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03 December 2020 Our ref: L-20201203

Cape EAPrac
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Dear Ms. Van Zyl

DEVELOPMENT OF THE PROPOSED RETIREMENT VILLAGE ON A PORTION OF ERF 657, STILL BAY WEST

The following letter serves as written reply to the comment (Ref No: HES592/03: Stilbaai Lifestyle Village Development, Stilbaai West) dated 24 September 2020 (attached as **APPENDIX 1** hereto).

The following documentation has reference and will be referred to throughout this letter:

a) Urban Engineering (Pty) Ltd letter (Ref No: 201908) dated 25 June 2020 (Attached as **APPENDIX 2)**
b) Urban Engineering (Pty) Ltd Traffic Impact Assessment (Report Number 20190804, Rev 1) dated 30 June 2020 (can be provided on request).

1. <u>Access to Erf 692</u>

Access to erf 692 has been addressed in detail in Urban Engineering Letter Ref 201908 (**APPENDIX 2**). Some of the relevant findings of this letter (Ref 201908) have been summarised below:

1.1. A letter was issued by Hessequa Municipality that explicitly states the following:
   1.1.1. "*there is currently no direct link road or road reserve that runs from the MR331/MR332 intersection, over erf 657 towards erf 692*."
   1.1.2. It is Hessequa Municipality's intention to "*swop erf 692 with a site next to the sports grounds and then utilise erf 692 for future residential development*."
   1.1.3. Hessequa Municipality supports the recommendations made in TIA ref 20190804 (Rev 1), but has made provision "*for an amount of R1000 000 on the 2020/2021 budget*" should the Western Cape Government Department of Transport and Public Roads recommend a Traffic Circle at the relevant intersection.
1.2. "*The impact of the future residential development of erf 692, on the surrounding road network, can be mitigated as long as the proposed residential development is limited to low/medium density with a ratio of between 8 and 12 DU/HA (dwelling units per hectare)*."
1.3. "*Since Erf 692 has 733m of road frontage, there is sufficient space to make provision for link roads and potential driveways onto the surrounding Class 5 road network*."
1.4. "*In order for the future residential erven on erf 692 to safely tie in-to the existing road network layout, future internal roads on erf 692 should be designed in such a way that intersections align with the current intersections of Sterretjie/Olienhout and Bosbok/Pikkewyn*" (refer to basic layout plan included as part of Letter Ref 201908)

Letter 201908 clearly states that the increase in trip generation as a result of the proposed development of erf 692 can very easily be accommodated within the surrounding Class 5 road network (Sterretjie Street), given that the future development of erf 692 is restricted to a density of between 8 and 12 DU/ha.
Letter 201908 even includes a schematic layout which will indicates how this density could be achieved within the current parameters (refer to Annexure A of **APPENDIX 2** of this letter).

Subsequent to the Urban Engineering Letter Ref 201908, Lyners Consulting Engineers were appointed by Hessequa Municipality to compile an Arterial Management plan for the MR331/MR332 Arterials. The initial version of this AMP has been submitted to Hessequa Municipality in Draft format for comment. Once approved, this AMP will act as the road master plan for both the MR332 and MR331 corridors.

2. MR331/MR332 Intersection.

With regards to this specific point, we are of the opinion that the recommendations in the Urban Engineering TIA, and the comments received from the Stilbaai Interest Forum, are inherently the same. We agree in principle with the comment made by the Stilbaai Interest Forum that some form of upgrade is required at the Intersection of MR332 and MR331. However, we do not agree with is the statement that the upgrade is required because of "*increased traffic due to the proposed development*" based on the following points*:*

2.1. The MR331 approach to the MR331/MR332 intersection is currently (Status Quo) operating above capacity. High saturation levels on this approach results in unacceptable Level of Service. This finding has been confirmed in both the relevant TIA (ref 20190804) as well as the intersection analysis performed as part of the recently completed MR332/MR331 Arterial Management Plan.

2.2. In order to improve mobility along both MR331 and MR332, it is imperative that some form of upgrade be implemented at this intersection, irrespective of whether the development of erf 657 is allowed to continue. This statement from the Stilbaai Interest Forum could be slightly misleading as it can be wrongly interpreted that if the proposed development does not continue, geometric upgrades are not required at the MR332/MR331 intersection.

The biggest difference between the TIA (ref 20190804) recommendation and the comment from the Stilbaai Interest Forum letter (ref HES592/03), is in the way that the recommendation is structured:

- The comment from the Stilbaai Interest Forum suggests that the MR332/MR331 upgrade is necessitated as a result of the **additional** traffic generated by the proposed development. It can therefore be argued that the cost of the geometric upgrade must ultimately be borne by the developer of erf 657.
- The recommendation from the Urban Engineering TIA states that the intersection is **currently** (pre-development) not operating at an acceptable LOS and therefore the geometric upgrade of the MR332/MR331 intersection must be implemented, irrespective of whether the development of erf 657 continues. Although any capital contributions payable by the developer could be used to supplement the cost of the upgrade, the responsibility for the funding of the upgrade should therefore remain with the relevant road authorities, and not the developer of erf 657.

The recently completed MR332/MR331 Arterial Management Plan also recommended that said intersection be upgraded to a roundabout and Hessequa Municipality has already indicated that they made provision for R1,000,000 on their 2020/21 budget towards the intersection upgrade (refer to Annexure B in **APPENDIX 2**) and hence this whole argument could be seen as a moot point.

Kind Regards

Digitally signed by
Frans van Aardt
Date: 2020.12.03
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Frans van Aardt
On behalf of Urban Engineering (Pty) Ltd

APPENDIX 1

HES592/03: STILBAAI LIFESTYLE VILLAGE DEVELOPMENT, STILBAAI WEST

Stilbaai Belangeforum
Stilbaai Interest Group

258 Stilbaai 6674 aansoeke.stilbaaibelangeforum@gmail.com

24 September 2020

Attention: Louise-Mari van Zyl

Cape EAPrac,
PO Box 2070,
George 6530

Dear Ms van Zyl

Ref No: HES592/03: Stilbaai Lifestyle Village Development, Stilbaai West

The Stilbaai Interest Forum generally welcomes and supports developments of this nature in Stilbaai but subject to the condition that the developments will not have significant negative impacts on the environment and the local community. In this particular application, however, inadequate attention was given to the negative impact that the proposed development will have on the surrounding road network and future land development in the vicinity of the development.

The main purpose of this submission is to comment on the traffic impact assessment that forms part of the application. In the comments, which are attached to this letter, it is shown that the submitted traffic impact assessment did not adequately address a number of negative impacts – in fact some of these impacts are ignored and not even mentioned in the assessments. These impacts will have severe negative consequences for the area and it is important they should be investigated and measures introduced to address these impacts.

Should you have any queries with regard to the comments and proposals, you are welcome to contact the undersigned.

SC van As

Dr Christo van As
Stilbaai Interest Forum
christo@scvanas.co.za
083 301 5530

Comments: Stilbaai Lifestyle Village Development, Erf 4784 & 4785

1 Introduction

In South Africa, traffic impact assessments are regulated by the National Land Transport Act (Act No 5 of 2009). According to Section 38(2) of this Act, all developments are subject to traffic impact assessments and public transport assessments as prescribed by the Minister (of Transport). Furthermore, Section 31 of the act prescribes that land transport planning must be integrated with land development processes and that integrated transport plans must form an essential part of the integrated development plans of the authority concerned.

The official requirements for traffic impact assessments in South Africa are provided in the following standards of the Committee of Transport Officials (COTO):

- TMH 16 South African Traffic Impact and Site Traffic Assessment Manual
- TMH 17 South African Trip Data Manual

According to these manuals, these standards have full legal standing and must therefore be complied to in South Africa.

In the submitted traffic impact assessment, reference is made to TMH 17 as well as other COTO documents but no reference is made to TMH 16. In the following comments it will be shown that the assessment does not comply with all the requirements of TMH 16 with the result that some of the negative impacts of the development were not addressed.

The two most prominent negative impacts of the proposed development are shown in Figure 1 and are the following:

- Access to Erf 692.
- MR331/MR332 intersection.

These impacts are discussed in the following sections of this submission.

2 Access to Erf 692

The most prominent impact of the proposed development is that no provision has been made for possible future development on Erf 692 to the north of the subject development. Should this erf be developed in future, it will only be possible to provide access from or along Sterretjie Avenue. This street is already serving as the main access to the Goukou river and the beach areas and is therefore carrying high volumes of traffic during the holiday seasons. Any future development of Erf 692 could significantly aggravate the traffic problems already being experienced on the road. This issue could have been avoided if direct access was provided from MR 332 as shown in Figure 1.

Figure 1: Proposed development and surrounding area

The above issue has not been addressed and it is not even mentioned in the traffic impact assessment. The assessment does discuss several main roads in the area such as the “Western Bypass”, MR332 (Main Road), MR 331 (Jongensfontein Road) but no single mention is made of Sterretjie Avenue. No reference to Erf 692 could be also be found in the report and the impact of future development on this erf is ignored.

It is not clear whether the above problem is the result of a lack of, or inadequate road master planning in the area. The report does not refer to any such planning and it therefore appears if no such planning has been undertaken in spite of the requirements of the National Land Transport Act and the TMH 16 manual.

The TMH 16 manual clearly prescribes that traffic impact assessments may only be submitted when master planning for an area is in place. In fact, the manual even makes provision that the applicants for developments may undertake such planning on behalf of and in agreement with the municipality should such planning not be in place.

This issue urgently needs further investigation but the forum if of the opinion that the proposed access shown in Figure 1 appears to be the most logical solution. This access provides a direct connection to the MR 332 main road while other accesses can also be provided to link the proposed developments to the Goukou river and the beach areas.

3 MR331/MR332 Intersection

The traffic impact assessment makes the recommendation that the proposed development should “be allowed to continue” from a traffic and transportation point of view based on a number of proposed improvements. One of the proposals is that the MR331/MR332 intersection be converted from *four-way stop control* to *two-way stop control*.

The above recommendation is based on an analysis which was undertaken using the SIDRA software package and which apparently showed that the existing four-way stop control operates very poorly and do not have sufficient capacity to even accommodate current traffic. According to the assessment report, both two-way stop control and a roundabout will have sufficient capacity to accommodate the proposed development. Although the roundabout performs better than two-way stop control, the remark is made that two-way stop control provides the best “value for money” upgrade. No evidence, however, is presented in support of this conclusion.

There are several issues with the above analysis and proposal. The first issue is that TMH 16 requires that when traffic counts are undertaken, congestion levels must be noted during the count (this is a particularly important requirement). If it is noted that traffic is congested, provision should be made to adjust the traffic count for traffic diversion to other routes as well as queue formation at the intersection itself. Such an adjustment requires observations of the queue lengths during the traffic counts.

In the traffic impact **assessment**, no mention was made of any congestion that may have been observed during the traffic count. Apparently, no queue length observations have been undertaken since no mention is made in the assessment of such observations. It can therefore be concluded that no such congestion was in fact observed during the period the traffic count was undertaken.

It is therefore surprising that the SIDRA analysis showed that the all-way stop controlled intersection was severely congested during the three peak periods that were analysed. In fact, in the assessment report it is stated that the traffic count was fairly constant at the intersection, which means that high levels of congestion would have occurred over most of the hours of the day on which the count was undertaken.

According to the assessment report, traffic on the MR331/Jongensfontein approach on the day of the traffic count experienced an average delay of about 31 minutes per vehicle (1860 sec/veh) during the morning peak period and 19 minutes per vehicle (1147 sec/veh) during the midday peak period. The analysis also showed that queue lengths could have reached about 54 and 38 vehicles for the two hours respectively.

If the above calculations are correct, then it is not clear why the above delays and queue lengths were not reported during the traffic counts. If there were actually such delays and queues, it should have been discussed in the traffic impact assessment. In such a case, neither the counts or the assessment report complies with the requirements of TMH 16.

However, it appears more likely that the SIDRA software calculations are not applicable to South African conditions. The software was developed in Australia where all-way stop control is a relative scarce form of control. The traffic rules are also different – in Australia, drivers are required to give way to drivers on their right while the “first-stop, first-go” rule applies South Africa. It is therefore likely that the traffic models used by the software may not be applicable to local conditions.

A second issue with the analysis is that it is based on traffic counts that were taken on the 25th July 2019 which was during the school term. Traffic volumes in Stilbaai are much higher during holidays, particular during the December holiday and traffic impact analyses should be undertaken for such periods.

The Stilbaai Interest Forum is of the opinion that the current four-way stop is operating fairly satisfactory during the December holidays, although there may be short periods during which it could be congested. It is highly unlikely that two-way stop control would have sufficient capacity during holiday periods. With the increased traffic due to the proposed development, the forum is strongly of the opinion that a roundabout will be required to accommodate the additional traffic generated by the proposed development. This issue should be investigated further.

APPENDIX 2

URBAN ENGINEERING (PTY) LTD LETTER DATED 25 JUNE 2020 (REF NO: 201908)

URBAN ENGINEERING
18 Varing Street
P O Box 9059
George
6530
Tel: 044 874 4098

25 June 2020

Our ref: 201908

Ellenrust (Pty) Ltd
STILBAAI
6674

Dear Mr. Neethling

DEVELOPMENT OF THE PROPOSED RETIREMENT VILLAGE ON A PORTION OF ERF 657, STILL BAY WEST

The following documentation has reference:

a) Schematic Layout attached as **Annexure A**
b) Letter from Hessequa Municipality (RefSBW657) dated 17 June 2020. (attached hereto as **Annexure B**)
c) Traffic Impact Assessment (report Number 20190804, Rev 0) prepared by Urban Engineering, dated November 2019.

(For ease of reference, a basic layout plan has been included to this letter as **Annexure A**. Under no circumstances should **Annexure A** be seen as an official town planning layout, it merely a basic schematic sketch to help convey some of the principals referred to in this letter. The said layout makes provision for approximately 83 single residential erven. Since erf 692 is roughly 10ha in size, this translates to a density of about 8du/ha. This is in line with the current residential density of the surrounding suburbs situated towards the South East of erf 692.)

As stipulated in the letter from Hessequa Municipality (RefSBW657) there is currently no direct link road or road reserve that runs from the MR331/MR332 intersection, over erf 657 towards erf 692. The implications of this is that future development on erf 692 will not be able to tie-in directly to the MR331/MR332 intersection and will therefore have to reticulate through the surrounding Class 5 road network in order to reach the MR332 at the MR332/Sterretjie Street intersection. In spite of the above, it is our opinion, that the recommendations made in TIA 20190804 are still relevant, based on the following facts and conditions:

1. According to letter RefSBW657, it is Hessequa Municipality's intention to use erf 692 for future residential development and no longer as a potential educational site.
2. The impact of the future residential development of erf 692, on the surrounding road network, can be mitigated as long as the proposed residential development is limited to low/medium density with a ratio of between 8 and 12 DU/HA (dwelling units per hectare).
3. Since Erf 692 has 733m of road frontage, there is sufficient space to make provision for link roads and potential driveways onto the surrounding Class 5 road network.
4. In order for the future residential erven on erf 692 to safely tie in-to the existing road network layout, future internal roads on erf 692 should be designed in such a way that intersections align with the current intersections of Sterretjie/Olienhout and Bosbok/Pikkewyn (as indicated in **Annexure A**).

Kind Regards

Digitally signed by
Frans van Aardt
Date: 2020.06.25
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Frans van Aardt
On behalf of Urban Engineering (Pty) Ltd

ANNEXURE A

SCHEMATIC LAYOUT

Bosbok
Pikkewyn
Future Intersections to Align
with Current Road Network
Sterretjie
Olienhout

ANNEXURE B

Hessequa Municipality
Letter Ref: SBW657

HESSEQUA

Munisipaliteit / Municipality / U Masipala

Rig alle korrespondensie aan die Munisipale Bestuurder
Address all correspondence to the Municipal Manager

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Van den Bergstraat
RIVERSDAL(E)

Verw. / Ref: SBW657

Navrae/Enquiries: H S Visser/lc

17 June 2020

Attention: Mr. Devilliers Neethling
ELLENSRUST PTY (LTD)
STILBAAI
6674

Dear Sir

MUNICIPAL COMMENTS ON THE QUERIES RAISED BY THE ROAD NETWORK MANAGEMENT, DEPARTMENT OF TRANSPORT AND PUBLIC WORKS, WESTERN CAPE GOVERNMENT FOR THE DEVELOPMENT FOR THE PROPOSED RETIREMENT VILLAGE ON A PORTION OF ERF 657, STILBAAI WEST

1. The email from the Department: Transport and Public Works, Road Network Management Planning dated 26 May 2020 refers.

2. As mentioned in our letter dated 7 May 2020 the Municipality acknowledge and support the proposed recommendations as set out on page 26 of the Traffic Impact Assessment report as compiled by Urban Engineering. However, if the Department recommends a traffic circle at the MR331/MR332 intersection instead of a 4-way stop we have made provision for that for an amount of R 1000 000 on the 2020/21 budget.

3. There is no proclaimed road reserve that runs from the MR331/MR332 intersection, over erf 657, towards the school site, erf 692. The reserve was closed years ago after the development of the adjacent retirement village, Palinggat, and the resulting complaints from residents of the through route. The new site for the proposed retirement village was also sold per tender without any condition of a compulsory through route to the school site. Erf 692 is surrounded on two sides by access routes to the site, namely Sterretjie and Bosbok Avenues and should be sufficient for access to and from the site.

4. The Municipality has been in consultation with the primary school, Bertie Barnard, for the possible relocation of the school site, erf 692, to a site adjacent to the current municipal sports grounds in Stilbaai. The primary school is currently renting the sports fields from the municipality and if a new school is to be developed in the future it would make sense from a town planning perspective to develop the school on the site where the sports facilities already exist rather than to duplicate it. The Municipality has identified this as a possible swop transaction with the Department of Public Works, namely, to swop erf 692 with a site next to the sports grounds and then utilise erf 692 for future residential development. This proposal has also been identified within the Local Spatial Development Framework Plan for Stilbaai.

We trust that this information will be sufficient to make an informed decision regarding the proposed development.

Yours faihfully

HS VISSER Pr. Plan
DIRECTOR DEVELOPMENT PLANNING