



Munisipaliteit
Municipality
Umasipala

SWARTLAND MUNICIPALITY

**DARLING PHASE 2 LOW COST HOUSING DEVELOPMENT
WESTERN CAPE**

**TRAFFIC IMPACT STATEMENT
April 2025**

Compiled by:

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Appendix A: Drawings

1 Introduction:

A Traffic Impact Statement for the proposed Darling Phase 2 low cost housing project was prepared by SKCM Consulting Engineers.

Darling is located 35 km west of Malmesbury. The main access to the town is from the R315. Access to the residential area is from Evita Bezuidenhout Street (R307 to Moorreesburg).

The Darling Phase 2 housing project will be developed in the north eastern corner of the existing ASLA residential area. This residential area lies to the east of Evita Bezuidenhout Street. Access to the residential area is taken off Evita Bezuidenhout. Two roads nl. Bloekomboom- and Disa Roads provide access into the area. All the streets in this residential area is tarred and has fairly traffic volumes. Access to the development is off Disa road via internal narrow residential streets. The streets are full of pedestrians and residents loitering in the area.

The additional traffic resulting from the proposed development is a subject of this Traffic Impact Statement (TIS) which pertains to developments generating less than 150 trips during peak hours.

The generated traffic by the development will be less than 150 vehicles per peak hour and do not require detailed traffic analysis.

2 Surrounding Road Network:

The housing project is located on the northeastern corner of the ASLA residential area. All the streets in this residential area is tarred and has fairly traffic volumes. The closest access to the development is off Disa road via internal narrow residential streets.

The additional development will have an impact on the level of service of the Disa/Evita Bezuidenhout intersection.

3 Traffic Generation:

The draft South African Trip Data Manual as published by the Committee of Transport Official's (COTO, 2010), was used to estimate the number of vehicle trips that would be generated by the proposed development. The COTO Manual was preferred over the South African Trip Generation Rate Manual (1995), as it made better provision for the characteristics of the study area.

The use of the 'Single Dwelling Units' peak hour trip generation rates contained in the COTO Manual are considered appropriate for use in the trip generation calculations for the proposed development.

The area is subjected to very low vehicle ownership; nearly all households do not own a vehicle and rely on public transportation. The transit reduction factors provided in Table 3.2 of the COTO Manual were used.

The number of vehicle trips estimated to be generated by the proposed development and the percentage directional split calculations for the AM and PM peak hours are shown in **Table 1**.

Table 1: Trip Generation Rates

Residential: Single Dwelling Units				
Dwelling Units (DU)	387			
Trip Generation Rate (Table 3.3, COTO)	Weekday AM		Weekday PM	
	1		1	
Vehicle Ownership Factor (Table 3.2, COTO)	0.3		0.3	
Trips Generated	116		116	
Directional Split %	Weekday AM		Weekday PM	
	In	Out	In	Out
	25%	75%	75%	25%
	29	87	87	29

Definition of the subject land use according to COTO (TMH 17) is as follows:

Code 210: Single Dwelling Units

- Single dwelling units are detached houses on individual erven. The units usually have individual accesses to streets.

The additional traffic is to be superimposed on the existing background traffic on the road network during the weekday AM and PM peak hours. It can be seen that 29 inbound trips and 87 outbound trips is expected during the weekday AM peak period; as well as 87 inbound trips and 29 outbound trips is expected during the weekday PM peak period. Therefore a total of 116 trips will be generated by the proposed development during the respective peak traffic hours.

4 Traffic Analysis:

The Department of Transport's *Manual of Traffic Impact Studies* indicates that only developments that generate more than 150 vehicles per hour requires a full Traffic Impact Assessment (TIA) and developments that generate less than 150 only require a Traffic Impact Statement (TIS).

4.1 Disa/Evita Bezuidenhout Roads Intersection

Background Traffic.

Table 2: Trip Generation Disa/ Evita Bezuidenhout intersection

Residential: Single Dwelling Units				
Dwelling Units (DU)	731			
Trip Generation Rate (Table 3.3, COTO)	Weekday AM		Weekday PM	
	1		1	
Vehicle Ownership Factor (Table 3.2, COTO)	0.3		0.3	
Trips Generated	219		219	
Directional Split %	Weekday AM		Weekday PM	
	In	Out	In	Out
	25%	75%	75%	25%
	55	164	164	55

Table 3: Trip Generation Disa/ Evita Bezuidenhout intersection Combined Traffic

Residential: Single Dwelling Units				
Dwelling Units (DU)	1118			
Trip Generation Rate (Table 3.3, COTO)	Weekday AM		Weekday PM	
	1		1	
Vehicle Ownership Factor (Table 3.2, COTO)	0.3		0.3	
Trips Generated	335		335	
Directional Split %	Weekday AM		Weekday PM	
	In	Out	In	Out
	25%	75%	75%	25%
	84	251	251	84

The additional traffic generated by the proposed development is less than 150 vehicles per peak hour. Therefore, a traffic analysis of the surrounding road network will not be undertaken for this study.

The level of service of the intersection during the AM peak will at worst be a "B". Approximately 80% of the vehicles will be turning left into town, this presents only one traffic conflict. It was observed during the site visit that the road network within the study area is operating at an acceptable level of service as no congestion problems, excessive queue lengths and delays were evident on the surrounding road network.

We recommend that an additional entrance road be introduced off Evita Bezuidenhout Street by extending Okkerneut Street to Evita Bezuidenhout. This street will provide the shortest route to and from the development to the main road. The addition of this intersection will relieve the traffic on the Disa Street intersection as well as the internal streets.

By introducing the additional access road, the traffic generated by the development is not expected to have any significant impact on the existing road network.

5 **Pedestrian Traffic:**

We recommend that the paved sidewalk be extended along the right-hand side of Evita Bezuidenhout between Disa street and the Okkerneut Street intersections.

6 **Conclusion:**

The impact of the traffic generated by this development was assessed in accordance with the *Manual for Traffic Impact Studies*, published by the Department of Transport.

The study showed that the proposed development will increase the traffic through the Disa Road intersection by 50%. The introduction of an additional access (Okkerneut Street intersection) will relieve the traffic on the Disa Road intersection. The post development traffic volumes on the intersection will be lower than the predevelopment traffic volumes during AM and PM peak hours.

The paved sidewalk will be extended along Evita Bezuidenhout Street from the Disa Street intersection to the Okkerneut Street intersection.

We are of the opinion that by introducing the above mitigation measures, that the additional traffic generated by the development will have a negligible impact on the future road networking system and should be approved from a traffic and transportation perspective.


MPJ LOUBSER PrEng
SKCM Engineers

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APPENDIX A: DRAWINGS

LEGEND:



LOCATION OF INTERSECTION LOCALITY PLAN

SCALE 1:1000

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**SWARTLAND
MUNICIPALITY**

PROJECT

CONSTRUCTION OF CIVIL
ENGINEERING SERVICES FOR THE
DEVELOPMENT OF LOW COST
HOUSING ERVEN IN MALMESBURY
AND DARLING

TITLE

PROPOSED INTERSECTION
LAYOUT OF R307 AND
OKKERNEUT STREET



SKCMasakhizwe Engineers

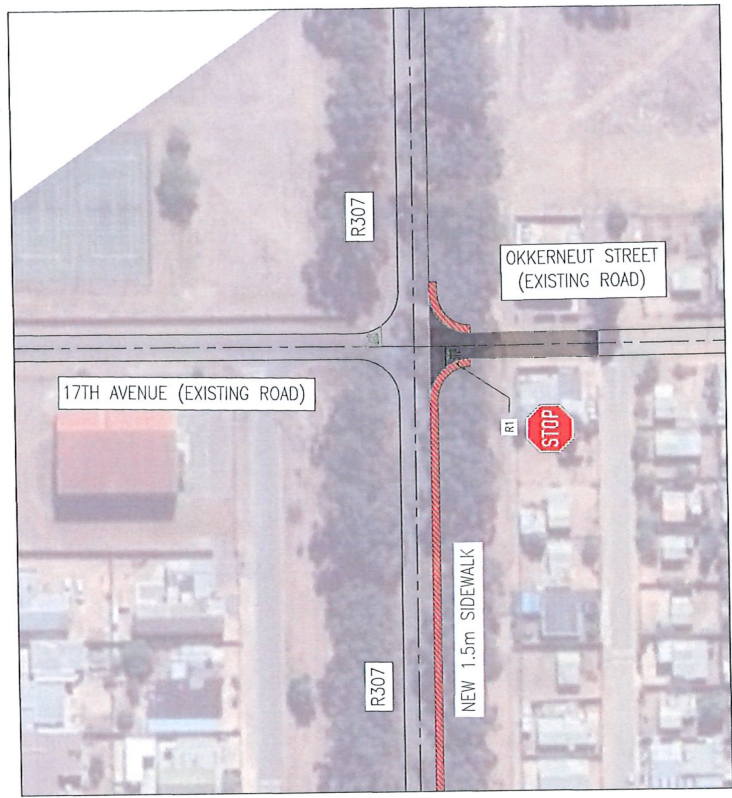
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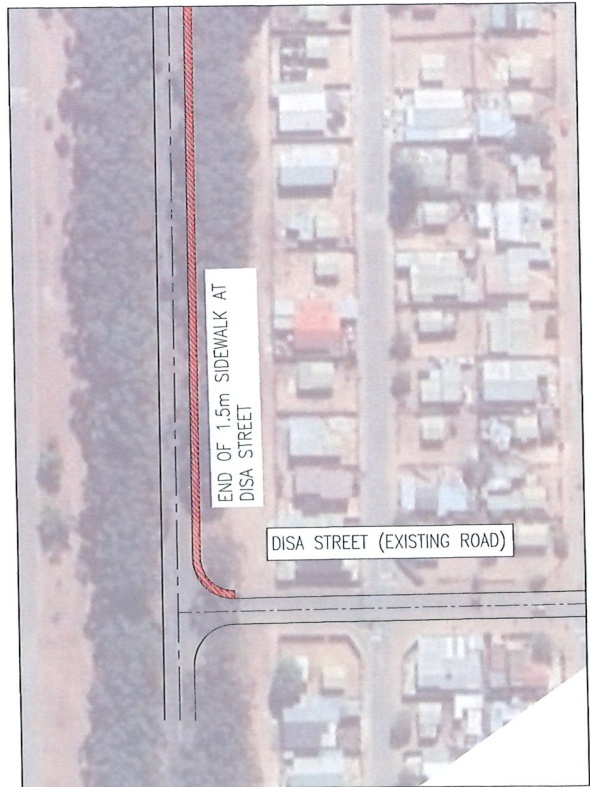
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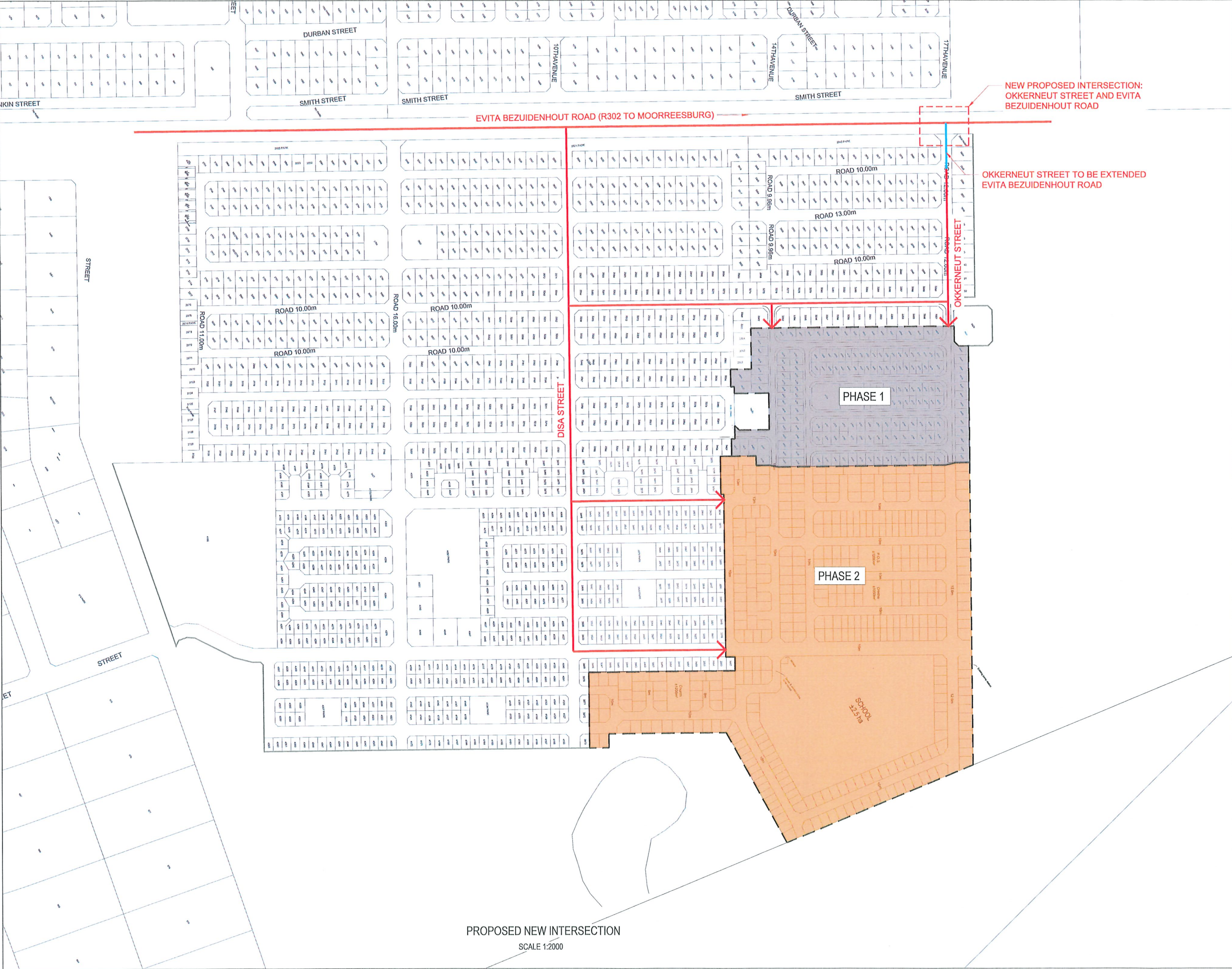
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SWARTLAND
MUNICIPALITY

PROJECT

DARLING PHASE 2
LOW COST HOUSING
DEVELOPMENT

TITLE

ACCESS ROADS TO DARLING
PHASE 2



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