POLOKWANE MUNICIPALITY

ROADS AND STORMWATER

MANAGEMENT POLICY

Table of Contents

1. EXECUTIVE SUMMARY

Polokwane Municipality is situated within Capricorn District in the Central part of the Limpopo province. It is the largest Metropolitan complex in the North, and it is in the capital city of the Limpopo province. The city is located within the proximity of neighbouring countries such as Botswana, Zimbabwe, Mozambique, and Swaziland. Its hubs destinations and access to SADC countries through provision of safe as well as reliable roads and storm water infrastructures. It plays a vital rule in the stimulation of international trade to other African countries. Polokwane Municipality is characterised by radial road network of approximately **7 495km** covering its area of jurisdiction whereby **1 482.83km** is surfaced roads with approximately **6 012.67km** of gravel as per the recent inventory. This is due to the establishment of new developments both formal and informal settlements. It is situated at the point where National and Provincial roads converge from where they radiate out in all directions providing good regional accessibility.

The long-term strategy of the municipality is to surface or pave roads within the municipal area in a phased approach. Based on high road backlog, different strategies are implemented including preventative maintenance of the road infrastructure. Roads and Stormwater infrastructure are fundamental support to great trade and industry revenues as well as investment. The Roads and Stormwater infrastructure should be planned, designed, and maintained effectively to efficiently contribute to a well-functioning and thriving modern economy.

The infrastructure plays a crucial role in relation to provision of smooth and convenient mobility, new developments, networking human settlements. It is also playing a vital role in relation to stimulation of infinite job creations through routine and preventative maintenance of the infrastructure.

The Municipality is responsible for providing services in relation to upgrading of low volume gravel roads as part of ongoing preventative maintenance for an extensive unpremeditated gravel road network.

2. DEFINITIONS

Any other word not explicitly defined herein shall bear the same meaning as in the regulations or applicable legislation governing Roads and Stormwater

3. OBJECTIVES

3.1. The policy is earmarked to provide effective and efficient control and legislation of the Municipal Roads and storm water which are devoted to stimulating economic activities.

3.2. The policy aims to align and provide standard guidelines to be undertaken for strategic planning of roads and stormwater network.

3.3. The policy aims to enhance funding scheme for development of new roads infrastructures, maintenance, and repairs on existing infrastructures.

3.4. The policy aims to set apart the roles and responsibilities of external stakeholders as well as private developers in relation to organizing and setting up of new road infrastructures. Standardization of Roads and Stormwater asset management such as transfer of assets, relocation of assets, applications and approval of wayleaves, coordination of road control points.

3.5. The Policy provides for the standardization of wayleave applications and preservation of servitudes and standardization of allowable road reserve and alignment for new developments or residential areas.

3.6. To assist stakeholders such as new and existing commercial explorations, public institutions, communities, and Polokwane Municipal officials in understanding their legal and administrative responsibilities regarding utilization and development of roads and stormwater infrastructures.

3.7. To provide for the preservation procedures and develop accurate course of action required to authorize the utilization, renewal, construction and prescription for proper maintenance of Roads and Storm water infrastructures.

3.8. Polokwane Municipality, in particular Roads and Stormwater division, has a legal and moral obligation to provide legislative guidelines and procedures for the effective and efficient usage of Roads and Stormwater assets over the useful life thereof.

3.9. The Roads and Stormwater policy is derived to deal with the municipal rules that ensure the enforcement of appropriate stewardship of roads and stormwater assets.

4. LEGISLATIVE FRAMEWORK

a. The constitution of the republic of South Africa

b. National Lord Transport Act

c. Municipal System's Act

d. Municipal Structures Act

4. SCOPE OF APPLICATION

4.1. The Roads and Stormwater policy shall exclusively be applicable to Roads and Stormwater related infrastructure.

4.2. The policy shall cover specifically roads, non-motorised transport infrastructures or sidewalks, road furnishers, parking areas and road reserves and the associated stormwater network within the operations node point of Polokwane Municipality.

4.3. The policy is applicable to all users of the Polokwane Municipality's Roads and Stormwater infrastructure.

5. STRATEGIC PLANNING

Among others, the policy is developed and aligned to meet the strategic objective of Polokwane Municipality through

5.1. Provision of Roads and Stormwater infrastructure that are reliable and efficient as well as thriving for economic growth around the province and surrounding bordering countries.

5.2. Development and ranking of roads networks, corridors and nodes which are convenient to promote integrated transport system network.

5.3. Provision of sustainable service delivery of roads and stormwater as well as expand the development of new roads infrastructures to disadvantaged stakeholders in cost effective manner.

5.4. Conduct conditional assessments of the existing roads and storm water infrastructure and develop asset management plan for future maintenance needs.

5.5. Ensure that all repairs and routine maintenance is implemented through a Work Management System.

5.6 Development of future revenue enhancement mechanisms and strategies by developing future tolled road dedicated for rapid transport systems.

5.7. Coordinate and regulations of stormwater conveyance and promotion of future bulk water detention points.

5.8. Develop future asset replacement plan and interlink the roads and stormwater infrastructure with future spatial development plans.

6 POLICY MONITORING, EVALUATION AND REVIEW

6.1. Policy Monitoring Indicators

The following policy statements are monitored, evaluated, and reviewed as described below.

(a) Guide the sustainable provision of road infrastructure services in accordance with the provisions of the Municipal Finance Management Act (2004).

Policy Output	Indicator	Measurement
Report to Roads Stormwater Services Committee	Level of Service	Visual Condition Index Response Time

(b) Standardisation of life cycle management methods used to manage road infrastructure assets.

Policy Output	Indicator	Measurement
Strategic Needs Analysis Report	Candidate list	Correlation between proposed and actual completion of projects on the candidate list.

(c) Institutionalise an accountable road infrastructure asset management system.

Policy Output	Indicator	Measurement
Creation of Road Asset Management Divisions.	Reports submitted and % vacant infrastructure asset management posts.	Minutes of meetings; HR reports.

7. TECHNIQUES

7.1. CONSTRUCTION OF NEW ROADS INFRASTRUCTURE

The provision of new infrastructure shall be executed by Roads and Stormwater, Planning and Development section in collaboration with Polokwane Project Management Unit. The provision of new road infrastructures shall be executed in cognisance with the following classification of works.

7.2. Construction of new access roads

(a) The construction of new roads and stormwater infrastructure shall be executed in line with the legislative frameworks, relevant code of practice such as SANS, COLTO, TRH, TMH SABS 1200 and GCC.
(b) Construction of new Road and Stormwater infrastructure shall be confined within to Municipal owned properties, boundaries, and servitudes.
(c) Any construction of new roads or development on private land and tribunal land shall be executed upon the council approval. The approval to construct new roads and stormwater infrastructures on such land shall be well defined with coordinates, locality maps and the extend or dimensions defining the limit of construction.
(d) Construction of new road shall be limited to a minimum width of 5m.

7.3. Non-Motorised Transport infrastructures

(a) Non-Motorised Transport Infrastructures such as sidewalks shall be aligned to public transport routes and any other route designated and approved by the council of Polokwane Municipality.
(b) Sidewalks shall be constructed in accordance with relevant legislative requirements, code of practice and specifications.
(c) Sidewalks shall maintain a minimum off set distance of 1.5m away from the road verge unless extra protection measures such as raised kerb or guard rails are used.
(d) Aprons with universal ramps shall be erected at all intersection points to enable smooth mobility for the physically challenged and adults and maintain

at least 1.2m length for universal ramp at 1.5-2% gradient slope at warning tactile and guiding tactile.

7.4. Upgrading and Reconstructions of existing Roads and Stormwater Infrastructure:

(a) Planning and Development section, subdivision of Roads and Stormwater Strategic Business Unit, shall be responsible to undertake planning, designs and implementation in relation to the upgrading of existing road infrastructures. The design and construction of existing infrastructure shall be executed in accordance with relevant standards, code of practice and specifications.

(b) Gravel road serving as primary access to rural areas and semi-urban areas with less than 200 vehicles per day shall also be upgraded by the Operations and Maintenance Department. The municipal team can be supplemented by the maintenance service providers when the municipal team cannot cope.

7.5. Community based Infrastructure Projects (CIP)

The CIP shall include but not limited to lanes, passages, footbridges, access roads, speed humps and minor sidewalks. The projects shall be undertaken by the Operations and Maintenance division, in accordance with relevant designs and specifications, as and when requested from various Municipal entities.

7.6. Construction of new Roads and Storm water infrastructures by private entities, private developers or Public.

There are instances whereby several entities such as Economic Developments, Human Settlements, Rural Developments, Public and private developers are contributing towards economic growth in the city and surrounding suburbs, townships and rural areas through industrialisation and construction of flea markets and shopping centres.

Entities shall be afforded opportunity to upgrade the existing roads and storm water infrastructure to meet their strategic business objectives, but approval shall be sought from the Polokwane Municipality first.

The entity shall upgrade the existing roads and stormwater infrastructure by taking into account all the rules and regulations required by applicable legislation.

In case such instance prevails, the entities or private developers shall be allowed to upgrade the existing infrastructure under the following provisions:

(a) The entity/private developers shall be required to make a formal application detailing the objectives, magnitude and upgrading required on the existing infrastructure.
(b) The entity/private developer shall be required to submit all geometric and pavement designs pertaining to the intended development.
(c) The designs shall be presented to the Roads and Storm Water Technical committee chaired by the manager Roads and Stormwater and circulated to all other affected sections for recommendation.
(d) The designs shall be approved by Polokwane Municipal technical committee prior any undertaking.
(e) All such works shall be undertaken in accordance with the relevant standards and specifications as stipulated by the designs criteria and other relevant legislations from other affected Departments.
(f) Stormwater related infrastructure shall be submitted and presented to the technical committee as a standing item to assess its capacity, burden on the existing stormwater infrastructure, discharging infrastructure and flood line parameters.
(g) Guarantees, infrastructure service level agreements, Environmental studies, water use licences in case of stormwater management shall be submitted to Polokwane Municipality for endorsement prior to the inception of the development. The Service level agreement for the Developer shall be in accordance with the Municipal Spatial planning bylaw and land Use Management Act.

(h) Completed Roads and Stormwater assets which were undertaken by the Developers, shall be handed over in accordance with the Polokwane Municipal hand over procedure accompanied by completion certification and certified as-built records and asset capitalization information.

(i) Polokwane Municipality shall not assume any liability, responsibility regarding ongoing maintenance of the developed infrastructure prior to endorsement of occupational certificate, an official transfers and hand over to the Municipality by the relevant developer.

(j) Any request concerning the upgrade, rehabilitate, new construction and maintenance on Roads and Stormwater Infrastructure belonging to other authorities such as DoT, RAL and SANRAL shall be executed in terms of Memorandum of Understanding between Polokwane Municipality and such authority. That asset shall be transferred back to the relevant authority upon completion provided sub item (h) of 7.6.h is fully adhered to.

(k) The execution of Roads and Stormwater infrastructure such as upgrading, rehabilitation and maintenance shall be limited to the boundaries of Polokwane Municipality according to the demarcation board and coordinates.

7.7. Operations and Maintenance of Roads and Storm Water infrastructure

(a) All Operations and Maintenance of roads and storm water infrastructure which are within the operation's jurisdiction of Polokwane Municipality, shall be maintained as constructed within the Municipal cadastral reserves, in case where Polokwane Municipality is the sole authority of such infrastructure.

(b) Parking reserves and sidewalks shall be constructed along cadastral reserves of the jurisdiction of Polokwane Municipality.

(c) Road furnishers such as road traffic signs shall be erected atleast at a minimum offset distance of 1,5m away from the road verge.

(d) Municipal road reserve shall remain asset of Polokwane Municipality, and no service shall be erected along that reserve without the concerned of Polokwane Municipality.

Pavement Management system shall be considered as a guiding tool for all preventative maintenance projects.

All Routine operations and maintenance of roads and storm water infrastructures shall be carried out in accordance with the rules and regulations as provided for in the applicable legislation.

8. CORE PROCESS FOR ROUTINE MAINTENANCE (ROADS AND STREETS)

(a) Equipment to be used in routine maintenance should be such that are in compliance with the legislation applicable therein and the legislative framework herein.

(b) The team is to be comprised as per the recognized number of acceptable team in terms of …… (indicate the legislation governing the composition of teams for maintenance.

(c) The standard procedure for operating flagging entails alerting traffic, stopping traffic, allowing traffic to proceed, warm traffic during grass, to warn traffic during grass cutting, slowing down traffic at stop and go control points.

Quality Control Management entails smooth shoulder breakpoints and no steps being along shoulder break point. Standard operation sheet for treating surface edges entails roads works, excavation, backfilling and finishing off the works.

9. STANDARD OPERATION FOR ROAD SIGNS.

9.1. These are road furniture's erected along the road shoulder to provide information such as speed limits, information's, conditions of the road and warnings.

9.2. The signs should always be maintained and replaced so that there is appropriate information to guide traffic. Roads signs are removed or faded; existing road signs being outdated.

9.3. Road signs should always be visible and ensure that they provide accurate information. Repairs and replacement are done within four days after being reported or immediately if the place is very hazardous.

10. STANDARD OPERATION SHEET FOR GUARD RAIL ERECTION AND REPAIRS

10.1. Guard rails are stainless steel rails erected alongside road shoulder breakpoint in areas where fill is more than 2.0m high.

10.2. There are posted against wood poles which gets torn and damaged during accidents; the rails can also be bending during accidents.

10.3. These should be repaired timeously after incidents as they are erected in a very hazardous zone.

11. MAINTENANCE OF GRAVEL ROADS

11.1. Grading is a process whereby gravel road is shaped nicely with a motor grader to improve camber and reliability of a distressed gravel road.

11.2. The gravel road might be uneven and rough due to potholes, high corrugations and rutting because of poor drainage system.

11.3. This kind of road condition can be maintained by wetting and reshaping wearing course material with a grader then spreading the windrow as in normal grading to improve side drains, road surface as well as general condition of the road profile.

12. STANDARD OPERATION FOR MAINTENANCE OF DRAINAGE INFRASTRUCURES

12.1. The most extreme defects of road life span are poor drainage system or insufficient structures to cater for water to run off the road without damaging either layer works or surface.

12.2. The road can be designed to drain water efficiently but if the storm water infrastructure is not routinely maintained, it will result in overflooding which might subsequently lead to property damage.

13. GRASS CUTTING

13.1. Long grass along road reserve and shoulder break point might be potential to fire and poor sight distance as well as tripping of run off from flowing down stream.

13.2. The grass must be kept to an acceptable limit to minimize hazards identified above.

13.3. The grass can be cut manually by hand or using tractors depending on the length required to be cut. Long grass restricting sight distance, enclosing road signs along road reserve.

14. REVIEW AND UPDATING THE POLICY.

The policy will be reviewed annually or as and when required to incorporate changes in the legislative framework.