

INFRASTRUCTURE PROJECT MANAGEMENT POLICY



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1. PURPOSE OF POLICY

The purpose of this policy is to ensure that the benefiting communities are provided with a quality, cost effective infrastructure within reasonable time taking into consideration of the associated emerging risks and ensuring that they are incorporated in the contingency plans as they may arise.

2. OBJECTIVE OF POLICY

This policy is established as to comply with the repetitive findings by Auditor General and improve at glance project management quality as to gain community trust on the development of local sphere projects. It further cut across on the departments dealing with infrastructure projects.

3. SCOPE OF WORK

The following guidelines are provided to indicate which services would normally be provided and for which the guidelines fees would typically represent reasonable compensation. In agreeing the services and the **scope of work** to be carried out, the **client** and **consulting engineer** should review the services listed and delete or add as applicable and agree the related compensation.

3.1 Planning, Studies, Investigations and Assessments

These typical services relate to carrying out studies and investigations as well as the preparation and submission of reports embodying preliminary proposals or initial feasibility studies and will normally be remunerated on a time and cost basis.

- (1) Consultation with the client or client's authorized representative.
- (2) Inspection of the site of the project.
- (3) Developing a scope of work where required.
- (4) Preliminary investigation, route location, planning and a level of design appropriate to allow decisions on feasibility and the selection of the most desirable project option.

- 5) Assessments of existing built environment elements with a view to developing operations and maintenance options and strategies, informing capital project options and related scope of work as well as how to refurbish and/or integrate new **works** with existing works.
- (6) Consultation with authorities having rights or powers of sanction as well as consultation with the public and stakeholder groups.
- (7) Advise the client as to regulatory and statutory requirements, including environmental screening management and the need for surveys, analyses, tests and site or other investigations, as well as approvals, where such are required for the completion of the report, and arranging for these to be carried out at the client's expense.
- (8) Searching for, obtaining, investigating and collating available data, drawings and plans relating to the works.
- (9) Investigating financial and economic implications relating to the proposals or feasibility studies.
- (10) Clause (9) does not normally apply to civil and structural services on **Building Projects**, where these services are provided by a Quantity Surveyor, except as far as the interpretation of cost figures in respect of the Engineer's **scope of work** is concerned.

Deliverables will typically include:

- ☐ Collation of information.
- ☐ Reports on options and technical and financial feasibility and related implications.
- ☐ List of consents and approvals.
- ☐ Schedule of required surveys, tests, analyses, site and other investigations.

3.2 Normal Services

The services listed below are applicable to projects where the nature, form and function of the **project** has been defined through previous investigations and reports and the engineering services are required to take the **project** through to successful completion of construction.

In the case where only a single consulting engineer is appointed on a project the services and deliverables of the **principal consultant** listed in 3.3.6 are included as **normal services**. Where the required services extend through to stage 4, 5 and 6, the services of the **principal agent** defined under paragraph 3.3.8 are also included as **normal services** and must be agreed between the parties.

3.3 Financial Administration Services:

Unless otherwise agreed in writing prior to the commencement of any work, part of the normal services of the consulting engineer on all projects includes the provision of services related to all financial matters such as calculation of quantities, cost estimates, cost control and the procurement process. These services are shown in italics in Clauses 6.2 to 6.6 below.

The only exceptions, where financial services do not form part of the normal services of the consulting engineer are in the following cases:

☐ Structural and civil engineering services related to **building and multi-disciplinary projects**, and where such services form part of the quantity surveyor's scope of services.

Where the **civil and structural consulting engineer** is required to give assistance with such services, these shall be treated as an additional service remunerated on a time and cost basis,

☐ In the case of **building and multi-disciplinary projects** where the scope of works forms part of the principal building contract (for example a domestic subcontract) and where such financial administration services form part of the quantity surveyor's scope of services.

4 Policy Definitions

4.1 In this Schedule, any word or expression defined in the Act has that meaning, and, unless the context otherwise indicates:

(1) **“the agreement”** means the agreement signed by the **client** and **consulting engineer** that defines their relationship and obligations as well as the **scope of work** and **services** to be provided by the **consulting engineer** and the remuneration of the **consulting engineer** and related commercial terms;

(2) **“building and multi-disciplinary project”** means a project comprising building work or multi-disciplinary work, where the engineer is subject to the authority of another professional acting as the **principal consultant** or **principal agent** while financial and administrative matters may be dealt with by another professional and where the engineer is only paid a fee based on the costs of a portion of the works and has to attend project coordination meetings.

(3) **“client”**, means any juristic person or organ of the State engaging a **consulting engineer** for **services** on a **project**;

(4) **“construction monitoring”** means the process of administering the construction contract and over-seeing and/or inspecting the works, to the extent of the **consulting engineer’s** engagement, for the purpose of verification that the works are being completed in accordance with the requirements of the contract, that the designs are being correctly interpreted and that appropriate construction techniques are being utilized.

Construction monitoring, to whatever extent, shall not diminish the contractor’s responsibility for executing and completing the works in accordance with his contract;

(5) **“consulting engineer”**, for purposes of these rules only, means any suitably qualified person registered as a professional person in terms of Section 18 (1) of **the Act**, or a juristic person who employs such professional, engaged by a **client** on a **project**;

(6) **“contractor”** means any person or a juristic person under contract to a **client** to perform the **works** or part of it on a **project**, including a subcontractor under contract to such **contractor**;

(7) **“cost of the works”** means the total final amount (or a fair estimate thereof), exclusive of value added tax, certified or which would, normally, be certifiable for payment/ **contractors** (irrespective of who actually carries out the works) in respect of the **works** designed, specified or administered by the **consulting engineer**, before deduction of liquidated damages or penalties, including –

□ Escalation, assuming continuity of the project through to final completion. Where delays occur in the project cycle the client and consultant should come to an agreement on the escalation that will be applicable to various stages of services.

□ a pro-rata portion of all costs related to the **contractor** general obligations and overhead (preliminary and general) items, including contractor’s profit, applicable to the works;(irrespective of who actually carries out the works) and

□ the costs of new materials, goods or equipment, or a fair evaluation, of such material, goods or equipment as if new whether supplied new or otherwise by, or to, the client and including the cost or a fair evaluation of the cost of installation (the sourcing, inspection and testing of such will comprise additional services by the consulting engineer);

(8) **“electronic engineering services”** means services related to the provision of complex purpose designed electronic systems and detailing the terminations, signals and interconnections of electronic components as distinct from proprietary designed electronic systems and conventional electrical HV, MV and LV systems and related reticulation.

(9) **“engineering project”** means a project of which the scope comprises mainly engineering work.

(10) **“fee”** means the total of all the amounts paid to a consulting engineer including time based fees, percentage based fees, value based fees and fees for additional services and disbursements.

(11) **“industrial engineering services”** means services related to the integration of resources and processes into cohesive strategies, structures and systems for the effective and efficient delivery of quality goods and services.

(12) **“normal services”** means the services set out in clause 3.2;

(13) **“principal consultant”** means the entity appointed by the **client** to manage and administer the services of all consultants on **multi-disciplinary projects** where more than one professional service provider is appointed on a **project**. In

multi-disciplinary engineering projects where these services are provided they are often called "**Engineering Management Services**".

(14) "**principal agent**" means the entity, person, or professional services provider named or appointed with full authority and obligation to act in terms of the contract between the **client** and the **contractor**. Depending on the form of contract applicable, the term "agent", or "engineer", or "project manager" shall have the same meaning as "**principal agent**".

(15) "**project**" means any total scheme envisaged by a **client**, including all the **works** and **services** concerned;

(16) "**quality assurance plan**" is the plan that is put in place that represents the total of the contractor's quality control processes as well as other inspections and acceptance testing processes and related activities that are associated with assuring the **client** that there is an acceptably low risk that the works will not meet the requirements.

(17) "**scope of work**" means the portion of the **works** for which the consulting engineer is engaged.

(18) "**scope of services and/or services**" means the services contemplated in clause 3 on a **project** for which a **consulting engineer** is engaged;

(19) "**stage**" means a stage of **normal services** set out in clause 3.1;

(20) "**the Act**" means the Engineering Profession Act, 2000 (Act No. 46 of 2000);

(21) "**works**" means the activities on a **project** for which **contractors** are under contract to the **client** to perform or are intended to be performed, including the supply of goods and equipment;

5 Legal Frame work

- 1) Engineering Council of South Africa (ECSA) Guideline dated 04 December 2015
- 2) General Conditions of Contract Third Edition (2015)
- 3) Latest version of Joint Building Construction Committee
- 4) Latest version of Construction Industry Development Board (CIDB)
- 5) Project Management Book of Knowledge sixth edition (2017)
- 6) Municipal Systems Act 32 of 2000, Chapter 4
- 7) Occupational Health & Safety Act 85 of 1993

6. Policy or Procedure Targets

6.1 Stage 1 – Inception

6.2 Stage 2 – Concept and Viability (also termed Preliminary Design)

(Defined as: Prepare and finalise the project concept in accordance with the brief, including project scope, scale, character, form and function, plus preliminary programme and viability of the project)

6.3 Stage 3 – Design Development (also termed Detail Design)

(Defined as: Develop the approved concept to finalise the design, outline specifications, cost plan, financial viability and programme for the project)

6.4 Stage 4 – Documentation and Procurement

(Defined as: Prepare procurement and construction documentation, confirm and implement the procurement strategies and procedures for effective and timeous procurement of necessary resources for execution of the project.)

6.5 Stage 5 – Contract Administration and Inspection

(Defined as: Manage, administer and monitor the construction contracts and processes including preparation and coordination of procedures and documentation to facilitate practical completion of the works)

6.6 Stage 6 – Close-Out

(Defined as: Fulfil and complete the project close-out including necessary documentation to facilitate effective completion, handover and operation of the project)

- (1) Inspect and verify the rectification of defects

6.7 Additional Services

The following services are additional to the normal services provided by the **consulting engineer**, unless specifically agreed otherwise between the **consulting engineer** and the **client**.

The agreement on the services and remuneration shall be in writing and should, if at all possible, be concluded before such services are rendered.

Additional Services pertaining to all Stages of the Project

- (1) All services related to defining the scope of work that are normally paid for on a time and cost basis.
- (2) Enquiries not directly concerned with the works and its subsequent utilisation.
- (3) Valuation for purchase, sale or leasing of plant, equipment, material, systems, land or buildings or arranging for such valuation.
- (4) Making arrangements for way leaves, servitudes or expropriations.
- (5) Negotiating and arranging for the provision or diversion of services not forming part of the works.
- (6) Additional work in obtaining the formal approval of the appropriate Government Departments or Public Authorities and Utilities, including the making of such revisions as may be required as a result of decisions of such Departments or Authorities arising out of changes in policy, undue delay, or other causes beyond the consulting engineer's control.
- (7) Additional work related to monitoring as required by any Government Departments or Authorities in order to facilitate regulatory approvals and certification (e.g. Mines Health and Safety Act 29 of 1996).
- (8) Topographical and environmental surveys, analyses, tests and site or foundation or other investigations, model tests, laboratory tests and analyses carried out on behalf of the client.
- (9) Setting out or staking out the works and indicating any boundary beacons and other reference marks.
- (10) Preparation of drawings for manufacture and installation or detailed checking of such for erection or installation fit.
- (11) Detailed inspection, reviewing and checking of designs and drawings not prepared by the consulting engineer and submitted by any contractor or potential

contractor as alternative to those embodied in tender or similar documents prepared by the consulting engineer.

- (12) Travel/ accommodation and travel time costs related to offsite inspection and testing of materials and plant during manufacture and/or prior to delivery to site.
- (13) Preparing and setting out particulars and calculations in a form required by any relevant authority.
- (14) Abnormal additional services by, or costs incurred by the consulting engineer due to the failure of a contractor or others to perform their required duties adequately and on time.

7 GENERAL POLICY PROVISIONS

This policy will be utilised in line with the latest Engineering Council of South Africa, General Conditions of Contract for construction work and Joint Building Construction Committee

8 PROCEDURES FOR IMPLEMENTING POLICY

This policy shall be implemented and effective once approved by Council as set conditions above.

POLICY GOVERNANCE

INFRASTRUCTURE PROJECT MANAGEMENT POLICY

Policy Governance

Policy Title	<i>PROJECT MANAGEMENT POLICY</i>	
Policy Version	REVISION No.0	
<u>Role & Process</u>	<u>Responsible Individual</u> <u>Name and/or Date</u>	<u>Responsibility</u> <u>Accepted</u> <u>Signature</u>
<i>Senior Manager:</i> <i>Infrastructure Services</i>		

Policy Custodian	S.M Infrastructure	
Policy Author	PMU Manager	
Council Approval Date		
Council Approval Reference		
<i>PMU Unit</i>		
Policy Approved		
Policy Inception Date		
Review Start Date		
Review Completion Date		
Legislative References		
Policy Review "Triggers"		
<i>Comments</i>		