

northbound, the signalisation of the intersection of Van Reede Road with Doornbosch Road and a left-turning slip lane on the western approach at the intersection of Van Reede Road with Doornbosch Road.

The option can be implemented in the short-term and will result in the best improvement of the traffic operations on the local road network.

COSTING OF PROJECTS

The 2012 list of all possible road infrastructure projects were updated and costed with 2018 construction rates. Prioritisation of the projects was not undertaken for the 2022 update.

CONCLUSIONS

Stellenbosch Municipality has implemented minimal new or upgraded road infrastructure subsequent to the finalisation of the 2012 Road Master Plan due to various reasons. The population and economic opportunities are growing, placing an ever greater strain on the Municipality's road network.

This RMP attempts to address this shortfall. A number of critical planning studies are currently in process including the updated 2019 Stellenbosch SDF, which is currently in draft format, the Stellenbosch IDP, and various others. Existing information from drafts, where available, were used in this report. The next RMP update must incorporate the other related studies, critically the SDF.

The 2022 update of the RMP concludes the following:

- The previous CIP previously identified the core issues and problems within the Stellenbosch Municipal Area, highlighting the difficulties in preparing a “one size fits all” solution.
- Public Transport can play a major role in reducing private vehicle dependencies, and Stellenbosch needs to invest much more time and effort toward these solutions taking into account the existing poor rail services and public transport availability from neighbouring municipalities, such as the City of Cape Town's existing and planned MyCiTi IRT network.
- Approximately 7 km (2.5%) of the roads in SM are in a poor or very poor condition, and these are found throughout the SM.
- The latest EMME/4 transport model was recalibrated with 2018 and 2019 traffic volumes at critical intersections.
- The road classification system based on the principals set out in TRH26, utilised in the 2012 RMP, was retained. The classification of the Class 1 to Class 4 road network was retained unchanged.
- Stellenbosch Municipality provided high-level information of future land-use developments within the Stellenbosch Municipal Area. The land-use information has been included in the 2040 horizon-year EMME/4 model.
- Several key focus areas were identified in the 2012 RMP, based on previous studies and known constraints of the road network. The focus areas for this 2022 RMP update was moderated and limited to the following important areas :
 - General capacity improvements
 - Stellenbosch CBD
 - R44 north and south of Stellenbosch CBD
 - Reduced Western Bypass Options
 - Portions of the Eastern Link Road
 - Technopark access
 - 2040 Densification analysis

- Krigeville schools precinct
- The proposals put forward within these key areas have been included into the EMM/4 model for the 2040 horizon-year scenario.
- Specific attention was given to the following projects due to their future impact on the Stellenbosch Municipal Area road network.
 - Portions of the Eastern Link Road – Van Reede to Pastorie, Wilderbosch extension to Trumali Road and the Wilderbosch extension to (R44) Technopark.
 - Western Bypass – a proposed class 2 road linking the R44 south of Stellenbosch with the R304 north. Two options from the 2012 RMP were tested:
 - Technopark/R44 southern starting point
 - Annandale/R44 southern starting point
 - R44 Upgrade and reclassification – Significant upgrades to the R44 and the grade separating of some intersections to improve safety, mobility and capacity.
- The 2012 priority list of future road improvement projects were updated. The priority list identifies the key projects for implementation, and a high-level cost per project was determined from 2018 construction rates.
- The scope of this study did not include the prioritisation of these projects per planning period (short/medium/long-term). However projects are annotated as High or Medium priority.
- The existing road network and modal split will not be able to support the longer-term growth needs of the Stellenbosch area at acceptable Levels of Services. It is therefore acknowledged that some roads, particularly in the historic town area, will continue to operate at or over capacity during peak periods, unless substantial modal shift occurs. It is also expected that weekday AM and PM peak period congestion will increase, thereby worsening the Level of Service and increasing the length of the peaks.

RECOMMENDATIONS

- Refer to the Project list in Section 8.2 for the full list of road upgrade proposals. It is recommended that the prioritisation of the projects are determined in conjunction with the relevant Municipal Departments (land-use planning etc.), and revised on an at least annual basis, or as development needs requires. The planning of these proposals should then commence, with a focus on the short to medium-term projects.
- It is recommended that the following general capacity improvements should be investigated and analysed further, for inclusion in the next RMP update. Note that some of these projects fall under the jurisdiction of the Provincial Government.
 - Polkadraai Road: The remaining single carriageway sections from Cairngorm Road to Vlottenburg (unnamed road) to be upgraded to a dual carriageway (2 lanes per direction) before 2035, in accordance with the Provincial road infrastructure programme.
 - R44 north of the Stellenbosch CBD: Upgrade to dual carriageway from the end of the current dual carriageway north of Fir Road to the Welgevonden access at Hendrikse Road.
 - The R44 in the vicinity of Klapmuts will require additional capacity due to the proposed future residential and employment developments in the area, as well as future upgraded road links off the R44.
 - Adam Tas Road could become the busiest section of road in Stellenbosch, and will require 3 lanes per direction between the R44 in the south and Merriman Avenue to the north.
 - In addition, it is planned with high priority (short term) to upgrade and reconfigure the Adam Tas intersections with the R44/Alexander Street and Merriman Avenue.
 - The Adam Tas/George Blake intersection also need to be improved or reconfigured to provide additional capacity.
 - R304 (Koelenhof Road): Upgrade to dual carriageway between Adam Tas (R44) in the south to Bottelary Road/Kromme Rhee Road.
 - Merriman and Cluver Street link: Upgrade to dual carriageway or minimum 2-lanes per direction required between Bosman Street and Banghoek Road.
 - Lower Dorp Street: Capacity improvements required between the R44 and Adam Tas Road. Conceptual planning has been undertaken for the dualling of this section.