effect, and is likely to contribute to positive decisions about whether or not to proceed with the project.

## 11 VISUAL IMPACT ASSESSMENT

The primary visual impacts of the proposed Stanford Tree Mast are further assessed as follows:

Visual Impact Assessment: Stanford Mast

November 2018

**11.1 Potential visual impact on sensitive visual receptors, located within a 5 km radii of the Stanford Mast.**

The Operational Phase of the Stanford Tree Mast could have a moderate high visual impact (significance rating= 90) on observers within a one kilometer (1 km) radius should mitigation measures not be implemented.

Table B: Impact Ratings of the Construction Phase within a 5 km radius.

Planning, design and construction phase	Design Alternative 1		Design Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
<b>POTENTIAL VISUAL IMPACTS</b>					
<b>Nature of impact:</b>	<b>Activity:</b>				
Impact on the sense of place for surrounding users.	The movement of construction vehicles, machinery and personnel on site shall result in a visual impact on surrounding users. Furthermore to this, the storage of materials and excavation shall result in disturbance and an unsightly character.				
<b>Magnitude:</b>	4	2	4	2	-
<b>Duration:</b>	1	1	1	1	-
<b>Extent:</b>	2	1	2	1	-
<b>Irreplaceable:</b>	2	2	2	2	-
<b>Reversibility:</b>	1	1	1	1	-
<b>Probability:</b>	4	3	4	3	-
<b>Total SP:</b>	40	21	40	21	-
<b>Significance rating:</b>	M	L	M	L	-
<b>Cumulative impact:</b>					
<b>Proposed Mitigation:</b>	<ul style="list-style-type: none"> <li>• Access roads are to be kept clean;</li> <li>• Site offices and structures should be limited to one location and carefully situated to reduce visual intrusions. Roofs should be grey and non-reflective;</li> <li>• Construction camps as well as development areas should be screened with netting;</li> <li>• Lights within the construction camp should face directly down (angle of 90°);</li> <li>• Vegetation clearance should be limited to the development footprint only;</li> <li>• Litter should be strictly controlled, as the spread thereof through wind could have a very negative visual impact;</li> <li>• Avoid shiny materials in structures. Where possible shiny metal structures should be darkened or screened to prevent glare; and,</li> <li>• Mitigation of visual impacts associated with the construction phase would entail proper planning, management and rehabilitation of the construction site. Mitigation measures include the following:                         <ul style="list-style-type: none"> <li>• Reduce the time of construction through careful planning of logistics and ensure the productive implementation of resources;</li> <li>• Limit disturbance of the environment to the development footprint; and,</li> </ul> </li> </ul>				
	N/A				



November 2018

Visual Impact Assessment: Stamford Mast

Planning, design and construction phase	Design Alternative 1		Design Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
	<ul style="list-style-type: none"> <li>Limit construction activities to business hours (07:00 – 17:00).</li> </ul>				
<p><b>Table 9: Impact Ratings of the Operational Phase within a 5 km radius.</b></p>					
Operational Phase	Design Alternative 1		Design Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
<b>POTENTIAL VISUAL IMPACTS</b>					
<b>Nature of Impact:</b>	Activity:				
<b>Impact on the sense of place for surrounding users.</b>	The development of the Stamford Mast can cause a visual intrusion to observers within a five kilometre (5km) radius from the proposed development.				
<b>Magnitude:</b>	5	4	6	4	No construction phase impacts are associated with the no-go alternative thus no assessment has been undertaken.
<b>Duration:</b>	3	3	3	3	0
<b>Extent:</b>	2	2	2	2	5
<b>Irreplaceable:</b>	3	1	3	1	2
<b>Reversibility:</b>	4	3	4	4	0
<b>Probability:</b>	5	4	5	4	0
<b>Total SP:</b>	90	52	90	56	5
<b>Significance rating:</b>	MH	M	MH	M	35
<b>Cumulative impact:</b>	L	L	L	L	P (+)
<b>Proposed Mitigation:</b>	<ul style="list-style-type: none"> <li>Avoid shiny materials in structures. Where possible shiny metal structures should be darkened or screened to prevent glare;</li> <li>The Proposed Tree Mast should be constructed in such a manner that it looks like the surrounding trees in the area as far as possible;</li> <li>Tree branches around the antennas should be dense in order to minimise the visual exposure;</li> <li>Mitigation to minimise lighting impacts include the following:                             <ul style="list-style-type: none"> <li>Shielding the sources of light by physical barriers (walls, vegetation or structures itself);</li> <li>Limit mounting heights of lighting fixtures; or alternatively using foot-lights or bollard level (lights);</li> <li>Make use of downward directional lighting fixtures;</li> <li>Make use of minimum lumen or wattage in lights;</li> <li>The navigation light at the top of the mast must be shielded to prevent disturbance to adjacent landowners; and,</li> </ul> </li> </ul>				



November 2018

Visual Impact Assessment: Stamford Mast

Operational Phase	Design Alternative 1		Design Alternative 2		No-Go Alternative
	Before Mitigation	After Mitigation	Before Mitigation	After Mitigation	
	<ul style="list-style-type: none"> <li>Use motion sensors to activate lighting ensuring light is available when needed.</li> </ul>				



## 12 CONCLUSION AND RECOMMENDATIONS

The visual impact within the short distance zone will be high; however given the fact that the mast will be camouflaged as a tree the visual impact can be described as moderate as trees within the study area are scattered across the landscape. From the short to long distance zone the impact will be low due to factors including the Visual Absorption Capacity of the area, limited observers within these zones, the built up environment and the undulating topography of the area.

If all mitigation measures are implemented by the Developer the visual impact will be moderate on residence residing within a one kilometer (1 km) radius as well as to commuters making use of the R43 and R326 and tourists visiting the surrounding tourist attractions.

The following mitigatory considerations can assist in minimising the visual impact:

- Avoid shiny materials in structures. Where possible shiny metal structures should be darkened or screened to prevent glare;
- The Proposed Tree Mast should be constructed in such a manner that it looks like the surrounding trees in the area as far as possible;
- Tree branches around the antennas should be dense in order to minimise the visual exposure;
- Mitigation to minimise lighting impacts include the following:
  - Shielding the sources of light by physical barriers (walls, vegetation or structures itself);
  - Limit mounting heights of lighting fixtures, or alternatively using foot-lights or bollard level lights);
  - Make use of downward directional lighting fixtures;
  - Make use of minimum lumen or wattage in lights;
  - The navigation light at the top of the mast must be shielded to prevent disturbance to adjacent landowners; and,
  - Use motion sensors to activate lighting ensuring light is available when needed.

### Construction Phase:

- Access roads are to be kept clean;
- Site offices and structures should be limited to one location and carefully situated to reduce visual intrusions. Roofs should be grey and non-reflective;
- Construction camps as well as development areas should be screened with netting;
- Lights within the construction camp should face directly down (angle of 90°);
- Vegetation clearance should be limited to the development footprint only;
- Litter should be strictly controlled, as the spread thereof through wind could have a very negative visual impact;
- Avoid shiny materials in structures. Where possible shiny metal structures should be darkened or screened to prevent glare; and,
- Mitigation of visual impacts associated with the construction phase would entail proper planning, management and rehabilitation of the construction site. Mitigation measures include the following:
  - Reduce the time of construction through careful planning of logistics and ensure the productive implementation of resources;
  - Limit disturbance of the environment to the development footprint; and,
  - Limit construction activities to business hours (07:00 – 17:00).

**13 REFERENCES**

Council for Geosciences. 2016. Geology Map of South Africa [web: <http://sageoscience.maps.arcgis.com/home/index.html>. Date accessed: 14 November 2018].

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ANNEXURE C 1/4



**ATLAS TOWER**  
WESTERN CAPE

**ATLAS TOWER SITE ID:** ATLAS08  
**ATLAS TOWER SITE NAME:** STANFORD OVERBERG ADR  
**PROPERTY DESCRIPTION:** BN 513, STANFORD  
**ADDRESS:** CNR OF MG & HQM, STANFORD, WESTERN CAPE  
**COORDINATES:** ELEVATION: 327m  
 Lat: 34°28'33.14"S  
 Long: 18°27'40.31"E

**WPP**  
 WIND AND SOUND CONSULTANTS  
 141 The Pines, The Pines Estate, Cape Town, 7800  
 Tel: 021 959 8888  
 Fax: 021 959 8887  
 Email: info@wpp.co.za

**PROJECT:** PROPOSED NEW ATLAS TOWER 25m TREE MAST WITH 6m x 6m BASE STATION  
**APPROVED MAST:** 25m TREE MAST

**NOTES:**  
 A) NEW 25m TREE MAST  
 B) 6m x 6m BASE STATION  
 C) 2.4m PALISADE FENCE  
 D) SITE SIZE SHAPED TO FENCE WITH FENCE  
 E) BASE STATION ON TOP SURFACE

DATE	DESCRIPTION	REVISION
16-09-2018	1st Issue	0
27-11-2018	Revision height to 25m	1

DRAWING NUMBER:	SHEET:
ATLAS08	2 OF 3

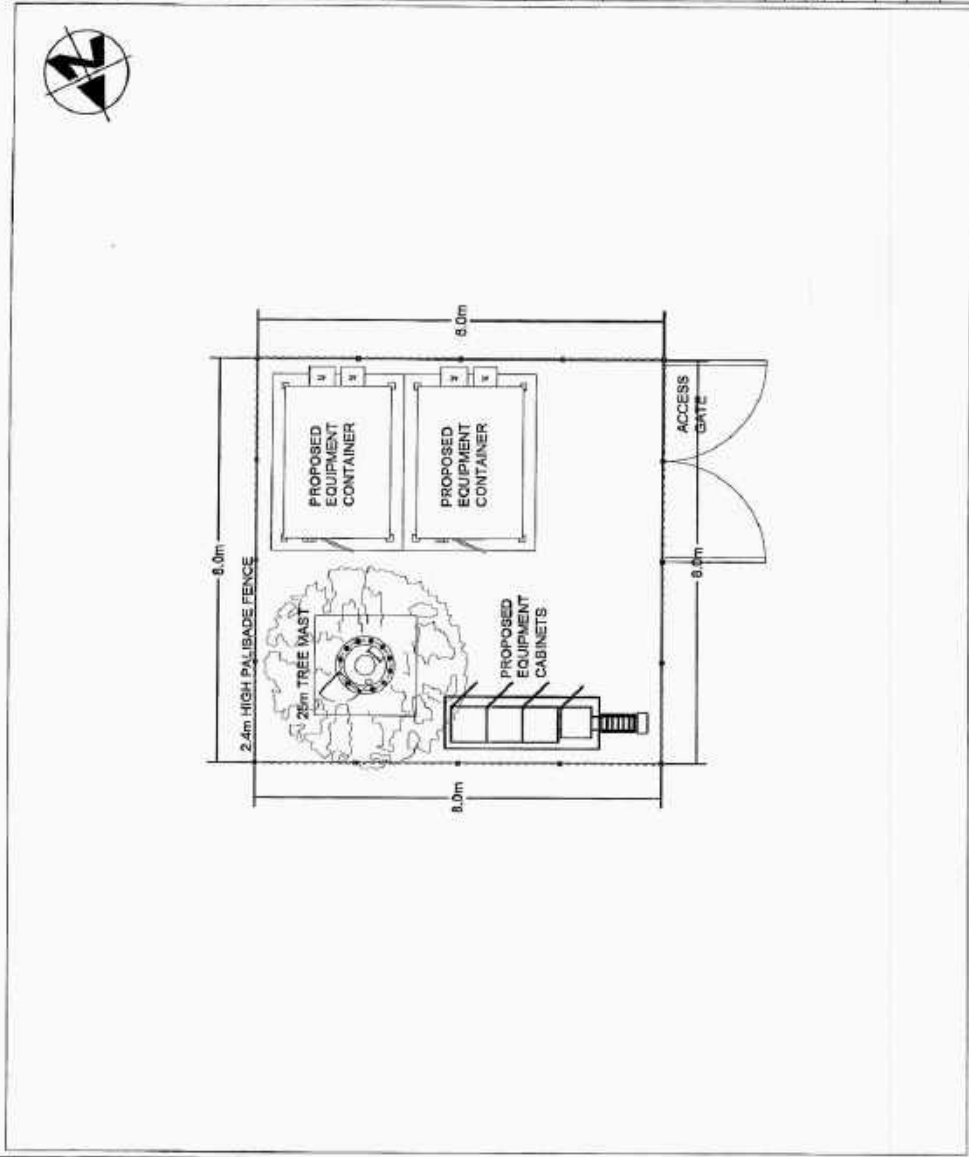
  

DRAWING TITLE:	SCALE:
SITE PLAN	N/T/S

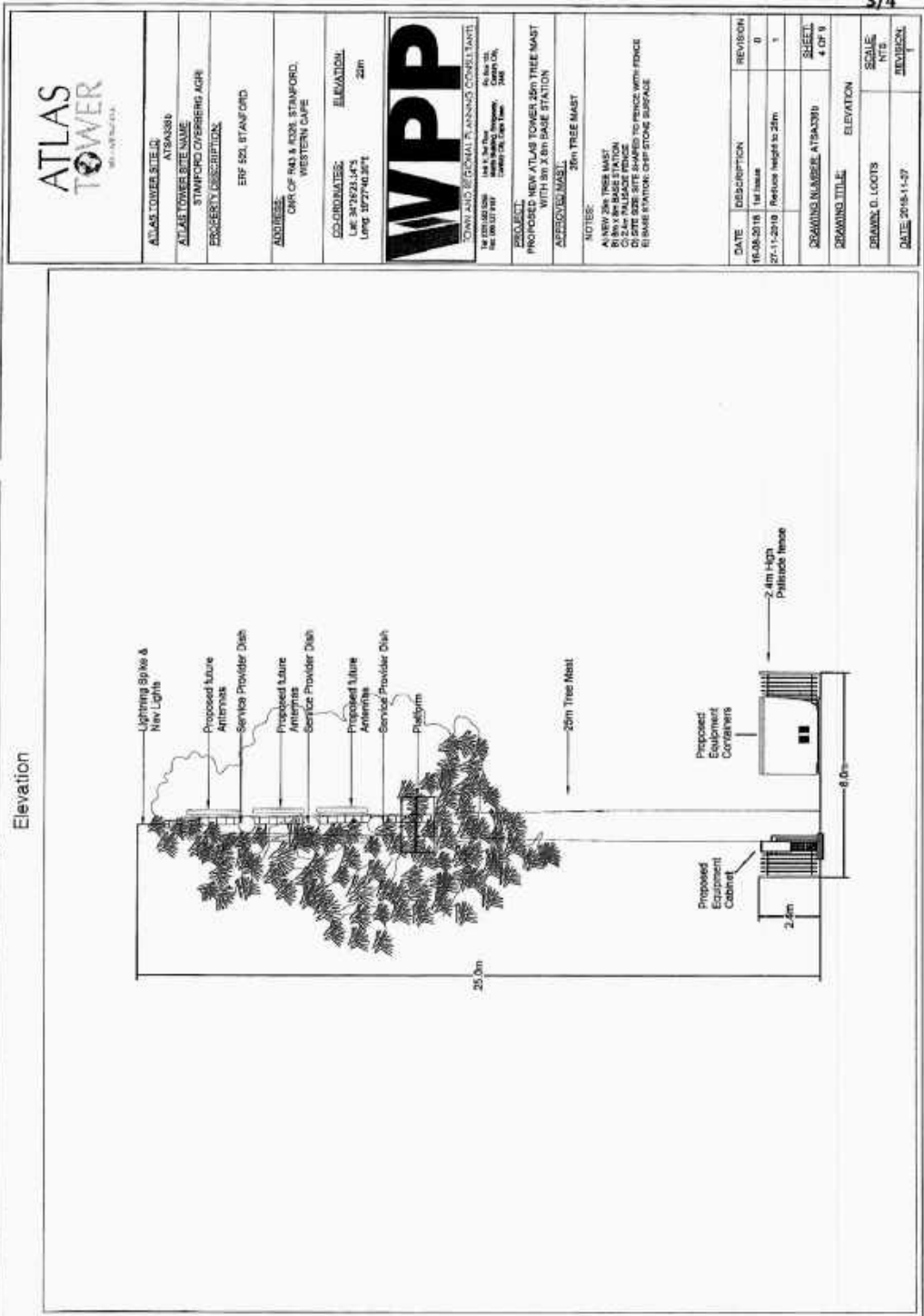
  

DRAWN:	DATE:
D. LOOTS	2018-11-27

Top View



ATLAS TOWER SITE ID	A184388	
ATLAS TOWER SITE NAME	STANFORD OVERBERG APRI	
PROPERTY DESCRIPTION	BRF 024, STANFORD	
ADDRESS	CHR OF PA & 1030, STANFORD, WESTERN CAPE	
COORDINATES	ELEVATION: 20m	
<p><b>WPP</b></p> <p>TONY AND HEZEL TAYLORS CONSULTANTS</p> <p>101 Main Street                  1st Floor                  101 Main Street                  Cape Town, South Africa                  Tel: +27 21 435 1000                  Fax: +27 21 435 1001                  Email: info@wpp.co.za</p>	<p><b>PROJECT:</b>                  PROPOSED NEW ATLAS TOWER 25m TREE MAST WITH 8m X 8m BASE STATION</p> <p><b>APPROVED MAIL:</b>                  25m TREE MAST</p> <p><b>NOTES:</b>                  A) NEW 25m TREE MAST                  B) 8m X 8m BASE STATION                  C) 2 X 4m X 4m EQUIPMENT CONTAINERS                  D) SITE 500C SITE SHARDED TO FENCE WITH FENCE                  E) BASE STATION CHIP STONE SURFACE</p>	
DATE	DESCRIPTION	REVISION
16-09-2019	1st ISSUE	0
27-11-2019	REWORK HEIGHT TO 25m	1
DESIGNED BY	ATLAS388	SUBMIT
DRAWING TITLE	TOP VIEW	3 OF 4
DRAWING C. LOTS		SCALE: N/A
DATE: 2019-11-27		REVISION: 1



**ATLAS TOWER SITE ID:**  
ATSA386

**ATLAS TOWER SITE NAME:**  
STAMPORD OVERBING AGR

**PROPERTY DESCRIPTION:**  
ERF 521 STAMPORD

**ADDRESS:**  
Cnr of Rd 3 & Rd31 STAMPORD,  
WESTERN CAPE

**COORDINATES:**  
LIC: 347823.44°S  
LONG: 1872740.26°E

**ELEVATION:**  
25m



TOWN AND REGIONAL PLANNING CONSULTANTS  
100 BLOOMFIELD STREET, SUITE 101, CAPE TOWN, SOUTH AFRICA  
TEL: +27 (0)21 435 1000  
WWW.WPP.CO.ZA

**PROJECT:**  
PROPOSED NEW ATLAS TOWER 25M TREE MAST  
WITH 8M X 2.4M BASE STATION

**APPROVED MAST:**  
25m TREE MAST

**NOTES:**  
A) NEW 25M TREE MAST  
B) 8M X 2.4M BASE STATION  
C) 2.4M PALISADE FENCE  
D) 2.4M HIGH FENCE WITH FORCE  
E) BASE STATION ON TOP SURFACE


DATE	DESCRIPTION	REVISION
16-08-2018	1st Issue	0
27-11-2018	Replace height to 25m	1

**DRAWING NUMBER:** ATSA386  
**SHEET:** 4 OF 1


**DRAWING TITLE:** ELEVATION

**DRAWN:** D. LOOTS  
**SCALE:** N/A

**DATE:** 2018-11-27  
**REVISION:**



**ATLAS TOWER SITE ID:** ATLAS03  
**ATLAS TOWER SITE NAME:** STANFORD OVERBERG ADRN  
**PRECEDENCE DESCRIPTION:** ERF 003, STANFORD  
**ADDRESS:** CNR OF RD 8 AND STANFORD, WESTERN CAPE  
**SO-COORDINATES:** LAT: 34°29'33.14"S Long: 18°27'40.81"E  
**ELEVATION:** 22m



**TOWN AND REGIONAL PLANNING CONSULTANTS**  
 1st Floor, 100 Water Street, Cape Town, South Africa  
 Tel: +27 (0) 21 462 1000 Fax: +27 (0) 21 462 1001  
 www.wpp.co.za

**PROJECT:** PROPOSED NEW ATLAS TOWER 25m TREE MAST WITH 6m X 8m BASE STATION  
**APPROVED MAST:** 25m TREE MAST  
**NOTES:** 1. 15m X 15m TREE MAST  
 2. 15m X 8m BASE STATION  
 3. 2.4m PALMPOLE FENCE  
 4. 2.4m PALMPOLE FENCE TO CIRCLE 15m X 15m  
 5. BASE STATION ON STONE SURFACE

DATE	DESCRIPTION	REVISION
10/08/2018	TK 300#	0
27-11-2020	Reduce height to 25m	1

DRAWING NUMBER	ATLAS/ADR	SHEET
ERF 003	ATLAS/ADR	1 OF 3

DRAWING TITLE	LOCALITY MAP
ERF 003	LOCALITY MAP

DRAWN	C. LOOTS	SCALE
		NTE

DATE	DESCRIPTION	REVISION
2016-11-27		

DRAWN	C. LOOTS	SCALE
		NTE





**Locality Map**





**Aerial Map**



FILE NO:	EL 523
	Stanford ✓
SCAN NO:	SIF 523
COLLABORATOR NO:	1287603

Stanford Heritage Committ

PO Box 539 STANFORD 7210  
stanfordheritage@gmail.com 072 796 7754

TR A Theart  
(Solid Merve)

23 April 2019

Overstrand Municipality  
16 Paterson Street  
Hermanus  
7200

Re: Proposed telecommunications mast, Erf 523

Dear Sir/Madam,

Thank you for submitting the application for the erection of a telecommunications tower on Erf 523 to the Stanford Heritage Committee for review. Below are our comments pertaining to this application.

1) There is little or no reference in the VIA or Town Planner's motivation report to the fact that Stanford is a proclaimed Heritage Area (in terms of Section 31 of the National Heritage Resources Act), with an extraordinary number of graded heritage buildings. Neither of these reports has noted that it is the aesthetic, architectural and townscape attributes of Stanford that underpin its tourism economy. The outside Consultants appear to have little understanding therefore of Stanford's *raison d'être*. The construction of an industrial type tower and container base station near to the entrance of a heritage village and on a tourist route is considered to be inappropriate in both visual and heritage terms, and could adversely affect the town's local economy.

2) There is no reference to the existing unsightly communication mast in the centre of Stanford, or to why the existing mast cannot be used by the Applicant, or alternatively why the existing mast cannot be removed once a new mast is erected. In the latter case this would amount to a meaningful mitigation measure.

3) Two limited alternatives for the transmission tower have been put forward, these being a monopole tower and a fake tree tower. In terms of NEMA legislation, meaningful alternatives, including alternative sites, are supposed to be investigated in order to determine a preferred site. This is seen as a serious shortcoming of the application.

4) With reference to (3) above, no consideration or motivation has been put forward on why the proposed tower, with its industrial connotation, cannot be located in the Stanford industrial area,

Approved Conservation Body in terms of the National Heritage Resources Act- Registration number: HM/CB/0815/30

which has a more appropriate zoning, and which is more centrally located to serve the wider (and expanding) community.

5) The focus of the VIA Report is misdirected in that it provides unnecessary or meaningless information, such as the geology of the region, when the real issues have to do with urban design and townscape, particularly within the immediate environs of 500m to 1km distance, with a recognised Scenic Route (the R43), residential areas and rural vineyards all in close proximity. Visual aspects 5km away would tend to have less of a bearing on visual impact in this particular case.

6) The viewpoints contained in the VIA, for which photographic montages of the transmission tower have been prepared, appear to be fairly random and unnecessarily far away from the proposed mast. Critical viewpoints, such as the nearby residences, the entrance to the heritage village, and the Village Green, a Grade IIIA heritage resource, amongst others, have not been included. There also appears to have been no consultation with local conservation / heritage bodies in the preparation of the VIA or town planning report, which in itself constitutes a fatal flaw. If consultation had taken place, more relevant viewpoints would have been identified.

7) Flowing from (6) above, the SHC does not agree with the visual impact significance ratings contained in the report as the specialist has either not understood the main visual and heritage issues of the study area, or has underplayed their significance in terms of impacts.

8) The visual mitigation measures contained in the VIA Report tend to be trivial, mainly because it would be difficult to visually mitigate the proposed tower. The dressing up of the proposed mast as a fake tree, unlike any other tree in the area, is questioned. It is unclear why most of the mitigations deal with the construction site and temporary site buildings when in fact the construction area is likely to have a small footprint and be of a short time period.

9) No plans or details of the proposed tower and related containers were provided with the documentation - (Annexure A was missing from the town planning report), and therefore I&APs have no indication of what these would look like at close range.

10) In summary, the SHC believes that the documentation for the proposed tower is incomplete, has not considered alternative sites, and has not included public participation, and can therefore not support the application. It is also recommended that the application be re-submitted to Heritage Western Cape, based on the findings of SHC. It is possible that HWC were not aware of all the implications, mainly because these were missing or understated in the various VIA and town planning documents.

Yours faithfully



**Katie Smuts**

Chair

c.c. Ms N Cornelius, Overstrand Municipality, Stanford Administration:  
[ncornelius@overstrand.gov.za](mailto:ncornelius@overstrand.gov.za).



# Stanford Ratepayers Association



*TR A Theart  
(sub mewe)*

P O Box 511  
Stanford 7210

Reference 523 SSS (4145) Erf 523, Proposed Consent Use and Departure: Warren Peterson Planning

Dear Sir or Madam,

Thank you for the opportunity for the Stanford Ratepayers Association, as a listed Affected Person to provide written comment on the above Proposed Consent Use and Departure.

The Stanford Ratepayers Association endorses the written comments submitted by Stanford Heritage Committee which details a range of objections and issues relating to Erf 523.

The Stanford Ratepayers Association believes that this Proposed Consent Use and Departure requires a wider community response and more robust provision of detail as to the visual and aesthetic impacts on a heritage listed village. It is also generally understood within the Stanford community that improved and reliable communications are important.

Yours Sincerely

L K Pullen  
Stanford Ratepayer Association Committee Member  
Phone 0609 669 000  
Email [stanfordratepayers1857@gmail.com](mailto:stanfordratepayers1857@gmail.com)  
24/05/2019

FILE NO:	<i>EL 523</i>
	<i>Stanford</i>
SCAN NO:	
COLLABORATOR NO:	<i>1287913</i>

24 MAY 2019

# WPP

TOWN AND REGIONAL PLANNING CONSULTANTS

Warren Petterson T: (021) 562 5255  
 Planning F: 086 537 8187  
 P.O. Box 152 C: 083 255 8349  
 Century City E: dloots@wpplanning.co.za  
 7446

TR A Theart  
 (Svd Merwe)

16 July 2019

The Municipal Manager  
 Overstrand Municipality  
 Town planning Department  
 16 Patterson Street  
 Hermanus  
 7200



FILE NO:	EL 523 Stanford
SCAN NO:	
COLLABORATOR NO:	1302855

**PROPOSED APPLICATION FOR CONSENT USE AND DEPARTURE TO PERMIT THE PROPOSED FREESTANDING TELECOMMUNICATIONS BASE STATION: ERF 523, STANFORD**

The letter received dated 3 June 2019 refers.

Two objections/comments were received regarding the above application.

This application is for the installation of a freestanding telecommunications base station.

1. *"There is little or no reference in the VIA Report to the fact that Stanford is a proclaimed Heritage Area (in terms of Section 31 of the National Heritage Resources Act), with an extraordinary number of graded heritage buildings. Neither of these reports has noted that it is the aesthetic, architectural and townscape attributes of Stanford that underpin its tourism economy. The outside Consultant appear to have little understanding thereof of Stanford's raison d'etre. The construction of an industrial type tower and container base station near the entrance of a heritage village and on a tourist route is considered to be inappropriate in both visual and heritage terms, and could adversely affect the town's local economy".*

Within the Visual Impact Assessment it refers both to the facts that Stanford is a proclaimed Heritage Area and that it is heavily dependent on tourism (Please refer to the Section 7.1 in the VIA). Furthermore, Table 8 (Expected Visual Impact of the Proposed Mast) refers to Stanford as an "area or route of high scenic, cultural, historical significance" and that the expected visual impact will be moderate. The aforementioned Table was developed by the Department of Environmental Affairs and Development Planning (DEA&DP) and can be obtained within the Department's Guidelines for Involving a Visual and Aesthetic Specialist as part of the EIA Process. Currently the Agriculture Corporation and Filling Station is operating on Erf 523 resulting in visual clutter near the entrance of the town. By placing the tower on the same property the cumulative impact is mitigated as no more visual clutter will be created should the mast be placed on natural land. The visual Specialist is familiar with the area and has conducted numerous projects there.

2. *"There is no reference to the existing unsightly communication mast in the centre of Stanford, or to why, the existing mast cannot be used by the Applicant, or alternatively why the existing mast cannot be removed once a new mast is erected. In the latter case this would amount to a meaningful mitigation measure".*

Warren Petterson Trading CC, Registration Number 2010/010982/23, Member W L Petterson Pr.Pln A/189/2010  
 Unit H, 3<sup>rd</sup> floor, The Matrix Building, Bridge Way, Century City, 7441

15 JUL 2019



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C: 083 255 8349  
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The existing Mast was taken into account in identifying the Cumulative Impact of the Proposed Development; however, the Specialist concur that it has a high visual impact. The existing mast is a Telkom Exchange site, which means that it is used solely for their purposes. They do not allow for any other types of equipment to be placed on their infrastructure. There is also a good possibility that Telkom do not have approval for the existing mast.

3. *Two limited alternatives for the transmission tower have been put forward, these being a monopole tower and a fake tree tower. In terms of NEMA legislation, meaningful alternatives, including alternative sites, are supposed to be investigated in order to determine a preferred site. This is seen as a serious shortcoming of the application”.*

Telecom developers have a site selection methodology which takes into account numerous factors in order to locate the best practical site; however, compliance with NEMA is adhered to as design alternatives were investigated.

4. *With reference to (3) above, no consideration or motivation has been put forward on why the proposed tower, with its industrial connotation, cannot be located in the Stanford industrial area, which has a more appropriate zoning, and which is more centrally located to serve the wider (and expanding) community”.*

Please note that there is an existing mast on which MTN and Vodacom are present approximately 1,8km south of the industrial area that is being referred to. The Overberg Agri site was chosen as it is located further north of the existing mast and will accordingly provide coverage to a different area than the existing mast.

5. *“The focus of the VIA Report is misdirected in that it provides unnecessary or meaningless information, such as the geology of the region, when the real issues have to do with urban design and townscape, particularly within the immediate environs of 500 m to 1 km distance, with a recognised Scenic Route (the R43), residential areas and rural vineyards all in close proximity. Visual aspects 5km away would tend to have less of a bearing on visual impact in this particular place”.*

The Visual Impact Assessment was prepared in accordance with Appendix 6 of Government Regulation 326 of 07 April 2017 and the Western Cape Guideline for Involving Visual and Aesthetic Specialists in the EIA Process. Information such as the Geology, Climate and Vegetation must be included in reports as it can be helpful aids in other projects different in nature. Clear mention is made in the Visual Impact Assessment that the proposed development will be highly visible within the Short Distance Zone as well as from the R43 and R326 and all residents within the area. The Tree Mast must look like the surrounding trees. As per the Visual Impact Assessment the Specialist does still agree that the development will not look out of sort as there are numerous scattered trees. A great example will be the mast situated next to the R43 near Hermanus Lagoon.

6. *“The viewpoints contained in the VIA, for which photographic montages of the transmission tower have been prepared, appear to be fairly random and unnecessarily far away from the proposed mast. Critical viewpoints, such as the nearby residences, the entrance to the heritage village, and the Village Green, a Grade IIIA heritage resource, amongst others, have not been included. There also appears to have been no*

Warren Petterson Trading CC, Registration Number 2010/010982/23, Member W L Petterson Pr.Pin A/189/2010  
Unit H, 3<sup>rd</sup> floor, The Matrix Building, Bridge Way, Century City, 7441



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 Planning                F: 086 537 9187  
 P.O. Box 152            C: 083 255 8349  
 Century City            E: dloots@wpplanning.co.za  
 7446

*consultation with local conservation/heritage bodies in the preparation of the VIA or town planning report, which in itself constitute a fatal flaw. If consultation had taken place, more relevant viewpoints would have been identified”.*

The viewpoints were chosen from areas where the Digital Elevation Model illustrated that there will be an impact. The aim of the photographic evidence is to aid the Specialist in determining the Visual Absorption Capacity of the Study Area. The viewpoints are chosen to ensure adequate photos are taken from all eight wind directions and different distances. Furthermore; it aids in informing the community whether the proposed mast will have an impact on them or not. Should the Stanford Heritage Committee request that the points mentioned be investigated, Enviroworks would do so and include it in the report.

7. *“Flowing from (6) above, the SHC does not agree with the visual impact significance ratings contained in the report as the specialist has either not understood the main visual and heritage issues of the study area, or has underplayed their significance in terms of impact.”*

The impacts were forthcoming from the methodology used as outlined in Tables 6 and 7. The Specialist remained objective and is aware of the Heritage and Visual Issues and can defend each rating. The Specialist is willing to communicate with the Stanford Heritage Committee and explain the reasoning behind each impact and aspect.

8. *“The visual mitigation measures contained in the VIA Report tend to be trivial, mainly because it would be difficult to visually mitigate the proposed tower. The dressing up of the proposed mast as a fake tree, unlike any other tree in the area, is questioned. It is unclear why most of the mitigation measures deal with construction site and temporary site buildings when in fact the construction area is likely to have a small footprint and be of a short time period”.*

A Tree Mast is the best mitigation, a Monopole-, Lattice- and Water Tower – Masts would have a greater visual impact than a Mast camouflaged as a tree (one which look like the surrounding trees). The Tree Mast used in the report is a visual impression and is subject to change. Although the construction is considered to be short (three months) if not mitigated it can become an irritation.

9. *No plans or details of the proposed tower and related containers were provided with the documentation – (Annexure A was missing from the town planning report), and therefore I&AP’s have no indication of what these would look like at close range.*

Plans were included as part of the motivation report and is available for viewing at Overstrand Municipality. The VIA includes many photographs of what the structure will possibly look like once constructed.

10. *In summary, the SHC believes that the documentation for the proposed tower is incomplete, has not considered alternative sites, and has not included public participation, and can therefore not support the application. It is also recommended that the application be re-submitted to Heritage Western Cape, based on findings of SHC. It is possible that HWC were not aware of all implications, mainly because these were missing or understated in the various VIA and town planning documentation.*



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Please refer to the Town Planning Report of Alternatives considered;  
 The Public Participation is not an obligation when conducting a Visual Impact Assessment, please refer to the Public Participation process conducted by Overstrand Municipality;  
 The Specialist remained objective and therefore it is incorrect to state that "implications were understated". The "missing" photographic evidence from the entrance to the heritage village, Village Green and Nearby Residence will be investigated should the Stanford Heritage Committee request it.

**Conclusion:**

In conclusion, we would like to emphasise the positive contribution this base station have on the surrounding community:

- In today's fast moving society, mobile communication has become essential for the successful operation of numerous businesses and something that successful business men and woman cannot live without. Hence, the need for mobile communication network coverage in this area.
- A vast majority of the households depend on the services of the cellular telecommunications providers, including internet and social networking media (Facebook, Twitter etc.). With such a high demand for their products, it follows that service providers are responsible for supplying a high level of network coverage.
- Mobile communication has become an important safety and security element in modern society. In an emergency, such as a housebreaking, medical alert or fire, a member of a household can quickly and easily contact the emergency services for help. However if the coverage of mobile service providers' is poor, then contacting emergency services is a difficult task.

Finally, I would like to emphasize that communications companies deliver an important service to the wider public, and in terms of their license with ICASA they have to meet certain standards in order to retain their licenses. One of these standards is to supply adequate network coverage to their demanding customers.

Please continue to consider this application in a favourable manner.

Yours faithfully

D. Loots  
 Warren Petterson Planning



**Western Cape  
Government**  
Environmental Affairs and  
Development Planning



**ANNEXURE F 1/1**

**DEVELOPMENT MANAGEMENT: REGION 2**

Angelina.Mabie@westerncape.gov.za  
Tel: +27 21 483 8354 Fax: +27 21 483 3633  
Postle Box X9086, 1 Dorp Street, Cape Town, 8000  
www.westerncape.gov.za/eadp

*TR A Theart  
(C P Roux)*

**REFERENCE:** 15/3/2/12/BO3

The Municipal Manager  
Overstrand Municipality  
P.O. Box 20  
Hermanus  
7200

For attention: P Roux

**REQUEST FOR PLANNING COMMENT: CONSENT USE AND DEPARTURE: ERF 523, STANFORD**

1. Your application, dated 17 April 2019, has reference.
2. After having had the opportunity to consider the application, this Directorate's planning component has no objection in respect of the proposed consent use and departure to encroach the height restriction from 2.1m to 2.4 for a palisade wall and from 10.5m to 25m on Erf 523 to accommodate the transmission tower.

  
\_\_\_\_\_  
**DIRECTOR: DEVELOPMENT MANAGEMENT REGION 2**

**DATE** 9.5.2019

FILE NO:	EL 523 Stanford ✓
SCAM NO:	STF 523
COLLABORATOR NO:	1286082



**ROAD NETWORK MANAGEMENT**  
 Email: Grace.Swanepoel@westerncape.gov.za  
 Tel: +27 21 483 4669  
 Rm 335, 9 Dorp Street, Cape Town, 8001  
 PO Box 2603, Cape Town, 8006



**REFERENCE: 16/9/6/1-21/177 (Job 20124)**  
**ENQUIRIES: Ms GD Swanepoel**  
**DATE: 16 May 2019**

The Municipal Manager  
 Overstrand Municipality  
 PO Box 20  
**HERMANUS**  
 7200

FILE NO:	
SCAN NO:	
COLLABORATOR NO:	1287203

Attention: Mr P Roux

Dear Sir

**ERF 523, STANFORD, OVERSTRAND MUNICIPAL AREA: TRUNK ROAD 28 AND MAIN ROAD 267:  
 PROPOSED CONSENT USE AND DEPARTURE**

1. Your letter 523 SSS dated 17 April 2019 refers.
2. The subject erf is located in Stanford and takes access off Main Road 267.
3. This application is for Consent Use and Departure in order to erect a transmission tower.
4. This Branch offers no objection to the application in terms of the Land Use Planning Act, No 3 of 2014.

Yours faithfully

  
**SW CARSTENS**  
 For CHIEF DIRECTOR: ROAD NETWORK MANAGEMENT

**COMMENTS FROM THE ENGINEERING SERVICES DEPARTMENT FOR:  
APPLICATION FOR CONSENT USE & DEPARTURE: ERF 523,  
STANFORD (4145)**

Electricity	:	In order
Water	:	In order
Sewer	:	In order
Stormwater	:	In order
Roads and traffic	:	In order

**Conditions:**

1. that only the existing water and sewerage connections will be available to the development and that, should additional capacity be required, an investigation be conducted, with regard to the capacity required and that available, at the developer's cost;
2. that only the existing electricity connection will be available for the development and that, should additional capacity be required, an investigation be conducted, with regard to the capacity required and that available, at the developer's cost;
3. that the developer must investigate and determine the limitations of the site in terms of sewer drainage, subject to the minimum requirements of SANS 140400 – P: 2010: Drainage;
4. that any relocation of or any additional and / or extended vehicle entrances will be for the developer's account;
5. that stormwater be allowed to discharge through Erf 523, Stanford, unobstructed;
6. that no on-street parking be allowed.

  
**DENNIS HENDRIKS**  
**SENIOR MANAGER:**  
**ENGINEERING SERVICES**

  
**DATE**



Directorate: Development Management  
(Region 1)



TP - A Theart  
(P Roux)

**REFERENCE:** 16/3/3/6/E2/37/1151/19  
**ENQUIRIES:** Ms. Saa-rah Adams  
**DATE:** 31-05-2019

The Municipal Manager  
Overstrand Municipality  
P. O. Box 20  
HERMANUS  
7200

**Attention: Mr. P. Roux**

FILE NO: EL 523 - Stanford
SCAN NO:
COLLABORATOR NO: 1291063

Tel: 028 313 8900  
Fax: 028 313 2093

Dear Sir

**RE: APPLICABILITY OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) ("NEMA") ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED) WITH RESPECT TO THE PROPOSED CONSENT USE AND DEPARTURE FOR THE DEVELOPMENT OF A TELECOMMUNICATIONS BASE STATION AND ASSOCIATED INFRASTRUCTURE ON ERF NO. 523, STANFORD**

1. The abovementioned document dated 17 April 2019 as received by this Department on 25 April 2019 and the Department's correspondence dated 3 May 2019, refer.
2. Further to review of the information submitted to this Department, the following is noted:
  - 2.1. The proposal entails the establishment of a new telecommunication base station on Erf No. 523, Stanford.
  - 2.2. According to the site development plan, the base station will comprise of a 25m high tree mast, with associated infrastructure which will be surrounded by a steel palisade fence.
  - 2.3. The property is zoned Business Zone 2: General Business and is located on the periphery of the urban area.
  - 2.4. There are no sensitive environmental features on site.
3. On 7 April 2017 the Minister of Environmental Affairs promulgated amendments to the regulations in terms of Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), viz. the Environmental Impact Assessment ("EIA") Regulations, 2014 and Listing Notices 1, 2 and 3. These regulations came into effect on 7 April 2017.
4. In light of the above, your attention is drawn to the listed activities in terms of the NEMA EIA Regulations, 2014 (as amended) as defined in Listing Notices 1, 2 and 3. Please be advised that

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Tel: +27 21 483 0773 Fax: +27 21 483 3098  
Email: Saa-rah.Adams@westerncape.gov.za

Private Bag X9086, Cape Town, 8000  
www.westerncape.gov.za/eoadp

the proposed new telecommunications base station does not constitute any listed activities in terms of the NEMA EIA Regulations, 2014 (as amended), as the telecommunications mast is located in an urban area and no indigenous vegetation will be cleared for the construction thereof. Environmental authorisation is therefore not required from this Department prior to the development thereof.

5. Please note that should any revision of the proposed development constitute a listed activity(ies) in terms of the NEMA EIA Regulations, 2014 (as amended) as defined in Listing Notices 1, 2 and/or 3, an application must be submitted and environmental authorisation obtained before such activity(ies) may commence.
6. The applicant is reminded of his/her general duty of care and the remediation of environmental damage, Section 28(1) of NEMA specifically 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.”*
7. Please note that the applicant must comply with any other statutory requirements that may be applicable to the undertaking of the activity.
8. Your interest in the future of our environment is greatly appreciated.
9. This Department reserves the right to revise or withdraw any comments or request further information from you based on any information received.

Yours faithfully



**HEAD OF COMPONENT**

**ENVIRONMENTAL IMPACT MANAGEMENT SERVICES: REGION 1**

**DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING**

Cc: D. Loots (Warren Petterson Planning)

Fax: 086 537 9187



TP- A Theart  
(suid merwe)



Division of Telkom SA SOC Ltd

10 Jan Smuts Drive  
Pinelands  
7404

Candice Spammer

Tel: 021 414 5582

Fax: 086 480 0617

Email: spammec1@telkom.co.za

FILE NO: EL 523- Stanford
SCAN NO: STF 523
COLLABORATOR NO: 1291513

Our Ref.: WWIP\_W5FD1804\_19

Your Ref.: 523 555 4145

6 June 2019

Attention: S Muller

Overstrand Municipality  
HERMANUS

PLANT AFFECTED:

**PROPOSED CONSENT USE AND DEPARTURE: ERF 523, CORNER OF R43 AND R326, STANFORD**

With reference to your application received April 2019.

As important OPTIC FIBRE cables and other infrastructure are affected, please contact our representative Frederik Swart at 028 514 1199 / 081 363 7815 / FrederikS@openserve.co.za 48 hours prior to commencement of construction work.

I hereby inform you that Open Serve approves the proposed work indicated on your drawing in principle. This approval is valid for 12 months only, after which reapplication must be made if the work has not been completed.

Any changes or deviations from the original planning during or prior to construction must immediately be communicated to this office.

Approval is granted, subject to the following conditions.

As per sketch attached, Open Serve infrastructure will be affected, consequently the conditions below and on the attached legend will apply.

61 Oak Avenue, Highveld, Techno Park, Centurion 0157,  
Private Bag X881, Pretoria, Gauteng, 0001

TP - 6 JUN 2019

Telecommunication services position is shown as accurately as possible but should be regarded as approximate only.

Should alterations or relocation of existing infrastructure be required, such work will be done at the request and cost of the applicant.

Please notify this office within 21 working days from this letter of acceptance and if any alternative proposal is available or if a recoverable work should commence.

It would be appreciated if this office can be notified within 30 days of completion of the construction work. Confirmation is required on completion of construction as per agreed requirements.

Should Open Serve infrastructure be damaged while work is undertaken, kindly contact our representative immediately.

All Open Serve rights remain reserved.

Yours faithfully

  
\_\_\_\_\_  
Selwyn Bowers  
Operations Manager  
Wayleave Management: Western Region

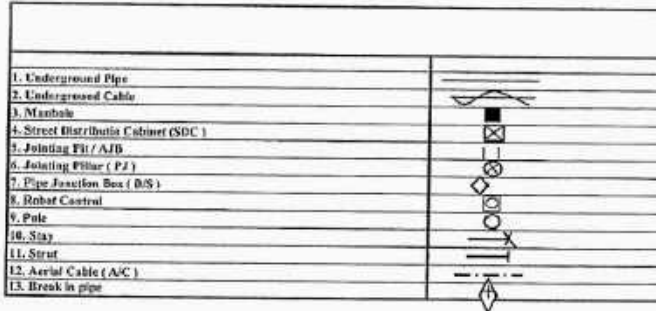
This wayleave, Reference Number **WWIP WSD1804 19** is valid for 12 months from date here of and is subject to the following conditions:

1. No mechanical plant or vibrator type compactors may be used within three metres of any Open Serve plant ( I.E. any Telecommunication equipment above or below ground level )
2. The position of our plant affected by the proposal is indicated as approximate and **Frederik Swart** at telephone number **081 363 7815** must be contacted at least 48 hours prior to commencement of the work, upon which the actual location of Open Serve Plant will be indicated on site.
3. A written request must be submitted to Open Serve for consideration should the applicant require our plant to be relocated. The cost of such a relocation will be recoverable from the applicant.
4. It is the responsibility of the applicant to verify the existence of the indicated plant and to notify Open Serve immediately, should the applicant locate any Open Serve plant indicated on the provided plans.
5. Should the applicant expose any Open Serve plant, the safeguard thereof will be the applicant's full responsibility.
6. Failing to comply with the above conditions or any special conditions addendum herein will be regarded as gross negligence and the applicant will be held responsible for the damage or loss as a result thereof.

Date: 06 June 2019

By: C Spammer

For Regional General Manager  
Western Cape (N2W3T1B)



The pipeline indicated contains OPTIC FIBRE cables.

**F Swart** - telephone **028 514 1199** must be contacted at least 48 hours before commencement of work.





**Petrus Roux - RE: Erf 147 Stanford/ 16B Queen Victoria Street**

**From:** "Eddy Kgomongwe (ET)" <eddy.kgomongwe@gyrogroup.co.za>  
**To:** "petrusroux@overstrand.gov.za" <petrusroux@overstrand.gov.za>  
**Date:** 2019/12/19 12:07  
**Subject:** RE: Erf 147 Stanford/ 16B Queen Victoria Street  
**Cc:** "Nhlamulo Baloyi (NE)" <nhlamulo.baloyi@gyrogroup.co.za>, "Thabo Mofokeng..."

Good Day Petrus

As discussed, our structures are multi-tenants and we do allow other operators co-location on them

Regards



Eddy Kgomongwe | Senior Manager Masts & Towers | Gyro Group  
 The Hub | 61 Oak Avenue | Centurion | Gauteng | South Africa  
 M: 061 481 7614 | T: 012 311-4817  
 E: [Eddy.kgomongwe@gyrogroup.co.za](mailto:Eddy.kgomongwe@gyrogroup.co.za) | W: [www.gyrogroup.co.za](http://www.gyrogroup.co.za)

Notwithstanding to the Gyro Group electronic communication system, you should refer to <http://www.gyrogroup.co.za/Disclaimer>

**From:** Eddy Kgomongwe (ET)  
**Sent:** 19 December 2019 10:25 AM  
**To:** petrusroux@overstrand.gov.za  
**Cc:** Nhlamulo Baloyi (NE) <nhlamulo.baloyi@gyrogroup.co.za>; Thabo Mofokeng (T) <Thabo.Mofokeng@gyrogroup.co.za>; Peter Moloto (TP) <Peter.Moloto@gyrogroup.co.za>  
**Subject:** Erf 147 Stanford/ 16B Queen Victoria Street

Good Day Petrus

Please contact me pertaining your inquiry at Erf 147, need more info on the request

Regards



Eddy Kgomongwe | Senior Manager Masts & Towers | Gyro Group  
 The Hub | 61 Oak Avenue | Centurion | Gauteng | South Africa  
 M: 061 481 7614 | T: 012 311-4817  
 E: [Eddy.kgomongwe@gyrogroup.co.za](mailto:Eddy.kgomongwe@gyrogroup.co.za) | W: [www.gyrogroup.co.za](http://www.gyrogroup.co.za)