MEETING OF THE MUNICIPAL PLANNING TRIBUNAL (MPT)

A G E N D A

DATE:	**24 JANUARY 2018**
VENUE:	**TOWN PLANNING COMMITTEE ROOM HERMANUS**
TIME:	**14:00**

OVERSTRAND MUNICIPALITY

Office of the Municipal Manager
Civic Centre
HERMANUS
7200

17 January 2018

TO : THE CHAIRPERSON AND MEMBERS OF THE MUNICIPAL PLANNING TRIBUNAL

CONVENING NOTICE : SESSION OF THE MUNICIPAL PLANNING TRIBUNAL (MPT)

NOTICE IS HEREBY GIVEN that a meeting of the **Municipal Planning Tribunal (MPT)** will go into session on **Wednesday, 24 January 2018 at 14:00, Town Planning Committee Room, 16 Paterson Street, Hermanus,** to consider the attached agenda.

S MüLLER
CHAIRPERSON : MUNICIPAL PLANNING TRIBUNAL

Distribution:

1. Mr S Müller (Chairperson)
2. Mr R Williams (Vice Chairperson)
3. Mr S Madikane (Member)
4. Ms D Arrison (Member)
5. Mr R Kuchar (Member)
6. Ms H Janser (Member)
7. Mr S van der Merwe (Senior Town Planner)
8. Ms H van der Stoep (Senior Town Planner)
9. Mr P Roux (Town Planner)
10. Mr H Olivier (Town Planner)
11. Secretariat

AGENDA OF THE MUNICIPAL PLANNING TRIBUNAL: 24 JANUARY 2018

1. OPENING

2. APPLICATIONS FOR LEAVE OF ABSENCE

3. CONFIRMATION OF MINUTES

3.1 Minutes of a Municipal Planning Tribunal Meeting held on 29 November 2017

4. ITEMS FOR CONSIDERATION

4.1 PORTION 25 (PORTION OF PORTION 2) OF THE FARM RIVERSIDE NO. 644, DIVISION CALEDON, ERVEN 1909 – 1914, 2275 AND 1198, STANFORD, OVERSTRAND MUNICIPAL AREA : PROPOSED REZONING, SUBDIVISION, DEPARTURE, AMENDMENT OF THE OVERSTRAND GROWTH MANAGEMENT STRATEGY AND APPROVAL OF STREET NAMES : STANFORD AFFORDABLE HOUSING PROJECT : MESSRS URBAN DYNAMICS ON BEHALF OF OVERSTRAND MUNICIPALITY

Report attached

4.2 ERF 1391, CHURCH STREET, HAWSTON, OVERSTRAND MUNICIPAL AREA : CONSENT USE : WRAP ON BEHALF OF NW REA

Report attached

4.3 ERF 3023, 61 PALMIET ROAD, KLEINMOND, OVERSTRAND MUNICIPAL AREA : PROPOSED CONSENT USE : DP & I ERASMUS

Report attached

4.4 ERF 593, 26 DUIKER STREET, VERMONT, OVERSTRAND MUNICIPAL AREA : REMOVAL OF RESTRICTONS AND DEPARTURE : MESSRS PLAN ACTIVE ON BEHALF OF THE NAAS MULLER FAMILY TRUST

Report attached

4.5 ERF 3965, 70 DIASTELLA ROAD, BETTY'S BAY, OVERSTRAND MUNICIPAL AREA : PROPOSED REMOVAL OF RESTRICTIVE CONDITIONS AND DEPARTURE : JA & JA COPE

Report Attached

4.6 ERF 4174 (UNREGISTERED REMAINDER), 303 SEVENTH STREET, VOËLKLIP, HERMANUS : APPLICATION FOR CONSENT USE (GUEST HOUSE) : MESSRS PLANACTIVE ON BEHALF OF JM & CP SWARBRECK

Report Attached

MUNICIPAL PLANNING TRIBUNAL (MPT)

24 January 2018

I N D E X

4.1
PORTION 25 (PORTION OF PORTION 2) OF THE FARM RIVERSIDE NO. 644, DIVISION CALEDON, ERVEN 1909 – 1914, 2275 AND 1198, STANFORD, OVERSTRAND MUNICIPAL AREA : PROPOSED REZONING, SUBDIVISION, DEPARTURE, AMENDMENT OF THE OVERSTRAND GROWTH MANAGEMENT STRATEGY AND APPROVAL OF STREET NAMES : STANFORD AFFORDABLE HOUSING PROJECT : MESSRS URBAN DYNAMICS ON BEHALF OF OVERSTRAND MUNICIPALITY

PTN 25 (PTN OF PTN 2) / 644 RCAL (3554)
P Roux (028) 313 8900 Hermanus Administration
14 November 2017

1. EXECUTIVE SUMMARY

An application has been received on 19 December 2016 from Messrs Urban Dynamics on behalf of the Overstrand Municipality on Portion 25 (portion of Portion 2) of the Farm Riverside No. 644, Division Caledon, Erven 1909 – 1914, 2275 and 1198, Stanford, Overstrand Municipal Area, for the following:

Application Area A

- rezoning in terms of Section 16(2)(a) of Portion 25 (portion of Portion 2) of the Farm Riverside No. 644 from Agriculture Zone 1 to Subdivisional Area;
- subdivision in terms of Section 16(2)(d) in order to create 770 Residential Zone 1, 6 Community Zone 1, 7 Business Zone 3, 12 Open Space Zone 2, 1 Authority Zone and Transport Zone 2 (roads) erven;
- departure in terms of Section 16(2)(b) in order to relax the lateral building lines applicable to the proposed residential erven from 1m to 0m (only one lateral building line of the respective erven will be relaxed);
- deviation of the Overstrand Growth Management Strategy (2010) in order to provide a residential density of 30 units in lieu of the 10 - 20 units per hectare; and
- approval of new street names in terms of Section 96 of the Overstrand By-Law on Municipal Land Use Planning, 2016.

Application Area B

- subdivision in terms of Section 16(2)(d) of the Remainder of Erf 1198, Stanford to create Portion A approximately 287m² in extent;
- closure in terms of Section 16(2)(n) of Portion A (public road) of the Remainder of Erf 1198;
- rezoning in terms of Section 16(2)(a) of Portion A and Erven 1909 - 1914 and 2275, Stanford from Transport Zone 2 and Residential Zone 1 respectively, to Transport Zone 2;
- consolidation in terms of Section 16(2)(e) of Portion A and Erven 1909 - 1914 and 2275, Stanford to create Application Area B;
- subdivision in terms of Section 16(2)(d) to create Portion C (proposed road ±571m²) and the Remainder (existing taxi rank);
- rezoning in terms of Section 16(2)(a) from Portion C to public road; and
- consent use in terms of Section 16(2)(o) to accommodate shops and informal trading on the taxi rank site (Remainder).

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

2. DECISION AUTHORITY

Municipal Planning Tribunal

3. BACKGROUND / SITE HISTORY

Stanford has been identified by the Overstrand Municipality as having an urgent housing need. The application is therefore submitted to address the current and future housing need of the community. The housing development is to provide housing opportunities for existing community members who are on the housing waiting list and residents at 'Die Kop'.

The application involves two application areas, firstly Application Area A which is Portion 25 (Portion of Portion 2) of the Farm Riverside No. 644. The farm is identified as the location which will be developed to form the new settlement extension. The property is zoned for agricultural use and was previously used as part of a chicken farm however the property owner never developed the portion for farming activities. The Municipality purchased the farm for the purposes of human settlement development.

Application Area A involves the following;

- **Rezoning** in terms of Section 16(2)(a) of Portion 25 (Portion of Portion 2) of the Farm Riverside No. 644 from Agriculture Zone 1 to Subdivisional Area;

- **Subdivision** in terms of Section 16(2)(d) in order to create 770 Residential Zone 1, 6 Community Zone 1, 7 Business Zone 3, 12 Open Space Zone 2, 1 Authority Zone and Transport Zone 2 (roads) erven;

    - ❖ Single Residential erven will have a minimum erf size of 120m² to 240m².

- **Departure** in terms of Section 16(2)(b) in order to relax the lateral building lines applicable to the proposed residential erven from 1m to 0m (only one lateral building line of the respective erven will be relaxed);

- **Deviation** of the Overstrand Growth Management Strategy, 2010 in order to provide a residential density of 30 units in lieu of the 10 - 20 units per hectare;

- **Approval** of new street names in terms of Section 96 of the Overstrand By-Law on Municipal Land Use Planning, 2016.

The second Application Area B involves Erven 1909 – 1914, 2275 and 1198, Stanford where upon the existing taxi rank facilities are located. The application will seek to regularise the existing use while creating an access road to the proposed development on Portion 25 of the Farm No. 644.

- **Subdivision** in terms of Section 16(2)(d) of the Remainder of Erf 1198, Stanford to create Portion A approximately 287m² in extent;

- **Closure** in terms of Section 16(2)(n) of Portion A (public road) of the Remainder of Erf 1198;

- **Rezoning** in terms of Section 16(2)(a) of Portion A and Erven 1909 – 1914 and 2275, Stanford from Transport Zone 2 and Residential Zone 1 respectively, to Transport Zone 2;

- **Consolidation** in terms of Section 16(2)(e) of Portion A and Erven 1909 - 1914 and 2275, Stanford to create Application Area B;

- **Subdivision** in terms of Section 16(2)(d) to create Portion C (proposed road ±571m²) and the Remainder (existing taxi rank);

- **Rezoning** in terms of Section 16(2)(a) from Portion C to public road; and

- **Consent use** in terms of Section 16(2)(o) to accommodate shops and informal trading on the taxi rank site (Remainder).

4. SUMMARY OF APPLICANT'S MOTIVATION

Due to the comprehensiveness of the Motivation Report, only the main points of motivation are conveyed as follows (the detailed report is attached as Annexure B):

- ❖ Application Areas A & B provide excellent opportunity for a housing development. This human settlement is regarded desirable within its local context.
- ❖ Erf layout parameters were informed by unit typologies, development and service costs and the overall design pattern. The layout plan was presented to all Services Departments, Cape Nature, Botanists and the Stanford Social Compact, all inputs received were regarded and incorporated to amend and improve the initial design.
- ❖ The proposed extension is regarded as a natural extension of existing urban footprint.
- ❖ The application is consistent with the Provincial Spatial Development Framework, 2014 (PSDF) as the application has good access to services and opportunities – the application will act as a precondition for the efficient and affordable delivery of basic services – it promotes integrated approach to align housing with transport, land use, economic and infrastructure decisions within a long-term vision of a more integrated urban future.
- ❖ The application is consistent with the National Outcome 8 Delivery Agreements: PSDF.
- ❖ The application complies in terms of the Overstrand Municipal Wide Spatial Development Framework, 2006 (SDF) in the following aspects:
  - o the application areas is situated within the urban edge,
  - o Application Area A is designated for urban extension purposes; and
  - o the proposed extension is a logical extension to the existing residential area.
- ❖ The application proposes higher densities than what is designated in the Growth Management Strategy, 2010 (GMS), therefore the application does not comply in terms of the SDF and the GMS - the deviation is motivated due to:
  - o land scarcity for human settlement development in the Western Cape and specifically Overstrand;
  - o the proposed 30 units per hectare are regarded as medium density in terms of human settlement design trends; and

- the increase in density from 20 units to 30 units per hectare will have no negative impact in its surrounding environments.

❖ Civil services – GIBB was appointed to undertake the design of the bulk and internal civil services for the proposed development –
- it was determined that the sewerage system and water supply must be upgraded in accordance with the GLS Report. After the upgrade there will be sufficient capacity for the proposed development.

❖ The design will incorporate most of the botanically sensitive areas within open areas (open space).
❖ Access will be gained from existing road network.
❖ Transport Impact of the proposed development will have a minimal impact on the traffic congestion of Stanford.
❖ It is proposed to demarcate a buffer zone around the Waste Water Treatment Works (WWTW); this is to ensure that risk to users of the open area is monitored and mitigated.
❖ The application complies with the main pillars of sustainability which includes economic, social and ecological.
❖ The application complies with the planning principals.
❖ The existing zoning rights enjoyed by the community will not be negatively affected.

5. ADMINISTRATIVE COMPLIANCE

Methods of advertising		Date published	Closing date for comments
Notices	Yes	23/05/2017	30/06/2017
Ward councillor	Yes	23/05/2017	30/06/2017
Advertisement	Yes	23/05/17	30/06/2017
Total letters of objection	**Two (2)**		
Was public participation undertaken in accordance with Section 45 – 49 of the Proposed Draft By-Law on Municipal Land Use Planning?			**Yes**
Was the application processed correctly?			**Yes**
Is the proposal consistent with the principles referred to in Chapter 2 of SPLUMA and Chapter VI of LUPA?			**Yes**

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

Name	Date received	Summary of comments	Recommendation
Waste Management Services	06/06/2017	No objection.	**Positive**
Electro Technical Services	13/06/2017	No objection.	**Positive**
Eskom	20/06/2017	Annexure F.	**Positive**

Building Department	21/06/2017	No objection.	**Positive**
Fire Services	04/07/2017	Annexure G.	**Positive**
District Health	06/07/2017	Annexure H.	**Positive**
DEADP Environmental Authorisation	07/07/2017	Annexure I.	**Positive**
Breede-Gouritz Catchment Management Agency	27/07/2017	Annexure J.	**Positive**
Telkom	31/07/2017	Annexure K.	**Positive**
Department of Transport and Public Works	04/08/2017	Annexure L.	**Positive**
Overstrand Environmental Section	07/08/2017	Annexure M.	**Positive**
Department of Agriculture	29/08/2017	No objection.	**Positive**
Operational Services	30/08/2017	Annexure N.	**Positive**
Services Report	05/10/2017	Annexure O.	**Positive**

7. SUMMARY OF COMMENTS RECEIVED DURING PUBLIC PARTICIPATION

Two (2) objections were received before the closing date of the public participation process. One (1) objection was received from H Gibson and the other from Die Bron Primary School. It should be noted that Stanford Conservation Trust, Stanford Ratepayers Association and Stanford Social Compact inquired to appeal the application. This will be discussed after the objections have been discussed.

The following issues were raised by H Gibson and Die Bron Primary School:

The bad smell from the existing WWTW has a negative impact on the surrounding residential neighbourhoods.

Applicant's response

Noted. However, the application at hand is for a new integrated residential development, with no direct bearing on existing impacts of the WWTW.

Town Planner's response

The comment provided by the applicant is agreed with.

The WWTW odour also has a negative impact on learners at Die Bron Primary School. Previous correspondence in this regard is on record with the Overstrand Municipality.

Recent comments from the Ward Councillor (Mr Dudley Coetzee) confirmed that more than R1m has been budgeted for upgrades to the WWTW, but according to our knowledge no upgrades have been implemented to date.

Applicant's response

Noted. As mentioned above, the existing impacts of the WWTW on the surrounding area, including the school, are not related to the application at hand.

Noted. The relevant officials and representatives of the Overstrand Municipality will address the matter and provide feedback to the Stanford community via the appropriate channels of Ward Councillors and community organizations. The health and welfare of the community is a priority to the Overstrand Municipality. It was verbally confirmed by Mr Dennis Hendriks of the Overstrand Municipality Engineering Department that a tender process is currently being undertaken to appoint consultants for upgrading to the WWTW, which will increase the capacity of the infrastructure and intends to reduce negative impacts, by improving operations and technology at the WWTW.

Town Planner's response

The comment provided by the applicant is agreed with.

The objector requests clarification on the nature and extent of the proposed buffer area around the WWTW, and how it will affect Die Bron Primary School. The objector also requests clarification regarding the air quality study's findings.

Applicant's response

As part of the environmental assessment process for the proposed housing development, an Air Pathway Study was undertaken by a reputable specialist (Mr Demos Dracoulidous). The findings of the report recommended that a certain development buffer be introduced around the WWTW where no residential development should be located. The relevant recommended buffer distance has been overlaid onto the layout plans and no residential erven are positioned within this area (refer to Figure 1 below). The findings of the study were based on best practice standards, specifications of general health requirements as well as the National Environmental Management Act, 1998 (NEMA), while the determined buffer is also specific to the area due to prevailing winds and local circumstances.

Town Planner's response

The comment provided by the applicant is agreed with. Further comment was also received from the District Health Department which states that no development can take place in the buffer zone between the housing development and the WWTW. It is noted that a portion of the school field is situated in the buffer zone; this will not affect the school at this stage as the school is existing. The buffer zone will be used as an informant for future development.

Clarification is requested for the zoning which has been allocated to the property that will abut on the southern side of the WWTW.

Applicant's response

The site marked pink/purple in Figure 1 above, is proposed to be zoned Community Zone I in terms of the Overstrand Zoning Scheme. The intention is to potentially in future establish a sport and recreation facility on the land portion. If Stanford would in future require a High School due to increased population, the site also has the potential to accommodate a school on the portion of the site located outside of the WWTW buffer area.

Town Planner's response

The site may also be used for an ECD centre or a facility which has a multifunctional use which will be to the benefit of the broad community.

The vehicular access to the WWTW is causing trucks to pass by the school, causing dust pollution, and affecting the safety of kids being dropped off in the streets where no sidewalks are currently provided.

Applicant's response

Noted. It is the intention that Church Street will be extended and formalised, while the gravel road referred to by the objector will also be upgraded as a hard surfaced road (mitigating the dust issue) in future when the development is established.

It is agreed that the trucks visiting the WWTW should not be utilising Skool Street, as it poses a safety risk to the learners. This aspect will be brought under attention of the relevant Overstrand officials to investigate and address.

Town Planner's response

The concern of the school is noted and will be brought to the attention of the relevant department in order to determine whether or not the upgrading of the street is within the Municipality's budget.

Mr. Henry Gibson commented on the proposed street names, making certain suggestions in this regard.

Applicant's response

Noted. The street names were nominated by the Social Compact representatives of the community, which is not directly related to the town planning merit of the application at hand. Final allocation of street names will be undertaken by the Overstrand Municipality, in consultation with the community.

Town Planner's response

The comment received is noted, and the comment provided by the applicant is agreed with.

8. SUMMARY OF APPLICANT'S REPLY TO COMMENTS

See Paragraph 7 above.

9. MUNICIPAL ASSESSMENT OF COMMENTS

See Paragraph 7 above regarding the objections received from H Gibson and Die Bron Primary School.

The appeal received from Stanford Conservation Trust, Stanford Ratepayers Association and Stanford Social Compact will now be discussed.

The background entails that the Social Compact had a meeting with Mr Stephen Müller : Director of Infrastructure and Planning on 7 July 2017 in order to state their concerns regarding the proposed Stanford Housing layout which was part of the Environmental Authorisation process and which has been submitted as part of the land use application. At that time the closing date for public comments relating to the land use application were closed (30 June 2017) and it was the last day to appeal the Environmental Authorisation (7 July 2017). It was agreed that a meeting will be set up between the Stanford Conservation Trust, Stanford Ratepayers Association and Stanford Social Compact, representatives of the Municipality and Town Planning consultants who worked on the project (i.e. Urban Dynamics). The representatives from the Stanford Conservation Trust, Stanford Ratepayers Association and Stanford Social Compact were instructed to submit their concerns in writing in order to ensure that the issues were not already addressed during the Social Compact meetings. The concerns were submitted in writing and it was found that the issues were raised at the Social Compact meetings and adequately addressed. However, the representatives from the Stanford Conservation Trust, Stanford Ratepayers Association and Stanford Social Compact insisted that a meeting must be setup between the abovementioned role-players.

The meeting between the role-players were held on 11 October 2017 and five (5) primary issues were raised and addressed, namely:

- what aspects can be incorporated into the current design? Specific mention was made to the large open areas which were discussed in previous Social Compact meetings;
- what will happen with the people who are not on the waiting list. Mention is made to "Die Kop", informal settlement and backyard dwellers in Stanford;
- where will the areas for the sites (for housing and service sites) be located and will it be phased?;
- the northern portion (next to the WWTW) of the map. Is it suitable for an ECD centre?;
- additional access for pedestrians from the vicinity behind the rugby fields (between the proposed and existing extension).

The meeting was concluded with the understanding that the following must still be resolved:

- Jenny October (Stanford Social Compact) will get feedback from the community regarding the smaller open spaces in the northern part of Stanford;

- phasing of the development (provision of serviced sites and housing) will take place at a follow up Social Compact Meeting; and
- PJ Lerm (Urban Dynamics) will give insight into the development close to the buffer zone of the WWTW – the answer to this can be found in the response to the objections in the previous heading.

On 19 October 2017 an e-mail was received from Jenny October (on behalf of the Stanford Social Compact) stating that the Social Compact does not propose any other changes to the Layout Plan.

However, on 1 November 2017 a second e-mail was received from Ms Bea Whittaker, which is inconsistent with the e-mail from Jenny October. The email from Ms Whittaker presents a new Layout Plan. It should be noted that Jenny October was not known in the e-mail sent by Ms Whittaker and it appears that the new layout was not discussed with the Social Compact and can therefore not be considered to be compliant with the agreement reached between the role-players on 11 October 2017.

All the role players were informed of the Municipalities opinion and a follow up email was received from Jenny October on 21 November 2017 stating the proposed layout was presented/discussed to the community and some social members who was present however it was decided against the proposed change.

Considering the abovementioned the new proposed layout received on 1 November 2017 will therefore not be included into the current land use application.

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

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

It can be considered that the planning principles are adhered to as follows:

Spatial Justice
The proposed development will provide previously disadvantaged community members access to formal housing and access to serviced sites. The proposed location of the development is within the vicinity of the existing residential neighbourhood and can be easily integrated in the existing settlement form.

Spatial sustainability
The proposed development is a logical approach to extending the existing development footprint while connecting to existing services and road networks. Steps have been taken to ensure that the proposed development will not have a significant impact on the biodiversity, or adversely affect the ecological functioning of the area.

Spatial Efficiency
Existing bulk services and connections will be utilised for the development's internal services. The connection/linkage with the existing services will substantially reduce the development cost by means of reduced bulk service installation costs. Access to public and economic facilities will be promoted.

Spatial resilience
The application will ensure that the existing resource, i.e. land, is used more optimally.

Good administration
The application followed the required planning procedures to ensure that land use activity is in line with Municipal By-Laws and the public process has been followed.

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

Same as above.

10.3 (In)consistency with the IDP/Various levels of SDF's/Applicable policies

- The application complies in terms of the Overstrand Municipal Wide Spatial Development Framework, 2006 in the following aspects:
  - the application areas are situated within the urban edge;
  - application Area A is designated for urban extension purposes; and
  - the proposed extension is a logical extension to the existing residential area.

- The application proposes higher densities than what is designated in the GMS therefore the application do not comply in terms of the GMS. The GMS the deviation is motivated due to:
  - land scarcity for human settlement development in the Western Cape and specifically Overstrand;
  - the proposed 30 units per hectare are regarded as medium density in terms of human settlement design trends; and
  - the increase in density from 20 units to 30 units per hectare will have no negative impact in its surrounding environments.

10.4 (In)consistency with guidelines prepared by the Provincial Minister

Not applicable.

10.5 Impact on Municipal engineering services

It is determined that the sewerage system and water supply must be upgraded in accordance with the GLS Report. After the upgrade there will be sufficient capacity for the proposed development. Existing access points leading to the existing settlement will be utilised.

10.6 Outcomes of investigations/applications i.t.o other legislation

The applicant indicated and sufficiently motivated that the application adheres to National and Provincial Policies and Legislation regarding the provision of housing.

In terms of the National Environmental Management Act, 1998 Environmental Authorization has been obtained for the proposed development (see Annexure J).

The Municipal Environmental Department also indicated that they have no objection towards the proposed development.

10.7 Existing and proposed zoning comparisons and considerations

As previously stated, application Area A consists of Portion 25 of the Farm No. 644. The farm is identified as the location which will be developed to form the new settlement extension. The property is zoned for agricultural use and was previously used as part of a chicken farm however the property owner never developed the portion for farming activities. Overstrand Municipality purchased the farm for purposes of human settlement development.

Through subdivision and rezoning the following land uses will be created for the human settlement: 770 Residential Zone 1, 6 Community Zone 1, 7 Business Zone 3, 12 Open Space Zone 2, 1 Authority Zone and Transport Zone 2 (roads) erven.

Application Area B consists of Erven 1909 - 1914, 2275 and 1198, Stanford. The current zoning of the erven is Transport Zone 2 and Less Formal Development Zone. Through subdivision, rezoning and consolidation the following land uses will be created: Transport Zone 2 for road use, Transport Zone 2 for taxi rank with a consent in order to accommodate shops and informal trading on the taxi rank site.

10.8 The desirability of the proposal

Application Area A

As stated earlier the proposed application is to develop a human settlement which will address the current and future housing need of the community. The housing development is to provide housing opportunities for existing community members who are on the housing waiting list and residence at “Die Kop”.

Physical characteristics of the property

Portion 25 (portion of Portion 2) of the Farm Riverside No. 644 is incorporated into the urban edge of Stanford and is still zoned for agricultural use. The farm is currently not developed and is therefore under-utilised. In terms of the SDF the farm is identified as the location which will be developed to form the new settlement extension. The Municipality purchased the farm for the purposes of human settlement development.

By approving the development it will allow the Municipality to develop the land to its full potential while addressing the housing need in the Stanford area.

Location and accessibility

The proposed housing settlement will be accessible from the existing extension of Stanford from the following streets: Skool Street, Myddletoni Street, Nebo Street and Jasmyn Street. The development will therefore be accessible from the northern side and from the eastern side.

Each new residential erf will have good road access.

Existing planning and character of the area

The existing settlement to the east of the subject property is mostly developed with formal dwellings, with some level of informal structures.

The formalization of the subject property with services and road infrastructure will help to formalize the subject property to ultimately be developed to the same level as the adjacent settlement.

The proposed development can only have a positive impact on the surrounding area.

It is to be noted that the proposed development does not only provide residential erven, however a mixture of residential erven, community zoned properties, commercial zoned properties and open spaces will be provided in order to develop a sustainable development which caters to the needs of the community.

Departure

It is further proposed to relax the lateral building lines applicable to the proposed residential erven from 1m to 0m (only one (1) lateral building line of the respective erven will be relaxed). This is to ensure that the erven are optimally utilized while allowing sufficient space to allow on-site parking and room for extensions. Further, the remaining lateral building line allows access for safety personnel in case of an emergency. This departure will be applicable on all residential erven and will therefore set the character and design of the settlement.

Deviation from the Overstrand Municipal Wide Spatial Development Framework, 2006

The applicant also proposes a higher density than what is designated in the GMS and the deviation is motivated by the applicant. The proposed deviation is considered desirable due to the following:

- the subject property will be optimally developed and utilized;
- the higher density also enables the Municipality to provide more housing opportunities to the community;
- the subject property is undeveloped and therefore the character of the area still needs to be established. The opinion is therefore held that the proposed increase in density will allow the development of more housing opportunities while establishing the character and design of the settlement.

Street names

It should be noted that the list of proposed street names will be presented to the Municipal Planning Tribunal in order to take cognisance of the desired street names. Further, the street names are not indicated on the Development Plan as the list of names will be work shopped with the Social Compact in order to establish the allocation thereof to the different streets in the development, allowing them to decide what goes where. It should be noted that it was indicated that two (2) of the names were wrongly spelled and this will have to

be addressed before the implementation of the street names. The street names are as follows: Manuel and Cornelius.

Application Area B

As stated earlier the second application Area B involves Erven 1909-1914, 2275 and 1198 where upon the existing taxi rank facilities are located. The proposed application is desirable as it will enable the regularising of the existing taxi rank. Further, the residential erven (Erven 1909-1914) which are situated next to the taxi rank is currently vacant and under-utilised. Through the approval of the proposed application the erven will be created into a much needed access road to the proposed development on Portion 25 (portion of Portion 2) of the farm Riverside No. 644. Therefore the Municipality does not need to expropriate privately owned properties in order to create additional access.

10.9 ADDITIONAL PLANNING EVALUATION FOR REMOVAL OF RESTRICTIONS

The financial or other value of the rights

N/A

The personal benefits which will accrue to the holder of rights and/or to the person seeking the removal

N/A

The social benefit of the restrictive condition remaining in place, and/or being removed/amended

N/A

Will the removal, suspension or amendment completely remove all rights enjoyed by the beneficiary or only some of those rights

N/A

11. RECOMMENDATION

1. that the objections be noted;

2. that in terms of the Overstrand Municipality By-Law on Municipal Land Use Planning, 2016 (By-Law) the application to develop a housing development on Portion 25 (Portion of Portion 2) of the farm Riverside No. 644, Division Caledon, which includes the following:

   - rezoning in terms of Section 16(2)(a) of Portion 25 (Portion of Portion 2) of the farm Riverside No. 644 from Agriculture Zone 1 to Subdivisional Area;
   - subdivision in terms of Section 16(2)(d) in order to create 770 Residential Zone 1, 6 Community Zone 1, 7 Business Zone 3, 12 Open Space Zone 2, 1 Authority Zone and Transport Zone 2 (roads) erven;
   - departure in terms of Section 16(2)(b) in order to relax the lateral building lines applicable to the proposed residential erven from 1m to 0m (only one

(1) lateral building line of the respective erven will be relaxed);

- ❖ approval of new street names in terms of Section 96 of the Overstrand By-Law on Municipal Land Use Planning, 2015,

be approved in terms of the provisions of Section 61 of the said By-Law;

3. that in terms of the Overstrand Municipality By-Law on Municipal Land Use Planning, 2016 (By-Law) the application on Erven 1909-1914, 2275 and 1198, Stanford, which includes the following:

   - ❖ subdivision in terms of Section 16(2)(d) of the Remainder of Erf 1198, Stanford to create Portion A approximately 287m² in extent;
   - ❖ closure in terms of Section 16(2)(n) of Portion A (public road) of the Remainder of Erf 1198;
   - ❖ rezoning in terms of Section 16(2)(a) of Portion A and Erven 1909-1914 and 2275, Stanford from Transport Zone 2 and Residential Zone 1 respectively, to Transport Zone 2;
   - ❖ consolidation in terms of Section 16(2)(e) of Portion A and Erven 1909-1914 and 2275, Stanford to create application Area B;
   - ❖ subdivision in terms of Section 16(2)(d) to create Portion C (proposed road ±571m²) and the Remainder (existing taxi rank);
   - ❖ rezoning in terms of Section 16(2)(a) from Portion C to public road; and
   - ❖ consent use in terms of Section 16(2)(o) to accommodate shops and informal trading on the taxi rank site (Remainder),

   be approved in terms of the provisions of Section 61 of the said By-Law.

4. that the decision in paragraphs 1 and 2 above be subject to the following conditions:

   (a) that should top structures (units) be developed in this project a Layout Plan be submitted showing the building lines, placement of the units and unit types (single or double storey) prior to the building plan submission phase;

   (b) that all conditions imposed by Eskom, Fire Services, District Health, Department of Environmental Affairs and Development Planning, (Environmental Authorisation), Breede-Gouritz Catchment Management Agency and Telkom (attached as Annexures F - K), be complied with;

   (c) that all conditions in the Municipal Services Report (attached as Annexure O), be complied with;

   (d) that the provision of street names be noted and that the list of names be work shopped with the Social Compact;

   (e) that this approval does not absolve the applicant from compliance with any other relevant legislation, and

   (f) that all other development parameters as prescribed in the relevant Zoning Scheme be complied with.

5. that the applicant and objectors be notified of their right of appeal in terms of Section 78 of the Overstrand Municipality By-Law on Land Use Planning, 2016 with regard to the above decision.

RECOMMENDATION TO COUNCIL :

1. that the application for the deviation of the Overstrand Growth Management Strategy (2010) in order to provide a residential density of 30 units in lieu of the 10 - 20 units per hectare in terms of the provisions of the Municipal Systems Act, 2000 (Act 32 of 2000), **be recommended for approval**.

12. REASONS FOR RECOMMENDATION

- the application complies with the principles as set out in SPLUMA and LUPA;
- the application complies with the Overstrand Zoning Scheme Regulations and other policies;
- the proposed development will allow for greater housing opportunities;
- the proposed development will be to the benefit of the existing community in Stanford;
- the proposed development will be a natural extension of existing urban footprint;
- Environmental Authorisation has been given for the proposed development;
- the objections received were adequately addressed; and
- the character of the area will be improved.

13. Annexures

Annexure A:	Locality Plan
Annexure B:	Motivation Report
Annexure C:	Development Plan
Annexure D:	Objections
Annexure E:	Comment on objections
Annexure F:	Eskom
Annexure G:	Fire Services
Annexure H:	District Health
Annexure I:	Department of Environmental Affairs and Development Planning (Environmental Authorisation)
Annexure J:	Breede-Gouritz Catchment Management Agency
Annexure K:	Telkom
Annexure L:	Department of Transport and Public Works
Annexure M:	Overstrand Environmental Section
Annexure N:	Operational Services
Annexure O:	Services Report

SIGNATURES

AUTHOR:

Name: **PETRUS ROUX**

SACPLAN registration number: **A/2246/2015**

Signature: _____

Date: _____

REGISTERED PLANNER

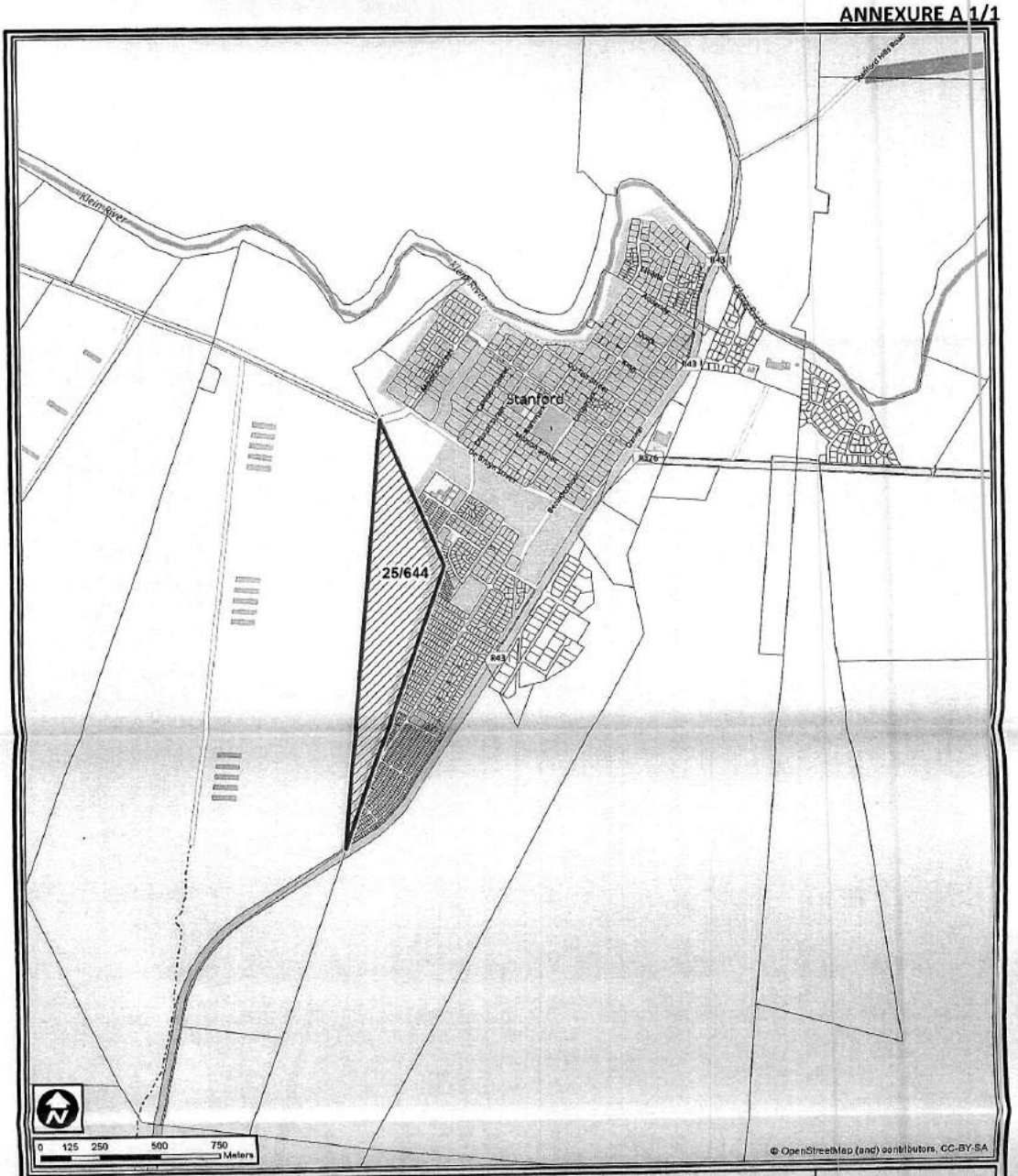
Name : **S VAN DER MERWE**

SACPLAN registration number: **A/1850/2014**

Signature : _____

Date: _____

ANNEXURE A 1/1



STANFORD

FARM 25/644
CALEDON

REGIONAL CONTEXT

Subject Property

Cadastral Boundary

URBAN DYNAMICS WESTERN CAPE

DATE: December 2016

SCALE: See Linescale

DRAWING NO: 5

CLIENT

SECTION 1 INTRODUCTION

1.1. BACKGROUND

The Overstrand Municipality identified Stanford as an area with an urgent housing need where development planning needs to be undertaken to address the current and future housing needs of the local community of this town. The objective of this housing development is to provide housing opportunities in Stanford, to optimise vacant available land that is located within the urban edge and to improve the living conditions of the informal residents and backyard dwellers. The residents/waiting list beneficiaries of the existing Stanford and 'Die Kop' residential areas are the primary beneficiaries of this proposed housing development.

Urban Dynamics Western Cape has been appointed by the Overstrand Municipality to prepare and submit a land use planning application to procure development rights for the proposed subsidised housing project (refer ***Annexure A:*** Power of Attorney).

The locality of the application site is directly adjacent to the existing Stanford settlement, on Portion 25 (portion of Portion 2) of Farm 644 Riverside, Caledon Division (from herewith forward the application area). The Overstrand Municipality specifically acquired this land portion for the purposes of human settlement development. ***Figure 1.1*** shows the application area in its surrounding context.

This application also relates to the regularisation of the existing taxi rank facility abutting the eastern boundary of the above-mentioned proposed housing development. Refer ***Figure 1.2*** for the locality of the taxi rank (Application B). The existing taxi facility serves as an important public transportation facility, which will also serve the proposed development.

1.2. PROPERTY DESCRIPTION AND OWNERSHIP

Application Area A is described in the title deed as follows (refer ***Annexure B:*** Title deed and SG Diagram):

PROPERTY DESCRIPTION	EXTENT	TITLE DEED	REGISTERED OWNER
Portion 25 (portion of Portion 2) of Farm 644 Riverside	±28.73 ha	T41074/2013	Overstrand Municipality

Table 1: Property Description

The afore-mentioned title deed does not include any restrictive conditions that would prohibit the proposed housing development.

Figure 1.1: Application area in its surrounding context

Figure 1.2: Application area for Application B in its surrounding context (Attached as Plan 1)

Application Area B includes a number of properties, as listed in ***Table 2*** below.

PROPERTY DESCRIPTION	EXTENT	TITLE DEED	REGISTERED OWNER
Erf 2275, Stanford	±1300m^2	T100064/1993	Overstrand Municipality
Erf 1198, Stanford	±800m^2	T100064/1993	Overstrand Municipality
Erf 1909, Stanford	181m^2	T100064/1993	Overstrand Municipality
Erf 1910, Stanford	180m^2	T100064/1993	Overstrand Municipality
Erf 1911, Stanford	180m^2	T100064/1993	Overstrand Municipality
Erf 1912, Stanford	180m^2	T100064/1993	Overstrand Municipality
Erf 1913, Stanford	180m^2	T100064/1993	Overstrand Municipality
Erf 1914, Stanford	180m^2	T100064/1993	Overstrand Municipality

Table 2: Property Description of Application B

The afore-mentioned title deed does not include any restrictive conditions that would affect the proposed rezoning, consolidation and subdivision to regularise the existing taxi rank and subsequently create an access road linking into the new development

1.3. THE APPLICATION

1.3.1. Application is hereby made on **Application Area A** for:

(i) **The rezoning** of Portion 25 (portion of Portion 2) of Farm 644 Riverside from Agriculture Zone I to Subdivisional Area in terms of Section 16(2)(a) of the Overstrand By-Law on Municipal Land Use Planning (2015);

(ii) **The subdivision** in terms of Section 16(2)(d) of the Overstrand By-Law on Municipal Land Use Planning (2015), to create the following:

- Residential Zone I — 770 erven
- Community Zone I — 6 erven
- Business Zone III — 7 erven
- Open Space Zone II — 12 erven
- Authority Zone — 1 erf
- Transport Zone II — Roads

(iii) **Building line departure** in terms of Section 16(2)(b) of the Overstrand By-Law on Municipal Land Use Planning (2015), to allow the following:

- Lateral/side building lines of 0m in lieu of 1m on one lateral boundary of each/all proposed residential erven (to accommodate semi-detached houses);
- Street building lines of 1m in lieu of 2m on all proposed residential erven.

(iv) **Deviation** from the Overstrand Growth Management Strategy (2010) to provide a gross residential density of 30 units per hectare on the application site, in lieu of the designated density of 10-20 units per hectare, in terms of Section 10 of the Overstrand By-Law on Municipal Land Use Planning (2015).

(v) **Approval of new Street Names** by Overstrand Municipality in terms of Section 96 of the Overstrand By-Law on Municipal Land Use Planning (2015).

1.3.2. **Application Area B** (taxi rank facility):

Application is hereby made for:

(i) **The subdivision** of the Remainder of Erf 1198, Stanford, in terms of Section 16(2)(d) of the Overstrand By-Law on Municipal Land Use Planning (2015), to create Portion A (refer ***Figure 1.3***);

(ii) The **closure** of Portion A **(public road)** of the Remainder of Erf 1198 in terms of Section 16(2)(n) of the Overstrand By-Law on Municipal Land Use Planning (2015),

(iii) **The rezoning** of newly created Portion A and erven 2275, 1909-1914, Stanford, from Transport Zone II and Residential Zone I respectively, to Transport Zone I, in terms of Section 16(2)(a) of the Overstrand By-Law on Municipal Land Use Planning (2015);

(iv) The **consolidation** of Portion A and erven 2275, 1909-1914, Stanford, in terms Section 16(2)(e) of the Overstrand By-Law on Municipal Land Use Planning (2015) to create the application area (refer ***Figure 1.4***);

(v) The **subdivision** of the application area in terms of Section 16(2)(d) of the Overstrand By-Law on Municipal Land Use Planning (2015), to create Portion C (proposed road - ±571m²) and the Remainder (existing taxi rank - ±2097m²) (refer ***Figure 1.5***); and

(vi) The **rezoning** of Portion C in terms of Section 16(2)(a) of the Overstrand By-Law on Municipal Land Use Planning (2015) to Transport Zone II for the proposed public road; and

(vii) **Consent use** in terms of Section (16)(2)(o) of the Overstrand By-Law on Municipal Land Use Planning (2015) to accommodate shops and informal trading on the taxi rank site.

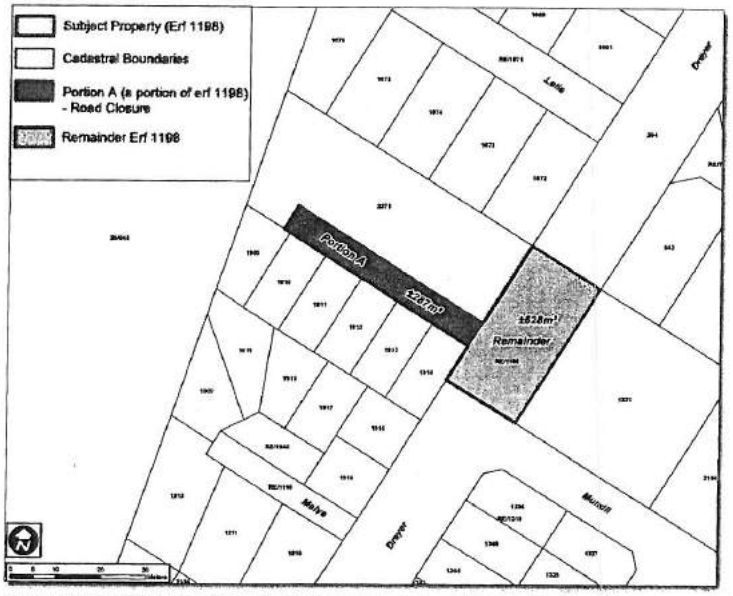


Figure 1.3: Subdivision Plan for Application B to create Portion A (Attached as Plan 2)

Figure 1.4: Consolidation Plan for Application B (Attached as Plan 3)

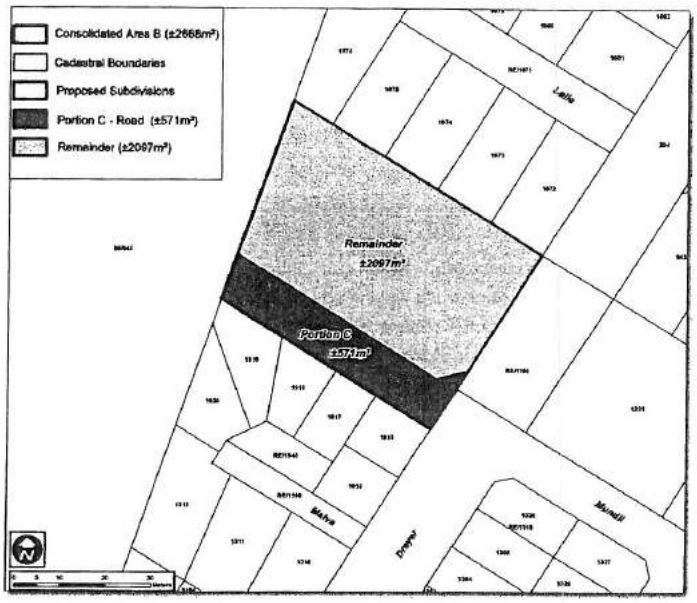


Figure 1.5: Subdivision Plan for Application B to create Portion C (Attached as Plan 4)

SECTION 2 CONTEXTUAL ANALYSIS

2.1 LOCALITY

2.1.1 REGIONAL CONTEXT

Stanford is a historical rural village, which functions as a tourism destination as well as a retirement town. The unique characteristics of Stanford include its well preserved historic townscape and it's setting which together with the magnificent view-sheds and surrounding historical farms contextualise the town's rural setting. It is of great importance to protect the historical village character of Stanford. Stanford is located 16km east of Hermanus and 22km north-east of Gansbaai. See ***Figure 2.1*** for the application area in its regional context.

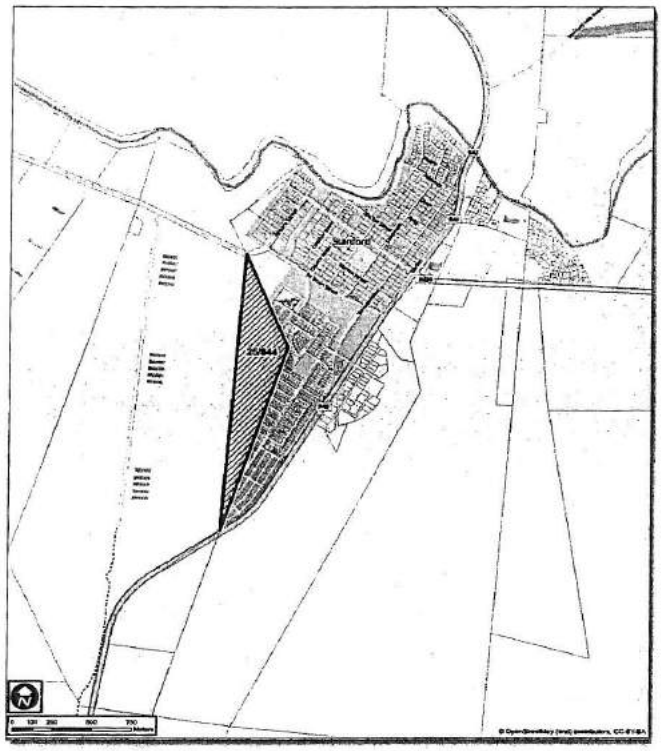
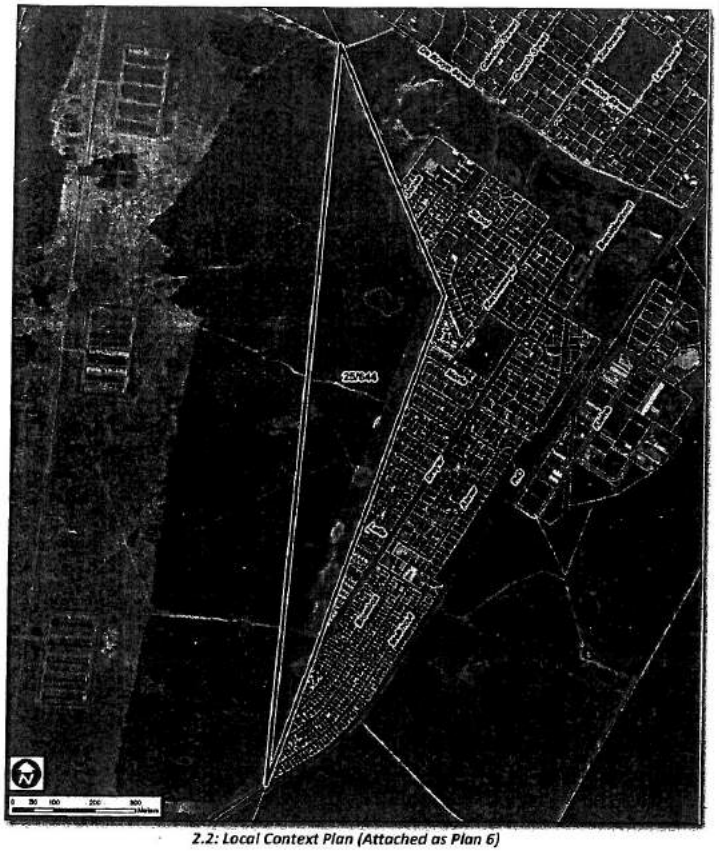


Figure 2.1: Regional Context Plan (Attached as Plan 5)

2.1.2. LOCAL CONTEXT

In terms of the local context, the application area for the proposed housing development is located in the south western side of Stanford. The application area abuts an existing residential development on the eastern boundary and is located to the west of the R43. The proposed housing development is regarded as a natural extension of the existing urban footprint. The area gains access from the existing road network located to the east. Agricultural land is located to the west of the application area.

Figure 2.2 illustrates the application area in its local context.



2.2: Local Context Plan (Attached as Plan 6)

2.2. POLICY FRAMEWORK

The proposed development is supported by the following planning policies, which were reviewed to determine the consistency of the land use proposal:

2.2.1. Provincial Spatial Development Framework (PSDF) – 2014

Objective of the framework

The Provincial Spatial Development Framework 2014 (PSDF) is the spatial policy of the Western Cape and the document will guide spatial planning over the next five years in the province. There are certain spatial goals, spatial policies and objectives in the PSDF to achieve the province's development vision.

Proposals pertinent to this application

The primary objectives relevant to this planning application include:

- Policy S3: ***Ensure compact, balanced & strategically aligned activities and land uses***.
- Policy S5: ***Ensure sustainable, integrated and inclusive housing planning and implementation***.

A compact urban form and built environment enables inclusivity and diversity of the population, housing and social facilities, and also acts as a precondition for the efficient and affordable basic services. Settlement patterns need to assist in "closing down space" within municipalities, to ultimately improve the affordability and viability of access to services and opportunities. It is important to target vacant and underutilised strategically located public land parcels for human settlement development.

The PSDF states that it is necessary to provide households with the residential environments, mobility and access to opportunities that support productive activities and reduce levels of exclusion from opportunity and there should be an increase in densities of settlements and dwelling units in new housing projects throughout the province.

IMPLICATION FOR THIS APPLICATION

The proposed development is consistent with the PSDF as:

- *The application area has good access to services and opportunities.*
- *The application area is regarded as a natural extension of the urban footprint and it will increase settlement density. The proposed development will also act as a precondition for the efficient and affordable delivery of basic services.*
- *It promotes an integrated approach that align housing with transport, land-use, economic and infrastructure decisions within a long-term vision of a more integrated urban future.*

2.2.2. National Outcome 8 Delivery Agreements: Sustainable Human Settlements and Improved Quality of Household Life

Government has agreed on 12 outcomes, each with a limited number of measurable outputs with targets. Each output is linked to a set of activities that will help achieve the targets and contribute to the outcome. Each of the 12 outcomes has a delivery agreement which in most cases involves all spheres of government and a range of partners outside government. Combined, these agreements reflect government's delivery and implementation plans for its foremost priorities.

The outcomes apply to the whole of government and are long term. While the delivery agreement may contain longer term outputs and targets, it also includes outputs and associated targets that are realisable in the near future years. It also considers other critical factors impacting on the achievement of outcome 8, such as the legislative and regulatory regime, the institutional environment and decision-making processes and rights, the resources needed and re-allocation of resources where appropriate.

The proposed development supports the National Outcome 8 imperative through:

- **Improving access to basic services,** which is essential to human dignity;
- Developments must be **suitably located**, affordable and decent; and
- Pursuing all available options for the release of suitable, well-located state-owned land.

2.2.3. Strategic Objective 6: Developing Integrated and Sustainable Human Settlements

Strategic Objective 6 of the Provincial Department of Human Settlements forms part of Province's vision of "an opportunity society for all". This objective focuses on accelerating housing delivery through prioritising in situ upgrades of informal settlements and providing an increased number of people with decreased level of assistance. It also incorporates the notion that those beneficiaries who have the means to contribute to their own housing needs must be provided with the opportunity to do so, whilst those unable to do so will be assisted. The core focus of Strategic Objective 6 is based on three outcomes, namely:

- Outcome 1: Accelerated delivery of housing opportunities;
- Outcome 2: A sense of ownership, rights and responsibilities amongst beneficiaries, owners and tenants; and
- Outcome 3: Optimal and sustainable use of resources.

2.2.4. Overstrand Municipal Wide Spatial Development Framework (2016)

The Overstrand Municipal Wide Spatial Development Framework (2006) (OSDF) provides overarching spatial development principles which underpin the municipality's approach to the integrated spatial planning and management of land use and economic development for the municipal area as a whole.

In terms of the site specific and local spatial objectives for the area, the Overstrand SDF (2006) designates the application area as follows (refer ***Figure 2.3***):

- The application property is located within the urban edge;
- The application area is designated for urban extension purposes; and
- The development of the application site is a logical extension to the existing residential area.

Furthermore, the Growth Management Strategy (2010) investigated the growth- and densification potential of the urban areas located within the Overstrand Municipality with due regard to the existing provision of social facilities such as schools, religious facilities and recreational facilities. The GMS recommended certain development densities and community facilities to be established in specific areas. ***Figure 2.4*** shows the application area designated as a low-medium density development area.

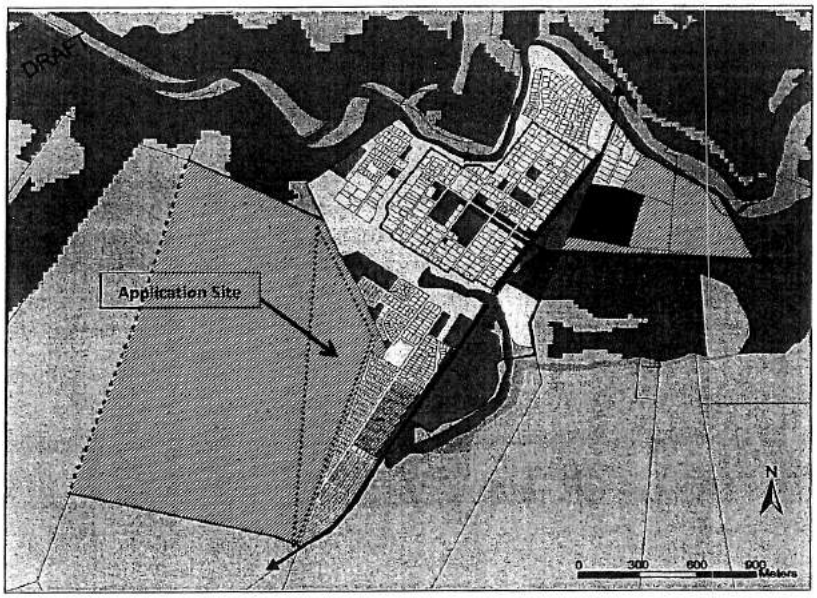


Figure 2.3: Overstrand SDF (2006) – Application Site Designated within urban edge for urban development

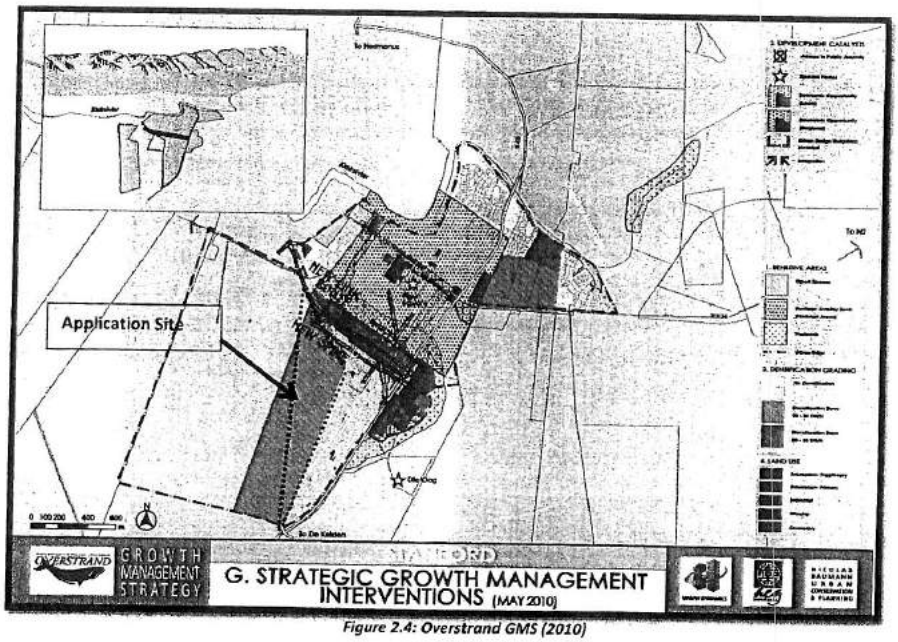


Figure 2.4: Overstrand GMS (2010)

IMPLICATION FOR THIS APPLICATION

- *From a spatial planning policy context, the development proposal is consistent with the principles of the Overstrand Municipal wide Spatial Development Framework (2005). The application property is designated for "urban extension" and is located within the urban edge, being fully consistent with the SDF (2006).*
- *The proposed density of the development is not consistent with the designation of the GMS, thus requiring a deviation from the said policy. The proposed densification is motivated as follows:*
  - ***Land scarcity** of suitable land for human settlement development is a challenge generally experienced throughout the Western Cape, specifically also in Overstrand Municipality. The sensitivity of the natural environs limits the land that is available for urban development purposes, which necessitate that all proposed human settlement development should at least consider optimising the yield within demarcated development areas. The proposed development is on land that has been **designated for urban development purpose**, and is not agricultural land.*
  - *Furthermore, the proposed density of 30 units per hectare is by no means regarded as a high density when considering densification trends in the human settlement sector, and is in fact regarded as **medium density** that is suitable to the rural character and area of Stanford.*
  - *The deviation from the GMS (2010) density of 20 units to 30 units per hectare will have **no negative impact in its surrounding environs**.*

2.3. ZONING

The proposed application area is zoned as Agriculture Zone I. The site is **exempted from the provisions of Act 70 of 1970** for the subdivision of agricultural land (refer the relevant exemption stamp indicated on the SG diagram in ***Figure 2.5*** below.

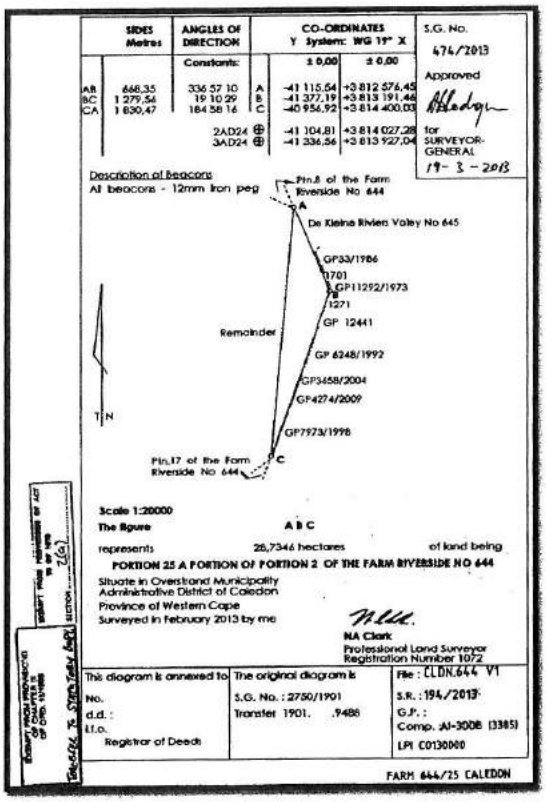


Figure 2.5: SG diagram

2.4. LAND USES

The application area is on vacant land. There is an existing residential development and an existing taxi facility located to the east of the application area. Mostly residential properties are also located to the north of the application area. The R43 is located to the east and southern sides of the application area. Agricultural land is located to the west of the application area.

SECTION 3 SITE ANALYSIS AND INFORMANTS

3.1. SITE ANALYSIS

The following section provides a contextual overview of the site characteristics depicted either as opportunities or constraints. The proposed housing development in Stanford presents the following opportunities and constraints:

3.1.1. OPPORTUNITIES

Service Infrastructure Costs

Existing bulk services networks and possible connections are located within close proximity of the proposed application area. The connection/linkage with these existing networks contributes substantially to the reduction of the development cost by means of reduced bulk service installation costs.

Proximity to community facilities

The proposed application area is within close proximity (500m-1.5km walking distance) of most community facilities and economic opportunities. The application area is within 500m from a school, a crèche, business opportunities and places of worship. The business district of Stanford along with community facilities such as a clinic, the police station, a library etc. are within 1.5km from the application area.

Access to and from the facilities is made possible by the existing road network which will connect to the application area. There are also community facilities as well as business sites proposed in the development. The existing taxi rank facility referred to in Section 1 also abuts the application area which improves access to and from the community facilities and economic opportunities. See ***Figure 3.1*** for the application area in relation to community facilities.

Vacant land

The proposed human settlement development is on vacant and underutilised land which abuts an existing residential area. The vacant land is municipal property located inside the urban edge and the land is identified as an area designated for urban extension purposes. The site for the proposed development also has a gentle slope and poses limited construction or stormwater management challenges.

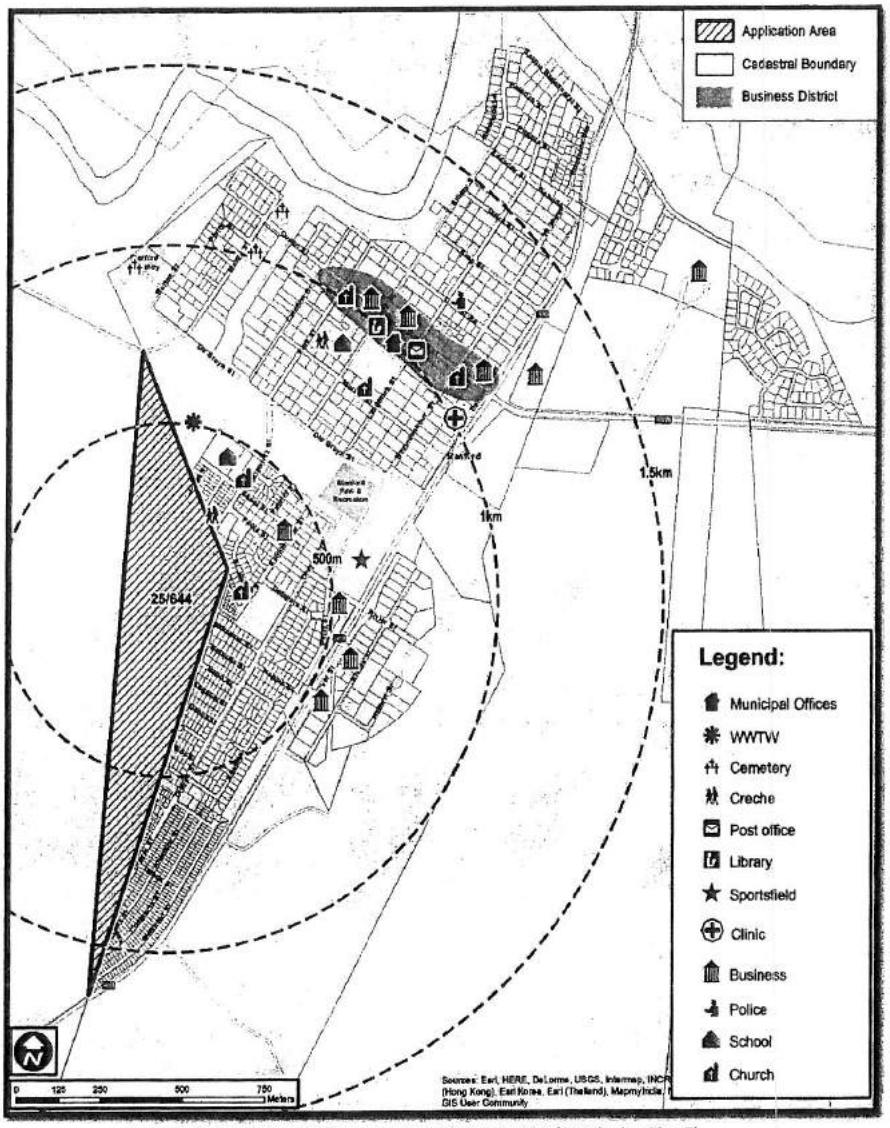


Figure 3.1: Community Facilities and Economic Opportunities (Attached as Plan 7)

Integration

The application area is located inside the urban edge and there is also an existing residential neighbourhood to the east abutting the proposed development. Residential properties and facilities are also located to the north of the proposed development. The application area has good access to the surrounding neighbourhoods as well as to existing facilities. The existing road network allows for good integration into the abutting neighbourhoods.

Access

The existing road network abutting the application area provides for good access and egress of the application area. A major road (R43) located in close proximity to the proposed human settlement development improves accessibility.

3.1.3. CONSTRAINTS

Electrical Powerline and Services Infrastructure

An existing electrical powerline impacts on the application area. It was necessary to design a layout to accommodate the powerline. ***Figure 3.2*** below indicates the powerline impacting the application area.

Service Infrastructure Constraints

There will be service infrastructure costs on the application area as it is a new housing development on the proposed application area. Existing infrastructure such as connections to existing water pipes close to the application area will be used to its full potential.

Complex shape of site

The developable area has a complex shape. A layout was designed to accommodate most erven as possible.

WWTW buffer

An air impact assessment and buffer zone determination was completed, as the Stanford Waste Water Treatment Works (WWTW) is located on the northern boundary of the application area. A buffer zone, which hampers development, needs to be maintained between the WWTW and the residential erven. The layout was designed to accommodate the buffer zone.

3.1.4. SYNTHESIS OF OPPORTUNITIES AND CONSTRAINTS

The analysis of the physical opportunities and constraints provide a detailed overview of the local informants to the planning process. The strengths outweigh the constraints. ***Figure 3.2*** illustrates the opportunities and constraints of the application area.

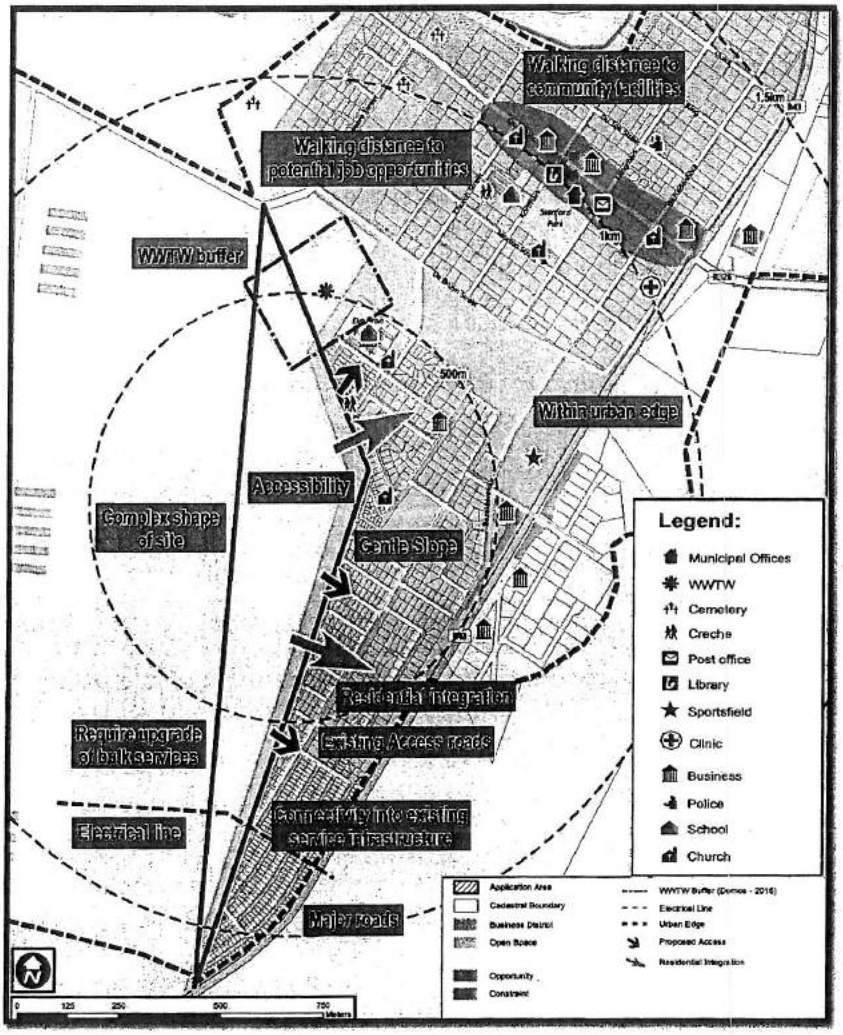


Figure 3.2: Opportunities and Constraints Plan (Refer Attached Plan 8)

3.2. SITE INFORMANTS

The following section is a summary of the specialist inputs/studies conducted in order to establish a sustainable housing development on Portion 25 (portion of Portion 2) of Farm 644 Riverside, Caledon Division.

3.2.1. CIVIL SERVICES

GIBB was appointed by the Overstrand Municipality to undertake the design of the bulk and internal civil services for the proposed development (refer **Annexure D**).

Foul Sewer

- The existing sewer infrastructure will be upgraded as per GLS master planning report. The average daily sewer flow is estimated to be 468.75 kl/d. The internal sewer reticulation will consist of 110mm diameter house connection pipes discharging into 160mm diameter mains.

Water Supply

- The existing water infrastructure will be upgraded as per GLS master planning report. It is estimated that the average daily water demand for the proposed development will be 507.90 kl/d. Fire hydrants will be strategically placed to meet firefighting requirements.

Stormwater

- The stormwater runoff is expected to increase over the proposed development due to the increase in hardened surface areas. Stormwater infrastructure will be implemented according to the approved stormwater masterplan for Stanford.

Roads

- The proposed roads will have road reserves of 10m and 13m and an asphalt width of 5m for the 10m road reserves and 5.5m for the 13m road reserves. The implementation of higher order roads will be assessed upon completion of the Road Network Local Area report and Traffic Impact Assessment report.

Conclusion

After the upgrading of the existing bulk infrastructure and implementation of bulk infrastructure masterplan items has been completed, there will be sufficient capacity to accommodate the additional demands of the proposed development and that the road access, sewer, stormwater and water connections can be provided.

3.2.2. BOTANICAL IMPACT ASSESSMENT

Bergwind Botanical Surveys & Tours CC was appointed by Withers Environmental Consultants to provide specialist botanical consulting services for the proposed housing development in Stanford. The following conclusions and recommendations were made after the study:

- Much of the vegetation on the site has been altered from its original state.
- The site has not been included in the regional CBS map, however, it contains Agulhas Limestone Fynbos which is listed as vulnerable due to the high number of SCC associated with the vegetation type.
- It is recommended that the areas of high botanical sensitivity be protected as far as possible.
- The design should include as much of the botanically sensitive areas within the 'open space' allocated to the development as possible.

Refer ***Annexure E*** for Botanical Impact Assessment.

3.2.3. TRANSPORT IMPACT ASSESSMENT

GIBB was appointed by the Overstrand Municipality to undertake a Transport Impact Assessment (TIA) for the proposed housing development. The following was concluded and recommended by the TIA:

- The proposed extension of the Stanford area will comprise low-income residential, local retail, community facilities and sport and recreation facilities.
- Two layout options were suggested for the proposed development and the transport impact of the two options were assessed.
- All intersections will operate well at LOS A to B with minimal traffic queues during both the AM and PM peak hours for both layout options.
- The two layout options will have similar transport impact on the existing road network.
- Public transport services are provided in the area and the services will be accessible to the proposed development.
- The pedestrian facilities provided in the existing Stanford area are considered acceptable for existing pedestrian activities.
- NMT facilities, both surfaced and unsurfaced sidewalks, should be provided in the proposed Stanford extension in the future to improve safe access to public transport.
- Off-street parking bays should be provided at a ratio of 1 bay/dwelling unit and 2 bays/100m^2 GLA for the residential and retail facilities respectively.

Refer ***Annexure F*** for the full TIA.

3.2.4. AIR QUALITY IMPACT ASSESSMENT AND BUFFER ZONE DETERMINATION (refer *Annexure G*)

DDA Environmental Engineers was appointed by Withers Environmental Consultants to undertake the air quality impact assessment and the buffer zone determination study for the Waste Water Treatment Works (WWTW). The following was concluded after completion of the study:

Odour Impact

- The odour impact on the proposed development is expected to be low. It should be noted that odours may still be experienced occasionally by the communities close to the WWTW, albeit infrequently and with a very low occurrence.

Non-carcinogenic Health Risk Impact

- Based on the short- and long-term non-carcinogenic health risk, it was found that both health indexes were below the guideline level of 1 outside the WWTW site boundaries. The non-carcinogenic health impacts are considered to be very low.

Carcinogenic Risk Impact

- Based on the maximum resulting ambient concentrations of the six possible carcinogens and carcinogenic compounds, the carcinogenic risk around the site was estimated. A person would have less than 0.01 in a million chance of developing cancer due to lifetime exposure. The carcinogenic risk is therefore considered negligible.

The following recommendations are made:

- Establish a buffer zone around the Stanford WWTW (refer Table 6-1 of ***Annexure G***).
- Perform annual ambient air quality monitoring along the southern and eastern site boundaries of a selection of key air pollutants (VOCs), including hydrogen sulphide and ammonia.
- If regular odour complaints are recorded, the frequency of the monitoring should be biannual, and a multi-step odour control program be implemented.

3.3. SUSTAINABILITY ASSESSMENT: APPLYING THE CRITERIA

The core of the BNG (Breaking New Ground) strategy of the Department of Local Government and Housing (DLGH) is the application of the sustainable settlement criteria. The department has provided the so-called 'Step 2- Criteria for evaluating housing project benefits'. These criteria have been categorised according to the triple bottom line principles for sustainable development, namely:

- Economic efficiency
- Social justice
- Ecological integrity
- Compliance with relevant spatial policies

The criteria should apply in all cases where appropriate located land needs to be identified. The criteria in the table below have been applied to the analysis in order to "measure" the sustainability of the development proposal for subsidy housing.

The sustainability criteria summarised in ***Table 3.1*** for evaluating housing project benefits are derived from the document produced by the Department Human Settlements, namely *Guidelines for The Preparation of Credible Human Settlement Plans* (July 2010). The analysis of the proposed development in terms of the sustainability criteria is presented in ***Table 3.1***. The objective of this analysis is to determine the degree of sustainability of the entire development.

KEY OBJECTIVES	CRITERIA (Based upon provincial guidelines of PSDF, MEDS and integrated with settlement specific requirements)
A: ECONOMIC EFFICIENCY	
Enhance economic security and promote employment	Access to economic opportunities Proximity to relevant employment opportunities
Promote an affordable and integrated range of housing opportunities	Ability to leverage additional resources Ability to mobilise commercial housing finance Cross subsidisation of housing by other developments Mixed uses including commercial, business industry Mixed income communities
Promote optimal use of space and infrastructure	Extent of existing bulk infrastructure Bulk services e.g. water, sewerage, electricity and roads Transport capacity, including public transport linkages Provision of higher density housing which supports efficiencies along major routes.
Promoting economic activity and SMME's	Layout and/or design promoting and supporting economic activities Support to small business sector development and building connections between the second and first economy Extent to which provision is made for commercial/SMME activities

B: SOCIAL JUSTICE	
Quality of life and access to resources	Improved access to social development resources Reliable basic services
Promoting social & spatial integration	Proximity and linkages with other income or social groups/communities
C: ECOLOGICAL INTEGRITY	
Attaining sustainability	Compatibility with existing cultural landscapes, artefacts and buildings Application of building materials to conserve costly Demonstrate the minimisation of consumption of scarce environmental resources such as water and electricity Promote ecologically sensitive settlement design alternatives
D: COMPLIANCE WITH SPATIAL POLICIES	
Spatial Development Framework	Compliance with Spatial Development Framework
Other Relevant Spatial Policies	Compliance with relevant spatial policies

Table 3.1 Sustainability Criteria

According to the sustainability analysis, the proposed development complies with the main pillars of sustainability (Economic, Social and Ecological) as well as with relevant spatial policies. The proposed development is therefore planned as a township that complies with the sustainability criteria of the Department of Human Settlements.

SECTION 4 PROPOSED LAYOUT

4.1. DEVELOPMENT PRINCIPLES

4.1.1. Planning Principles

The following planning and urban design principles have been applied to the proposed development with the objective to address the current housing need and to formalize ownership within the town of Stanford.

- Subsidy housing development to accommodate people on the housing waiting list.
- Locate development in low to moderate sensitivity areas and areas with least development constraints.
- Implement a cost-effective design, to optimise the use of available land and resources.
- A safe environment with a strong sense of community.
- Establish a pedestrian-orientated and friendly environment.
- A system of continuous routes to promote accessibility to social and economic activities.
- Ensure sustainable development and limit urban sprawl.
- Optimise the use of existing resources and infrastructure.

4.1.2. Design Considerations

The following basic design principles were applied to inform the design concept:

- A design that will contribute towards the functionality of services as well as to the access to local amenities.
- Integration with the existing residential development.
- A design that enables the provision of civil engineering services in a cost-effective manner.
- A design that will promote density.
- The quality and functionality of the spatial environment is promoted.

4.2. DEVELOPMENT PARAMETERS

The dimensions of the erven in the layout should be planned at an average erf size of 150m².

The development parameters of the residential erven, as per the Overstrand Municipality Zoning Scheme (2013), are summarized in the table below:

Residential Zone I: Single Residential (SR1)	Parameters
Primary uses	Day care centre, dwelling house, guest rooms, home occupation, second dwelling unit.
Coverage	65% (<400m^2)
Street building line	2,0m (<400m^2) (Application is made for the relaxation of street building lines from 2m to 1m).
Side and rear building line	1,0m (<400m^2) (Application is made for the relaxation of common building lines to 0m on one side of each erf to accommodate semi-detached houses).
Height	8,0m
Parking	At least 1 parking bay per land unit, on the land unit, if so required by the council.

Table 4.1 Planning Parameters

4.3. ERF LAYOUT PARAMETERS

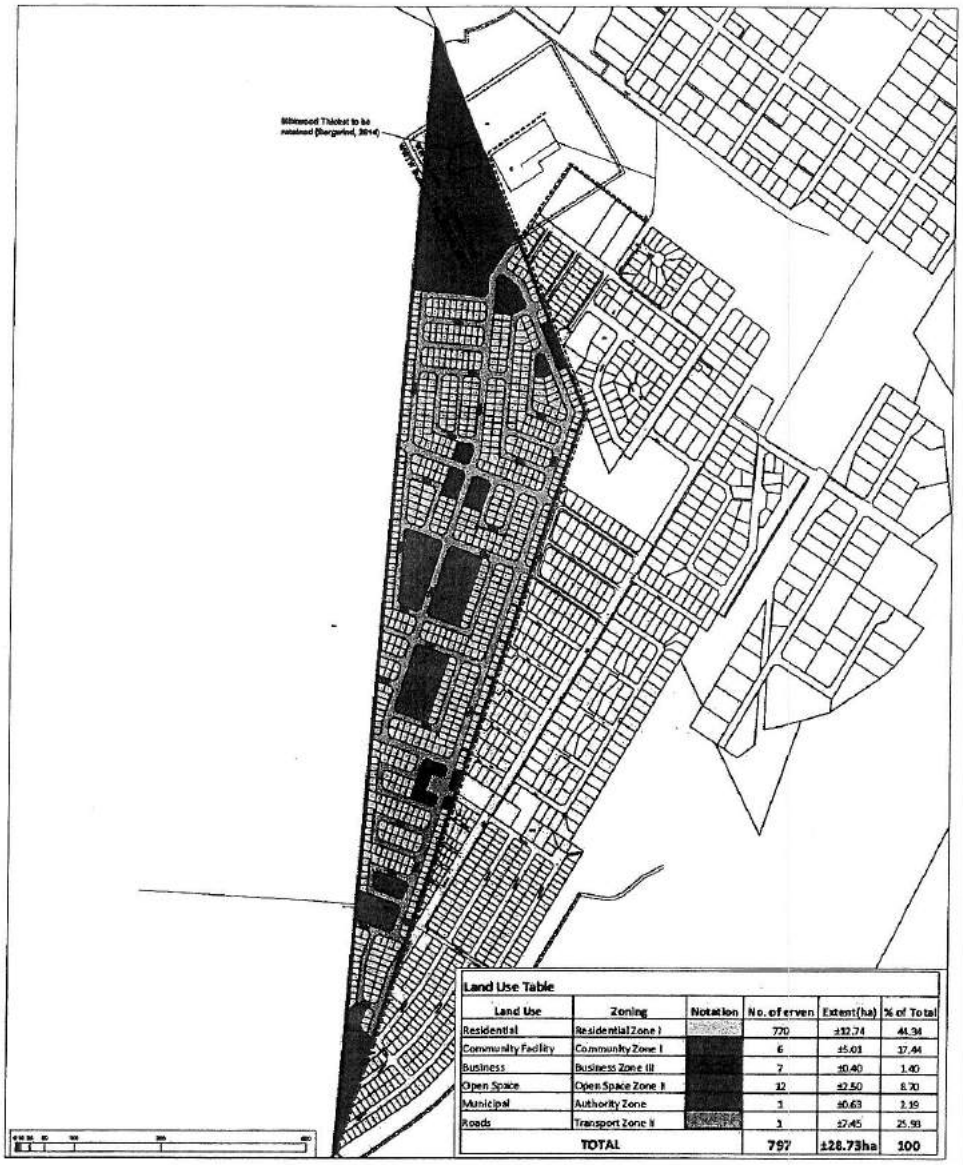
It was determined by the implementing agent and the professional team, through a range of iterations taking into consideration unit typologies, development and service costs as well as overall design pattern that the dimensions of the proposed erven should be as follows:

Land use	Dimensions
Single Residential erven	– Minimum street frontage of 9m – Minimum erf size 120m^2 – Maximum erf size 240m^2 – Average erf dimension: 10m x 15m

Table 4.2 Erf Dimensions

4.4. LAYOUT PLAN

Taking the aforementioned planning and design principles into consideration and consequently evaluating these elements in context of the layout parameters and topography of the application area, the final layout (refer ***Figure 4.1***) will consist of the following land uses:



Land Use Table					
Land Use	Zoning	Notation	No. of erven	Extent(ha)	% of Total
Residential	Residential Zone I		770	±12.74	44.34
Community Facility	Community Zone I		6	±5.01	17.44
Business	Business Zone III		7	±0.40	1.40
Open Space	Open Space Zone II		12	±2.50	8.70
Municipal	Authority Zone		1	±0.63	2.19
Roads	Transport Zone II		1	±7.45	25.93
TOTAL			797	±28.73ha	100

Figure 4.4: Proposed Layout (Attached as Plan 9)

4.4.1. Residential (Residential Zone I)

There is a total of 770 erven which are proposed in the development area. The average erf size for the residential erven is 150m². The street frontage applicable to all residential erven is a minimum of 9m. The erf sizes are adequate to enable onsite parking which will prevent cars blocking streets due to the lack of onsite space.

4.4.2. Community Facility (Community Zone I)

A total of 6 community facilities are provided within the application area. One community facility is located towards the southern side of the application area, 3 community facilities are located towards the northern side and two community facilities are located in a central position of the application area. All community facilities are located along the 13m collector route as it is a higher order route in the proposed development which improves accessibility and has higher levels of activity.

4.4.3. Business (Business Zone III)

Six business erven are proposed in a business node to the south of the development, with a further one business site allocated towards the northern portion within the layout plan. The business erven are clustered together and strategically located next to the 13m collector route which is a higher order route with more movement. The southern business sites are also in proximity of the existing taxi rank.

4.4.4. Open Space (Open Space Zone II)

Provision was made for 12 public open space erven in the proposed development. Two of the public open spaces located in the southern part of the application area are strategically located to accommodate an existing electrical line running through the application area. These open space erven can serve a dual function as it can also be used for a pedestrian corridor connecting the existing residential neighbourhood with the proposed development.

Three large open spaces are located in the centre of the proposed development and can serve as areas for community interaction which can create a sense of place / social space. Another public open space is located towards the northern side of the application area, opposite a community facility. Six more open spaces are located adjacent to the existing residential development towards the eastern side. These open spaces can serve as pedestrian corridors and to accommodate service infrastructure.

4.4.5. Municipal (Authority Zone)

A total of ±0.63ha is designated for future municipal services in the southernmost part of the proposed development.

4.4.6. Roads (Transport Zone II)

In total approximately 25.93% (±7.45ha) will be used for road purposes in the proposed application area. Access to the proposed development will be via the existing road network from the abutting neighbourhood. The internal roads will have 10m and 13m road reserves.

4.5 PROPOSED STREET NAMES

The proposed development will require a number of new street names, while **some existing streets will extend into the development and therefore retain the existing street names.** The Stanford Social Compact Meeting on 21 February 2017 proposed the following new street names:

• ABRE DE- JAGER STREET	• STENEVELDT STREET
• ACHMAT ABRAHAMS STREET	• APPELSTREET
• DAMONSTREET	• LAVENDERSTREET
• CHAPELS STREET	• PEONY STREET
• MANEUL STREET	• GLADIOLA STREET
• CORNELUISSTREET	• IRIS STREET
• SPANDIEL STREET	• MIMOSA STREET
• BARENDS STREET	• PLUME STREET
• ERASMUS STREET	• ORCHID STREET
• ISAACS STREET	• OLIVE STREET
• ROOISTREET	• SILVERBERRY STREET
• MCKLEINSTREET	• WILLOWTREE STREET
• JACOBS STREET	• LANCEWOOD STREET

Table 4.3: Proposed New Street Names (Social Compact, 21 February 2017)

The allocation of street names from the above list onto the layout plan will be done in consultation with the Overstrand Municipality and with the Social Compact.

4.6 CONCLUSION

It should be noted that the layout plan presented in this application has gone through a thorough iteration process. Inputs from services departments, Cape Nature, the botanist as well as the Stanford Social Compact were incorporated to amend and improve the initial layout plan.

The final layout now proposed is a positive response to local and micro informants and will establish practical and functional environs for safe community living.

SECTION 5 DESIRABILITY CRITERIA

Desirability and the degree of the acceptability of the land use change is based on the following considerations:

5.1. SECTION 7 OF THE SPATIAL PLANNING LAND USE MANAGEMENT ACT, 2013

The desirability of the land use change is based on spatial planning, land development and land use management principles, described in Section 7 of the Spatial Planning Land Use Management Act, 2013, as follows:

The principle of spatial justice

The proposed development will provide community members in informal settlements access to formal housing. The properties located in the vicinity of the application area are residential in nature. The proposed development area can easily be integrated within existing residential neighbourhoods of Stanford through the proposed extension of existing roads and bulk services. The proposed application is seen as a logical extension of the existing urban footprint.

The principle of spatial sustainability

A site analysis was undertaken for the provision of low cost housing. The proposed development is a logical extension of the existing urban footprint. The proposed development will not impact significantly on the biodiversity, or adversely affect the ecological functioning of the area.

The principle of efficiency

Existing bulk services and connections will be utilised for the proposed development's internal services. The connection/linkage with these existing networks contributes substantially to the reduction of the development cost by means of reduced bulk service installation costs. Access to and from facilities and economic opportunities in Stanford, is made possible by the existing road network which will connect to the application area.

5.2. COUNCIL'S LAND USE POLICIES

The proposed development is consistent with existing planning policies applicable to the study area. The development of the application area will ensure access to affordable, well-located housing contributing towards integration and community development. The area within which the proposed development is located is viewed as being important for new development.

This view is further substantiated in all the applicable spatial policy frameworks reviewed. The policy assessment found that the proposed development of the application property is most consistent with the relevant policy frameworks.

5.3. IMPACTS ON EXISTING RIGHTS

The proposed development will in no way negatively impact on the existing zoning rights as the majority of abutting properties to the north and east are zoned for residential purposes.

5.4. SAFETY AND WELFARE OF THE COMMUNITY

The proposed provision of acceptable level of services will contribute to a safe environment and will enhance the welfare and livelihoods of the community.

Design considerations related to safety and community welfare have been incorporated, including:

- establishing a pedestrian-orientated and friendly environment;
- promoting a system of continuous routes and accessibility to social and economic activities;
- implementing cost-effective layout design; and
- optimising the use of available resources.

5.5. CONSERVATION OF THE NATURAL AND BUILT-UP ENVIRONMENT

In principle there are no significant environmental concerns. Particular care has been taken with the proposed designs of the development to ensure it will make a positive contribution to the area. The proposed development is located within the urban edge, which contributes to the optimum use of available land and would facilitate increased residential densities. The proposed human settlement development would not have any significant impact on the natural or built environment.

SECTION 6 CONCLUSION & RECOMMENDATION

6.1 CONCLUSION

The application area, as motivated in this report, provides an excellent opportunity for a housing development. This human settlement development therefore is regarded as desirable within its local context and well integrated within the existing town. The taxi rank facility will improve access to opportunities and facilities for both the proposed human settlement development and the existing neighbourhoods.

The desirability of both proposals can further be motivated on the basis of the following considerations:

- The proposal will contribute towards alleviating the growing need for subsidy-based housing in the town of Stanford.
- The integration of the proposed land uses with the surrounding development as well as the opportunity for integration within the proposed development.
- Consistent with the spatial policy plans for the area.
- The improvement in quality of life for the beneficiaries and community as a whole in the town of Stanford.

6.2 RECOMMENDATION

It is therefore recommended that both applications ***be approved*** in terms of the Overstrand By-Law on Municipal Land use Planning (2015) as follows:

- **Application Area A:**

(i) The **rezoning** of Portion 25 (portion of Portion 2) of Farm 644 Riverside from Agriculture Zone I to Subdivisional Area in terms of Section 16(2)(a) of the Overstrand By-Law on Municipal Land Use Planning (2015);

(ii) The **subdivision** in terms of Section 16(2)(d) of the Overstrand By-Law on Municipal Land Use Planning (2015), to create the following:

• Residential Zone I	770 erven
• Community Zone I	6 erven
• Business Zone III	7 erven
• Open Space Zone II	12 erven
• Authority Zone	1 erf
• Transport Zone II	Roads

(iii) **Building line departure** in terms of Section 16(2)(b) of the Overstrand By-Law on Municipal Land Use Planning (2015), to allow the following:

- Lateral/side building lines of 0m in lieu of 1m on one lateral boundary of each/all proposed residential erven;
- Street building lines of 1m in lieu of 2m on all proposed residential erven.

(iv) **Deviation** from the Overstrand Growth Management Strategy (2010) to provide a gross residential density of 30 units per hectare on the application site, in lieu of the designated density of 10-20 units per hectare, in terms of Section 10 of the Overstrand By-Law on Municipal Land Use Planning (2015).

(v) **Approval of new Street Names** by Overstrand Municipality in terms of Section 96 of the Overstrand By-Law on Municipal Land Use Planning (2015).

- **Application Area B (taxi rank facility):**

(i) The **subdivision** of the Remainder of Erf 1198, Stanford, in terms of Section 16(2)(d) of the Overstrand By-Law on Municipal Land Use Planning (2015), to create Portion A (refer ***Figure 1.3***);

(ii) The **closure** of Portion A (**public road**) of the Remainder of Erf 1198 in terms of Section 16(2)(n) of the Overstrand By-Law on Municipal Land Use Planning (2015),

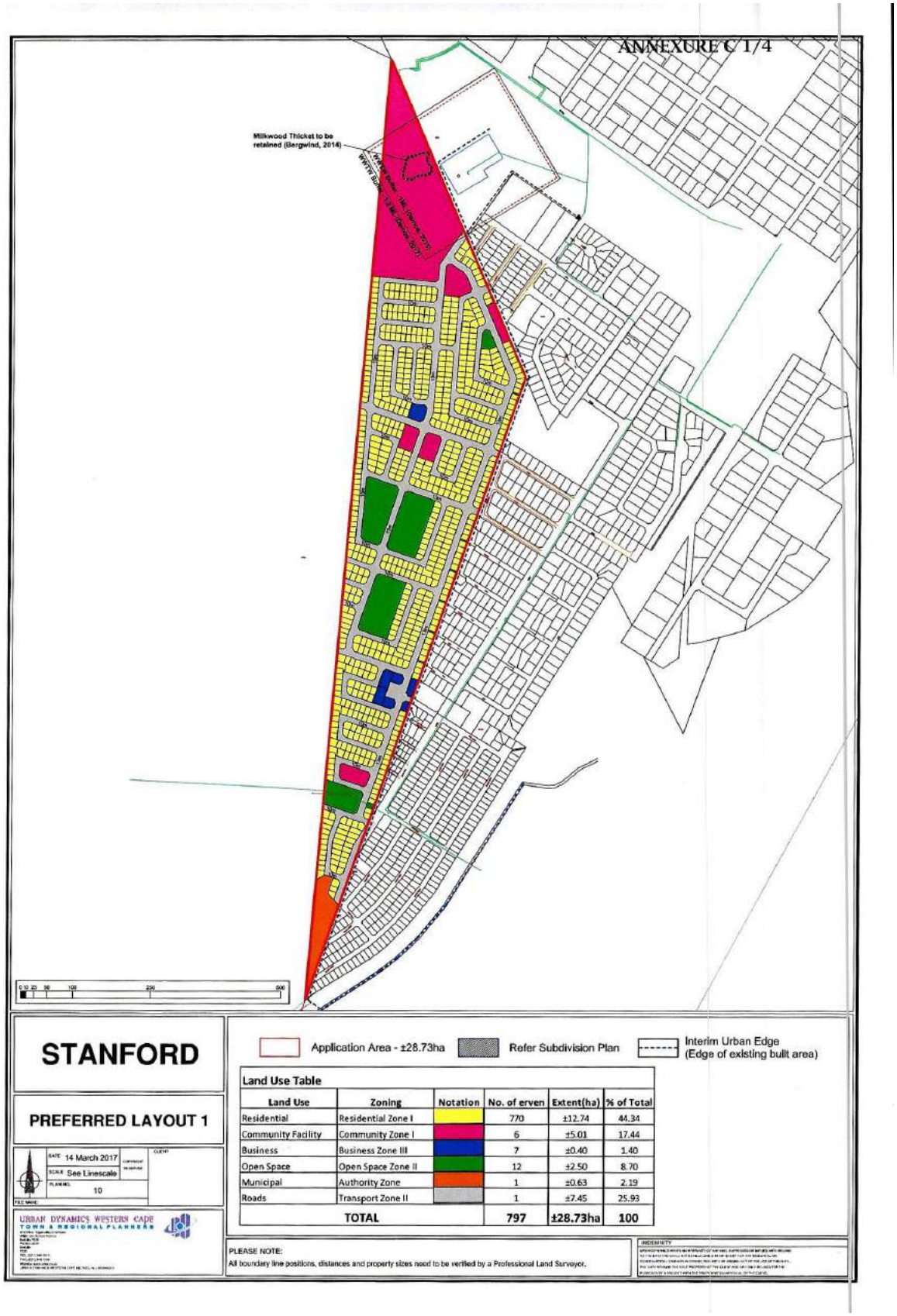
(iii) The **rezoning** of newly created Portion A and erven 2275, 1909-1914, Stanford, from Transport Zone II and Residential Zone I respectively, to Transport Zone I, in terms of Section 16(2)(a) of the Overstrand By-Law on Municipal Land Use Planning (2015);

(iv) The **consolidation** of Portion A and erven 2275, 1909-1914, Stanford, in terms Section 16(2)(e) of the Overstrand By-Law on Municipal Land Use Planning (2015) to create the application area (refer ***Figure 1.4***);

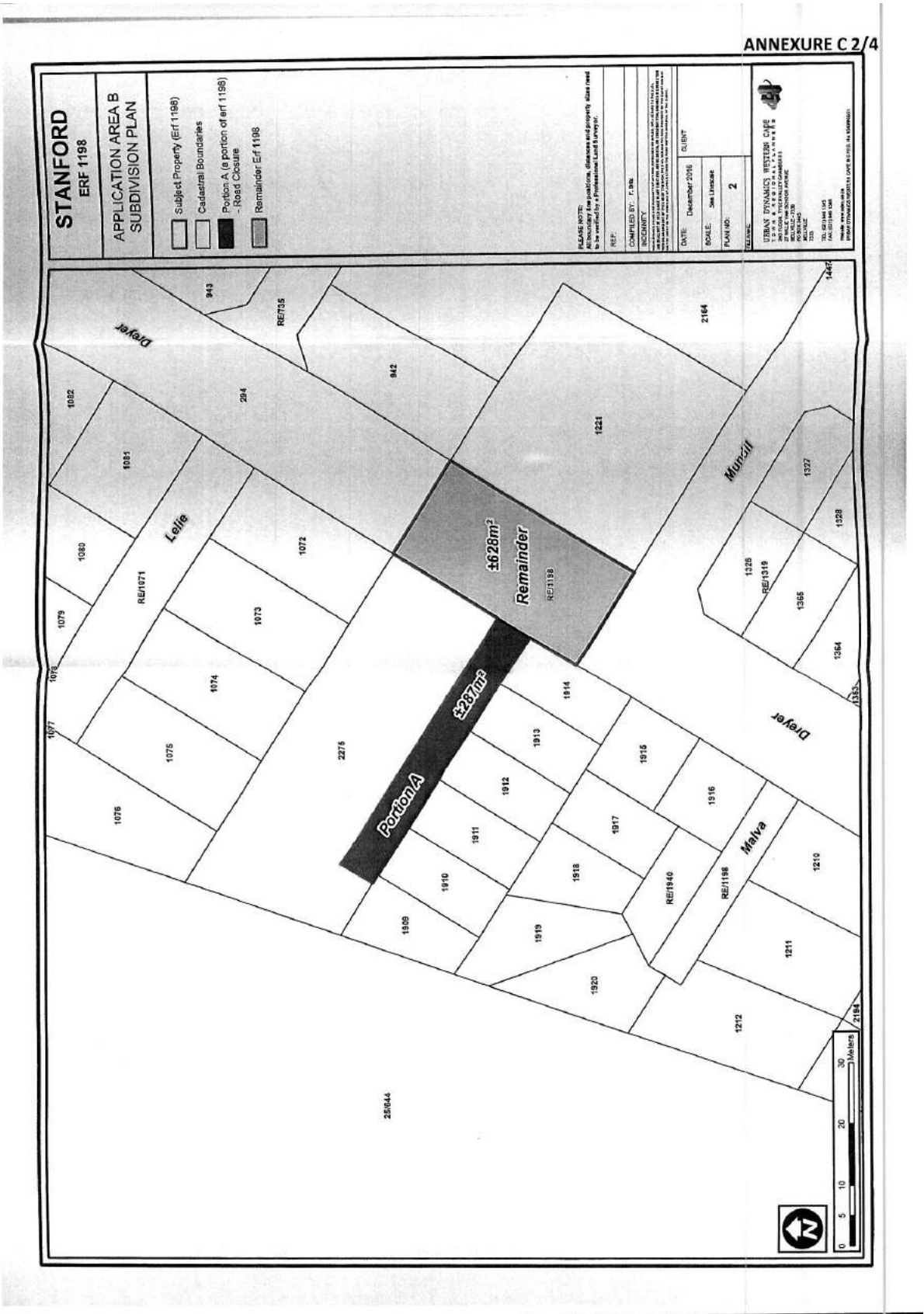
(v) The **subdivision** of the application area in terms of Section 16(2)(d) of the Overstrand By-Law on Municipal Land Use Planning (2015), to create Portion C (proposed road - ±571m²) and the Remainder (existing taxi rank - ±2097m²) (refer ***Figure 1.5***); and

(vi) The **rezoning** of Portion C in terms of Section 16(2)(a) of the Overstrand By-Law on Municipal Land Use Planning (2015) to Transport Zone II for the proposed public road; and

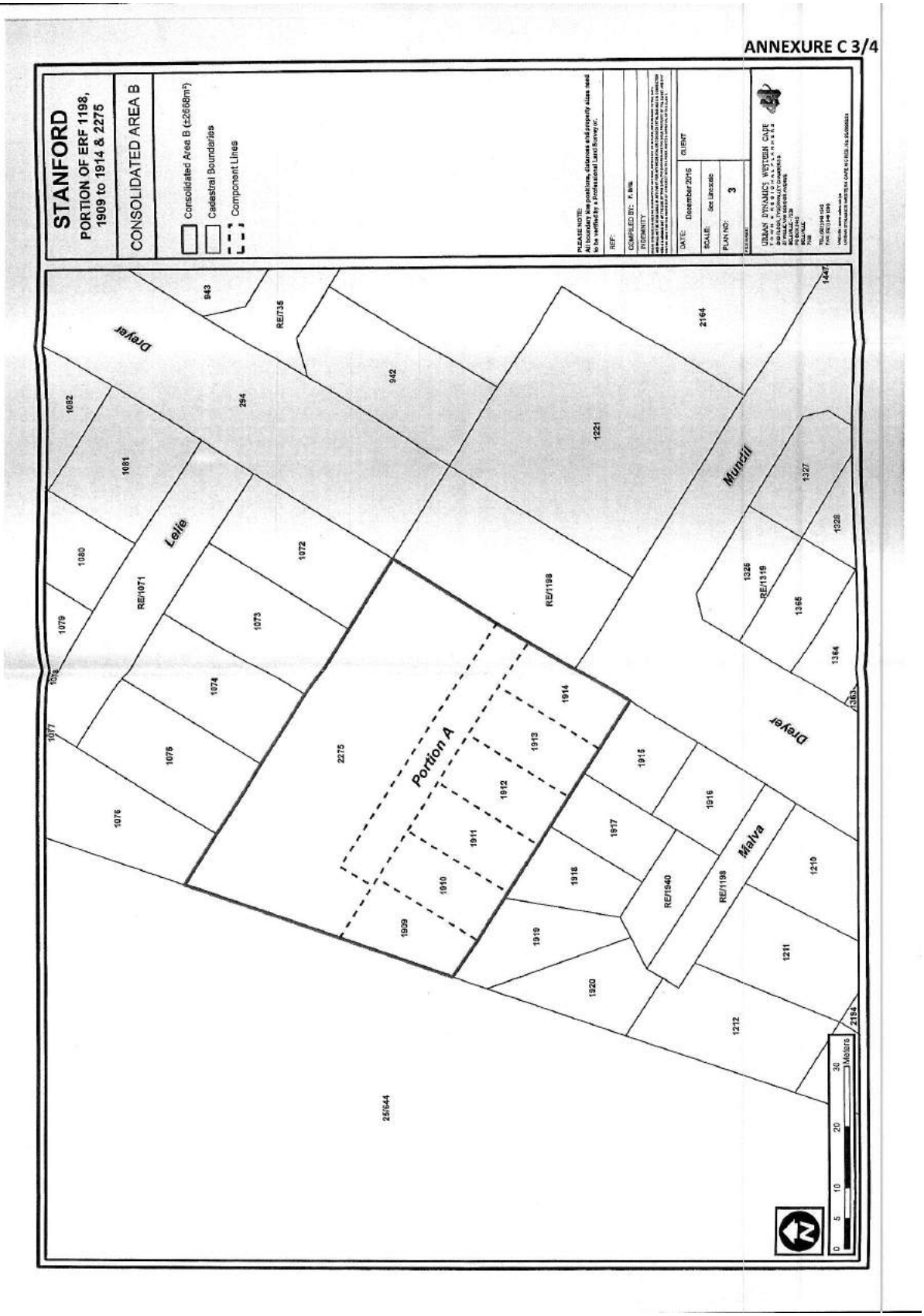
(vii) **Consent use** in terms of Section (16)(2)(o) of the Overstrand By-Law on Municipal Land Use Planning (2015) to accommodate shops and informal trading on the taxi rank site.


ANNEXURE C 1/4
Milkwood Thicket to be retained (Bergwind, 2014)
STANFORD
PREFERRED LAYOUT 1
DATE 14 March 2017
SCALE See Linescale
PLANNO. 10
URBAN DYNAMICS WESTERN CAPE
TOWN & REGIONAL PLANNERS
Application Area - ±28.73ha
Refer Subdivision Plan
Interim Urban Edge
(Edge of existing built area)
Land Use Table
Land Use | Zoning | Notation | No. of erven | Extent(ha) | % of Total
Residential | Residential Zone I | 770 | ±12.74 | 44.34
Community Facility | Community Zone I | 6 | ±5.01 | 17.44
Business | Business Zone III | 7 | ±0.40 | 1.40
Open Space | Open Space Zone II | 12 | ±2.50 | 8.70
Municipal | Authority Zone | 1 | ±0.63 | 2.19
Roads | Transport Zone II | 1 | ±7.45 | 25.93
TOTAL | | 797 | ±28.73ha | 100
PLEASE NOTE:
All boundary line positions, distances and property sizes need to be verified by a Professional Land Surveyor.
INDEMNITY

ANNEXURE C 2/4



ANNEXURE C 3/4



ANNEXURE C 4/4

ANNEXURE D 1/1

26 Junie 2017

OVERSTRAND MUNISIPALITEIT
53
28 JUN 2017
OVERSTRAND MUNICIPALITY

Henry Gibson
Fabriek Straat 14
Stanford
7210

The Department Town Planning
Paterson Street
HERMANUS

P Ferreira
F Mybergh

Geagte Mevrou/Heer

Insake: Stanford Behulsing – Lêer verwysing 3554

Graag lewer ek, Henry Gibson, inwoner kommentar op die volgende:

1. **Par 3.2.4, Bladsy 20 (ANNEXTURE G)**
   My huis is sowat ± 500m vanaf die Stanford WWTW en ons word gereeld blootgestel aan die reuk vanaf die WWTW. Die Bron Primêre skool, waar my seun skool gaan, word daagliks met sy mede leerders blootgestel aan hierdie reuk, wat hul leer vermoë en konsentrasie beinvloed. As ouer het ek destyds beswaar gemaak oor die reuk en 'n muur het geen impak op die reuk gehad nie.
   Daar word nou voorgestel van 'n *bufferzone*. Graag wil ek hê dat u moet kennis neem van my kommentaar. Die munisipaleteit is in besit van my korrespondensie wat ek as destydse voorsitter van Die Bron Primêr Beheerliggaam, aan hul gerig het, oor die reuk. Ons huidige raadslid, Mnr.Dudley Coetzee, het verlede jaar ons ingelig dat meer as 'n miljoen rand bewillig is vir die opgradering van die WWTW, maar nog niks het gebeur nie.

2. **Die volgende kommentaar handel oor die voorgestelde straatname: Bl.27, par 4.5**
   - Indien daar name gekoppel word aan sekere persone, byvoorbeeld, Abrie De Jager, wil ek aanbeveel dat Appelstraat na Willem Appel straat verander word. Meneer Appel was die destydse voorsitter van die bestuurskommitee en ook oud Raadslid.
   - Spandiel Straat, na Henry Spandiel straat. Bekend as Moos Spandiel ook oud kommiteelid van destydse Bestuurskommitee.
   - In my hoedanigheid, as die EERSTE Demokratiese Burgermeester van Stanford, moet daar ook 'n Henry Gibson straat wees. Dit sê iets oor ons verlede en vir die nageslag. Die huidige Gibson en Dreyer straat was in die hoedanigheid van families geneem destyds.
   - Verdere name wat van kennisgeneem moet word is soos volg, Dickson, Gillion, Gardiner, almal families wat deelmaak van die dorp se geskiedenis en bydraes wat gemaak is in die gemeenskap oor die jare.

Baie dankie vir die kommentaar geleentheid, ek hoop dit kan help dat reggeskied aan almal se behoeftes.

Die uwe

Henry Gibson
082 255 8635
Henrygibson7@gmail.com

FILE NO: 17/1/R
16/3/5
SCAN NO:
COLLABORATOR NO:
1046692

TP 28 JUN 17

ANNEXURE D 2/11

54

DIE BRON

PRIMÊRE SKOOL / PRIMARY SCHOOL

Navrae: Mnr. L.J.O. Pedro
Tel/Fax: 028-341 0830
E-Mail: diebronps@gmail.com / ljopedro@gmail.com
Postal: P.O. Box 12 Stanford, 7210

29 Junie 2017

OVERSTRAND MUNISIPALITEIT
30 JUN 2017
OVERSTRAND MUNICIPALITY

TP-A Theart
(Suid Merwe)

Direkteur: Infrastruktuur en Beplanning
Hermanus
7200

Geagte Mnr. S. Müller

INSAKE: BEKOSTIGBARE BEHUISINGSPROJEK

Die Beheerliggaam van Die Bron Primêr wil graag meer duidelikheid hê oor die onderstaande punte.

1. 1.3 WWTW buffer zone
   Watter impak gaan die buffer zone op die skool hê en waaruit gaan dit bestaan (beton ,sand ,struike, klip).

   3.2 SITE INFORMANTS

   3.2.3 TRANSPORT IMPACT ASSESSMENT
   Die impak op Skoolstraat waar geen sypaadjies en parkering voor skool is nie en 490 leerders wat daagliks die pad gebruik. Die riool trokke veroorsaak baie stof as hulle die pad gebruik agter die skool en waar is hoofingang van rioolwerke bv. Is dit Skoolstraat???

   3.2.4 AIR QUALITY IMPACT ASSESSMENT AND BUFFER ZONE DETERMINATION
   Odour Impact - Daar word genoem dat die odour impak baie laag gaan wees.
   Hoe word laag bepaal. Ons by die skool ervaar op n daaglikse basis n stank reuk, veral as die trokke riool aflaai.
   Non-carcinogenic and Carcinogenic Risk Impact - Is die studie gebaseer op plaaslike, nasionale of internasionale gegewens .

   VACANT LAND
   Waarvoor is die oop erf langsaan die rioolwerke aan die suide kant geressioneer.

   Die dokument se foto's wat ons ontvang het van 'n ouer en Munisipaliteit via e-pos was baie onduidelik.

   Ons hoop van harte dat u 'n vergadering met ons kan belê om die onduidelikhede wat ons ervaar, te bespreek.

   Byvoorbaat dank.

   Die uwe

   Mnr. LJO. Pedro
   Prinsipaal

FILE NO: Ged 25 | 644
STF
SCAN NO:
COLLABORATOR NO:
1047626

ANNEXURE D 3/11

55

Skool Beheerraad

Mnr. N. Doty
Mnr. N. Ntwala
Mnr. A. Baartman
Me. A. Johnson
Me. N.B Maans
Me. K. Dreyer
Me. L.E Bolani
Me. M. Cornelius

ANNEXURE D 4/11

56

Petrus Roux - Re: PORTION 25 (PTN OF PTN 2) OF FARM 644 CALEDON, ERF, 2275, 1198 & ERVEN 1909-1914 STANFORD, OVERSTRAND MUNICIPAL AREA: PROPOSED INTEGRATED HOUSING DEVELOPMENT: URBAN DYNAMICS obo OVERSTRAND MUNICIPALITY

From: "Bea Whittaker" <milkwood@maxitec.co.za>
To: "Stephen Muller " <smuller@overstrand.gov.za>, <robfryer.wcc@gmail.com>
Date: 2017/09/14 10:20 AM
Subject: Re: PORTION 25 (PTN OF PTN 2) OF FARM 644 CALEDON, ERF, 2275, 1198 & ERVEN 1909-1914 STANFORD, OVERSTRAND MUNICIPAL AREA: PROPOSED INTEGRATED HOUSING DEVELOPMENT: URBAN DYNAMICS obo OVERSTRAND MUNICIPALITY
Cc: <jennyoctober3@gmail.com>, <lynpullen55@gmail.com>, <zodwastanford@gmail...

Hallo Stephen

Thanks for the reply.

The only problem we have, and was discussed with Mr Coetzee, is that we never were told that there would be a cost involved in the land use appeal process. As we are all voluntary organisations, we don't have the finances to start incurring these types of costs. Catch 22.

I think everyone will, however, appreciate the meeting with Riaan Kuchar.

As I am no more the chair of Stanford Conservation (now Sidney Smith) and therefore not on the Ward Committee, I hope that Sidney and Lyn Pullen (chair of Ratepayers) will take this up further.

Lynn and Sidney, can you please follow this up, and most possibly in consultation with Rob and the Ward Committee?

Kind regards

Bea

From: Stephen Muller
Sent: Thursday, September 14, 2017 09:39
To: robfryer.wcc@gmail.com ; milkwood@maxitec.co.za
Cc: jennyoctober3@gmail.com ; lynpullen55@gmail.com ; zodwastanford@gmail.com ; keithb@hermanus.co.za ; Dudley Coetzee ; Petrus Roux ; Riaan Kuchar ; sidneysmith@telkomsa.net
Subject: Re: PORTION 25 (PTN OF PTN 2) OF FARM 644 CALEDON, ERF, 2275, 1198 & ERVEN 1909-1914 STANFORD, OVERSTRAND MUNICIPAL AREA: PROPOSED INTEGRATED HOUSING DEVELOPMENT: URBAN DYNAMICS obo OVERSTRAND MUNICIPALITY

Dear Bea and Rob,

At our last meeting you indicated that you would rather appeal the Land Use Approval than the Environmental Authorization.

ANNEXURE D 5/11

Two things need to happen before you can launch an appeal:

1. You need to apply for "intervener status". This was explained in detail by Petrus Roux. This has to be done otherwise you will not be able to submit an appeal.
2. A decision has to be taken before it can be appealed. The Land Use Planning decision has not been taken yet so it is not possible to submit an appeal yet.

I've also asked Riaan Kuchar to set up a meeting with your group to discuss the matter. This will be done before the Land Use Planning Application is presented for a decision.

Regards
Stephen Muller
028-3138019

Sent from my iPad

On 13 Sep 2017, at 1:11 PM, Bea Whittaker <milkwood@maxitec.co.za> wrote:

> Dear Dudley & Stephen
>
> It seems that this matter has not been resolved and therefore the Stanford Community will get what the consultants have dished up.
> I hope it can be resolved at a ward committee meeting, but doubt it.
>
> Brace yourself for Kleinmond toi-tois.
>
> Regards
>
> Bea
>
> **From:** Petrus Roux
> **Sent:** Wednesday, September 13, 2017 09:56
> **To:** milkwood@maxitec.co.za
> **Subject:** PORTION 25 (PTN OF PTN 2) OF FARM 644 CALEDON, ERF, 2275, 1198 & ERVEN 1909-1914 STANFORD, OVERSTRAND MUNICIPAL AREA: PROPOSED INTEGRATED HOUSING DEVELOPMENT: URBAN DYNAMICS obo OVERSTRAND MUNICIPALITY
>
> Goeidag Bea
>
> Find aangeheg 'n brief rakende die intervener status'.
>
> Vriendelike Groete
>
> **Petrus Roux**
> Town Planner, Town & Spatial Planning Department
> Overstrand Municipality
> **A**: 16 Paterson Street, Hermanus, 7200 **P**: P O Box 20
> **T**: 028 313 8983 | **F**: 028 313 2093 | **E**: petrusroux@overstrand.gov.za

58

ANNEXURE D 6/11

<IMAGE.jpg>

Overstrand Municipality
A: 1 Magnolia Street, Hermanus, 7200 | **P:** P.O Box 20, Hermanus, 7200
T: +27 (0) 28 313 8000 | **F:** +27 (0) 28 312 1894
E: enquiries@overstrand.gov.za | **W:** www.overstrand.gov.za

Vision Statement: "*To be a centre of excellence for the community*"

<SKMBT_C36017091212300.pdf>

Overstrand Municipality
A: 1 Magnolia Street, Hermanus, 7200 | **P:** P.O Box 20, Hermanus, 7200
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Please consider the environment before printing this correspondence.

ANNEXURE D 7/1

59

Petrus Roux - Re: Fw: RE; THE PLANNING MEETING AT STANFORD

From: Schalk van der Merwe
To: jenny
Date: 2017/10/23 10:50 AM
Subject: Re: Fw: RE; THE PLANNING MEETING AT STANFORD
Cc: Petrus Roux; Riaan Kuchar; Briand Louw; Abigail Jacobs

Dear Jenny

I am writing to acknowledge receipt of your email which had been forwarded to the case officer, Mr Petrus Roux.

Kind regards

Schalk van der Merwe
Senior Town Planner, Town & Spatial Planning Department
Overstrand Municipality
A: 16 Paterson Street, Hermanus, 7200 **P:** P O Box 20, Hermanus, 7200
T: 028 313 8900 | **F:** 028 313 2093 **E:** svdmerwe@overstrand.gov.za

>>> "jenny" <jennyoctober3@gmail.com> 2017/10/20 09:59 AM >>>
dear sir
im just sending this email again as of i got a mail that said it wasn't deliver to Mr.Riaan

From: jenny
Sent: Thursday, October 19, 2017 8:30 AM
To: rkuchas@overstrand.gov.za
Cc: svdmerwe@overstrand.gov.za ; Dudley Coetzee
Subject: RE; THE PLANNING MEETING AT STANFORD

DEAR SIR

AT OUR MEETING LAST WEEK IN STANFORD MUNICIPAL BOARDROOM YOU HAD SUGGESTED THAT WE AS THE SOCIAL COMPACT WHO WAS PRESENT WENT BACK TO THE COMMUNITY IF WE WANT TO MAKE CHANGES IN THE EXISTING LAYOUT PLAN YOU HAVE.

WELL WE HAD A MEETING ON THE 17TH OCTOBER WITH THE OTHER SOCIAL COMPACT MEMBERS AS WELL AS THE COMMUNITY COMMITTEE MEMBERS AND A FEW COMMUNITY MEMBER.WE DECIDED THAT THE EXISTING PLAN YOU HAVE MUST STAY AS IT IS .WE DON'T WANT TO MAKE CHANGES ON THE PLAN DUE TO IT TAKES ALREADY LONG FOR THE PROJECT TO START IN STANFORD.THEY ONLY WANT SPACES FOR CHURCHES,EARLY CHILDHOOD DEVELOPMENT CENTRES,AND SOME OTHER COMMUNITY NEEDS.

HOPE THIS EMAIL ARE CLEAR TO YOU IF ANY QUESTIONS FEEL FREE TO CONTACT ME.

STANFORD GREETINGS
JENNY OCTOBER-MARS
079 799 7114

ANNEXURE D 8/11

60

Petrus Roux
Town Planner, Town & Spatial Planning Department
Overstrand Municipality
A: 16 Paterson Street, Hermanus, 7200 **P:** P O Box 20
T: 028 313 8983 | **F:** 028 313 2093 | **E:** petrusroux@overstrand.gov.za

>>> "Bea Whittaker" <milkwood@maxitec.co.za> 2017/11/01 01:40 PM >>>
Goeiedag

Soos guster met Riaan bespreek is die voorgestelde uitleg hierby aangeheg.

Tree asseblief met ons in verbinding indien daar enige probleme met die uitleg is, anders vertrou ons dat alles in orde is en die aangehegte uitleg die finale uitleg is.

Ek is nie seker of Jenny October dit aan julle almal gestuur het nie – daarom hierdie epos net om seker te maak dat dit wel by julle uitkom.

Die oorspronklike hoër resolusie lêer kan afgelaai word by

https://www.dropbox.com/home/Stanford%20Housing

Tree gerus met Bernard Oberholzer in verbinding indien julle enige navrae het, want die voorstel is sy handewerk.

Groete

Bea Whittaker

Milkwood Communications & Stanford-Accommodation
Tel (028) 341-0430
Cell: 083-293-5512

Do what you can, for whom you can, when you can - and do it to the best of your ability

Overstrand Municipality
A: 1 Magnolia Street, Hermanus, 7200 | **P:** P.O Box 20, Hermanus, 7200
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E: enquiries@overstrand.gov.za | **W:** www.overstrand.gov.za
Vision Statement: "*To be a centre of excellence for the community*"

ANNEXURE D 9/11

61

Munisipaliteit • U-Masipala • Municipality
OVERSTRAND

Navrae:
Enquiries: P Roux (Town Planner)

Lêerverwysing:
File Reference: N/A

Datum:
Date: 21 November 2017

TOWN PLANNING / STADSBEPLANNING
HERMANUS

Bea Whittaker
PO Box 539
STANFORD
7210

EMAIL
milkwood@maxitec.co.za

Dear Madam

PROPOSED AMENDMENTS TO THE DEVELOPMENT PLAN OF THE STANFORD HOUSING PROJECT

Your email dated 1 November 2017 has reference.

As you are well aware a meeting was held on 11 October 2017 between Stanford Conservation Trust, Stanford Ratepayers Association & Stanford Social Compact, representatives of the Municipality and Town Planning consultants who worked on the project (i.e. Urban Dynamics). Five primary concerns were raised and discussed namely:

- what aspects can be incorporated into the current design? Specific mention was made to the large open areas which were discussed in previous social compact meetings;
- what will happen with the people who are not on the waiting list? Mention is made to the Kop, informal settlement and backyard dwellers in Stanford;
- where will the areas for the sites (for housing and service sites) be located and will it be phased?;
- the northern portion (next to the WWTW) of the map - is it suitable for an ECD centre?; and
- additional access for pedestrians from the vicinity behind the rugby fields (between the proposed and existing extension).

The meeting was concluded with the understanding that the following must still be resolved:

- Jenny October will get feedback from the community regarding the smaller open spaces in the northern part of Stanford; and
- phasing of the development (provision of serviced sites and housing) will take place at a follow up Social Compact Meeting.

On 19 October 2017 an email was received from Jenny October (on behalf of Stanford Social Compact) stating that Social Compact does not propose any other changes to the Site Development Plan.

However, on November 1st, 2017, a second email was received from yourself, which is inconsistent with the email from Jenny October. The email presents a new Development Plan. It is noted that your email does not directly relate to the email sent by Jenny October and it also appears that the new Development Plan was not discussed with Social Compact.

Tel: 028 313 8900
Fax: 028 313 2093
E-mail : petrusroux@overstrand.gov.za

PO Box 20 / Posbus 20
HERMANUS
7200

ANNEXURE D 10/11

The opinion is therefore held that the proposed Development Plan is not compliant with the agreement reached between the role-players on 11 October 2017. The new proposed Development Plan sent will therefore not be included in the current land use application.

Yours faithfully

S MULLER
DIRECTOR: INFRASTRUCTURE & PLANNING

Tel: 028 313 8900
Fax: 028 313 2093
E-mail : petrusroux@overstrand.gov.za

PO Box 20 / Posbus 20
HERMANUS
7200

Petrus Roux - Re: Stanford Beshuising

From: "jenny" <jennyoctober3@gmail.com>
To: "Petrus Roux" <petrusroux@overstrand.gov.za>
Date: 2017/11/21 02:18 PM
Subject: Re: Stanford Beshuising

DEAR SIR

JUST TO RIGHT YOU ON YOUR COMMENT OF THIS NEW PLAN WAS NOT PRESENTED/DISCUSSED TO THE SOCIAL COMPACT.YES IT WAS PRESENTED TO THE COMMUNITY AND SOME SOCIAL MEMBERS WHO WAS PRESENT BUT SOME WAS AGAINST IT AND SOME COMMUNITY MEMBERS WAS FOR IT.THOSE WHO WAS AGAINST IT WAS MORE THEN THE OTHERS.DUE TO THESE PEOPLE IN THE COMMUNITY FEELS THEY ALREADY ARE WAITING FOR THEIR HOUSES TOO LONG AND IF I SEND IN THE NEW PLAN ITS GOING TO TAKE MORE OF THE TIME AWAY.THATS WHY I LEFT THE EMAIL AS IT WAS SEND TO YOU.JUST TO INFORM YOU ALSO THAT THE COMMUNITY DOESNT WANT TO HEAR ANYTHING ELSE JUST THAT WHEN THE HOUSING PROJECT IS GOING TO START.AT THE MOMENT THIS IS THE ONLY THING ON THEIR MINDS THAT THE HOUSING PROJECT STARTED.AND THE COMMUNITY WANTS FRANKIE FRANS TO COME AND EXPLAIN TO THEM WHY THERE WAS NO MEETINGS HELD WITH THEM OR SOCIAL COMPACT.THATS WHY THERE WAS A MISUNDERSTANDING OF THE PUBLIC MEETING BECAUSE OUR COMMUNITY MEMBERS THINK IT WAS A HOUSING MEETING.
HOPE THIS IS CLEAR ENOUGH.

REGARDS
JENNY

From: Petrus Roux
Sent: Tuesday, November 21, 2017 11:17 AM
To: milkwood@maxitec.co.za
Cc: bernard.bola@gmail.com ; jennyoctober3@gmail.com ; lynpullen55@gmail.com ; keithb@hermanus.co.za ; chris@ips.co.za ; Abigail Jacobs ; Briand Louw ; Dudley Coetzee ; Petronella Ferreira ; Riaan Kuchar ; Stephen Muller ; Schalk van der Merwe ; pj@udwc.co.za
Subject: Re: Stanford Beshuising

Good day Bea

Your email below has reference.

Please find attached a letter outlining the Municipality's comment to the proposed development plan received on 1 November 2017, the letter also has bearing on the email dated 19 October 2017 from Jenny October (which is also attached for your convenience).

(Please note this email and letter attached is in English to ensure that no recipient is neglected.)

Kind regards

ANNEXURE E 1/27

URBAN DYNAMICS WESTERN CAPE
TOWN & REGIONAL PLANNERS

Our Ref: B141-PJL-210456c

24 July 2017

THE MUNICIPAL MANAGER
OVERSTRAND MUNICIPALITY
TOWN AND REGIONAL PLANNING DEPARTMENT
16 PATERSON STREET
HERMANUS
7200

BY E-MAIL

FOR ATTENTION: Mr. Schalk Van Der Merwe / Mr. Petrus Roux

Dear Sirs,

PORTION 25 (PT. OF PT. 2) OF FARM 644 RIVERSIDE, ERF 1198, ERF 2275 AND ERVEN 1909-1914 STANFORD

RESPONSE TO OBJECTIONS

1. With reference to your letter dated 6 July 2017 (**Annexure A**). In this regard, we take note of the 2 written submissions received during the public advertising of the application, namely:

   - Henry Gibson (**Annexure B**)
   - Die Bron Primary School (**Annexure C**).

2. Following our review of the received written submissions/objections, the issues raised by the two objectors have been summarised and responded to in a thematic approach, as the issues are similar in nature.

   The summary of objections and our response thereto, are summarized in **Table 1** below.

Tygervalley Chambers Five, 2nd Floor, 27 Willie van Schoor Avenue, Bellville 7535
PO Box 2445, Bellville 7535
Tel: +27(0)21 948-1545 / Fax: +27(0)21 948-1588
Email: pj@udwc.co.za Website: www.udwc.co.za

Directors: W Herbert (Managing) (A/624/1990)* PL Olden (A/1162/2000)* GP Swart Pr. (A/1126/1999)*
Associate Director: PJ Lerm (A/163/2009)*
*Registered Professional Planners

UDWC's BEE Rating: Level 3 (Sanas BVA057) UDWC is a Member of

3. RESPONSE TO OBJECTIONS

	ISSUES RAISED BY OBJECTOR	RESPONSE TO ISSUES
1	The bad smell from the existing WWTW has a negative impact on the surrounding residential neighbourhoods.	Noted. However, the application at hand is for a new integrated residential development, with no direct bearing on existing impacts of the WWTW.
2	The WWTW odour also has a negative impact on learners at the Die Bron Primary School. Previous correspondence in this regard is on record with the Overstrand Municipality. Recent comments from the ward councillor (Mr. Dudley Coetzee) confirmed that more than R1m has been budgeted for upgrades to the WWTW, but according to our knowledge no upgrades have been implemented to date.	Noted. As mentioned above, the existing impacts of the WWTW on the surrounding area, including the school, are not related to the application at hand. Noted. The relevant officials and representatives of the Overstrand Municipality will address the matter and provide feedback to the Stanford community via the appropriate channels of ward councillors and community organizations. The health and welfare of the community is a priority to the Overstrand Municipality. It was verbally confirmed by Mr. Dennis Hendriks of the Overstrand Municipality that the a tender process is currently being undertaken to appoint consultants for upgrading to the WWTW, which will increase the capacity of the infrastructure and intends to reduce negative impacts, by improving operations and technology at the WWTW.
3	The objector request clarification on the nature and extent of the proposed buffer area around the WWTW, and how it will affect Die Bron Primary School. The objector also requests clarification regarding the air quality study's findings.	As part of the environmental assessment process for the proposed housing development, an Air Pathway Study was undertaken by a reputable specialist (Mr. Demos Dracoulidous). The findings of the report recommended that a certain development buffer be introduced around the WWTW where no residential development should be located. The relevant recommended buffer distance has been overlaid onto the layout plans and no residential erven are positioned within this area (refer **Figure 1** below). The findings of the study were based on best practice standards, specifications of general health requirements as well as the National Environmental Management Act (NEMA, 1998), while the determined buffer is also specific to the area due to prevailing winds and local circumstances.

		The findings of the study, and the subsequent implications for the proposed development have been accepted and endorsed by the Department of Environmental Affairs (DEA&DP), as reflected in the recently issued Environmental Authorisation, dated July 2017 (refer **Annexure D**).

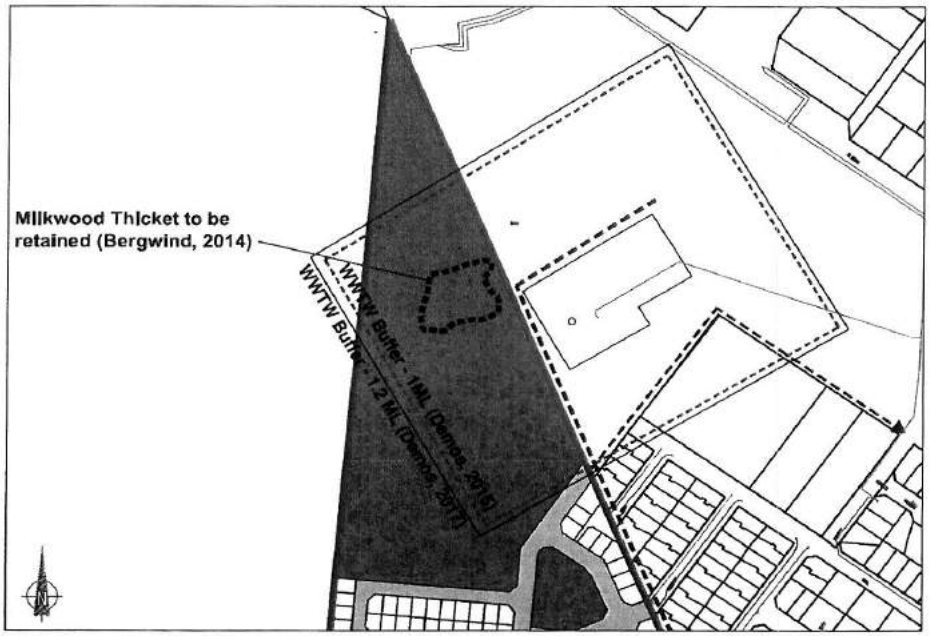

Figure 1: Layout Extract – Showing the WWTW Buffer Area relative to the layout and existing environs

4	The objector request clarification in terms of the zoning allocated to the property that will abut on the southern side of the WWTW.	The site marked pink/purple in **Figure 1** above, is proposed to be zoned Community Zone I in terms of the *Overstrand Zoning Scheme*. The intention is to potentially in future establish a sport and recreation facility on the land portion. If Stanford would in future require a High School due to increased population, the site also has the potential to accommodate a school on the portion of the site located outside of the WWTW buffer area.

5	The vehicular access to the WWTW is causing trucks to pass by the school, causing dust pollution, and affecting the safety of kids being dropped off in the streets where no sidewalks are currently provided.	Noted. It is the intention that Church Street will be extended and formalised, while the gravel road referred to by the objector will also be upgraded as a hard surfaced road (mitigating the dust issue)in future when the development is established. It is agreed that the trucks visiting the WWTW should not be utilising Skool Street, as it poses a safety risk to the learners. This aspect will be brought under attention of the relevant Overstrand officials to investigate and address.
6	Mr. Henry Gibson commented on the proposed street names, making certain suggestions in this regard.	Noted. The street names were nominated by the social compact representatives of the community, which is not directly related to the town planning merit of the application at hand. Final allocation of street names will be undertaken by the Overstrand Municipality, in consultation with the community.

4. CONCLUSION

It is clear from the above summary of objections and the response thereto, that the merit of the planning application at hand is not challenged by the objectors. The issues raised relates mostly to existing displeasures relating to the negative impacts of the WWTW, which is not related to the planning application and proposed development.

On this basis, we request that the objections be dismissed and that the application be approved in terms of the Overstrand Municipal Planning By-Law (2015).

Yours faithfully,

PJ LERM **Pr Pln. A/163/2009**
ASSOCIATE DIRECTOR
URBAN DYNAMICS WESTERN CAPE INC.

ANNEXURE E 5/27

Western Cape Government
Environmental Affairs and Development Planning

Directorate: Development Management
(Region 2)

REFERENCE: 16/3/3/2/E2/37/1004/16
NEAS REFERENCE: WCP/EIA/0000152/2016
ENQUIRIES: D'mitri Matthews
DATE OF ISSUE: 2017 -07- 07

The Board of Directors
Motlekar Overstrand
P.O. Box 4697
DURBANVILLE
7551

Attention: Mr R. van Rooyen

Tel.: (086) 144 4489
Fax: (086) 600 5707

Dear Sir

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED): PROPOSED STANFORD LOW COST HOUSING RESIDENTIAL DEVELOPMENT ON PORTION 25 OF FARM NO. 644, STANFORD

1. With reference to the above application, the Department hereby notifies you of its decision to **grant** Environmental Authorisation, attached herewith, together with the reasons for the decision.

2. In terms of Regulation 4 of the Environmental Impact Assessment Regulations, 2014 (as amended), you are instructed to ensure, within 14 days of the date of the Environmental Authorisation, that all registered interested and affected parties ("I&APs") are provided with access to and reasons for the decision, and that all registered I&APs are notified of their right to appeal.

3. Your attention is drawn to Chapter 2 of the National Appeal Regulations, 2014 (as amended), which prescribes the appeal procedure to be followed. This procedure is summarized in the attached Environmental Authorisation.

Yours faithfully

MR. HENRI FORTUIN
DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 2)
DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

CC: (1) Ms P. Aplon (Overstrand Municipality) Fax: (028) 316 4953
(2) Mr A. Withers (Withers Environmental Consultants) Fax: (021) 883 2952
(3) Me E. Pelsar (WCG: Department of Human Settlements) Fax: (021) 483 5510
(4) Mr A. Oosthuizen (DEA&DP: Development Facilitation) Email: Andre.Oosthuizen@westerncape.gov.za

2nd Floor, 1 Dorp Street, Cape Town, 8001
Tel: +27 21 483 8350 Fax: +27 21 483 3633
E-mail: D'mitri.Matthews@westerncape.gov.za

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

ANNEXURE E 6/27

Western Cape Government
Environmental Affairs and Development Planning

Directorate: Development Management
(Region 2)

REFERENCE: 16/3/3/2/E2/37/1004/16
NEAS REFERENCE: WCP/EIA/0000152/2016
ENQUIRIES: D'mitri Matthews
DATE OF ISSUE:

ENVIRONMENTAL AUTHORISATION

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED): PROPOSED STANFORD LOW COST HOUSING RESIDENTIAL DEVELOPMENT ON PORTION 25 OF FARM NO. 644, STANFORD

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

DECISION

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended), the Competent Authority herewith **grants Environmental Authorisation** to the applicant to undertake the listed activities specified in Section B below with respect to Layout Alternative 1, described in the Environmental Impact Assessment Report ("EIAR"), dated March 2017.

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

A. DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION

Motlekar Overstrand
% Mr R. van Rooyen
P.O. Box 4697
DURBANVILLE
7551

Tel.: (086) 144 4489
Fax: (086) 600 5707

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

B. LIST OF ACTIVITIES AUTHORISED

Listed Activity	Activity/Project Description
Government Notice No. 327 of 7 April 2017 – Activity Number 9 The development of infrastructure exceeding 1000 metres in length for the bulk transportation of water or storm water— (i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more; excluding where— (a) such infrastructure is for bulk transportation of water or storm water or storm water drainage inside a road reserve or railway line reserve; or (b) where such development will occur within an urban area.	The storm water pipes will range in diameter from 375mm to 900mm and will have a cumulative length that exceeds 1 000m.
Activity Number 12 The development of— (i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or (ii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs— (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; — excluding— (aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour; (bb) where such development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies; (cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies; (dd) where such development occurs within an urban area;	The storm water from the development will discharge via a channel/canal into the Mill Stream, which is located within 32m of the watercourse and will have a development footprint larger than 100m².

(ee) where such development occurs within existing roads, road reserves or railway line reserves; or (ff) the development of temporary infrastructure or structures where such infrastructure or structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared.	
Government Notice No. R. 325 of 7 April 2017 – Activity Number 15 The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for— (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	More than 20ha of indigenous vegetation will be cleared for the proposed development.
Government Notice No. R. 324 of 7 April 2017 – Activity Number 4 The development of a road wider than 4 metres with a reserve less than 13,5 metres. **i. Western Cape** i. Areas zoned for use as public open space or equivalent zoning; ii. Areas outside urban areas; **(aa) Areas containing indigenous vegetation;** (bb) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or iii. Inside urban areas: (aa) Areas zoned for conservation use; or (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority.	Internal roads will be wider than 4m and constructed in an area comprising indigenous vegetation.

The abovementioned list is hereinafter referred to as **"the listed activities"**.

The holder is herein authorised to undertake the following alternative:

The proposal entails the development of a low cost housing area to the east of the existing Stanford low cost residential area that will have a development footprint of approximately 29ha in extent. The proposal will consist of the following:

- 770 Residential Zone I erven (approximately 12,7ha);
- Six Community Zone I erven (approximately 5ha, including the Waste Water Treatment Works ("WWTW") buffer zone);
- Seven Business Zone III erven (approximately 0,4ha);
- 12 Open Space Zone II erven (approximately 2,5ha);
- One Authority Zone erf (approximately 0,6ha);

- One Transport Zone II erf (approximately 7,4ha);
- Bulk water infrastructure;
- A canal/earthen channel (0,5m deep, 0,5m wide and approximately 200m long) for storm water discharge into the Mill Stream from the detention facility; and
- Internal roads.

C. SITE DESCRIPTION AND LOCATION

The listed activities will be undertaken on Portion 25 of Farm No. 644, Stanford, at the following co-ordinates:

Latitude (S)	Longitude (E)
34° 26' 50.60"	19° 126' 50.68"

The SG digit code is: C01300000000064400025

Refer to Annexure 1: Locality Plan and Annexure 2: Site Plans

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

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

Withers Environmental Consultants (Pty) Ltd
% Mr. A. Withers/ Ms. K. Neethling
P. O. Box 6118
UNIEDAL
7612

Tel.: (021) 887 4000
Fax: (021) 883 2952

E. CONDITIONS OF AUTHORISATION

Scope of authorisation

1. The holder is authorised to undertake the listed activities specified in Section B above in accordance with, and restricted to, Layout Alternative 1, described in the EIAR dated March 2017 at the site as described in Section C above.

2. The Environmental Authorisation is valid for a period of **five years** from the date of issue within which commencement must occur.

3. The holder shall be responsible for ensuring compliance with the conditions by any person acting on his/her behalf, including an agent, sub-contractor, employee or any person rendering a service to the holder.

4. Any changes to, or deviations from the scope of the alternative described in Section B above must be accepted or approved, in writing, by the Competent Authority before such changes

or deviations may be implemented. In assessing whether to grant such acceptance/approval or not, the Competent Authority may request information, in order to evaluate the significance and impacts of such changes or deviations, and it may be necessary for the holder to apply for further authorisation in terms of the applicable legislation.

Written notice to the Competent Authority

5. Seven calendar days' notice, in writing, must be given to the Competent Authority before commencement of construction activities. The notice must:

   5.1 make clear reference to the site details and EIA Reference number given above; and

   5.2 include proof of compliance with the following conditions described herein:

   Conditions: 6, 7, 10, 16, 17 and 19

Notification and administration of appeal

6. The holder must in writing, within 14 (fourteen) calendar days of the date of this decision–

   6.1 notify all registered Interested and Affected Parties ("I&APs") of –
   - 6.1.1 the outcome of the application;
   - 6.1.2 the reasons for the decision as included in Annexure 3;
   - 6.1.3 the date of the decision; and
   - 6.1.4 the date when the decision was issued.

   6.2 draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations, 2014 (as amended) detailed in Section G below;

   6.3 draw the attention of all registered I&APs to the manner in which they may access the decision; and

   6.4 provide the registered I&APs with:
   - 6.4.1 the name of the holder (entity) of this Environmental Authorisation;
   - 6.4.2 name of the responsible person for this Environmental Authorisation;
   - 6.4.3 postal address of the holder;
   - 6.4.4 telephonic and fax details of the holder;
   - 6.4.5 e-mail address, if any, of the holder; and
   - 6.4.6 contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered I&APs in the event that an appeal is lodged in terms of the 2014 National Appeals Regulations (as amended).

7. The listed activities, including site preparation, must not commence within 20 (twenty) calendar days from the date the applicant notifies the registered I&APs of this decision. In the event that an appeal is lodged with the Appeal Authority, the effect of this Environmental Authorisation is suspended until the appeal is decided i.e. the listed activities, including site preparation, must not commence until the appeal is decided.

Management of activity

8. The draft or Environmental Management Programme ("EMPr") submitted as part of the application for Environmental Authorisation is hereby approved and must be implemented.

9. The EMPr must be included in all contract documentation for all phases of implementation.

Monitoring

10. The holder must appoint a suitably experienced environmental control officer ("ECO"), or site agent where appropriate, before commencement of any land clearing or construction activities to ensure compliance with the EMPr and the conditions contained herein.

11. A copy of the Environmental Authorisation, EMPr, audit reports and compliance monitoring reports must be kept at the site of the authorised activity, and must be made available to anyone on request, including on a publicly accessible website.

12. Access to the site referred to in Section C must be granted, and the environmental reports mentioned above must be produced, to any authorised official representing the Competent Authority who requests to see it for the purposes of assessing and/or monitoring compliance with the conditions contained herein.

Auditing

13. In terms of Regulation 34 of the NEMA EIA Regulations, 2014, the holder must conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation, the EMPr and submit Environmental Audit Reports to the Competent Authority. The Environmental Audit Report must be prepared by an independent person and must contain all the information required in Appendix 7 of the NEMA EIA Regulations, 2014.

    The holder must submit an Environmental Audit Report for the construction phase within 3 months from the start of construction to the Competent Authority and thereafter, every 3 months for the duration of the construction phase. The final Environmental Audit Report must be submitted to the Competent Authority three months after construction is completed.

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

Specific Conditions

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

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

15. A qualified archaeologist and/or palaeontologist must be contracted where necessary (at the expense of the holder) to remove any heritage remains. Heritage remains can only be disturbed by a suitably qualified heritage specialist working under a directive from the relevant heritage resources authority.

16. The construction site must be clearly demarcated prior to the commencement of construction activities and all areas outside of the demarcated construction site must be regarded as "no-go" areas.

17. A search and rescue exercise for the endangered *Disa hallackii species* must be implemented prior to commencement of construction. A qualified horticulturist/restoration ecologist must be appointed to oversee the search and rescue operation.

18. The development must only discharge sewage to the Stanford Waster Water Treatment Works ("WWTW") once Overstrand Municipality confirms that upgrading of the Stanford WWTW has been completed.

19. The community facility area which contains Millwood Thicket must be fenced off prior to commencement of construction activities.

20. The identified buffer zone around the Stanford WWTW must be implemented and maintained by the municipality. No residential erven must be located within the buffer zone.

F. GENERAL MATTERS

1. Notwithstanding this Environmental Authorisation, the holder must comply with any other statutory requirements that may be applicable when undertaking the listed activities.

2. Non-compliance with a condition of this Environmental Authorisation or EMPr may render the holder liable to criminal prosecution.

3. If the holder does not commence with the listed activities within the period referred to in Condition 2, this Environmental Authorisation shall lapse for that activity, and a new application for Environmental Authorisation must be submitted to the Competent Authority. If the holder wishes to extend the validity period of the Environmental Authorisation, an application for amendment in this regard must be made to the Competent Authority prior to the expiry date of the Environmental Authorisation.

4. The holder must submit an application for amendment of the Environmental Authorisation to the Competent Authority where any detail with respect to the Environmental Authorisation must be amended, added, substituted, corrected, removed or updated. If a new holder is proposed, an application for Amendment in terms of Part 1 of the EIA Regulations, 2014 must be submitted.

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

5. The manner and frequency for updating the EMPr is as follows:
Amendments to the EMPr, other than those mentioned above, must be done in accordance with Regulations 35 to 37 of GN No. 326 of 7 April 2017 or any relevant legislation that may be applicable at the time.

G. APPEALS

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

1. An appellant (if the holder of the decision) must, within 20 (twenty) calendar days from the date on which notification of the decision was sent to the holder by the Competent Authority –

   1.1. submit an appeal in accordance with Regulation 4 of the National Appeal Regulations 2014 (as amended) to the Appeal Administrator; and

   1.2. submit a copy of the appeal to any registered I&APs, any Organ of State with interest in the matter and the decision-maker i.e. the Competent Authority that issued the decision.

2. An appellant (if NOT the holder of the decision) must, within 20 (twenty) calendar days from the date on which the holder of the decision sent notification of the decision to the registered I&APs–

   2.1. submit an appeal in accordance with Regulation 4 of the National Appeal Regulations 2014 (as amended) to the Appeal Administrator; and

   2.2 submit a copy of the appeal to the holder of the decision, any registered I&AP, any Organs of State with interest in the matter and the decision-maker i.e. the Competent Authority that issued the decision.

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

4. The appeal and the responding statement must be submitted to the address listed below:

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

   By facsimile: (021) 483 4174; or

By hand: Attention: Mr Jaap de Villiers (Tel: 021 483 3721)
Room 809
8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

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

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

H. DISCLAIMER

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

Your interest in the future of our environment is appreciated.

Yours faithfully

MR. HENRI FORTUIN
DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 2)
DATE OF DECISION: 7-7-17

CC: (1) Ms P. Aplon (Overstrand Municipality) Fax: (028) 316 4953
(2) Mr A. Withers (Withers Environmental Consultants) Fax: (021) 883 2952
(3) Me E. Pelsar (WCG: Department of Human Settlements) Fax: (021) 483 5510
(4) Mr A. Oosthuizen (DEA&DP: Development Facilitation) Email: Andre.Oosthuizen@westerncape.gov.za

ANNEXURE 1: LOCALITY MAP

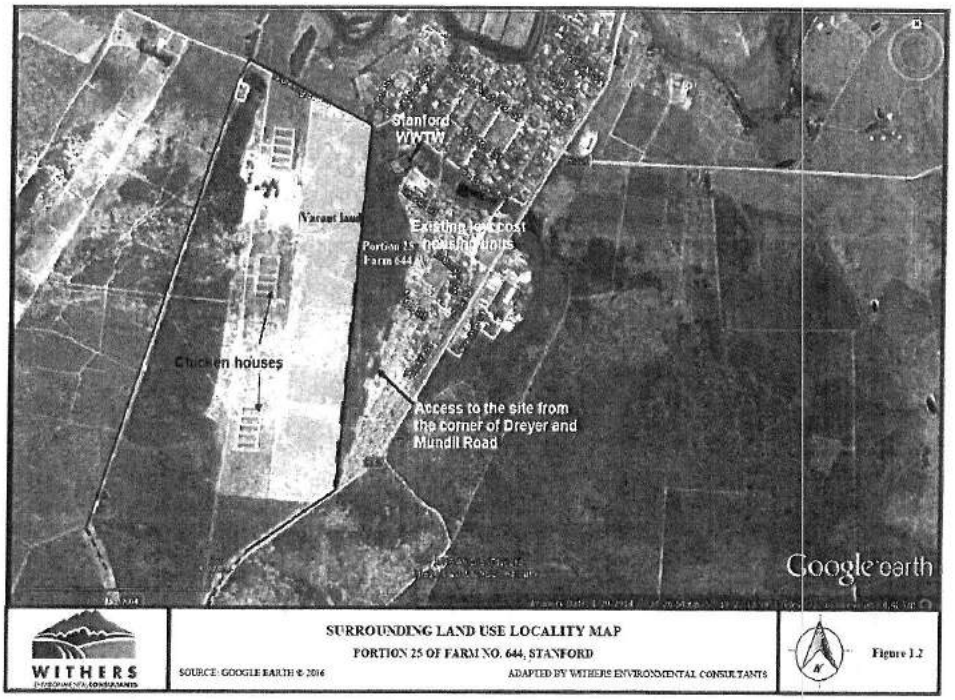

Figure 1: Locality map of Portion 25 of Farm No. 644, Stanford

ANNEXURE 2: SITE PLAN

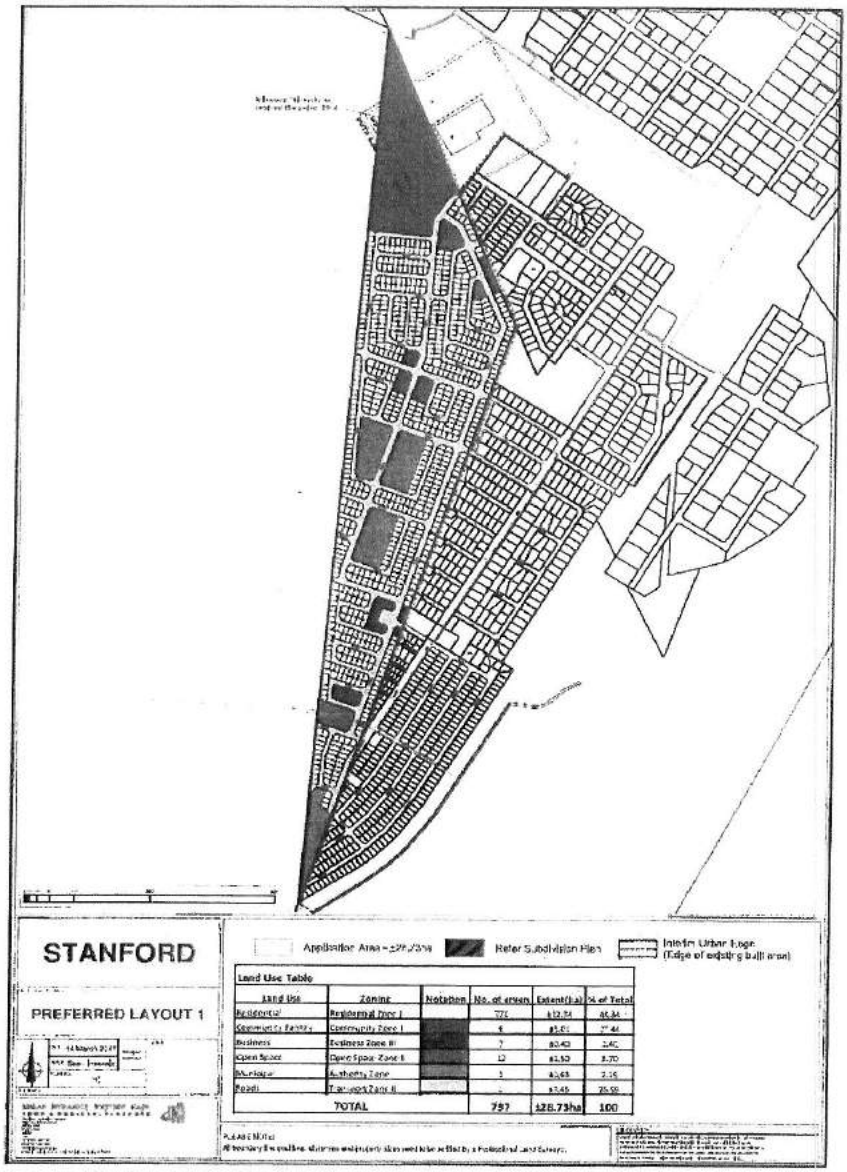

Figure 2: Site Plan for the Stanford low cost housing Development.

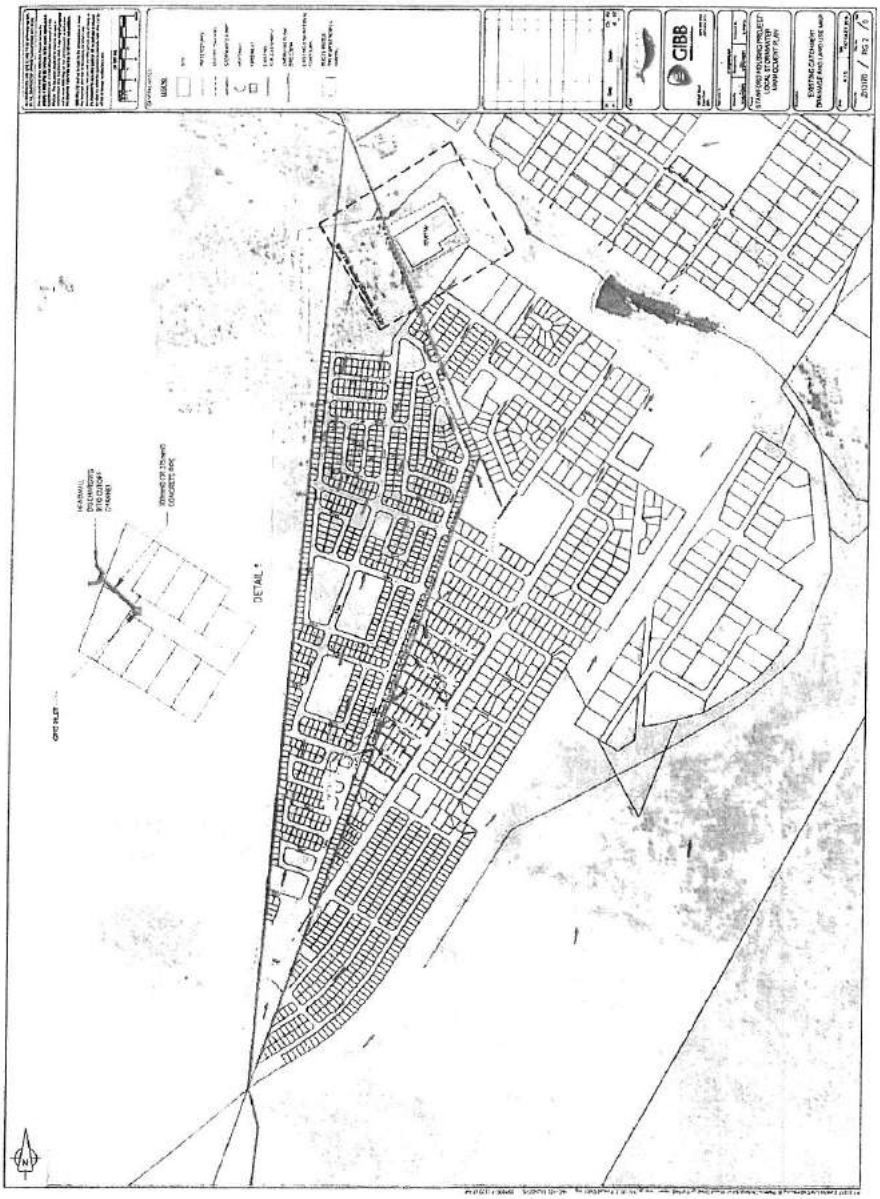

Figure 3: Depicts the channel (Turquoise dashed line) that will discharge the stormwwater into the adjacent watercourse.

ANNEXURE 3: REASONS FOR THE DECISION

In reaching its decision, the Competent Authority considered, amongst others, the following:

a) The information contained in the Application Form dated 15 July 2016, the final EIAR dated March 2017 and the EMPr submitted together with the final EIAR;

b) Relevant information contained in the Departmental information base, including the Guidelines on Public Participation and Alternatives (dated March 2013);

c) The objectives and requirements of relevant legislation, policies and guidelines, including Section 2 of NEMA;

d) The comments received from I&APs and responses to these, included in the EIAR dated March 2017; and

e) The balancing of negative and positive impacts and proposed mitigation measures.

No site visits were conducted. The Competent Authority had sufficient information before it to make an informed decision without conducting a site visit.

This application was submitted in terms of the NEMA Environmental Impact Assessment ("EIA") Regulations, 2014. This decision takes into account the relevant amendments to the text of the said regulations promulgated on 7 April 2017.

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

1. Public Participation

The public participation process included:

- identification of and engagement with I&APs;
- public meetings were held with I&APs on 21 February 27 June 2016, 7 September 2016 and 21 February 2017;
- the placing of a newspaper advertisement in the 'Hermanus Times' on 7 July 2016;
- fixing notice boards at the sites where the listed activities is to be undertaken on 11 July 2016;
- giving written notice to the owners and occupiers of land adjacent to the site where the listed activities is to be undertaken, the municipality and ward councillor, and the various Organs of State having jurisdiction in respect of any aspect of the listed activities, on 8, 11 and 12 July 2016;
- making the draft Scoping Report ("SR") available to I&APs for public review on 12 July 2016; and
- Making the draft EIAR available to I&APs for public review from 8 February 2017.

All the concerns raised by I&APs were responded to, and addressed during the public participation process. Specific management and mitigation measures have been considered in this Environmental Authorisation and in the EMPr, in order to address the concerns raised.

The Competent Authority notes the Environmental Assessment Practitioner's responses to the issues raised during the public participation process, and has included appropriate conditions in this Environmental Authorisation and in the EMPr.

2. **Alternatives**

A number of alternatives were assessed during the application process and only the reasonable and feasible alternatives are discussed below.

Layout Alternative 1(Herewith Authorised):

The proposal entails the development of a low cost housing area to the east of the existing Stanford low cost residential area that will have a development footprint of approximately 29ha in extent. The proposal will consist of the following:

- 770 Residential Zone I erven (approximately 12,7ha);
- Six Community Zone I erven (approximately 5ha, including the Waste Water Treatment Works ("WWTW") buffer zone);
- Seven Business Zone III erven (approximately 0,4ha);
- 12 Open Space Zone II erven (approximately 2,5ha);
- One Authority Zone erf (approximately 0,6ha);
- One Transport Zone II erf (approximately 7,4ha);
- Bulk water infrastructure;
- A canal/earthen channel (0,5m deep, 0,5m wide and approximately 200m long) for storm water discharge into the Mill Stream from the detention facility; and
- Internal roads.

This alternative is preferred since it provides more community sites and an additional business zone, the open space areas are better aligned with the sensitive vegetation core compared to Layout Alternative 2 and the Milkwood Thicket is located in the Stanford WWTW buffer zone, where no development will be undertaken.

Layout Alternative 2:

The proposal entails the development of a low cost housing area to the east of the existing Stanford low cost residential area. The proposal will consist of the following:

- 801 Residential Zone I erven (approximately 13,24 ha);
- Four Community Zone I erven (approximately 0,75ha);
- Six Business Zone III erven (approximately 0,31ha);
- Nine Open Space Zone II erven (approximately 2,72ha);
- One Open Space Zone II erf for sport and recreation (approximately 4,16ha);
- One Transport Zone II erf (approximately 7,55ha);
- Bulk water infrastructure;
- A canal/earthen channel (0,5m deep, 0,5m wide and approximately 200m long) for storm water discharge into the Mill Stream from the detention facility; and
- Internal roads.

This alternative is not preferred since it will have less community and business sites as well as a less favourable open space system that is not aligned with the sensitive vegetation core.

"No-Go" Alternative

The "no-go" option to retain the site as undeveloped was not deemed feasible since the site is used for illegal dumping, informal mining, vegetation is cleared for informal soccer fields and it is

at risk of being encroached by informal housing. In addition, the opportunity to reduce the housing backlog will also be lost.

3. Impact Assessment and Mitigation measures

3.1 Activity need and desirability

The Overstrand Spatial Development Framework, highlights the need for residential development in Stanford. Therefore, the municipality intends to develop Portion 25 of Farm No. 644, Stanford, to aid in their provision of subsidy housing. The site earmarked for development is located within the municipal urban edge, and is designated for urban expansion. Furthermore, the proposed low cost housing development can be accommodated within the municipal infrastructure in terms of service provision.

3.2 Biodiversity and Biophysical Impacts

According to the Botanical Assessment dated November 2014 and the Addendum to this report dated 19 March 2017, compiled by Mr. Gregory Nicolson of Bergwind Botanical Surveys and Tours cc, the vegetation on site comprises Agulhas Limestone Fynbos, an ecosystem classified as being vulnerable in terms of Section 52 of the National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004) (NEMBA). Some areas have been highly invaded by alien plant species and in other areas there has been moderate invasion. Two areas of high botanical sensitivity were identified, namely the Milkwood thicket to the north of the site and the sensitive vegetation core of restorable fynbos in the centre of the site. The Milkwood thicket is located within the buffer zone around the Stanford WWTW that will not be developed and a portion of the sensitive vegetation core has been incorporated into the centralised open space areas within the proposed development. A search and rescue exercise will be undertaken prior to the commencement of construction activities (included as Condition 17) to relocate the endangered *Disa hallackii* species. As such, through the implementation of recommendations of the botanical specialist, Condition 17 and the EMPr (Accepted as per Condition 8), the impact on sensitive vegetation on the site will be adequately mitigated.

3.3 Traffic Impacts

According to the Transport Impact Assessment dated February 2017, compiled by Ms. Karin Liebenberg of Gibb Engineers and Architecture (Pty) Ltd, all intersections will operate at Level of Service A to B (Free flow and Reasonably free flow) with minimal traffic queues during both am and pm peak hours. With the implementation of the recommendations of the Traffic Impact Assessment and the EMPr, the impacts on future traffic conditions will be mitigated.

3.4 Air Quality Impacts

The potential air quality impacts due to the close proximity of the development to the Stanford WWTW were assessed and according to the Air Quality Impact Assessment and Buffer Zone Determination, compiled by Demos Dracoulides of DDA Environmental Engineers, the following findings were noted:

Odour Impact:

The cumulative odour concentrations at the proposed development were below 0,5 odour unit ("OU"), which is below the nuisance level of 2 OU. Even though odours may still be experienced occasionally by the residents close to the WWTW, it will be infrequent and with a very low occurrence.

Non-carcinogenic Health Risk Impact:
The indexes for both short- and long-term non-carcinogenic health risk were recorded as being 0,1 and 0,01, respectively, which is well below the guideline level of 1 outside of the WWTW. Thus, non-carcinogenic health impacts are considered to be very low.

Carcinogenic Risk Impact:
The estimated carcinogenic risk was below $0{,}01 \times 10^{-6}$, which means that a person in any of the areas would have less than 0,01 in a million chance of developing cancer due to lifetime exposure. Therefore, the carcinogenic risk is considered negligible.

Buffer Zone Determination:
The buffer zone required for the Stanford WWTW was determined on the odour, non-carcinogenic health and carcinogenic risk impacts associated with the proposed development's proximity to the Stanford WWTW and incorporated into the preferred layout. Furthermore, through the implementation of the recommendations of the Air Quality Impact Assessment and Buffer Zone Determination and the EMPr, the impacts of odour emanating from the Stanford WWTW will be low.

3.5 Services

Bulk Supply
In their letters dated 19 and 21 September 2016, Overstrand Municipality confirmed the following:
Electricity:
The Eskom supply to Stanford has recently been upgraded and there is sufficient capacity to accommodate the proposed development.

Water:
The proposed development can be supplied from the existing municipal services.

Waste Removal:
The municipal waste site in Gansbaai has sufficient capacity to receive the waste from the proposed development.

Sanitation:
Currently there is no capacity at the existing Stanford WWTW to accommodate the proposed development. However, the implementation plan for the upgrade of the WWTW is planned for the 2017/2018 financial year. This upgrade would not require environmental authorisation, as confirmed in the email dated 26 September 2016. Furthermore, as stated in Condition 18, the development must not discharge sewage before the upgrading of the Stanford WWTW has been completed.

The development will result in both negative and positive impacts.

Negative Impacts:

- The proposed development will result in elevated noise and dust levels during the construction period.
- Loss of and disturbance to indigenous vegetation during site preparation and construction.

Positive Impacts:

- Housing opportunities will be provided for potential beneficiaries.
- Non-motorised transport infrastructure will be upgraded.
- The Milkwood thicket located on the northern section of the site will be conserved and the sensitive vegetation core located in the centre of the site will be retained.
- A search and rescue exercise will be undertaken to ensure that the *Disa hallackii* can be conserved in another location.
- Temporary employment opportunities will be created during the construction phase.

4. National Environmental Management Act Principles

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

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

5. Conclusion

In view of the above, the NEMA principles, compliance with the conditions stipulated in this Environmental Authorisation, and compliance with the EMPr, the Competent Authority is satisfied that the proposed listed activities will not conflict with the general objectives of integrated environmental management stipulated in Chapter 5 of the NEMA and that any potentially detrimental environmental impacts resulting from the listed activities can be mitigated to acceptable levels.

----------END----------

ANNEXURE E 23/27

Munisipaliteit • U-Masipala • Municipality
OVERSTRAND
TOWN PLANNING / STADSBEPLANNING
HERMANUS

Navrae:
Enquiries: P Roux (Town Planner)

Lêerverwysing:
File Reference: Stanford Housing (3554)

Datum:
Date: 6 July 2017

Urban Dynamics Western Cape
PO Box 2445
BELLVILLE
7535

EMAIL: pj@udwc.co.za

APPLICANT TO REPLY TO COMMENTS / OBJECTIONS

PORTION 25 (PORTION OF PORTION 2) OF THE FARM RIVERSIDE NO. 644, DIVISION CALEDON, ERVEN 2275 & 1198 AND ERVEN 1909-1914, STANFORD, OVERSTRAND MUNICIPAL AREA: PROPOSED REZONING, SUBDIVISION, DEPARTURE, AMENDMENT OF THE OVERSTRAND GROWTH MANAGEMENT STRATEGY AND APPROVAL OF STREETNAMES: STANFORD AFFORDABLE HOUSING PROJECT

1. Your application submitted on19 December 2016 refers.

2. Attached please find copies of two (2) letters of objection/comment received, forthcoming the public participation process.

3. The comments were received from:

   - H Gibson, dated 26 June 2017; and
   - LJO Pedro obo Die Bron Primary School.

4. Kindly provide this Municipality with a written reply within 30 days of date of this letter.

5. Should no reply be received within the prescribed time period, it will be deemed that you have no comment.

Tel: 028 313 8900
Fax: 028 313 2093
E-mail : alida@overstrand.gov.za

PO Box 20 / Posbus 20
HERMANUS
7200

6. Arrangements can be made, prior to the 30 days lapsing, for a further period agreed upon with the Municipality for the submission of your comment.

Yours faithfully

S MÜLLER
DIRECTOR: INFRASTRUCTURE & PLANNING

Tel: 028 313 8900
Fax: 028 313 2093
E-mail : alida@overstrand.gov.za

PO Box 20 / Posbus 20
HERMANUS
7200

ANNEXURE E 25/27

26 Junie 2017

OVERSTRAND MUNISIPALITEIT
28 JUN 2017
OVERSTRAND MUNICIPALITY

Henry Gibson
Fabriek Straat 14
Stanford
7210

The Department Town Planning
Paterson Street
HERMANUS

P Ferreira
F Mybergh

Geagte Mevrou/Heer

Insake: Stanford Behuising – Lêer verwysing 3554

Graag lewer ek, Henry Gibson, inwoner kommentar op die volgende:

1. **Par 3.2.4, Bladsy 20 (ANNEXTURE G)**
   My huis is sowat ± 500m vanaf die Stanford WWTW en ons word gereeld blootgestel aan die reuk vanaf die WWTW. Die Bron Primêre skool, waar my seun skool gaan, word daagliks met sy mede leerders blootgestel aan hierdie reuk, wat hul leer vermoë en konsentrasie beinvloed. As ouer het ek destyds beswaar gemaak oor die reuk en 'n muur het geen impak op die reuk gehad nie.
   Daar word nou voorgestel van 'n *bufferzone*. Graag wil ek hê dat u moet kennis neem van my kommentaar. Die munisipaleteit is in besit van my korrespondensie wat ek as destydse voorsitter van Die Bron Primêr Beheerliggaam, aan hul gerig het, oor die reuk. Ons huidige raadslid, Mnr.Dudley Coetzee, het verlede jaar ons ingelig dat meer as 'n miljoen rand bewillig is vir die opgradering van die WWTW, maar nog niks het gebeur nie.

2. **Die volgende kommentaar handel oor die voorgestelde straatname: Bl.27, par 4.5**
   - Indien daar name gekoppel word aan sekere persone, byvoorbeeld, Abrie De Jager, wil ek aanbeveel dat Appelstraat na Willem Appel straat verander word. Meneer Appel was die destydse voorsitter van die bestuurskommitee en ook oud Raadslid.
   - Spandiel Straat, na Henry Spandiel straat. Bekend as Moos Spandiel ook oud kommiteelid van destydse Bestuurskommitee.
   - In my hoedanigheid, as die EERSTE Demokratiese Burgermeester van Stanford, moet daar ook 'n Henry Gibson straat wees. Dit sê iets oor ons verlede en vir die nageslag. Die huidige Gibson en Dreyer straat was in die hoedanigheid van families geneem destyds.
   - Verdere name wat van kennisgeneem moet word is soos volg, Dickson, Gillion, Gardiner, almal families wat deelmaak van die dorp se geskiedenis en bydraes wat gemaak is in die gemeenskap oor die jare.

Baie dankie vir die kommentaar geleentheid, ek hoop dit kan help dat reggeskied aan almal se behoeftes.

Die uwe

Henry Gibson
082 255 8635
Henrygibson7@gmail.com

FILE NO: 17/1/R
16/3/5
SCAN NO:
COLLABORATOR NO:
1046692

TP 28 JUN 17

ANNEXURE E 26/27

DIE BRON
PRIMÊRE SKOOL / PRIMARY SCHOOL

Navrae: Mnr. L.J.O. Pedro
Tel/Fax: 028-341 0830
E-Mail: diebronps@gmail.com / ljopedro@gmail.com
Postal: P.O. Box 12 Stanford, 7210

29 Junie 2017

OVERSTRAND MUNISIPALITEIT
30 JUN 2017
OVERSTRAND MUNICIPALITY

TP-A Theart
(Suid Merwe)

Direkteur: Infrastruktuur en Beplanning
Hermanus
7200

Geagte Mnr. S. Müller

INSAKE: BEKOSTIGBARE BEHUISINGSPROJEK

Die Beheerliggaam van Die Bron Primêr wil graag meer duidelikheid hê oor die onderstaande punte.

1. 1.3 WWTW buffer zone
   Watter impak gaan die buffer zone op die skool hê en waaruit gaan dit bestaan (beton ,sand ,struike, klip).

   3.2 SITE INFORMANTS

   3.2.3 TRANSPORT IMPACT ASSESSMENT
   Die impak op Skoolstraat waar geen sypaadjies en parkering voor skool is nie en 490 leerders wat daagliks die pad gebruik. Die riool trokke veroorsaak baie stof as hulle die pad gebruik agter die skool en waar is hoofingang van rioolwerke bv. Is dit Skoolstraat???

   3.2.4 AIR QUALITY IMPACT ASSESSMENT AND BUFFER ZONE DETERMINATION
   Odour Impact - Daar word genoem dat die odour impak baie laag gaan wees.
   Hoe word laag bepaal. Ons by die skool ervaar op n daaglikse basis n stank reuk, veral as die trokke riool aflaai.
   Non-carcinogenic and Carcinogenic Risk Impact - Is die studie gebaseer op plaaslike, nasionale of internasionale gegewens .

   VACANT LAND
   Waarvoor is die oop erf langsaan die rioolwerke aan die suide kant geressioneer.

   Die dokument se foto's wat ons ontvang het van 'n ouer en Munisipaliteit via e-pos was baie onduidelik.

   Ons hoop van harte dat u 'n vergadering met ons kan belê om die onduidelikhede wat ons ervaar, te bespreek.

   Byvoorbaat dank.

   Die uwe

   Mnr. LJO. Pedro
   Prinsipaal

FILE NO: Ged 25 | 644
STF
SCAN NO:
COLLABORATOR NO:
1047626

ANNEXURE E 27/27

Skool Beheerraad

Mnr. N. Doty
Mnr. N. Ntwala
Mnr. A. Baartman
Me. A. Johnson
Me. N.B Maans
Me. K. Dreyer
Me. L.E Bolani
Me. M. Cornelius

ANNEXURE F 1/3

Eskom

OVERSTRAND MUNISIPALITEIT / OVERSTRAND MUNICIPALITY
20 JUN 2017

TP-A Theart (Sold Merwe)

Overstrand Municipality
PO Box 20
Hermanus
7200
Attention: Charlene Pieters

Date: 13 June 2017

FILE NO: Ptn 25/644 Stanford
SCAN NO: 54
COLLABORATOR NO: 1040335

Enquiries:
Owen Peters
Tel: +27 21 980 3817
Fax: +27 86 566 7877

Dear Madam

RE: STANFORD HOUSING PROJECT
OUR REF: 01902/17

I hereby inform you that this department has no objection against the proposed land use application, subject to the following conditions:

a) The following building (or structure) and tree restriction on **either side of centre line** of overhead power line must be observed:

Voltage	Building restriction either side of centre line
11kV	9m

b) That existing Eskom power lines and infrastructure are acknowledged as established infrastructure on the properties and any rerouting or relocation would be for the cost of the applicant/developer.

c) That Eskom rights or servitudes, including agreements with any of the landowners, obtained for the operation and maintenance of these existing power lines and infrastructure be acknowledged and honoured throughout its lifecycle which include, but are not limited to:

i. Having 24 hour access to its infrastructure according to the rights mentioned in (a) above,

ii. To perform maintenance (structural as well as servitude – vegetation management) on its infrastructure according to its maintenance programmes and schedules,

iii. To upgrade or refurbish its existing power lines, structures and infrastructure as determined by Eskom,

iv. To perform any other activity not listed above to ensure the safe operation and maintenance of the Eskom power lines or infrastructure.

d) No dumping shall be allowed within Eskom Services.

e) Eskom shall not be liable for the death or injury of any person, or for loss of or damage to

any property, whether as a result of the encroachment or use of the area where Eskom has its services, by the applicant, his/her agent, contractors, employees, successors in title and assignee.

f) The applicant indemnifies Eskom against loss, claims or damages, including claims pertaining to interference with Eskom services, apparatus or otherwise.

g) Eskom shall at all times have unobstructed access to and egress from its services.

Yours sincerely

Owen Peters
LAND DEVELOPMENT (BRACKENFELL)

ANNEXURE F 3/3

ESKOM (WESTERN REGION)

OCCUPATIONAL HEALTH AND SAFETY ACT (Act No 85 of 1993) WITH REGULATIONS

D16 (7) Excavations

"The builder or excavator shall ascertain as far as possible the location and nature of underground services likely to be affected by the excavation and take such steps as may be necessary to prevent danger to persons".

THE ELECTRICITY ACT (Act No 41 of 1987)

Section 27 (3) : Offences and Penalties

"Any person who without legal right (the proof of which shall be upon him) cuts or damages or interferes with any apparatus for generating, transmitting or distributing electricity, shall be guilty of an offence and liable on conviction to a fine not exceeding R2 000,00 or to imprisonment for a period not exceeding twelve months".

ANNEXURE G 1/1

Municipality OVERSTRAND

File reference:	3554
Date:	5 June 2017

INTERNAL MEMORANDUM

From	:	Town Planning Department
Town Planner	:	P Roux

TO:

Area Manager	*Building Department*	*District Health*	*Electrical Department*
Environmental Officer	*Fire Department*	*Infrastructure and Planning (Onrus)*	*Local Heritage Committee*
Operational Services	*Traffic Department*	*Ward Councillor (D Coetzee)*	*Waste Management*

Applicant	**Urban Dynamics obo Overstrand Municipality**
Property Details	**Stanford Housing Project**
Application Description	**Housing Project**

MUNISIPALITEIT OVERSTRAND MUNICIPALITY
FIRE BRIGADE / BRANDWEER
APPROVED / GOEDGEKEUR
04 JUL 2017

ATTACHMENTS :

1. Notice
2. Locality Plan
3. Site & Ground Floor Plans
4. Motivation

Should the information be insufficient for you to make an informative comment, please list any additional documentation that you would require to make informed comments.

YOUR DEPARTMENT'S COMMENTS:

(1) Semi-detached Dwellings - Must provide a minimum of 60 minute Roof height, beam filled firewall between dwellings.
(2) No combustible roof components may communicate between dwellings.

Signature: _____ Date: _____

Please provide your comments (with specific reference to any conditions of approval that should be imposed) in the space provided above or in a separate Memo **by not later than the date stipulated below.** If you require an extension of time for submission of comments, kindly request this in writing. Should no comments be received, it will be assumed that you have no objection to the proposal and where appropriate, the Mayoral Committee will be informed accordingly.

- *Building Control Department to confirm that all structures on the property/ies are in accordance with the approved building plans.*

COMMENTS REQUIRED BY: 30 June 2017

(3) Developer must provide fire hydrants so that any structure is not further than 90m from any hydrant i.e. 180m apart linear to street lines. Prescribed by section 4.35.4 of SANS10400T:2011 - National Fire Protection Regulations.

ANNEXURE H 1/2

OVERBERG DISTRIKSMUNISIPALITEIT
DISTRICT MUNICIPALITY
UMASIPALA WESITHILI

MELD ASB/PLEASE QUOTE

Ons Verw./Our Ref.: 18/3/9/6/2/2

Navrae/Enquiries: C Adams

Bylyn/Ext.: 028-3131243

Privaatsak: X22
Private Bag:
BREDASDORP
7280
Tel: (028) 4251157
Fax: (028) 4251014
Hermanus Office
15 Flower Street
Hermanus
7200

6 July 2017

Town Planning Department
Overstrand Municipality
PO Box 20
HERMANUS
7200

URBAN DYNAMICS obo OVERSTRAND MUNICIPALITY, STANFORD HOUSING PROJECT PORTION 25 (PORTION OF PORTION 2 OF THE FARM RIVERSIDE NO. 644, DIVISION CALEDON, ERVEN 2275 & 1198 AND ERVEN 1909 – 1914 STANFORD

Applicant to with comply and adhere to all MHS Requirements below:

1. No development to take place in the buffersone between housing development and the WWTW.
2. Vegetation in buffersone not to be removed as it prevent droplet contamination derived from the WWTW.
3. Conduct Air Quality montering between housing development and the WWTW.
4. WWTW must be able to handle the extra load derived from the new development.
5. Municipality to ensure that the additional demand for drinking water can be accommodated.
6. Waste from the construction site must not create a health nuisance.
7. All waste derived from the construction must be dealt with in terms of municipal specifications.
8. Water-, waste-, dust- and noise pollution must be kept to a minimum during construction.

Your co-operation will be appreciated

Yours truly,

ANNEXURE H 2/2

MUNICIPAL MANAGER
CA/nc

Western Cape Government
Environmental Affairs and Development Planning

Directorate: Development Management
(Region 2)

REFERENCE: 16/3/3/2/E2/37/1004/16
NEAS REFERENCE: WCP/EIA/0000152/2016
ENQUIRIES: D'mitri Matthews
DATE OF ISSUE:

ENVIRONMENTAL AUTHORISATION

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED): PROPOSED STANFORD LOW COST HOUSING RESIDENTIAL DEVELOPMENT ON PORTION 25 OF FARM NO. 644, STANFORD

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

DECISION

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended), the Competent Authority herewith **grants Environmental Authorisation** to the applicant to undertake the listed activities specified in Section B below with respect to Layout Alternative 1, described in the Environmental Impact Assessment Report ("EIAR"), dated March 2017.

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

A. DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION

Motlekar Overstrand
% Mr R. van Rooyen
P.O. Box 4697
DURBANVILLE
7551

Tel.: (086) 144 4489
Fax: (086) 600 5707

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

B. LIST OF ACTIVITIES AUTHORISED

Listed Activity	Activity/Project Description
Government Notice No. 327 of 7 April 2017 – Activity Number 9 The development of infrastructure exceeding 1000 metres in length for the bulk transportation of water or storm water— (i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more; excluding where— (a) such infrastructure is for bulk transportation of water or storm water or storm water drainage inside a road reserve or railway line reserve; or (b) where such development will occur within an urban area.	The storm water pipes will range in diameter from 375mm to 900mm and will have a cumulative length that exceeds 1 000m.
Activity Number 12 The development of— (i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or (ii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs— (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; — excluding— (aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour; (bb) where such development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies; (cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies; (dd) where such development occurs within an urban area;	The storm water from the development will discharge via a channel/canal into the Mill Stream, which is located within 32m of the watercourse and will have a development footprint larger than 100m².

(ee) where such development occurs within existing roads, road reserves or railway line reserves; or (ff) the development of temporary infrastructure or structures where such infrastructure or structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared.	
Government Notice No. R. 325 of 7 April 2017 – Activity Number 15 The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for— (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	More than 20ha of indigenous vegetation will be cleared for the proposed development.
Government Notice No. R. 324 of 7 April 2017 – Activity Number 4 The development of a road wider than 4 metres with a reserve less than 13,5 metres. **i. Western Cape** i. Areas zoned for use as public open space or equivalent zoning; ii. Areas outside urban areas; **(aa) Areas containing indigenous vegetation;** (bb) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or iii. Inside urban areas: (aa) Areas zoned for conservation use; or (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority.	Internal roads will be wider than 4m and constructed in an area comprising indigenous vegetation.

The abovementioned list is hereinafter referred to as "**the listed activities**".

The holder is herein authorised to undertake the following alternative:

The proposal entails the development of a low cost housing area to the east of the existing Stanford low cost residential area that will have a development footprint of approximately 29ha in extent. The proposal will consist of the following:

- 770 Residential Zone I erven (approximately 12,7ha);
- Six Community Zone I erven (approximately 5ha, including the Waste Water Treatment Works ("WWTW") buffer zone);
- Seven Business Zone III erven (approximately 0,4ha);
- 12 Open Space Zone II erven (approximately 2,5ha);
- One Authority Zone erf (approximately 0,6ha);

- One Transport Zone II erf (approximately 7,4ha);
- Bulk water infrastructure;
- A canal/earthen channel (0,5m deep, 0,5m wide and approximately 200m long) for storm water discharge into the Mill Stream from the detention facility; and
- Internal roads.

C. SITE DESCRIPTION AND LOCATION

The listed activities will be undertaken on Portion 25 of Farm No. 644, Stanford, at the following co-ordinates:

Latitude (S)	Longitude (E)
34° 26' 50.60"	19° 126' 50.68"

The SG digit code is: C01300000000064400025

Refer to Annexure 1: Locality Plan and Annexure 2: Site Plans

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

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

Withers Environmental Consultants (Pty) Ltd
% Mr. A. Withers/ Ms. K. Neethling
P. O. Box 6118
UNIEDAL
7612

Tel.: (021) 887 4000
Fax: (021) 883 2952

E. CONDITIONS OF AUTHORISATION

Scope of authorisation

1. The holder is authorised to undertake the listed activities specified in Section B above in accordance with, and restricted to, Layout Alternative 1, described in the EIAR dated March 2017 at the site as described in Section C above.

2. The Environmental Authorisation is valid for a period of **five years** from the date of issue within which commencement must occur.

3. The holder shall be responsible for ensuring compliance with the conditions by any person acting on his/her behalf, including an agent, sub-contractor, employee or any person rendering a service to the holder.

4. Any changes to, or deviations from the scope of the alternative described in Section B above must be accepted or approved, in writing, by the Competent Authority before such changes

or deviations may be implemented. In assessing whether to grant such acceptance/approval or not, the Competent Authority may request information, in order to evaluate the significance and impacts of such changes or deviations, and it may be necessary for the holder to apply for further authorisation in terms of the applicable legislation.

Written notice to the Competent Authority

5. Seven calendar days' notice, in writing, must be given to the Competent Authority before commencement of construction activities. The notice must:

   5.1 make clear reference to the site details and EIA Reference number given above; and

   5.2 include proof of compliance with the following conditions described herein:

   Conditions: 6, 7, 10, 16, 17 and 19

Notification and administration of appeal

6. The holder must in writing, within 14 (fourteen) calendar days of the date of this decision–

   6.1 notify all registered Interested and Affected Parties ("I&APs") of –
   - 6.1.1 the outcome of the application;
   - 6.1.2 the reasons for the decision as included in Annexure 3;
   - 6.1.3 the date of the decision; and
   - 6.1.4 the date when the decision was issued.

   6.2 draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations, 2014 (as amended) detailed in Section G below;

   6.3 draw the attention of all registered I&APs to the manner in which they may access the decision; and

   6.4 provide the registered I&APs with:
   - 6.4.1 the name of the holder (entity) of this Environmental Authorisation;
   - 6.4.2 name of the responsible person for this Environmental Authorisation;
   - 6.4.3 postal address of the holder;
   - 6.4.4 telephonic and fax details of the holder;
   - 6.4.5 e-mail address, if any, of the holder; and
   - 6.4.6 contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered I&APs in the event that an appeal is lodged in terms of the 2014 National Appeals Regulations (as amended).

7. The listed activities, including site preparation, must not commence within 20 (twenty) calendar days from the date the applicant notifies the registered I&APs of this decision. In the event that an appeal is lodged with the Appeal Authority, the effect of this Environmental Authorisation is suspended until the appeal is decided i.e. the listed activities, including site preparation, must not commence until the appeal is decided.

Management of activity

8. The draft or Environmental Management Programme ("EMPr") submitted as part of the application for Environmental Authorisation is hereby approved and must be implemented.

9. The EMPr must be included in all contract documentation for all phases of implementation.

Monitoring

10. The holder must appoint a suitably experienced environmental control officer ("ECO"), or site agent where appropriate, before commencement of any land clearing or construction activities to ensure compliance with the EMPr and the conditions contained herein.

11. A copy of the Environmental Authorisation, EMPr, audit reports and compliance monitoring reports must be kept at the site of the authorised activity, and must be made available to anyone on request, including on a publicly accessible website.

12. Access to the site referred to in Section C must be granted, and the environmental reports mentioned above must be produced, to any authorised official representing the Competent Authority who requests to see it for the purposes of assessing and/or monitoring compliance with the conditions contained herein.

Auditing

13. In terms of Regulation 34 of the NEMA EIA Regulations, 2014, the holder must conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation, the EMPr and submit Environmental Audit Reports to the Competent Authority. The Environmental Audit Report must be prepared by an independent person and must contain all the information required in Appendix 7 of the NEMA EIA Regulations, 2014.

    The holder must submit an Environmental Audit Report for the construction phase within 3 months from the start of construction to the Competent Authority and thereafter, every 3 months for the duration of the construction phase. The final Environmental Audit Report must be submitted to the Competent Authority three months after construction is completed.

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

Specific Conditions

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

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

15. A qualified archaeologist and/or palaeontologist must be contracted where necessary (at the expense of the holder) to remove any heritage remains. Heritage remains can only be disturbed by a suitably qualified heritage specialist working under a directive from the relevant heritage resources authority.

16. The construction site must be clearly demarcated prior to the commencement of construction activities and all areas outside of the demarcated construction site must be regarded as "no-go" areas.

17. A search and rescue exercise for the endangered *Disa hallackii species* must be implemented prior to commencement of construction. A qualified horticulturist/restoration ecologist must be appointed to oversee the search and rescue operation.

18. The development must only discharge sewage to the Stanford Waster Water Treatment Works ("WWTW") once Overstrand Municipality confirms that upgrading of the Stanford WWTW has been completed.

19. The community facility area which contains Millwood Thicket must be fenced off prior to commencement of construction activities.

20. The identified buffer zone around the Stanford WWTW must be implemented and maintained by the municipality. No residential erven must be located within the buffer zone.

F. GENERAL MATTERS

1. Notwithstanding this Environmental Authorisation, the holder must comply with any other statutory requirements that may be applicable when undertaking the listed activities.

2. Non-compliance with a condition of this Environmental Authorisation or EMPr may render the holder liable to criminal prosecution.

3. If the holder does not commence with the listed activities within the period referred to in Condition 2, this Environmental Authorisation shall lapse for that activity, and a new application for Environmental Authorisation must be submitted to the Competent Authority. If the holder wishes to extend the validity period of the Environmental Authorisation, an application for amendment in this regard must be made to the Competent Authority prior to the expiry date of the Environmental Authorisation.

4. The holder must submit an application for amendment of the Environmental Authorisation to the Competent Authority where any detail with respect to the Environmental Authorisation must be amended, added, substituted, corrected, removed or updated. If a new holder is proposed, an application for Amendment in terms of Part 1 of the EIA Regulations, 2014 must be submitted.

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

5. The manner and frequency for updating the EMPr is as follows:
Amendments to the EMPr, other than those mentioned above, must be done in accordance with Regulations 35 to 37 of GN No. 326 of 7 April 2017 or any relevant legislation that may be applicable at the time.

G. APPEALS

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

1. An appellant (if the holder of the decision) must, within 20 (twenty) calendar days from the date on which notification of the decision was sent to the holder by the Competent Authority –

   1.1. submit an appeal in accordance with Regulation 4 of the National Appeal Regulations 2014 (as amended) to the Appeal Administrator; and

   1.2. submit a copy of the appeal to any registered I&APs, any Organ of State with interest in the matter and the decision-maker i.e. the Competent Authority that issued the decision.

2. An appellant (if NOT the holder of the decision) must, within 20 (twenty) calendar days from the date on which the holder of the decision sent notification of the decision to the registered I&APs–

   2.1. submit an appeal in accordance with Regulation 4 of the National Appeal Regulations 2014 (as amended) to the Appeal Administrator; and

   2.2 submit a copy of the appeal to the holder of the decision, any registered I&AP, any Organs of State with interest in the matter and the decision-maker i.e. the Competent Authority that issued the decision.

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

4. The appeal and the responding statement must be submitted to the address listed below:

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

   By facsimile: (021) 483 4174; or

By hand: Attention: Mr Jaap de Villiers (Tel: 021 483 3721)
Room 809
8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

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

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

H. DISCLAIMER

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

Your interest in the future of our environment is appreciated.

Yours faithfully

MR. HENRI FORTUIN
DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 2)
DATE OF DECISION: 7-7-17

CC: (1) Ms P. Aplon (Overstrand Municipality) Fax: (028) 316 4953
(2) Mr A. Withers (Withers Environmental Consultants) Fax: (021) 883 2952
(3) Me E. Pelsar (WCG: Department of Human Settlements) Fax: (021) 483 5510
(4) Mr A. Oosthuizen (DEA&DP: Development Facilitation) Email: Andre.Oosthuizen@westerncape.gov.za

ANNEXURE 1: LOCALITY MAP

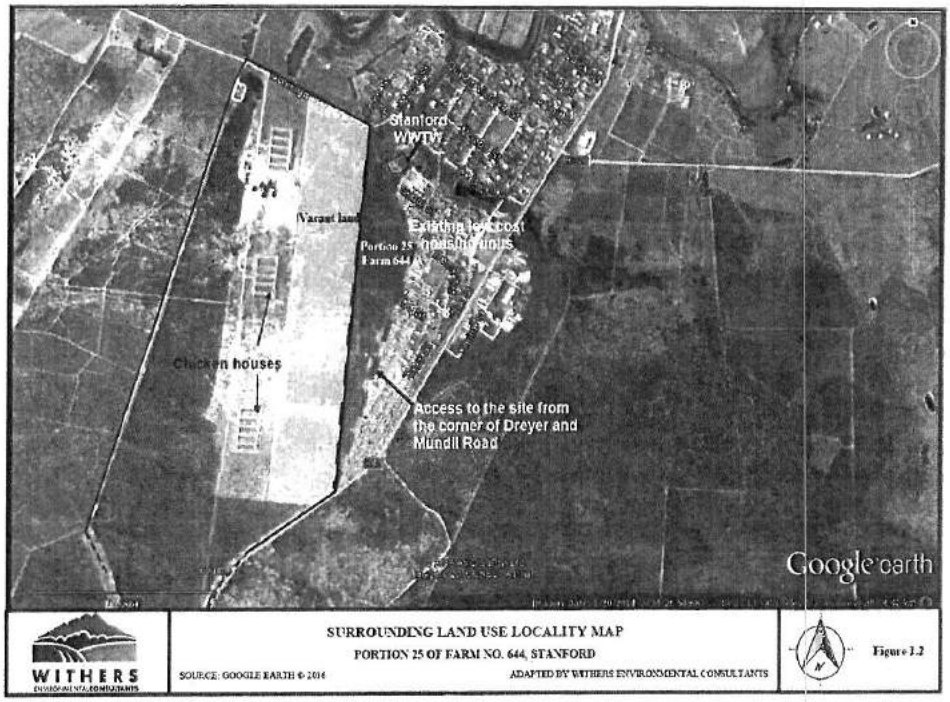

Figure 1: Locality map of Portion 25 of Farm No. 644, Stanford

ANNEXURE 2: SITE PLAN

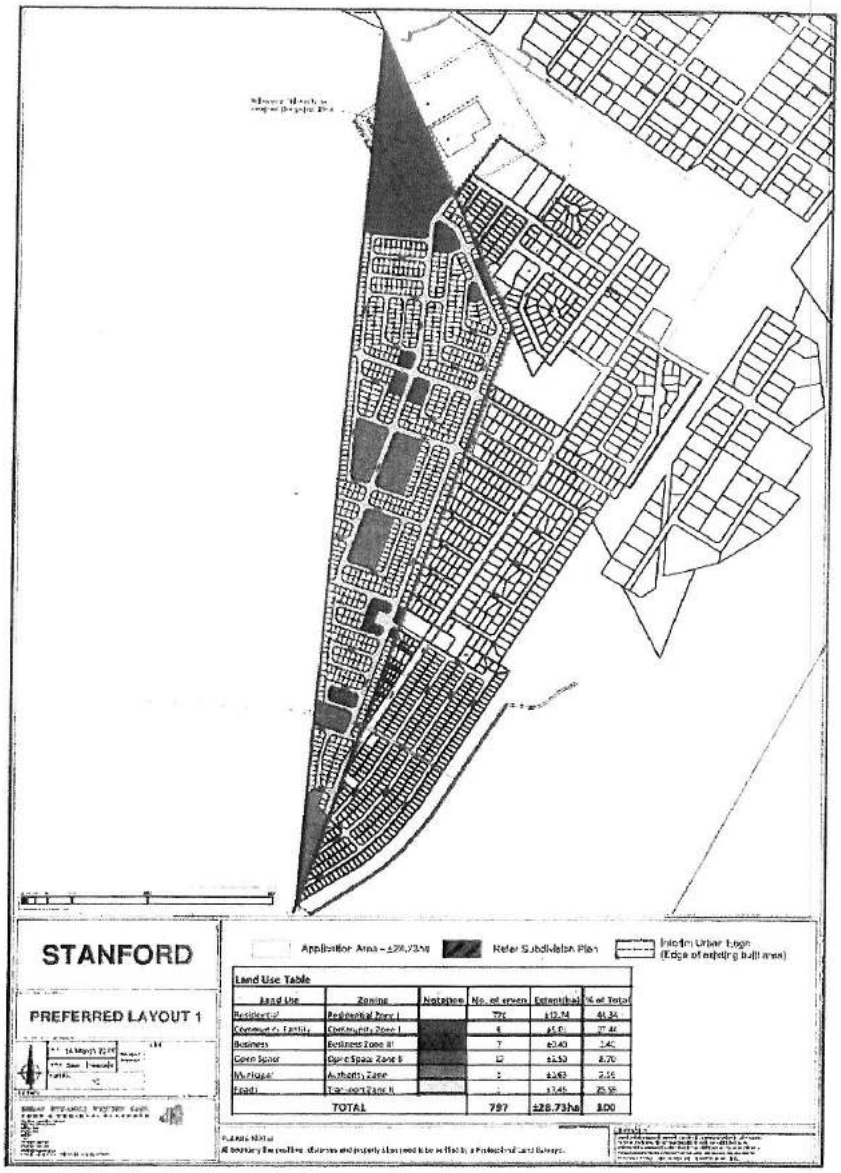

Figure 2: Site Plan for the Stanford low cost housing Development.

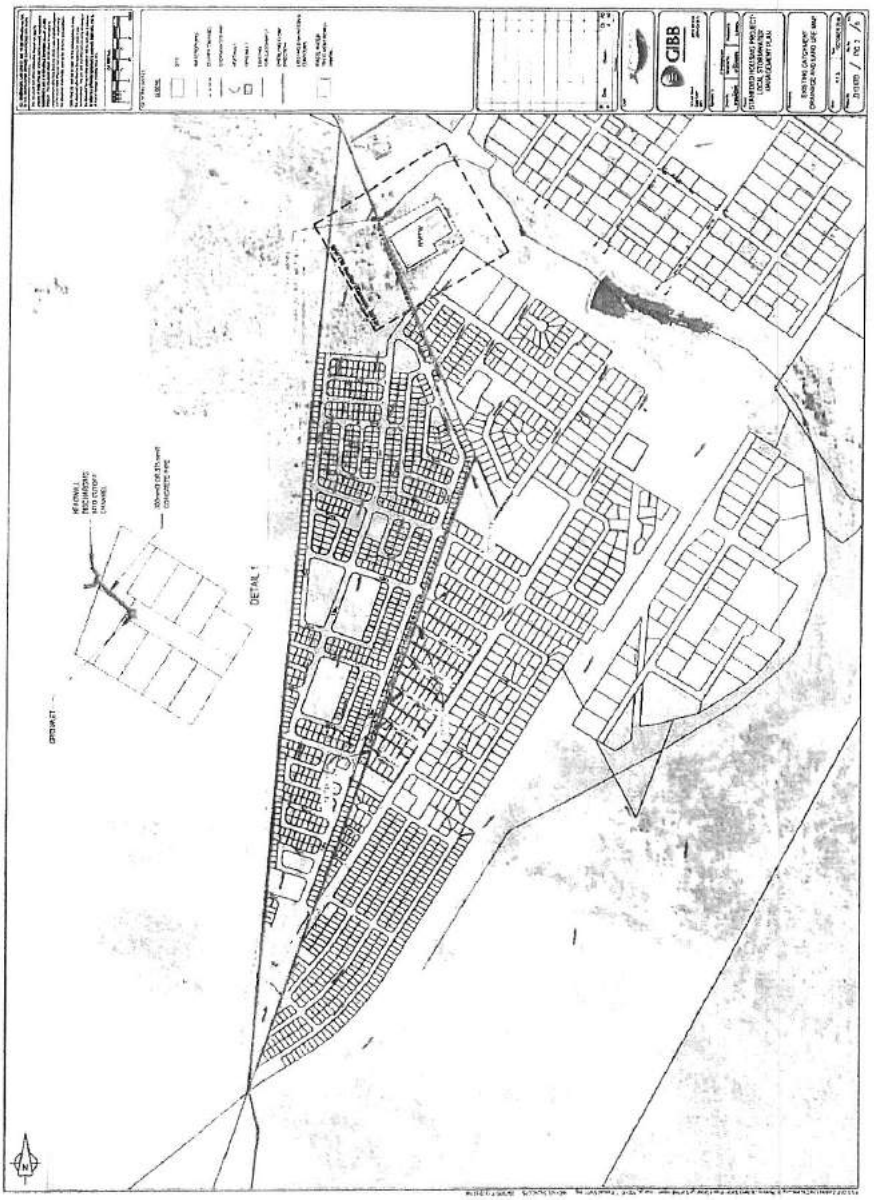

Figure 3: Depicts the channel (Turquoise dashed line) that will discharge the stormwwater into the adjacent watercourse.

ANNEXURE 3: REASONS FOR THE DECISION

In reaching its decision, the Competent Authority considered, amongst others, the following:

a) The information contained in the Application Form dated 15 July 2016, the final EIAR dated March 2017 and the EMPr submitted together with the final EIAR;

b) Relevant information contained in the Departmental information base, including the Guidelines on Public Participation and Alternatives (dated March 2013);

c) The objectives and requirements of relevant legislation, policies and guidelines, including Section 2 of NEMA;

d) The comments received from I&APs and responses to these, included in the EIAR dated March 2017; and

e) The balancing of negative and positive impacts and proposed mitigation measures.

No site visits were conducted. The Competent Authority had sufficient information before it to make an informed decision without conducting a site visit.

This application was submitted in terms of the NEMA Environmental Impact Assessment ("EIA") Regulations, 2014. This decision takes into account the relevant amendments to the text of the said regulations promulgated on 7 April 2017.

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

1. **Public Participation**

The public participation process included:

- identification of and engagement with I&APs;
- public meetings were held with I&APs on 21 February 27 June 2016, 7 September 2016 and 21 February 2017;
- the placing of a newspaper advertisement in the 'Hermanus Times' on 7 July 2016;
- fixing notice boards at the sites where the listed activities is to be undertaken on 11 July 2016;
- giving written notice to the owners and occupiers of land adjacent to the site where the listed activities is to be undertaken, the municipality and ward councillor, and the various Organs of State having jurisdiction in respect of any aspect of the listed activities, on 8, 11 and 12 July 2016;
- making the draft Scoping Report ("SR") available to I&APs for public review on 12 July 2016; and
- Making the draft EIAR available to I&APs for public review from 8 February 2017.

All the concerns raised by I&APs were responded to, and addressed during the public participation process. Specific management and mitigation measures have been considered in this Environmental Authorisation and in the EMPr, in order to address the concerns raised.

The Competent Authority notes the Environmental Assessment Practitioner's responses to the issues raised during the public participation process, and has included appropriate conditions in this Environmental Authorisation and in the EMPr.

2. Alternatives

A number of alternatives were assessed during the application process and only the reasonable and feasible alternatives are discussed below.

Layout Alternative 1(Herewith Authorised):

The proposal entails the development of a low cost housing area to the east of the existing Stanford low cost residential area that will have a development footprint of approximately 29ha in extent. The proposal will consist of the following:

- 770 Residential Zone I erven (approximately 12,7ha);
- Six Community Zone I erven (approximately 5ha, including the Waste Water Treatment Works ("WWTW") buffer zone);
- Seven Business Zone III erven (approximately 0,4ha);
- 12 Open Space Zone II erven (approximately 2,5ha);
- One Authority Zone erf (approximately 0,6ha);
- One Transport Zone II erf (approximately 7,4ha);
- Bulk water infrastructure;
- A canal/earthen channel (0,5m deep, 0,5m wide and approximately 200m long) for storm water discharge into the Mill Stream from the detention facility; and
- Internal roads.

This alternative is preferred since it provides more community sites and an additional business zone, the open space areas are better aligned with the sensitive vegetation core compared to Layout Alternative 2 and the Milkwood Thicket is located in the Stanford WWTW buffer zone, where no development will be undertaken.

Layout Alternative 2:

The proposal entails the development of a low cost housing area to the east of the existing Stanford low cost residential area. The proposal will consist of the following:

- 801 Residential Zone I erven (approximately 13,24 ha);
- Four Community Zone I erven (approximately 0,75ha);
- Six Business Zone III erven (approximately 0,31ha);
- Nine Open Space Zone II erven (approximately 2,72ha);
- One Open Space Zone II erf for sport and recreation (approximately 4,16ha);
- One Transport Zone II erf (approximately 7,55ha);
- Bulk water infrastructure;
- A canal/earthen channel (0,5m deep, 0,5m wide and approximately 200m long) for storm water discharge into the Mill Stream from the detention facility; and
- Internal roads.

This alternative is not preferred since it will have less community and business sites as well as a less favourable open space system that is not aligned with the sensitive vegetation core.

"No-Go" Alternative

The "no-go" option to retain the site as undeveloped was not deemed feasible since the site is used for illegal dumping, informal mining, vegetation is cleared for informal soccer fields and it is

at risk of being encroached by informal housing. In addition, the opportunity to reduce the housing backlog will also be lost.

3. Impact Assessment and Mitigation measures

3.1 Activity need and desirability

The Overstrand Spatial Development Framework, highlights the need for residential development in Stanford. Therefore, the municipality intends to develop Portion 25 of Farm No. 644, Stanford, to aid in their provision of subsidy housing. The site earmarked for development is located within the municipal urban edge, and is designated for urban expansion. Furthermore, the proposed low cost housing development can be accommodated within the municipal infrastructure in terms of service provision.

3.2 Biodiversity and Biophysical Impacts

According to the Botanical Assessment dated November 2014 and the Addendum to this report dated 19 March 2017, compiled by Mr. Gregory Nicolson of Bergwind Botanical Surveys and Tours cc, the vegetation on site comprises Agulhas Limestone Fynbos, an ecosystem classified as being vulnerable in terms of Section 52 of the National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004) (NEMBA). Some areas have been highly invaded by alien plant species and in other areas there has been moderate invasion. Two areas of high botanical sensitivity were identified, namely the Milkwood thicket to the north of the site and the sensitive vegetation core of restorable fynbos in the centre of the site. The Milkwood thicket is located within the buffer zone around the Stanford WWTW that will not be developed and a portion of the sensitive vegetation core has been incorporated into the centralised open space areas within the proposed development. A search and rescue exercise will be undertaken prior to the commencement of construction activities (included as Condition 17) to relocate the endangered *Disa hallackii* species. As such, through the implementation of recommendations of the botanical specialist, Condition 17 and the EMPr (Accepted as per Condition 8), the impact on sensitive vegetation on the site will be adequately mitigated.

3.3 Traffic Impacts

According to the Transport Impact Assessment dated February 2017, compiled by Ms. Karin Liebenberg of Gibb Engineers and Architecture (Pty) Ltd, all intersections will operate at Level of Service A to B (Free flow and Reasonably free flow) with minimal traffic queues during both am and pm peak hours. With the implementation of the recommendations of the Traffic Impact Assessment and the EMPr, the impacts on future traffic conditions will be mitigated.

3.4 Air Quality Impacts

The potential air quality impacts due to the close proximity of the development to the Stanford WWTW were assessed and according to the Air Quality Impact Assessment and Buffer Zone Determination, compiled by Demos Dracoulides of DDA Environmental Engineers, the following findings were noted:

Odour Impact:

The cumulative odour concentrations at the proposed development were below 0,5 odour unit ("OU"), which is below the nuisance level of 2 OU. Even though odours may still be experienced occasionally by the residents close to the WWTW, it will be infrequent and with a very low occurrence.

Non-carcinogenic Health Risk Impact:
The indexes for both short- and long-term non-carcinogenic health risk were recorded as being 0,1 and 0,01, respectively, which is well below the guideline level of 1 outside of the WWTW. Thus, non-carcinogenic health impacts are considered to be very low.

Carcinogenic Risk Impact:
The estimated carcinogenic risk was below $0{,}01 \times 10^{-6}$, which means that a person in any of the areas would have less than 0,01 in a million chance of developing cancer due to lifetime exposure. Therefore, the carcinogenic risk is considered negligible.

Buffer Zone Determination:
The buffer zone required for the Stanford WWTW was determined on the odour, non-carcinogenic health and carcinogenic risk impacts associated with the proposed development's proximity to the Stanford WWTW and incorporated into the preferred layout. Furthermore, through the implementation of the recommendations of the Air Quality Impact Assessment and Buffer Zone Determination and the EMPr, the impacts of odour emanating from the Stanford WWTW will be low.

3.5 Services

Bulk Supply
In their letters dated 19 and 21 September 2016, Overstrand Municipality confirmed the following:
Electricity:
The Eskom supply to Stanford has recently been upgraded and there is sufficient capacity to accommodate the proposed development.

Water:
The proposed development can be supplied from the existing municipal services.

Waste Removal:
The municipal waste site in Gansbaai has sufficient capacity to receive the waste from the proposed development.

Sanitation:
Currently there is no capacity at the existing Stanford WWTW to accommodate the proposed development. However, the implementation plan for the upgrade of the WWTW is planned for the 2017/2018 financial year. This upgrade would not require environmental authorisation, as confirmed in the email dated 26 September 2016. Furthermore, as stated in Condition 18, the development must not discharge sewage before the upgrading of the Stanford WWTW has been completed.

The development will result in both negative and positive impacts.

Negative Impacts:

- The proposed development will result in elevated noise and dust levels during the construction period.
- Loss of and disturbance to indigenous vegetation during site preparation and construction.

Positive impacts:

- Housing opportunities will be provided for potential beneficiaries.
- Non-motorised transport infrastructure will be upgraded.
- The Milkwood thicket located on the northern section of the site will be conserved and the sensitive vegetation core located in the centre of the site will be retained.
- A search and rescue exercise will be undertaken to ensure that the *Disa hallackii* can be conserved in another location.
- Temporary employment opportunities will be created during the construction phase.

4. National Environmental Management Act Principles

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

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

5. Conclusion

In view of the above, the NEMA principles, compliance with the conditions stipulated in this Environmental Authorisation, and compliance with the EMPr, the Competent Authority is satisfied that the proposed listed activities will not conflict with the general objectives of integrated environmental management stipulated in Chapter 5 of the NEMA and that any potentially detrimental environmental impacts resulting from the listed activities can be mitigated to acceptable levels.

----------END----------

ANNEXURE I 18/52

Stanford Wastewater Treatment Works

Air Quality Impact Assessment and Buffer Zone Determination

FINAL DRAFT

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Submitted to:
Withers Environmental Consultants
April 2015

Table of Contents

List of Figures

List of Tables

List of Acronyms and Abbreviations

ATSDR	:	Agency for Toxic Substances and Disease Registry
C_6H_6	:	Benzene
DDA	:	Demos Dracoulides & Associates
DEA	:	Department of Environmental Affairs
DEADP	:	Department of Environmental Affairs and Development Planning
ESLs	:	Effects Screening Levels
g/s	:	Gram per second
HAP	:	Hazardous Air Pollutant
H_2S		Hydrogen sulphide
IRIS	:	Integrated Risk Information System
Kg/day	:	Kilogram per day
LOAEL	:	Lowest-observed-adverse-effect level
MfE		Ministry for the Environment
mg/l	:	Milligram per litre
Ml	:	Million litres
m/s	:	Metre per second
NO_2	:	Nitrogen dioxide
NSW	:	New South Wales
O_3	:	Ozone
OU	:	Odour Units
PM_{10}	:	Particulate matters with aerodynamic diameters of 10 micrometres or less
$PM_{2.5}$	:	Particulate matters with aerodynamic diameters of 2.5 micrometres or less
SA	:	South Africa
SO_2		Sulphur dioxide
TCEQ	:	Texas Commission on Environmental Quality
$\mu g/M^3$	:	Microgram per cubic meter
US EPA	:	United States Environmental Protection Agency
UTM	:	Universal Transverse Mercator coordinate system
VOC	:	Volatile Organic Compound
WHO	:	World Health Organization
WWTW	:	Wastewater Treatment Works

1 INTRODUCTION

The Overstrand Municipality, under the upgrading of the informal settlements project, is proposing the establishment of a new housing development in Stanford. The development will be situated south of the Stanford Wastewater Treatment Works (WWTW).

Due to the close proximity of the development to the WWTW, an air quality impact assessment for the determination of the required buffer zones around the WWTW is required.

DDA Environmental Engineers was appointed by Withers Environmental Consultants to undertake the air quality impact assessment and the buffer zone determination study for the WWTW.

1.1 Terms of Reference

The terms of reference of the study were to:

- Identify the source, nature, quantity and quality of emissions from the WWTW;
- Determine the meteorological conditions of the area which may affect the dispersion of emissions of air pollutants and odours;
- Predict the dispersion of the pollutants emitted from the WWTW. Clearly indicate the limitations of the modelling and how this could influence the results;
- Compare the modelled concentrations with international guidelines and determine the odour and health impacts; and
- Assess the impacts and provide recommendations regarding the establishment of a buffer zone around the WWTW.

1.2 Study Approach

The main objective of the assessment was to determine the extent and significance of potential air quality and odour impacts associated with the WWTW. The steps undertaken as part of the study involved:

- Establishment of an emissions inventory which included the sources, nature and quantity of potential emissions from the WWTW.
- Modelling of the dispersion of the potential emissions generated by the plant and determination of the maximum ground-level concentrations.
- Assessment of the potential effects of air pollution on surrounding receptors using South African guidelines and other relevant international guidelines/standards as a benchmark.
- Determination of the main sources of pollutants that may result in guideline exceedances.
- Identification of appropriate mitigation measures to minimize emissions of those pollutants that exceed the guidelines.
- Determination of the air quality impacts and the required buffer zone.

1.3 Report Outline

Section 1 describes the baseline environment, which includes the study area and area's meteorology. The relevant air quality guidelines and standards are described in Section 3. The establishment of the emission inventory is documented in Section 1. The air dispersion modelling and the results are presented in Section 1. Lastly, the conclusions and recommendations can be found in Section 6.

2 BASELINE CHARACTERISATION

2.1 Study Area

The Stanford WWTW is situated at the western edge of Stanford, approximately 750m west of the R43 (see Figure 2-1). The land uses in the area are primarily residential and agricultural. The existing community areas are located to the south and northeast of the WWTW. The proposed housing development is positioned approximately 200m southwest of the WWTW.

Figure 2-1. Locality Map

2.2 Meteorology

Turbulent, high-velocity winds such as pre-cold front north-westerly winds helps to dilute air pollutants at their source and to disperse them as they travel downwind, whereas gentle breezes under stable atmospheric conditions do little to dilute and disperse air pollution.

Cold, gentle winds flow down slope on calm nights under clear skies, also flowing into hollows and into and down valleys. Such winds travel at less than 1 metre per second (m/s). Walls, steep embankments and tree plantations can impede this air and mix it with the air above it, so helping to reduce the impact on air quality.

Transport and dispersion of air pollutant are affected by wind speed, wind direction, atmospheric turbulence parameters, the ambient temperature, as well as the mixing height. The atmospheric boundary during the day is normally unstable, as a result of the sun's heating effect on the earth's surface. The thickness of the mixing height depends strongly on solar radiation, amongst other parameters. This mixing layer gradually increases in height from sunrise, to reach a maximum at about five to six hours thereafter. Cloudy conditions, surface and upper air temperatures also affect the final mixing height and its growth. During these conditions, dispersion plumes can be trapped in this layer and result in high ground-level concentrations. This dispersion process is known as Fumigation and is more pronounced during the winter months due to strong night-time inversions, weak wind conditions and slower developing mixing layers.

Dispersion models also require the atmospheric condition to be categorised into one of six stability classes, which are shown in Table 2-1.

Table 2-1. Meteorological Conditions Represented by the Stability Categories

Stability Category	Meteorological Condition	Occurrence
A	Very Unstable	Hot daytime conditions, clear skies, calm wind
B	Unstable	Daytime conditions, clear skies
C	Slightly Unstable	Daytime conditions, moderate winds, slightly overcast
D	Neutral	Day and night, high winds or cloudy conditions
E	Stable	Night-time, moderate winds, slightly overcast conditions
F	Very Stable	Night-time, low winds, clear skies, cold conditions

The Department of Environmental Affairs and Development Planning (DEADP) owns a set of model-ready meteorological data for the Western Cape area. This set of data was generated by utilising a prognostic meso-scale model called Weather Research and Forecast Model. The modelling resolution was 3 km. The modelled data with centre point at -34.46095 (Latitude) and 19.40253° (Longitude) was obtained from the DEADP and utilised in the dispersion modelling for the Stanford WWTW.

Three years (2008-2010) of hourly surface and upper air meteorological data was used as input into the model. In addition, all three years of hourly data were combined and analysed in one data pool for the establishment of the local wind field as wind roses. The wind roses were generated for all hours, daytime, night-time, as well as for the winter and summer

periods and are illustrated in the figures below. These wind roses depict the frequency of the wind speeds for each of the 16 cardinal wind directions. The wind directions in the figures show from where the wind blows. The wind classes are indicated by coloured bars, and the frequencies of occurrence for each wind direction are specified by the dashed circles.

Figure 2-2 shows the wind roses of all hours, daytime and night-time. As can be seen, the predominant winds are from the westerly and easterly directions. The local wind field is characterised by the sea and land breezes. During daytime, sea breezes blow inland, forming the westerly and south-westerly winds. At night, the land surfaces cool faster than the sea, thus resulting in land breezes blowing towards the sea. Therefore, easterly winds are predominant at night-time.

The wind speed frequency distributions for all hours, daytime and night-time are shown in Figure 2-3. It is evident that moderate winds dominate during daytime and light to moderate winds prevail at night-time. Calm wind conditions occur 1.1% during daytime and increase to 5.8% at night. The average winds are 4.67 m/s and 3.66 m/s for daytime and night-time respectively.

The wind roses and wind speed frequency distributions were also generated for the winter and summer periods and are shown in Figure 2-4 and Figure 2-5. It is clear that easterly and south-easterly winds prevail in summer and westerly winds are dominant in winter. The average wind speed is 4.23 m/s and 4.12 m/s for summer and winter respectively.

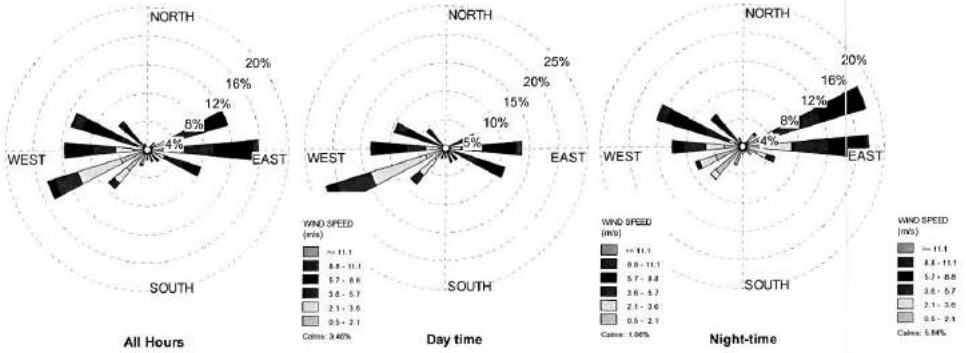
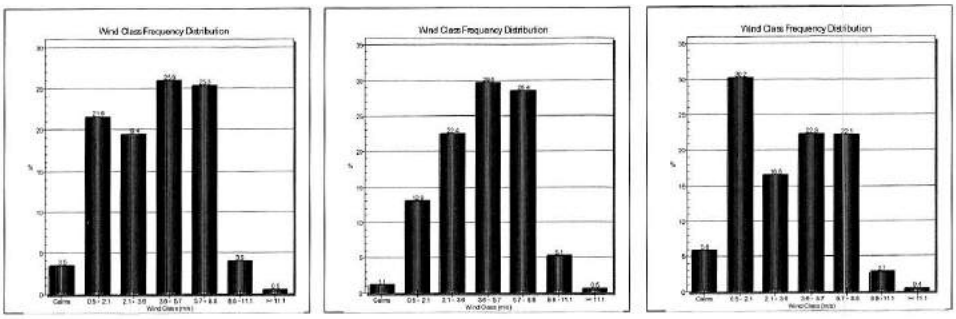


Figure 2-2. Wind Roses for Combined Years 2008 to 2010: All-hours, Daytime and Night-time



All Hours **Day time** **Night-time**

Figure 2-3. Wind Speed Frequency Distribution for Combined Years 2008 to 2010: All-hours, Daytime and Night-time

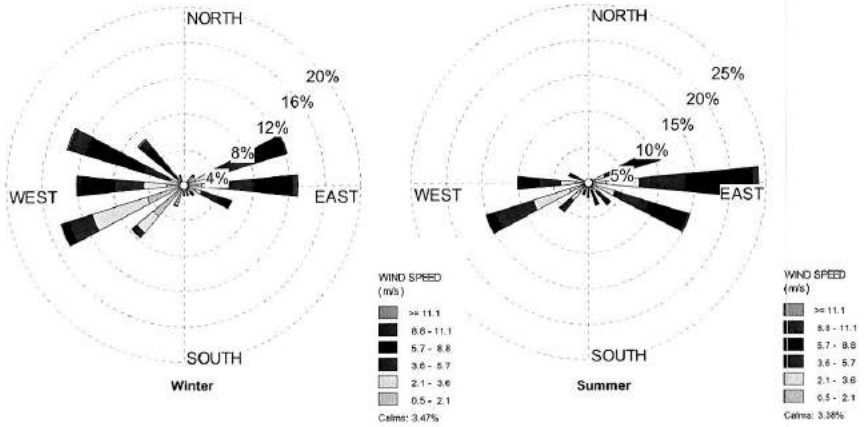
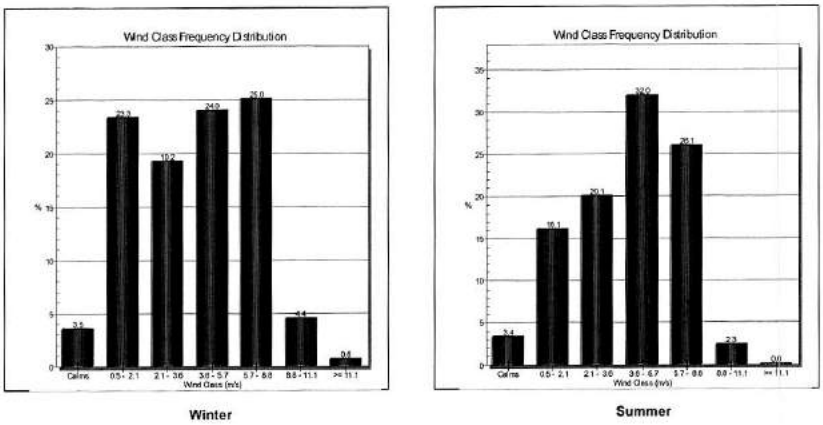


Figure 2-4. Wind Roses for Combined Years 2008 to 2010: Winter and Summer



Winter **Summer**

Figure 2-5. Wind Speed Frequency Distribution for Combined Years 2008 to 2010: Winter and Summer

3 LEGISLATIVE CONTEXT AND HUMAN HEALTH ASSESSMENT CRITERIA

3.1 The Constitution of the Republic of South Africa Act and NEMA

According to the South African Constitution (Act No. 108 of 1996), everyone has the right-

(a) to an environment that is not harmful to their health or well-being; and

(b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that-

I. prevent pollution and ecological degradation;
II. promote conservation; and
III. secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

The South African legislation and guidelines on environmental management and air quality emission standards are:

- The National Environmental Management Act, Air Quality Act (Act No. 39 of 2004);
- The South African National Ambient Air Quality Standards (24 December 2009);
- The National Ambient Air Quality Standard for Particulate Matter with Aerodynamic Diameter Less Than 2.5 Micron Meters ($PM_{2.5}$) (29 June 2012); and

The National Environmental Management: Air Quality Act places the focus on the reduction of air quality impact on the receiving environment, instead of air quality management only from source-based control. The Act has also transferred the responsibility of air quality management from national government to the local authorities (district and metropolitan municipalities). Thus local municipalities are tasked with baseline characterisation, management and operation of ambient monitoring networks, licensing of listed activities, and emissions reduction strategies. The main objective of the act is to protect the environment and human health by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development while promoting justifiable economic and social development.

The South African national ambient air quality standards for criteria pollutants, i.e. SO_2, NO_2, O_3, C_6H_6, CO and PM_{10}, were first published in the Government Gazette No. 32816, of the 24th of December 2009. The Department of Environmental Affairs (DEA) subsequently published the national ambient air quality standards for $PM_{2.5}$ in the Government Gazette No. 35463, Notice No. 1210, on the 29th June 2012. The South African (SA) National Ambient Air Quality Standards are presented in Table 3-1 below.

Table 3-1. SA National Ambient Air Quality Standards

Pollutant	Molecular Formula	Averaging Period	Concentration		Frequency of Exceedance	Compliance Date
			µg/m³	ppb		
Sulphur Dioxide	SO_2	10 minute	500	191	526	Immediate
		1 hour	350	134	88	Immediate
		24 hour	125	48	4	Immediate
		1 year	50	19	0	Immediate
Nitrogen Dioxide	NO_2	1 hour	200	106	88	Immediate
		1 year	40	21	0	Immediate
Particulate Matter	PM_{10}	24 hour	120	-	4	Immediate – 31 Dec 2014
			75	-	4	1 Jan 2015
		1 year	50	-	0	Immediate – 31 Dec 2014
			40	-	0	1 Jan 2015
	$PM_{2.5}$	24 hour	65	-	4	Immediate – 31 Dec 2015
		24 hour	40	-	4	1 Jan 2016 – 31 Dec 2029
		24 hour	25	-	4	1 January 2030
		1 year	25	-	0	Immediate – 31 Dec 2015
		1 year	20	-	0	1 Jan 2016 – 31 Dec 2029
		1 year	15	-	0	1 January 2030
Ozone	O_3	8 hour	120	61	11	Immediate
Benzene	C_6H_6	1 year	10	3.2	0	Immediate – 31 Dec 2014
			5	1.6	0	1 Jan 2015

3.2 Health Risk Assessment Criteria

Internationally, concentration guidelines for toxic and carcinogenic pollutants are issued by organisations such as the World Health Organisation (WHO), the Texas Commission on Environmental Quality (TCEQ), the US Environmental Protection Agency (US EPA) and the Agency for Toxic Substances and Disease Registry (ATSDR).

The ambient concentration limits and guidelines for the selected pollutants are shown in Table 3-2 and were based on international sources, i.e. the TCEQ and US EPA.

The guideline concentrations are the Effects Screening Levels (ESLs), as recommended by the TCEQ. The ESLs are presented as "short-term" and "long-term" exposures. Long-term ESLs are applicable to annual averaging periods, whereas short-term ESLs are given for hourly to daily periods. It should be noted that these ESLs are not ambient air standards but are used as screening levels. They are based on data related to health effects, vegetation or corrosion effects and odour nuisance potential. If the predicted ambient concentrations do not exceed these levels, no adverse health or welfare effects would be expected to occur.

Should ambient concentrations exceed these limits, a more in-depth assessment would be warranted.

According to the US EPA's carcinogen risk assessment guideline 2005, hazardous substances are categorised into the following categories based on their potential to cause cancer in humans:

- Carcinogenic to humans,
- Likely to be carcinogenic to humans,
- Suggestive evidence of carcinogenic potential,
- Inadequate information to assess carcinogenic potential,
- Not likely to be carcinogenic to humans.

The US EPA established risk assessment guidelines, in order to provide consistency and technical support between US EPA and other regulatory agencies. The US EPA has developed the unit risk factors (for inhalation) and slope factors (for ingestion) for evaluating risks from carcinogenic substances. The unit risk factor is the upper-bound excess lifetime cancer risk estimated to result from continuous exposure to a substance at a concentration of 1 $\mu g/m^3$ in air. Therefore, the carcinogenic risk in a 1 million population is calculated by the ambient concentration multiplied by the unit risk factor and 10^6.

In the present study, both the carcinogenic risk (long-term) and health risks, in terms of short-term and long-term non-carcinogenic health risks were estimated. The 1-hour and annual ground level concentrations were compared against their respective guidelines for each pollutant to obtain the short-term and long-term risk index, which were expressed as the fraction of each guideline. The cumulative index for all examined compounds for the 1-hour and annual averaging periods were used for the assessment of the non-cancer toxic effects. The calculated cumulative health indexes were then plotted as a contour map.

In terms of the carcinogenic risk estimation, the annual concentrations of carcinogenic and possible carcinogenic compounds were multiplied by their respective unit risk factors, in order to produce the resulting risk. A risk in excess of $1x10^{-4}$ is generally considered unacceptable by the US EPA, whilst a risk that exceeds $1x10^{-6}$ falls within the US EPA's range of concern. In this case, depending upon the number of persons exposed to these risks and the plausibility of the assumptions underlying the estimate, such as continuous exposure over a lifetime, some action to control the risks may be required.

Table 3-2. Air Quality Guidelines and Cancer Unit Risk Factors

Compound	Guideline Concentration (µg/m³)			Carcinogen	
	Odour	1-hr ESL[a]	Ann ESL[a]	Unit Risk Factor[b]	US EPA Classification[f]
1,1 DICHLOROETHENE vinylidene chloride		1300 (Odour)[e]	2600		
1,1,2 TRICHLOROETHANE		550	55	1.60E-05	C
2 CHLOROPHENOL		2 (Odour)[e]	30		
3 CHLOROPHENOL		20 (Odour)[e]	30		
4 CHLOROPHENOL		300	30		
AMMONIA	3750	1275[d]	75[c]		
BENZENE		170	4.5	7.80E-06	A
CARBON DISULFIDE		30	3		
CHLOROETHANE (ethyl chloride)		500	50		
CHLOROFORM		100	10		
DICHLOROETHANE(1,1) ethylidenedichlorid		4000	400		
DICHLOROETHANE(1,2)		160	4	2.60E-05	B
ETHENYLBENZENE (styrene)		110 (Odour)[e]	140		
ETHYLBENZENE		740 (Odour)[e]	570		
FORMALDEHYDE		15	3.3	1.30E-05	B
HYDROGEN SULFIDE	7[c]	105[d]	30[d]		
METHYL ISOBUTYL KETONE (MIBK)		700 (Odour)[e]	82		
PHENOL		44 (Odour)[e]	19		
TETRACHLOROETHANE(1,1,2,2)		70	7		
TETRACHLOROETHYLENE		2000	26	2.60E-07	B
TOLUENE		3500 (Odour)[e]	1200		
TRICHLOROETHYLENE		540	54	4.10E-06	A
XYLENE		350 (Odour)[e]	180		

a. TCEQ ESLs.
b. US EPA IRIS IRCs.
c. WHO.
d. ATSDR.
e. Guideline value was set for odour/nuisance potential .
f. A: Carcinogenic to humans,
B: Likely to be carcinogenic to humans,
C: Suggestive evidence of carcinogenic potential,

3.3 Odour Impact Assessment Criteria

An odour is defined as a sensation resulting from the reception of a stimulus by the olfactory sensory system. The sensory perception of odours has four distinct properties: intensity, detectability, character and hedonic tone. The combined effects of these properties are related to the annoyance that may be caused by an odour. Several of the compounds contained in the LFG have a very distinct and 'offensive' odour.

The detectability of an odour is a sensory property that refers to the theoretical minimum concentration that produces an olfactory response or sensation. This point is called the odour threshold and defines one odour unit (OU) per cubic metre (m^3). The odour unit is calculated by dividing the concentration of a substance by its odour threshold.

In practice, 'offensive' odour can only be judged by public reaction to the odour, preferably under similar social and regional conditions. The nuisance level can be as low as 2 OU and as high as 10 OU for less offensive odours. Usually, for proposed and existing facilities, an odour performance criteria of 7 OU is likely to represent the level above which odours could be offensive for an individual with a 'standard sensitivity' to odours.

Currently, in South Africa there are no guidelines for controlling and managing odours. However, various odour thresholds and guidelines have been published internationally, such as those presented in the following sections.

3.3.1 New South Wales

The Department of Environment and Conservation in New South Wales (NSW) has established a set of odour assessment criteria for various population densities. A summary of the odour criteria is shown in Table 3-3 (NSW, 2006). It is population dependent and as the population density increases, the increased possibility of sensitive individuals raises the potential for odour complaints.

Table 3-3. NSW EPA Population Density Criteria for Odour Performance

Population of affected community	Odour assessment criteria (OU)
Rural single residence (≤ 2)	7
~ 10	6
~ 30	5
~ 125	4
~ 500	3
Urban area (≥ 2000) and/or schools and hospitals	2

3.3.2 New Zealand

Odour modelling guidelines were developed for assessing and managing odour in New Zealand by the Ministry for the Environment (MfE). These guidelines were intended to be used for comparisons with dispersion modelling results, in order to determine whether offensive effects are likely to occur.

The guidelines in the guidance document: Good Practice Guide for Assessing and Managing Odour in New Zealand (MfE 2003), are summarised in Table 3-4 below.

Table 3-4. New Zealand Odour Modelling Guidelines

Sensitivity of the receiving environment	Concentration (OU)	Percentile
High: residential/living, light commercial, education, institution, recreation	2	0.1% and 0.5%
Moderate: light industrial	5	0.1% and 0.5%
Low: heavy industrial, public roads	5-10	0.1% and 0.5%

The concentrations in the table above are the recommended values for the modelling of hourly odour concentrations. The percentile allows for a small level of exceedance of the predicted concentrations, in order to account for the fact that the worst-case meteorological conditions, which generate the exceedances, occur rarely, i.e. less than 0.1% or 0.5% of the time. Therefore, the 0.5 percentile means that the guideline value can be exceeded for 0.5% of the time. The baseline percentile of 0.5% was used in this assessment.

For the odorous compounds a similar approach to the non-toxic endpoint was utilised. Several odorous compounds were included in the determination of the odour impact. The main odorous compounds were ammonia, hydrogen sulphide, ethyl benzene, toluene and xylene.

The 99.5th percentile of the 1-hour concentrations of the selected compounds were used for the assessment of the odour impact. Therefore, the maximum odour concentration produced by the dispersion modelling represents the highest concentration that may occur 99.5% of the time.

4 EMISSIONS INVENTORY

Air pollutants from wastewater treatment and collection systems are generally emitted through volatilisation of organic compounds at the liquid surface. The initial concentrations of these compounds in the wastewater determine the overall quantities emitted from the different WWTW components. Their type, number and physical characteristics also influence the overall, as well as the component-specific emissions quantities.

The expected emissions of several air pollution compounds from the WWTW were estimated utilising an emission model designed specifically for wastewater treatment plants. These emissions were then utilised in dispersion modelling, in order to estimate the maximum ground-level concentrations and compare them with air quality guidelines.

The emissions model, the input parameters that were used for the WWTW, as well as the emissions are presented in the sections below.

4.1 Wastewater Treatment Works Process Configuration

The Stanford WWTW is a small composite activated sludge system with a current daily processing capacity of 0.5 million litres (Ml). An upgrade of the plant has been planned to increase the capacity to 1 Ml/day. The upgrade is envisaged to take place around 2017. This maximum processing capacity was utilised in the buffer study in order to cover the worst-case scenario.

The Stanford WWTW comprises the following components (see Figure 4-1):

- An inlet structure with screens and grit channels;
- Raw sewage feed pump station;
- Activated sludge treatment tank;
- Secondary settling tank;
- Chlorine dosing building;
- Chlorine contact channel;
- Irrigation pump station;
- A sludge thickener; and
- Sludge drying beds (for emergency use only).

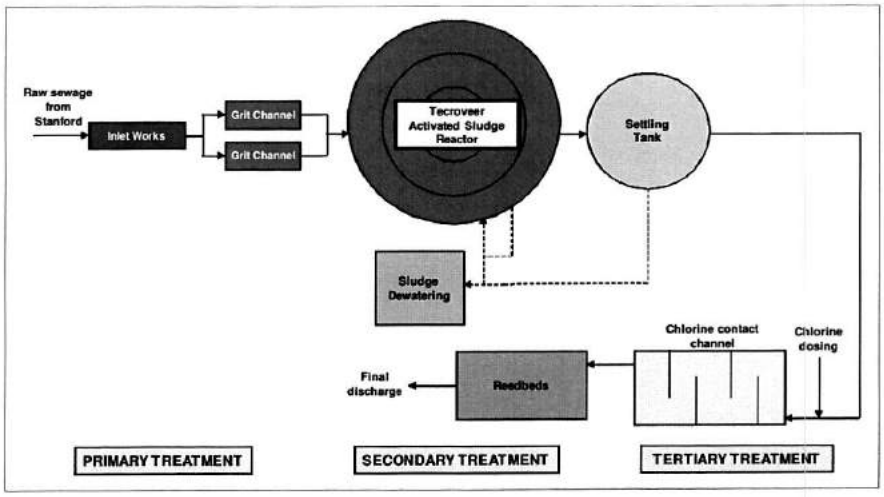


Figure 4-1. WWTW Process Layout (SSI, 2011)

4.2 Air Emissions Estimation Model

Emissions from WWTW occur through diffusive or convective mechanisms. Diffusion occurs when organic concentrations at the water surface are much higher that ambient concentrations. The organic compounds volatilise into the air in order to reach equilibrium between the aqueous and vapour phases. Convection occurs when there is an air flow over the wastewater surface. This results in sweeping organic vapours from that surface into the air. In this case, the volatilisation is directly proportional to the speed of the air flow over the surface and the wastewater's surface turbulence.

The emission estimation equations and methodology were based on the US Environmental Protection Agency (US EPA) *Compilation of Air Pollutant Emission Factors for Stationary Point and Area Sources* Document, AP-42 (US EPA, 1997), and the document entitled: *Air Emissions Model for Waste and Wastewater* (US EPA, 1994).

The equations are based on the Mass-Transfer and Liquid-Gas Equilibrium Theory and use individual gas-phase and liquid-phase mass-transfer coefficients to estimate overall mass-transfer quantities. Calculating air emissions using these equations is a complex procedure, especially if several components are present, because the physical properties of the numerous contaminants must be individually determined.

Due to the complexity of the above-mentioned equations and the required calculations, they have been combined into the EPA's WATER model (US EPA, 2001). The latest WATER9 model was utilised in the present study for the estimation of the emissions from the WWTW.

With the use of WATER9, the WWTW emissions were simulated. A schematic representation of the configuration of the simulated process at the Stanford WWTW is shown in Figure 4-2. It should be noted that this representation shows neither the actual component shape characteristics, nor the distances between these components.

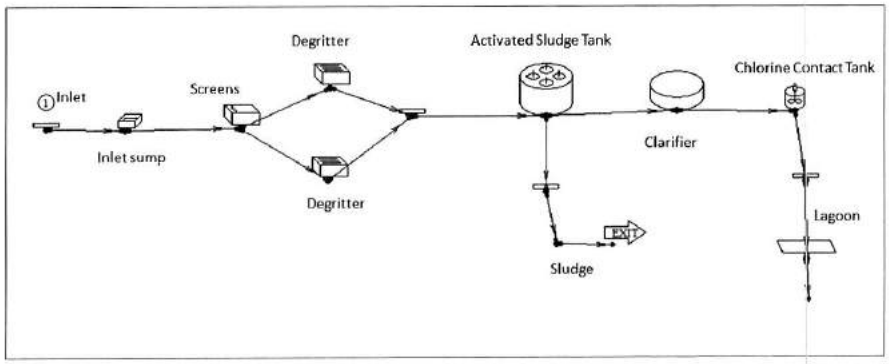


Figure 4-2. Stanford Wastewater Treatment Works Simulated Layout

The Hazardous Air Pollutants (HAPs) and Volatile Organic Compounds (VOCs) considered in this study are presented in Table 4-5. The emission estimations of these air pollutants are based on their initial concentrations in the wastewater, as well as on the different WWTW components utilised for the process.

The emissions model has the capability to taking into consideration site-specific wastewater quality from actual measurements, when available. Based on the Stanford WWTW March 2015 monitoring report (A.L. Abbott and Associates, 2015), the ammonia concentration in the raw sewage was found to be on average 95.9 mg/l. This value was used as the initial concentration for the ammonia emission calculations.

Site-specific values for the other compounds considered do not exist. As such, typical inlet compound concentrations for domestic wastewater from the international literature were utilised in the calculations (NPI,1999). These concentrations are shown in Table 4-5 below.

Table 4-5. Wastewater Initial Concentrations of Pollutants used in the Air Emission Estimations

Pollutant	Initial Concentration in Domestic Wastewater (mg/l)
1,1,2 TRICHLOROETHANE	0.0005
2 CHLOROPHENOL	0.189
3 CHLOROPHENOL	0.189
4 CHLOROPHENOL	0.189
AMMONIA	95.9 [a]
BENZENE	0.0026
CARBON DISULFIDE	0.0574
CHLOROETHANE (ethyl chloride)	0.005
CHLOROFORM	0.004
DICHLOROETHANE(1,2)	0.0005
ETHENYLBENZENE (styrene)	0.0026
ETHYLBENZENE	0.0019

Pollutant	Initial Concentration in Domestic Wastewater (mg/l)
FORMALDEHYDE	0.0002
HYDROGEN SULFIDE	2.86
METHYL ISOBUTYL KETONE (MIBK)	0.009
PHENOL	0.024
TETRACHLOROETHANE(1,1,2,2)	0.0005
TETRACHLOROETHENE	0.03
TOLUENE	0.007
TRICHLOROETHYLENE	0.0075
XYLENE	0.014

[a] Site-specific value for the Gansbaai WWTW.

4.3 Emission Quantities

Based on the above-mentioned initial concentrations of the different compounds in the raw domestic wastewater (see Table 4-5), the emissions from the WWTW were estimated with the use of the WATER9 model.

The total emissions were calculated based on the maximum processing capacity of the Stanford WWTW, i.e. 1 Ml per day. This approach represents the worst-case scenario of the maximum wastewater quantity to be treated at the plant and the relevant highest emission quantities of the examined air pollutants.

The estimated air pollutant emissions from the WWTW are presented in Table 4-6. The compounds with the highest quantities to be emitted are ammonia at 0.48 kg/d and hydrogen sulphide at 0.29 kg/d.

These emission quantities were then utilised in the dispersion modelling and the resulting ambient concentrations were calculated.

Table 4-6. Air Pollution Emissions at the WWTW

Pollutant	Air Emission (g/s)	Air Emission kg/day
1,1,2 TRICHLOROETHANE	2.29E-07	1.98E-05
2 CHLOROPHENOL	6.61E-09	5.71E-07
3 CHLOROPHENOL	4.68E-07	4.04E-05
4 CHLOROPHENOL	1.07E-10	9.24E-09
AMMONIA	5.61E-03	0.48
BENZENE	1.63E-06	1.41E-04
CARBON DISULFIDE	5.37E-05	4.64E-03
CHLOROETHANE (ethyl chloride)	6.23E-06	5.39E-04
CHLOROFORM	3.32E-06	2.87E-04
DICHLOROETHANE(1,2)	2.36E-07	2.04E-05
ETHENYLBENZENE (styrene)	6.05E-06	5.23E-04
ETHYLBENZENE	1.16E-06	1.01E-04

Pollutant	Air Emission	
	(g/s)	kg/day
FORMALDEHYDE	3.97E-12	3.43E-10
HYDROGEN SULFIDE	3.32E-03	0.29
METHYL ISOBUTYL KETONE (MIBK)	2.98E-06	2.57E-04
PHENOL	3.24E-11	2.80E-09
TETRACHLOROETHANE(1,1,2,2)	1.38E-07	1.19E-05
TETRACHLOROETHENE	3.25E-05	2.81E-03
TOLUENE	3.87E-06	3.34E-04
TRICHLOROETHYLENE	6.64E-06	5.74E-04
XYLENE	6.90E-06	5.96E-04

5 DISPERSION SIMULATION

5.1 Air Pollution Dispersion Model

The US EPA AERMOD model was chosen to determine the impact assessment of the gaseous emissions for the WWTW. The AERMOD model is a regulatory steady-state plume modelling system that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts. The model is capable of treating both surface and elevated sources in both simple and complex terrains.

Special features of AERMOD include its ability to treat the vertical non-homogeneity of the planetary boundary layer, special treatment of surface releases, irregularly-shaped area sources, a three-plume model for the convective boundary layer and limitation of vertical mixing in the stable boundary layer.

The AERMOD model is made up of three separate components, i.e. AERMOD (dispersion model), AERMAP (the terrain pre-processor) and AERMET (the meteorological pre-processor) Additional details on the AERMOD dispersion algorithms, model characteristics, as well on the AERMAP and AERMET, can be found in the description of model formulation and the model's user guide respectively (US EPA, 2004).

5.2 Model Setup

The dispersion modelling calculations were carried out based on the emissions inventory presented in the section above, and the resulting maximum ground-level air pollution concentrations were estimated in accordance with the methodology outlined below:

- Three years of MM5 modelled hourly meteorological data for the study area were utilised as input into the dispersion modelling.
- The local terrain effects were included in the modelling.
- It was assumed that air pollutants' emission rates from the WWTW are constant.
- The modelling domain was set to 3 km by 3 km, with the WWTW located approximately at the centre.
- The 99th percentile hourly concentrations were utilised for the health risk index calculations, as recommended in the air dispersion modelling regulations by the DEA (DEA, 2014).
- The 99.5th percentile of the maximum hourly concentrations were utilised for the odour impact estimations.

In addition to the gridded calculations, the ground-level concentrations were determined at discrete receptors placed at sensitive receptors identified around the WWTW. These receptors can be seen in Figure 5-1, and their coordinates and descriptions are shown in Table 5-1.

Figure 5-1. Discrete Receptor Locations

Table 5-1. Discrete Receptors

Receptors	UTM Coordinates		Description
	X	Y	
R01	357453	6188022	Existing receptor north of the WWTW
R02	357869	6188171	Existing receptor northeast of the WWTW
R03	357920	6187988	Okkie Smuts Primary School
R04	357842	6187727	Existing receptor northeast of the WWTW
R05	357948	6187426	Existing receptor east of the WWTW
R06	357525	6187578	Existing receptor south of the WWTW
R07	357406	6187528	Potential receptor, northern boundary of the development
R08	357403	6187314	Potential receptor south of the WWTW
R09	357594	6187330	Potential receptor south of the WWTW
R10	357378	6187039	Potential receptor south of the WWTW
R11	357778	6187056	Existing receptor southeast of the WWTW
R12	357302	6186648	Potential receptor south of the WWTW
R13	357567	6186675	Existing receptor southeast of the WWTW

5.3 Modelling Results

5.3.1 Odour Concentrations

For the odorous compound ambient concentrations the 99.5th percentile of hourly maximum values was used, and the OUs for each compound were added at each grid point, in order to account for the potential cumulative effect of the considered compounds. Figure 5-2 shows the calculated cumulative OU contours.

As can be seen, the cumulative odour at the WWTW site was found to be approximately 5 OU. The majority of the existing residential areas around the plant were outside the 1 OU contour, with the only exemption being the houses close to the western boundary on the site.

At the proposed housing development, the odour concentrations were found to be below 0.5 OU. As such, the proposed development and the communities around the WWTW are not expected to be significantly affected by the odorous emissions, with the plant operating at maximum processing capacity.

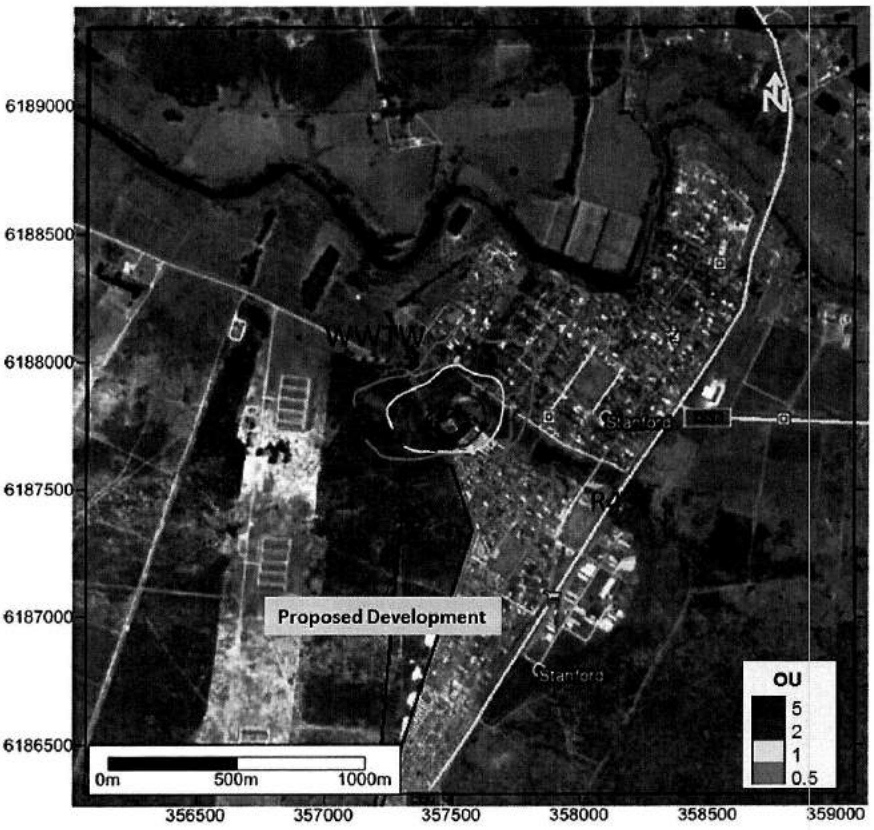


Figure 5-2. Maximum Odour Concentrations (OU)

5.3.2 Non-Carcinogenic Health Risk

Figure 5-3 shows the short-term non-carcinogenic endpoints based on the 99th percentile 1-hour maximum concentrations, which corresponds to the modelling requirements of the DEA. It can be seen that the short-term hazard index was 1 at the WWTW, and reduced to less than 0.3 at about 50m away from the site.

Figure 5-4 shows the long-term non-carcinogenic endpoints which were based on the maximum annual concentrations. It should be noted that all of the compounds' respective index fractions were added, in order to determine the impact of all compounds in a cumulative manner. The long-term hazard indexes were well below 1 at all locations.

At the proposed housing development, the cumulative non-carcinogenic health risk indexes were below 0.1 for both time durations, i.e. 1-hour and annual. As such, the expected non-carcinogenic health impacts are considered to be very low.

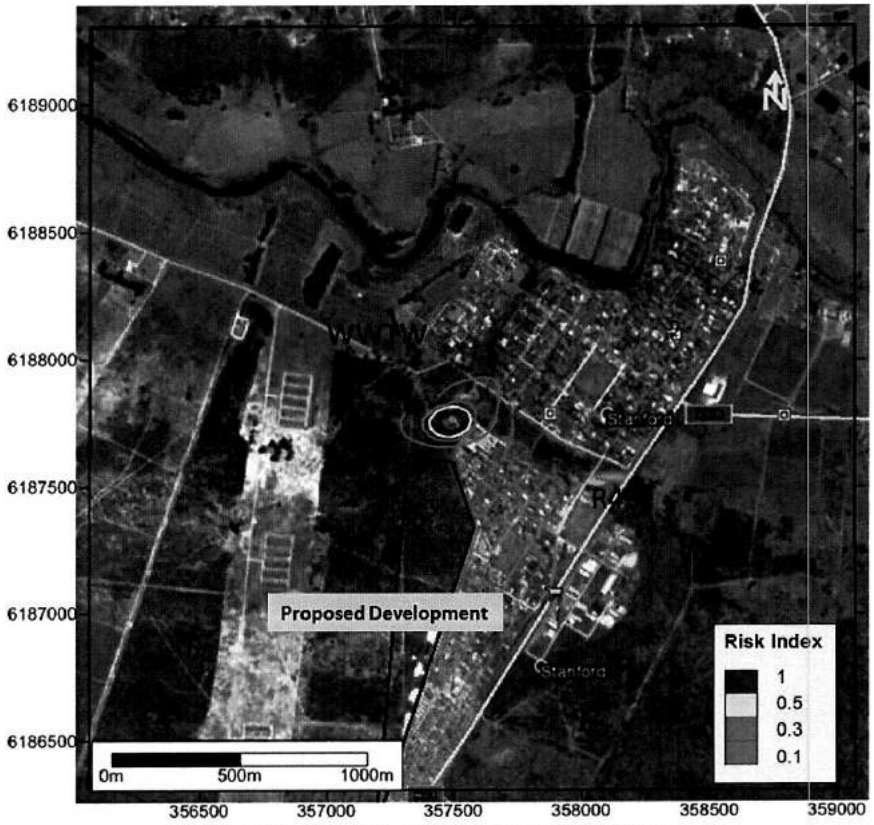


Figure 5-3. Short-term Non-Carcinogenic Health Risk

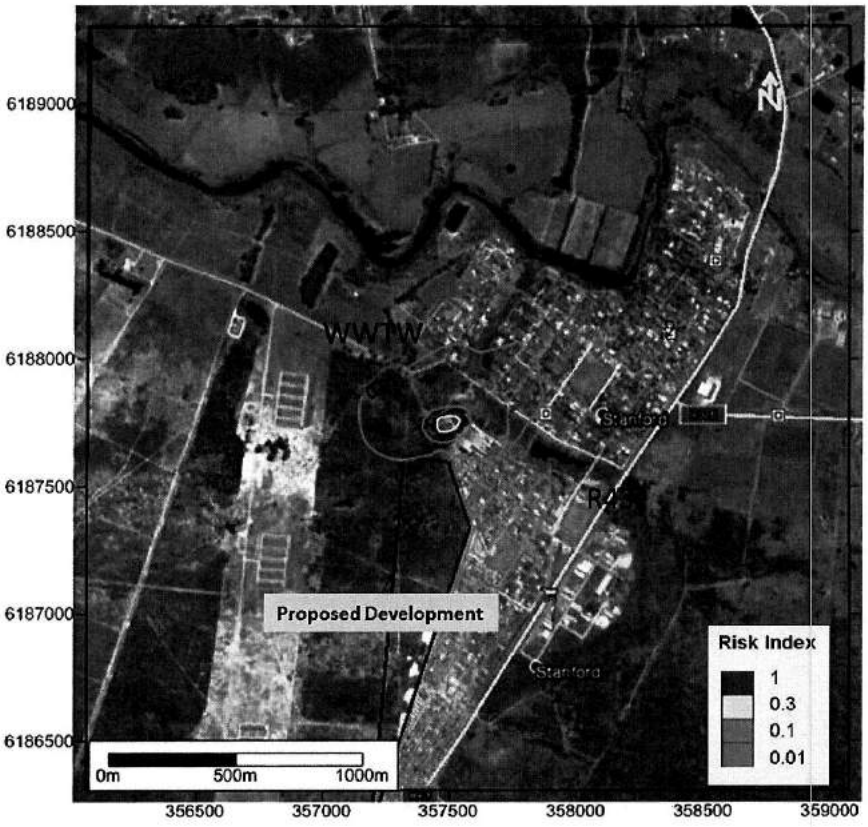


Figure 5-4. Long-term Non-Carcinogenic Health Risk

5.3.3 Carcinogenic Risk

The possible carcinogens and carcinogenic compounds, as classified by the US EPA, were utilised in the calculation of the carcinogenic risk. These compounds included 1,1,2 trichloroethane, benzene, chloroform, 1,2 dichoroethane, formaldehyde and trichloroethylene. Based on the unit risk factors from Table 3-2, the carcinogenic risk for each compound was calculated and added, in order to determine the cumulative risk.

The calculated carcinogenic risk contours are shown in Figure 5-5 below. It can be seen that the maximum carcinogenic risk was $0.1x10^{-6}$, occurring at the WWTW. The carcinogenic risk at the proposed housing development and the communities was below $0.01x10^{-6}$, which means that any person in these areas would have a less than 0.01 in a million chance of developing cancer due to lifetime exposure. This risk is considered negligible.

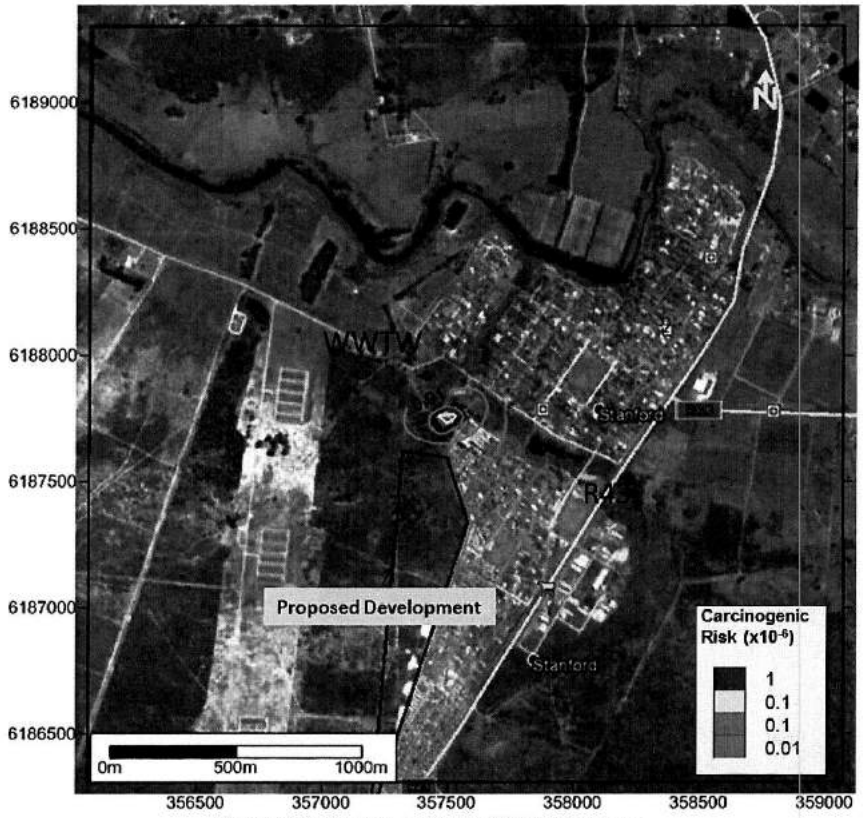


Figure 5-5. Carcinogenic Health Risk Contours

5.3.4 Modelled Concentrations at Discrete Receptors

Table 5-2 shows the odour concentrations and health risks at the community receptors around the WWTW and within the study area. As can be seen, all the odour concentrations and health risks at all discrete receptors were below their respective guidelines.

Table 5-2. Modelled Concentrations at Discrete Receptors

Receptor	Odour (OU)	Non-carcinogenic Risk Index		Carcinogenic Risk Index ($x10^{-6}$)
R 1	0.73	0.02	0.01	0.00
R 2	0.35	0.03	0.01	0.00
R 3	0.32	0.03	0.01	0.00
R 4	0.37	0.02	0.01	0.00
R 5	0.05	0.00	0.00	0.00
R 6	0.14	0.00	0.01	0.00

Receptor	Odour (OU)	Non-carcinogenic Risk Index		Carcinogenic Risk Index ($x10^{-6}$)
R 7	0.09	0.00	0.00	0.00
R 8	0.01	0.00	0.00	0.00
R 9	0.01	0.00	0.00	0.00
R 10	0.00	0.00	0.00	0.00
R 11	0.00	0.00	0.00	0.00
Guideline	**2**	**1**	**1**	**1**

6 CONCLUSIONS AND RECOMMENDATIONS

The air quality impact assessment for the Stanford WWTW was carried out based on the future maximum capacity of 1 Ml per day, which is considered the worst-case scenario. The air quality impacts due to these emissions were determined in terms of odour, non-carcinogenic and carcinogenic health risks. Based on these impacts, the appropriate butter zone around the WWTW was determined.

6.1 Conclusions

6.1.1 Odour Impact

The estimated maximum cumulative odour concentrations reached approximately 5 OU at the WWTW boundaries. At the planned housing development area and the nearby communities, the concentrations were below 0.5 OU. As such, the odour impact on the proposed development is expected to be low. It should be noted that odours may still be experienced occasionally by the communities close to the WWTW, albeit infrequently and with a very low occurrence , i.e. less than 0.5% of the time.

6.1.2 Non-carcinogenic Health Risk Impact

Based on the short- and long-term non-carcinogenic health risk, it was found that both health indexes were below the guideline level of 1 outside the WWTW site boundaries. The short-term hazard index at the communities around the site and the proposed development was found to be below 0.1. In these areas the long-term hazard index was below 0.01.

Therefore, the maximum 1-hour (99^{th} percentile) and maximum annual concentrations of the non-carcinogenic air pollutants were well below their respective guidelines at all community receptors around the site. As such, the non-carcinogenic health impacts are considered to be very low.

6.1.3 Carcinogenic Risk Impact

Based on the maximum resulting ambient concentrations of the six possible carcinogens and carcinogenic compounds, the carcinogenic risk around the site was estimated.

The maximum carcinogenic risk was $1x10^{-6}$ at the WWTW site. The carcinogenic risks at the nearby communities and the proposed development area were below $0.01x10^{-6}$. This means that a person in any of these areas would have a less than 0.01 in a million chance of developing cancer due to lifetime exposure. The carcinogenic risk is therefore considered negligible.

6.2 Buffer Zone Determination

Based on the modelled odour concentrations and the non-carcinogenic and carcinogenic risks, the buffer zone requirements for the Stanford WWTW are shown in Table 6-1 and Figure 6-1 further below.

Table 6-1. Buffer Zone Requirements for the Stanford WWTW

Zone Criteria	Distance From Site's Boundary [a] (m)			
	North	South	East	West
Odour: 2 OU	95	70	70	110
Non-carcinogenic risk 1-hour: risk index 1	0	0	0	0
Non-carcinogenic risk annual: risk index 1	0	0	0	0
Carcinogenic risk: risk index 1 $x10^{-6}$	0	0	0	0
Minimum requirement	95	70	70	110

[a] Distances measured from the exiting WWTW boundary.

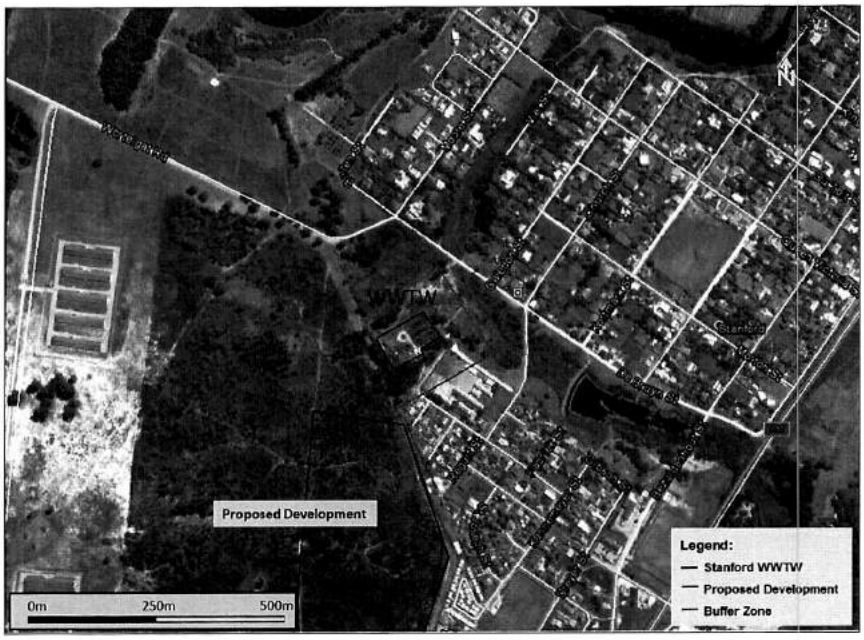


Figure 6-1. Stanford WWTW Buffer Zone Requirement

6.3 Recommendations

Based on the modelling results and impact assessment, the following recommendations can be made:

- Establish a buffer zone around the Stanford WWTW, in accordance with Table 6-1.
- Perform annual ambient air quality monitoring along the southern and eastern site boundaries of a selection of key air pollutants (VOCs), including hydrogen sulphide and ammonia.
- If regular odour complaints are recorded, the frequency of the monitoring should be biannual, and a multi-step odour control program be implemented.

REFERENCES

DEA, 2009. National Ambient Air Quality Standards. Notice No.1210. 24 December 2009. Government Gazette No.32816.

A.L. Abbott and Associates, 2015. Stanford Sewage Treatment Plant Report March 2015.

DEA, 2012. National Ambient Air Quality Standard for Particulate Matter with Aerodynamic Diameter Less Than 2.5 Micron Metres (PM2.5). Notice No.486. 29 June 2012. Government Gazette No.35463.

DEA, 2014. Regulations Regarding Air Dispersion modelling. Notice no. R.533. 11 July 2014. Government Gazette No. 37804.

Department of Environment and Conservation NSW, 2006. Technical framework: Assessment and Management of Odour from Stationary Sources in NSW. November 2006.

Ministry for the Environment (MfE), New Zealand, 2003. Good Practice Guide for Assessing and Managing Odour in New Zealand.

NPI, 1999. Emission Estimation Technique Manual for Sewage and Wastewater Treatment.

SSI, 2011. Wastewater Risk Abatement Plan Stanford Wastewater Treatment Works.

TCEQ, 2014. Effects Screening Levels List.

US EPA, 1994. Air Emissions Models for Waste and Wastewater. US Environmental Protection Agency, Research Triangle Park, North Carolina.

US EPA, 1997. Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources, 5th ed., AP-42. US Environmental Protection Agency, Office of Air Quality Planning and Standards. Research Triangle Park, NC.

US EPA, 2004. Integrated Risk Information System (IRIS). IRIS User Support Unit, Cincinnati, OH.

US EPA, 2004. AERMOD: Description of Model Formulation. US Environmental Protection Agency, Research Triangle Park, North Carolina.

Reg

ANNEXURE J 1/2

OVERSTRAND MUNISIPALITEIT
27 JUL 2017
OVERSTRAND MUNICIPALITY

FILE NO: Ptn 25/644
SCAN NO: 16/1/11 STF
63
COLLABORATOR NO: 1057310

BREEDE-GOURITZ

TP- Attheart (CP Roux)

Catchment Management Agency
Opvanggebied Bestuursagentskap
I-Arhente yoLawulo lomMandla nokungqongileyo

51 Baring Street Worcester 6850, Private Bag X3055 Worcester 6850

E-mail: vligudu@bgcma.co.za
Cell: 0834093777

Navrae: / Enquiries/ Imibuzo: V Ligudu
☎ 023 346 8000

HB Tigrant

Verwysing: / Reference/iiReferenci: 4/10/1/G40L/Caledon and Stanford Housing
Datum: / Date: 18 July 2017

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

Attention: Mr. Petrus Roux

RE: PORTION 25 (PORTION OF PORTION 2) OF THE FARM RIVERSIDE NO.644, DIVISION CALEDON, ERVEN 2275 & 1198 AND ERVEN 1909-1914, STANFORD, OVERSTRAND MUNICIPAL AREA: PROPOSED REZONING, SUBDIVISION, DEPARTURE, AMENDMENT OF THE OVERSTRAND GROWTH MANAGEMENT STRATEGY AND APPROVAL OF STREET NAMES: STANFORD AFFORDABLE HOUSING PROJECT: URBAN DYNAMICS ON BEHALF OF OVERSTRAND MUNICIPALITY.

With reference to the application received 19 June 2017, requesting comments.

The Breede-Gouritz Catchment Management Agency (BGCMA) in principle has no objection to the proposed application, subject to the following conditions:

- All relevant sections and regulations of the National Water Act, 1998 (Act 36 of 1998) regarding water use must be adhered to.
- No pollution of surface water or groundwater resources may occur due to any activity on the properties.
- No storm water runoff from any premises containing waste, or water containing waste emanating from premises may be discharged into a water resource.
- Any activity within the 1:100 year floodline or within 100 metres of a watercourse (river, spring, natural channel, a lake or dam) or within a 500 m radius from the delineated

boundary (extent) of any wetland or pan triggers a water use activity in terms of Section 21 c & i of the National Water Act, 1998 (Act 36 of 1998).

- No permanent structures maybe constructed within the 100-year flood line of any watercourse (seasonal or permanent river, stream, etc.).

Disposal of sewage

- The disposal of sewage must at all times comply with the requirements of Sections 22 and 40 of the National Water Act of 1998, (Act 36 of 1998).

Water for domestic use

- Water provided for domestic use must comply with the SANS 241: 2015 guidelines for drinking water.

The BGCMA reserves the right to revise initial comments and request further information based on any additional information that may be received.

Please contact the above-mentioned official if you have any queries.

Yours faithfully

PHAKAMANI BUTHELEZI
CHIEF EXECUTIVE OFFICER

ANNEXURE K 1/4

open serve

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

Our Ref.: WWIP_WSFD2403_17
Your Ref.: Stanford Housing 3554

27 July 2017

Attention: S Muller

Overstrand Municipality
HERMANUS

WAYLEAVE: PROPOSED REZONING, SUBDIVISION, DEPARTURE, AMENDMENT AND APPROVAL OF STREETNAMES: PORTION 25 OF FARM RIVERSIDE NO 644, CALEDON

With reference to your application dated **June 2017**.

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.

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.

ANNEXURE K 2/4

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.

As important OPTIC FIBRE cables are affected, please contact our representative Frederik Swart at telephone number 028 514 1199 / 081 363 7815 at least 48 hours prior of commencement on construction work.

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.

Yours faithfully

pp

Selwyn Bowers
Operations Manager
Wayleave Management: Western Region

ANNEXURE K 3/4

This wayleave, Reference Number **WWIP_WSFD2403_17** is valid for 12 months from date here of and is subject to the following conditions:

1. No mechanical plant or vibrator type compacters 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 existance 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 hereto will be regarded as gross negligence and the applicant will be held responsible for the damage or loss as a result thereof.

Date: 28 July 2017 By: C Spammer

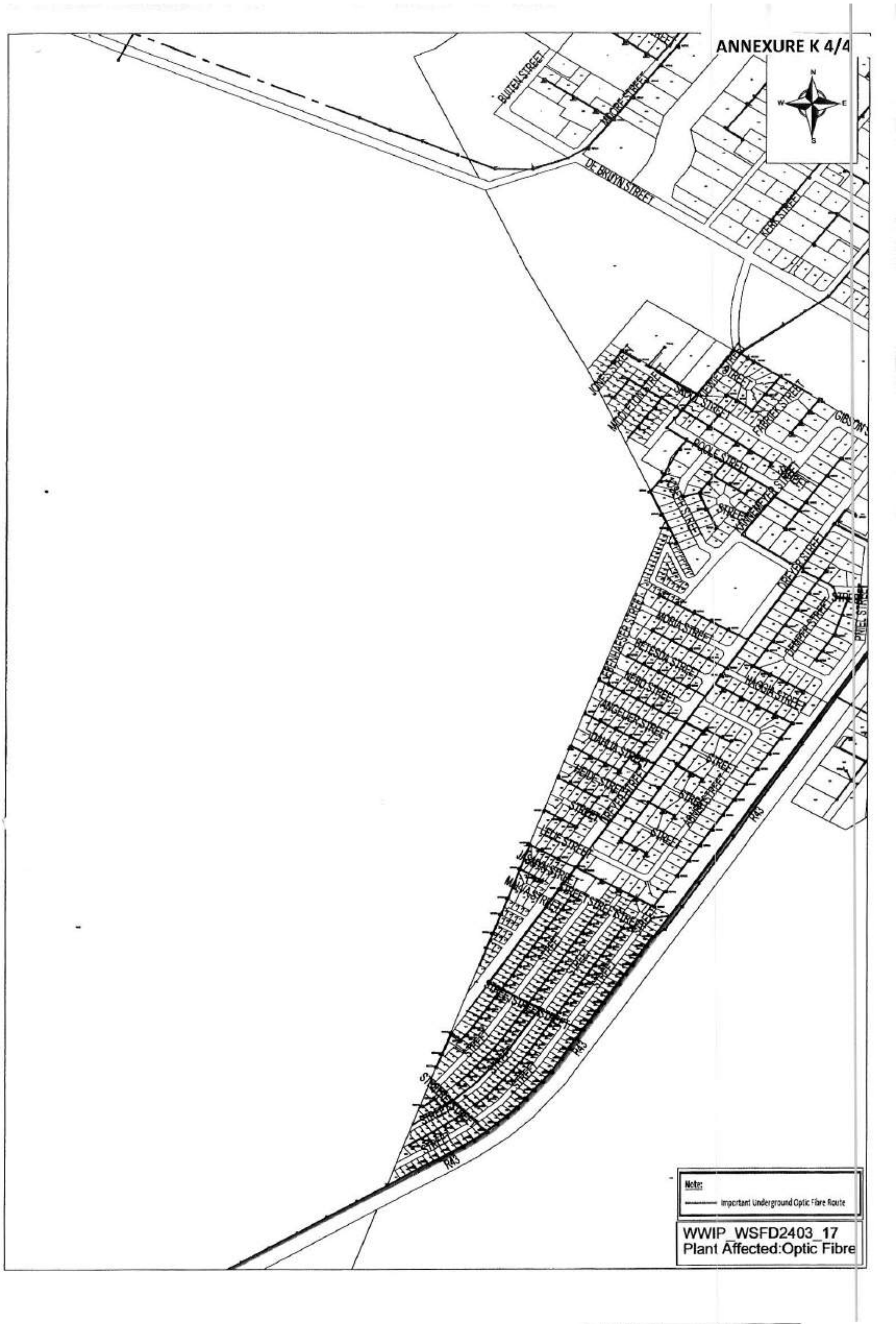
For Regional General Manager
Western Cape (N2W3T1B)

1. Underground Pipe	
2. Underground Cable	
3. Manhole	
4. Street Distributio Cabinet (SDC)	
5. Jointing Pit / AJB	
6. Jointing Pillar (PJ)	
7. Pipe Junction Box (B/S)	
8. Robot Control	
9. Pole	
10. Stay	
11. Strut	
12. Aerial Cable (A/C)	
13. Break in pipe	

The pipeline indicated contains OPTIC FIBRE cables.

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

open serve


ANNEXURE K 4/4
N
W
E
S
BUITEN STREET
DE BRUYN STREET
GIBSON STREET
POOLE STREET
R45
Note:
Important Underground Optic Fibre Route
WWIP_WSFD2403_17
Plant Affected:Optic Fibre

ANNEXURE L 1/1

Western Cape Government
Transport and Public Works

OVERSTRAND MUNISIPALITEIT / OVERSTRAND MUNICIPALITY
04 AUG 2017

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, 8000

TR-A Theart
C s vd Merwe

REFERENCE: 16/9/6/1-21/95 (Job 24098)
ENQUIRIES: Ms GD Swanepoel
DATE: 27 July 2017

FILE NO: Ptn 25/644 Stanford
SCAN NO:
COLLABORATOR NO: 1056203

The Municipal Manager
Overstrand Municipality
PO Box 20
HERMANUS
7800

Attention: Ms C Pieters

Dear Madam

PORTION 25 OF FARM 644, STANFORD, OVERSTRAND MUNICIPALITY, WESTERN CAPE: TRUNK ROAD 28: PROPOSED REZONING, DEPARTURE, AMENDMENT OF THE OVERSTRAND GROWTH MANAGEMENT STRATEGY

1. Your e-mail received on 6 June 2017 refers.

2. The subject property is located in Stanford and is accessed indirectly off Trunk Road 28, Section 2 (R43), via Matilda May Street.

3. This application is for the development of subsidised housing and related facilities and infrastructure for 770 residential erven.

4. According to the Transport Impact Assessment undertaken by Gibb (Pty) Ltd (June 2016), no road improvements are required.

5. This Branch offers no objection to the application in terms of the Land Use Planning Act, No 3 of 2014.

Yours faithfully

ML WATTERS
For CHIEF DIRECTOR: ROAD NETWORK MANAGEMENT

ANNEXURE M 1/1

Office of the Director:
Infrastructure & Planning
Environmental Management

OVERSTRAND
ENVIRONMENTAL SECTION

Kantoor van die Direkteur:
Infrastruktuur & Beplanning
Omgewingsbestuur

Enquiries Benjamin Kondokter
Imibuzo

Ref Farm 644/25 Stanford

Datum
Date 07 August 2017
Isuku

To Alida (Town planning) (via email)

APPLICATION FOR PROPOSED REZONING, SUBDIVISION, DEPARTURE AND AMENDMENT OF THE OVERSTRAND GROWTH MANAGEMENT STRATEGY AND APPROVAL OF STREETNAMES: STANFORD AFFORDABLE HOUSING PROJECT: URBAN DYNAMICS ON BEHALF OF OVERSTRAND MUNICIPALITY

Overstrand Environmental Management Section wishes to comment on the application. The Environmental Section does not have any objection to the above application.

Please feel free to contact me should any questions arise.

Regards

- B.Kondokter
- **Nms:MR S MULLER**
- **DIRECTOR:INFRASTRUCTURE & PLANNING**

- Cc : Liezl Bezuidenhout :Senior Environmental Manager

ANNEXURE N 1/7

Munisipaliteit – U-Masipala – Municipality

OVERSTRAND

INTERNAL MEMORANDUM

Aandag / For Attention:	Town Planning department: A Calitz	**Van / From:**	Department: Operational Services
Afskrif / Copy:	D. Hendricks; P. Ferreira	**Datum / Date:**	30 Augustus 2017

15/03/04

RE: APPLICATION FOR DEVELOPMENT OF 770 ERVEN – STANFORD HOUSING PROJECT

The request for comment from the Department: Operational Services (Stanford) dated 05 June 2017 with regard to the abovementioned application refers.

The proposal entails the following:

- Application Area A:
  - Rezoning of Portion 25(Portion of Portion 2) of Farm 644 from Agriculture Zone 1 to Subdivisional Area.
  - Subdivision in order to create the following: 1. Residential Zone 1 – 770 erven
    2. Community Zone 1 – 6 erven
    3. Business Zone 3 – 7 erven
    4. Open Space Zone 2 – 12 erven
    5. Authority Zone – 1 erf
    6. Transport Zone 2 – Roads
  - Departure of Building lines.
  - Deviation from the Overstrand Growth Management Strategy.
  - Approval of new Street Names.

- Application Area B:
  - Subdivision of the Remainder of Erf 1198, to create Portion A.
  - Closure of Portion A (Public Road).
  - Rezoning of newly created Portion A and erven 2275, 1909-1914 from Transport Zone 2 and Residential Zone 1 respectively, to Transport Zone 1.
  - Consolidation of Portion A and erven 2275, 1909-1914, to create the application area.
  - Subdivision of the application area, to create Portion C (proposed road – ±571m²) and the remainder (existing taxi rank - ±2097m²).
  - Rezoning of Portion C to Transport Zone 2 for the proposed public road.
  - Consent use, to accommodate shops and informal trading on the taxi rank site.

1. ANALYSIS

1.1. Water

1.1.1. The current municipal water network is in the vicinity of the development.

1.1.2. The proposed rezoning and development will have a significant impact on the existing municipal water supply network. The Department: Infrastructure and Planning must however give comment with regard to the relevant development items and –costs required to accommodate the development.

1.1.3. It is further recommended that the relevant services drawings indicating both the existing- as well as the proposed water services and the municipal connections to the proposed development be submitted to the Department: Operational Services (Stanford) for comment prior to approval for construction of the relevant services drawings.

1.2. Sewer

1.2.1. The current municipal sewer network is in the vicinity of the development.

1.2.2. The proposed rezoning and development will have a significant impact on the existing municipal sewer system. The Department: Infrastructure and Planning must however give comment with regard to the relevant development items and –costs required to accommodate the development.

1.2.3. It is further recommended that the relevant services drawings indicating both the existing- as well as the proposed sewer services to the proposed development be submitted to the Department: Operational Services (Stanford) for comment prior to approval for construction of the relevant services drawings.

1.3. Streets

1.3.1. The *"Guidelines for Engineering Services and Amenities in Residential Township Developments (Red Book)"* recommends for a minimum of 13m wide road reserve to be provided in order to accommodate a minimum road width of 5,5m wide as required for two-way traffic, while accommodating the relevant services (i.e. storm water, sewer, water, electricity, and telecoms) under the sidewalks and not under the road surface.

1.3.2. It is preferable for the relevant services to be located under the sidewalks in order to not only allow access to the services with regard to maintenance and / or upgrades, but also to limit damage to the road surfaces in case of service failures (e.g. burst pipes), as well as indirect damage due to repair work and / or in case of severe blockages that cannot be removed without exposing the service.

1.3.3. It is noted that some of the proposed road reserve widths are indicated as less than 13m wide, with some only 10m wide. This will necessitate some of the services to be located under the road surfaces. It is therefore recommended that, where no alternative exists, the services to be located under the road surfaces be limited to sewer services in order to limit subsequent damage to the road surface as described above.

1.3.4. It is further recommended that council take cognisance of the risks and possible future costs due to repair- and or upgrading of services located under the road surfaces due to the proposed streets widths being less than the width recommended in the *"Guidelines for Engineering Services and Amenities in Residential Township Developments (Red Book)"*.

1.3.5. *Table 1.8* of the *"Road Access Guidelines"* of the Provincial Administration of the Western Cape's Department of Economic Affairs, Agriculture and Tourism: Transport Branch provides guidance on when a traffic impact study or –statement is required:

"(iv) Discretion of the responsible local authority (b)

(b) Based on the discretion of the responsible local authority, a Traffic Impact Study or Statement may be required e.g. if the development is located in a sensitive area, even though less than 50 peak hour trips are generated."

Due to the restricted nature of surrounding areas and access routes, the roads and surrounding areas are deemed as sensitive to any significant increase in traffic flow that could result from the proposed development.

The following also needs to be addressed:

- Any negative impact on traffic flow, traffic accommodation and road safety, i.e. conflict points for vehicles turning into- and out of proposed new access routes.
- Accommodation of pedestrian traffic (including people with disabilities) along the sidewalks and across proposed new streets, and
- Accommodation of pedestrian traffic (including people with disabilities) to- and from the proposed development along proposed new access routes.

It is therefore recommended that, in line with the application procedure for access as stated in the abovementioned *"Road Access Guidelines"* and to be followed when so directed at the discretion of the responsible authority, a detailed Traffic Impact Study of the proposed development and access from the road reserve is to be provided in accordance with the National Department of Transport's *"Manual for Traffic Impact Studies" (PR93/635 of 1995)*, refer *Section 29(2) of Act 22, 2000.* All studies should be undertaken by suitably qualified professional transport traffic engineers or -technologists.

1.3.6. It is further recommended that the application be revised in line with the requirements of the abovementioned guidelines and outcomes of the Traffic Impact Study, and the revised application be submitted together with the Traffic Impact Study, as well as a detailed survey of existing streets and access ways and a detailed layout of the proposed streets and access ways, to the municipality for approval.

1.3.7. Any deviations from the standard design- and construction criteria as described in the Red Book, the Road Access Guidelines or the SABS 1200 specifications, must be submitted beforehand and in writing to the municipality for approval.

1.4. Storm water

1.4.1. The "Common Law" shall apply with regards to storm water discharge.

1.4.2. It is further recommended that the relevant services drawings indicating both the existing- as well as the proposed storm water services to the proposed development be submitted to the Department: Operational Services (Stanford) for comment prior to the approval for construction of the relevant services drawings.

1.5. Parking

1.5.1. "On-site parking" must be provided. The parking areas are to be provided at a ratio as described by the Town Planning Scheme, with permanent surfaces and layout to the satisfaction of the Department: Operational Services.

1.6. Other services

1.6.1. The Department: Operational Services does not have any information regarding any Telkom-, other telecommunications- and / or Electrical services which may be affected by the proposed development. The Electrical- and Traffic departments, as well as Telkom and other relevant service providers, must therefore also give their recommendations regarding the application.

1.7. Refuse removal

1.7.1. Refuse will be removed from sidewalks as per municipal arrangement.

1.8. Irrigation water

1.8.1. No irrigation water is available in this area.

1.9. Waste Water Treatment Works (WWTW)

1.9.1. The proposed rezoning and development will have a significant impact on the Waste Water Treatment Works. The Department: Infrastructure and Planning must however give comment with regard to plant capacity and the relevant development costs.

1.10. Bulk Water Supply

1.10.1. The proposed rezoning and development will have a significant impact on the bulk water supply, reservoirs and other bulk water infrastructure. The Department: Infrastructure and Planning must however give comment with regard to the relevant bulk capacity and development costs.

2. RECOMMENDATION

2.1. With regard to the Application for development of 770 erven, Stanford Housing Project, **the Department: Operational Services has no objections to the application, subject to the following conditions:**

2.1.1. That the current municipal water- and sewer network is in the vicinity of the development and that the Department: Infrastructure and Planning must give comment with regard to the relevant development items and –costs required to accommodate the development.

2.1.2. That the relevant services drawings indicating both the existing- as well as the proposed water-, sewer and storm water services as well as any municipal connections to the proposed development be submitted to the Department: Operational Services (Stanford) for comment, prior to approval for construction of the relevant services drawings.

2.1.3. That a detailed Traffic Impact Study of the proposed development and access from the relevant road reserves be provided in accordance with the National Department of Transport's "*Manual for Traffic Impact Studies" (PR93/635 of 1995)*, refer *Section 29(2) of Act 22, 2000.*

2.1.4. That, the proposed layout be revised in line with the requirements of the abovementioned guidelines and outcomes of the Traffic Impact Study, and the revised layout be submitted together with the Traffic Impact Study, as well as a detailed survey of existing access ways and a detailed layout of the proposed access ways, to the municipality for approval.

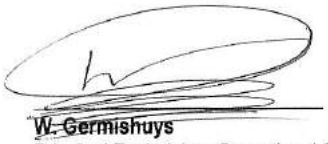
2.1.5. That, whereas the "Guidelines for Engineering Services and Amenities in Residential Township Developments (Red Book)" recommends for a minimum of 13m wide road reserve to be provided in order to accommodate a minimum road width of 5,5m wide as required for two-way traffic, while accommodating the relevant services (i.e. storm water, sewer, water, electricity, and telecoms) under the sidewalks and not under the road surface, it is noted that some of the proposed street widths are indicated as less than 13m wide, with some only 10m and even 8m wide, which will necessitate some of the services to be located under the road surfaces. It is therefore recommended that, where no alternative exists, the services to be located under the road surfaces be limited to sewer services in order to limit subsequent damage to the road surface as described above.

2.1.6. That council take cognisance of the risks and possible future costs due to repair- and or upgrading of services located under the road surfaces due to the proposed streets widths being less than the width recommended in the "Guidelines for Engineering Services and Amenities in Residential Township Developments (Red Book)".

2.1.7. That on-site parking facilities be provided as per the Planning Schedule.

ANNEXURE N 7/7

Yours faithfully



W. Germishuys
Principal Technician: Operational Services
Gansbaai

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COMMENTS FROM THE ENGINEERING SERVICES DEPARTMENT FOR: APPLICATION FOR REZONING, SUBDIVISION, DEPARTURE, AMENDMENT OF THE OVERSTRAND GROWTH MANAGEMENT STRATEGY & APPROVAL OF STREETNAMES: STANFORD AFFORDABLE HOUSING PROJECT: ERVEN 2275& 1198 AND ERVEN 1909 - 1914, STANFORD (3554)

Water	:	According to GLS report
Sewer	:	According to GLS report
Roads and traffic	:	According to TIA
Stormwater (SW)	:	See conditions 8, 9 & 10
Electricity	:	In order

Conditions:

1. that the developer (Overstrand Municipality) at his cost constructs the internal municipal civil and electrical services for the development as well as any link or bulk municipal services that need to be provided;

2. that servitudes for municipal services be registered in respect of all main services to be taken over by the developer and all existing municipal services concerned, crossing private property;

3. that a plan of all existing services be submitted to the Director: Infrastructure and Planning, by the developer and that any of the services that need to be relocated, be done by the developer at his cost to the satisfaction of the Director: Infrastructure and Planning:

    3.1 way-leaves must be obtained from the Operational Manager;

    3.2 such way-leaves to be obtained prior to any excavation on public property or property where existing services are located;

4. that plans of all the internal municipal civil and electrical (high and low voltage supply) services and such link services as required by the Director: Infrastructure and Planning, prepared by an ECSA registered professional engineer/technologist, be submitted to the Director: Infrastructure and Planning for his prior approval;

5. the "Guidelines for the Provision of Engineering Services in Residential Townships" (Blue Book), SABS 1200 specifications and the Design and Construction Standards for civil and electrical services of the Council to be used as the standard design and construction criteria with which such plans must comply;

6. the Director: Infrastructure and Planning to be notified in writing of all deviations from the Standard Design and Construction Criteria when plans are submitted for his approval and such deviations to be separately approved in writing by the Director: Infrastructure and Planning;

7. the successful completion of such works to be supervised and certified by an independent professional civil engineer/technologist i.e. a professional civil engineer/technologist who has no direct financial interest in the development, other than payment as standard professional fees for the work concerned; and

8. that a stormwater management plan, which may include attenuation facilities to ensure that the pre-development run-off is not exceeded and that erosion and pollution is minimised, be submitted to the Director: Infrastructure and Planning for approval and that the approved management plan be implemented by the developer at his cost to the satisfaction of the Director: Infrastructure and Planning;

9. that the above stormwater management plan include the following:

   9.1 pre-development run-off from the catchment area;

   9.2 post-development run-off from catchment area;

   9.3 existing stormwater reticulation system and the capacity thereof;

   9.4 connection of internal stormwater reticulation system;

   9.5 overland escape routes.

10. that the connection to the stormwater reticulation system if any, be provided according to the stormwater management plan;

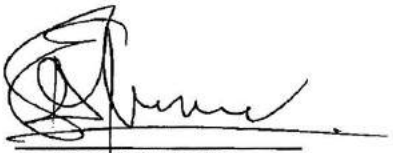
11. that a Certificate of Completion together with as-built services plans be provided by the independent professional engineer/technologist to the Overstrand Municipality. As-built plans to be on quality paper, together with a DXF file thereof;

12. that the Implementing Agent apply for a temporary water connection on the prescribed application form, at Overstrand Municipality's Finance Department, before commencement of construction;

13. that the connection to the main water line only be done by the Operational Department, after payment of the connection fee, by the developer;

14. that a traffic impact study be done for the proposed development at the developers cost;

15. that damage to the existing roads, used as routes for access to the development, for the provision of services, be repaired by the developer.



05/10/2017

DENNIS HENDRIKS
SENIOR MANAGER:
ENGINEERING SERVICES

DATE