LEGAL NOTICE NO. …….

THE ENGINEERS ACT, 2011

(No. 43 of 2011)

ARRANGEMENT OF REGULATIONS

Regulation

Fifth Schedule—Typical percentage charges in building projects
Sixth Schedule—Typical percentage charges in projects that are predominantly structural engineering in nature and scope
Seventh Schedule—Percentage charges in projects that are predominantly mechanical engineering in nature and scope
Eighth Schedule—Percentage charges in projects that are predominantly civil engineering in nature and scope
Ninth Schedule—Percentage charges in projects that are predominantly electrical, electronic and telecommunications engineering in nature and scope
Tenth Schedule—Percentage charges in projects that are predominantly agricultural and chemical engineering in nature and scope
Eleventh Schedule—Percentage charges in projects that are predominantly marine engineering in nature and scope
Twelfth Schedule—Percentage charges in projects that are predominantly mining engineering in nature and scope
Thirteenth Schedule—Percentage charges in projects that are predominantly aerospace engineering in nature and scope
Fourteenth Schedule—The minimum fees payable with regard to the stage(s) of work
Fifteenth Schedule—The minimum fees payable with regard to the stage(s) of work where the professional engineer is required to design and document but services don't include construction supervision
Sixteenth Schedule—The minimum fees payable with regard to the stage(s) of work where the professional engineer is required to conduct review of the design and documentation but services don't include construction supervision
Seventeenth Schedule—Engineers' Time Charge Minimum Rates
Eighteenth Schedule—Engineering consultancy services and typical deliverables by lead consultants
Nineteenth Schedule—Appointment of professional engineer as the principal agent of the client
Twentieth Schedule—Categories of engineers for which time-based fees shall apply
Twenty-first Schedule—Engineering disciplines

THE ENGINEERS ACT, 2011

(No. 43 of 2011)

IN EXERCISE of the powers conferred by section 58 (d) of the Engineers Act, 2011, the Engineers Board of Kenya, with the approval of the Cabinet Secretary for Transport, Infrastructure, Housing, Urban Development and Public Works, makes the following Rules—

THE ENGINEERS (SCALE OF FEES FOR PROFESSIONAL ENGINEERING SERVICES) RULES, 2021

PART I—PRELIMINARY

Citation.

1. These Rules may be cited as the Engineers (Scale of Fees for Professional Engineering Services) Rules, 2021.

Interpretation.

2. In these Rules unless the context otherwise requires—

No. 43 of 2011.

"Act" means the Engineers Act, 2011;

"contractor" means any person, firm or company engaged under a contract with the client to perform any work or to supply goods in connection with the works or both, and includes a sub-contractor;

"engineer" has the meaning assigned to it in section 2 of the Act;

"engineering discipline" includes—

(a) aerospace engineering services;

(b) agricultural engineering services;

(c) biomedical or medical engineering services;

(d) chemical engineering services;

(e) civil and structural engineering services;

(f) electrical engineering services;

(g) electronic and telecommunications engineering services;

(h) marine engineering services;

(i) mechanical engineering services;

(j) mechatronic engineering;

(k) mining engineering services; and

(l) any other engineering discipline as may be determined by the Board;

"engineering systems" include any engineering services, which are outside the direct ambit of the conventional civil, structural, mechanical and electrical engineering services, such as but not limited to; lifts, escalators and other transportation systems in buildings, security systems, access control, structured cablings and other ICT systems, video conferencing, public address systems and other telecommunication systems; generators, electrical sub-stations, solar and other renewable energy sources, integrated building/parking management systems, extensive civil works etc;

"firm" has the same meaning assigned to it in section 2 of the Act;

"project" means the project of which the works form a part;

"professional engineering services" means engineering services and advice in connection with any feasibility study, planning, survey, design, sketch, drawing, specifications, construction, commissioning, operation, maintenance, supply of specialized engineering equipment and management of engineering works or projects and includes any other engineering services approved by the Board;

"record drawings, as-installed drawings or as-built drawings" means—

(a) drawings, prepared by the contractor for approval by the professional engineer, which show clearly the general scheme and the details of the engineering system in the Project as completed such as all aspects and details of the engineering works as carried out by the contractor, including schematics, diagrams, with the correct dimensions, routes and arrangement; and

(b) comprehensive labelling of all cables, switch and control gear, control or power distribution cables must be provided. In addition, all required operating instructions of all panels, boards, control panels and equipment and others as required, must be submitted;

"stage" means a stage of standard professional engineering services set out in Part III of these Rules;

"tender drawings" means the drawings prepared by the professional engineer with sufficient detail to enable those persons tendering to interpret correctly the design of the works and to submit competitive bids for the execution of the works;

"working drawings" means the drawings, prepared by the contractor for approval by the professional engineer, which shows details of the contractor's proposals for the execution of the engineering project; and

"works" means—

(a) 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 materials, goods and equipment; and

(b) the works in connection with which the client has engaged the professional engineer to perform professional services.

Scope.

3. These Rules shall apply to professional engineering services offered by an engineer or a firm.

Object of the Rules.

4. The object of these Rules is to—

(a) prescribe the framework for determining minimum fees by an engineer or a firm;

(b) prescribe the minimum fees chargeable by an engineer or a firm for professional engineering services;

(c) prevent the undercutting of fees by and among engineers and firms who offer professional engineering services; and

(d) ensure the provision of quality professional engineering services by engineers and firms and, thereby, ensure the safety and welfare of the public and enhancement of socio-economic development of Kenya.

Application of scale fees.

5. (1) An engineer or a firm shall not be paid less than the fees specified in these Rules.

(2) The fees payable under these Rules shall be determined by taking into account the following—

(a) project complexity;

(b) monetary value of the works;

(c) duration of the project;

(d) level of risk and responsibility of the engineer or firm;

(e) level of skills, experience and expertise required;

(f) technology required;

(g) duplication of works, if any;

(h) client's requirements; and

(i) scope of the project.

PART II—STANDARD PROFESSIONAL ENGINEERING SERVICES

Inception stage.

6. (1) For projects where the nature, form and function of the facility has not been defined through previous investigations, professional engineering services at the inception stage of the project include—

(a) consultations with the client or the client's authorised representative;

(b) conducting site investigations of the proposed project;

(c) carrying out preliminary investigations, route location, planning and a level of design appropriate to allow decisions on feasibility;

(d) consultations with any local or approving authorities, the public and stakeholder groups in connection with the proposed works;

(e) advising the client on any statutory and regulatory requirements and approvals, environmental management, surveys, investigations and analysis and any reports that may need to be submitted; and

(f) conducting searches to obtain and collate data, drawings and plans relating to the works.

(2) Key deliverables for professional engineering services under subrule (1) are reports on—

(a) technical and financial feasibility and related implications;

(b) consents and approvals; and

(c) information on the project.

(3) For projects where the nature, form and function of the facility has been defined through previous investigations and reports, the professional engineering services at the inception stage of the project include—

(a) investigating data and information relevant to the works and considering any reports relating to the works;

(b) the development of a clear project brief including project objectives, priorities, constraints, assumptions, and strategies;

(c) advising the client on the procurement strategy of the project and criteria that could significantly influence the project lifecycle cost;

(d) advising the client on the required rights, consents and approvals;

(e) defining the scope of works and services of the project through site inspections, surveys, analyses, tests and other similar investigations;

(f) determining the necessary information available for the project such as data, drawings, and plans; and

(g) concluding the terms of agreement with the client.

(4) The key deliverables for professional engineering services under subrule (3) are—

(a) a signed agreement with the client;

(b) an agreement with the client on the scope of works and services; and

(c) a report on project requirements.

Preliminary design stage.

7. (1) In the preliminary stage, the engineer or firm shall be responsible for preparing and finalising the project concept in

accordance with the brief, including project scope, scale and function including preliminary programme.

(2) Professional engineering services at the preliminary stage include the—

(a) establishment of the concept design criteria;

(b) preparation of the initial concept design and related documentation, process designs and preliminary designs for approval by authorities and the client, and for costing;

(c) advising the client on further or special analyses, surveys, tests and in-depth investigations required to supplement the available information;

(d) arranging for investigations, and certifying the amount of any payments to be made by the client to persons, firms or companies carrying out the investigations under the engineer's or firm's direction, and advising the client on the results of the investigations;

(e) establishing the access, utilities, services and connections required for the design;

(f) determining any projects' risks and establishing mitigation measures;

(g) establishing local authorities' or regulatory authorities' requirements and incorporate the requirements into the design to ensure conformity;

(h) co-ordinating design interfaces with any other consultants involved in the project;

(i) consulting the lead consultant, if any, appointed by the client in connection with the overall direction of the project and documentation programme; and

(j) liaising, co-operating and providing the necessary information to the client, lead consultant and other consultants involved to enable the client consider the professional engineer's proposals including cost estimates and life cycle costs as required, with alternative proposals.

(3) Key deliverables include at the preliminary design stage include—

(a) concept design;

(b) preliminary design;

(c) cost estimates; and

(d) reports on investigations or surveys.

Detailed design stage.

8. (1) In the detailed design stage, the engineer or firm shall develop the approved concept to finalise the design, outline specifications, cost plan, financial viability and programme for the project.

(2) Professional engineering services at the preliminary stage include—

(a) conducting a review of the documentation programme with the lead consultant and other consultants involved;

(b) incorporating the clients' and authorities' detailed requirements into the design;

(c) incorporating any other consultants' designs and requirements into the design;

(d) preparing the design development drawings including technical details and specifications;

(e) computing the cost of any risks involved and the risks' implications on the project;

(f) preparing detailed estimates of project implementation costs;

(g) liaising, co-operating and providing necessary information to the lead consultant and other consultants involved; and

(h) submitting the required design documentation to local authorities and regulatory authorities for approval.

(3) Key deliverables at the detailed design stage include—

(a) detailed design drawings, and in the case of final detailed design drawings, the designs shall be stamped and signed by the design engineer and professional engineer;

(b) clear and complete contract drawings, schedules and bills of quantities;

(c) project specifications;

(d) local authorities' and regulatory authorities' submission drawings and reports; and

(e) detailed estimates of project costs.

Tender stage.

9. (1) During the tender stage, the engineer or firm shall provide the following professional engineering services—

(a) checking cost estimates and adjusting designs and documents where appropriate to remain within the budget agreed with the client;

(b) the formulation of the procurement strategy for contractors or assisting the lead consultant in the formulation of the strategy, where applicable;

(c) the preparation of tender drawings or documentation for procurement;

(d) the review of designs, drawings and schedules in accordance with the approved budget;

(e) assisting the client in calling for tenders, negotiation of prices, or assisting the lead consultant in calling for tenders or negotiating prices, where applicable.

(f) assisting the client in tender evaluation;

(g) advising the client on, and preparing, formal contract documents including the letter of acceptance for carrying out the works or any part of them; and

(h) the assessment of samples and products for compliance and the design intent.

(2) Key deliverables during the tender stage include—

(a) specifications and stamped working drawings;

(b) tender documentation including priced tenders;

(c) tender evaluation reports and recommendations; and

(d) priced contract documentation.

Contract administration stage.

10. (1) The professional engineering services offered by an engineer or a firm at the contract administration stage include—

(a) witnessing the site handover;

(b) issuing project documentation in accordance with the documentation schedule;

(c) examining and approving the contractor's proposals and working drawings relating to the works;

(d) carrying out contract administration procedures in terms of the contract;

(e) attending site, technical and progress meetings;

(f) inspecting works for conformity with the contract;

(g) witnessing and reviewing inspections, tests and mock-ups carried out on-site and off-site;

(h) preparing schedules of predicted cash flow and proactive estimates of proposed variations for client decision-making;

(i) maintaining roper and accurate records of site activities;

(j) advising the client on special inspections and the appointment of site staff;

(k) preparing any further designs and drawings relating to the works;

(l) establishing and maintaining a financial control system;

(m) making such visits to the site as may be necessary to ascertain the performance of site staff and that the works are executed generally according to contract or in accordance with good engineering practice;

(n) giving all necessary instructions relating to the works to the contractor;

(o) preparing and issuing all certificates as may be required in the contract;

(p) performing any duties which the engineer or firm may be required to perform under any document that the engineer or firm has prepared for the execution of the works;

(q) preparing or approving the as-built record, as necessary;

(r) adjudicating and resolving contractual or financial claims by the contractor;

(s) delivering to the client such records and manufacturer's manuals, guarantee certificates and warranties as are reasonably necessary to enable the client to operate and maintain the works on completion;

(t) inspecting the works and issuing practical completion and defects lists;

(u) arranging for the delivery of all test certificates including electrical certificates of compliance, statutory and other approvals, as-built drawings and operating manuals; and

(v) deciding any dispute or difference arising between the client and the contractor in connection with the works and submitted to the engineer or firm for determination:

Provided that the engineer or firm shall not be responsible for advising the client if the client takes any steps in or towards any arbitration or litigation in connection with the works.

(2) Key deliverables during the contract administration and construction stage include—

(a) construction documentation and schedules of predicted cash flow;

(b) contract instructions;

(c) estimates for proposed variations and variations for payment certificates;

(d) minutes of site meetings;

(e) progress reports;

(f) project completion report;

(g) defects list;

(h) certificates of compliance; and

(i) financial control reports.

Close-out stage.

11. The professional engineering services offered by an engineer or a firm at the close-out stage include—

(a) conducting inspections and verification of defects;

(b) receiving, commenting and approving relevant payment valuations and completion certificates;

(c) preparation or acquisition of operations and maintenance manuals, guarantees and warranties;

(d) preparation or acquisition of as-built drawings and documentation;

(e) preparation of project final accounts; and

(f) preparation and issuance of the project completion report.

PART III—ADDITIONAL PROFESSIONAL ENGINEERING SERVICES

Additional professional engineering services of a general nature.

12. The additional professional engineering services to be provided by an engineer or firm, if requested or consented to by the client, include—

(a) enquiries not directly concerned with the works and its subsequent utilisation;

(b) preparing any report or other additional documents required for consideration of proposals for the carrying out of alternative works;

(c) carrying out work in connection with any additional application made by the client for any order, sanction, licence, permit or other consent, formal approvals, or authorisation necessary to enable the works to proceed including the making of such revisions as may be required as result of changes in policy, undue delay, or other causes beyond the engineer's or firm's control;

(d) carrying out works and services arising from the failure of a client, contractor or any other relevant person to perform the required duties adequately and in a timely fashion;

(e) additional services, duties or work resulting from project scope changes, alterations or instructions by the client, or the client's duly authorized agents, requiring the engineer or firm to advise upon, review, adapt or alter completed designs or any other documentation or change the scope of services or duties;

(f) checking and advising on any part of the project not designed by the engineer or firm or reviewing the work of another engineer or firm;

(g) preparing interim or other reports or detailed valuations including estimates or cost analysis based on measurement or forming an element of a cost planning service;

(h) carrying out detailed inspection, reviewing and checking of designs and drawings, preliminary estimates for works not prepared by the engineer or firm and submitted by architects, quantity surveyors, contractors and other parties other than those contained in tender or similar documents prepared by the engineer or firm;

(i) carrying out any works after abandonment of a contract by the contractor or upon the failure of the contractor to properly perform any contract or upon delay by the client in fulfilling his obligations or in taking any other step necessary for the due execution of the works;

(j) advising the client and carrying out works after taking any steps in or towards any litigation or arbitration relating to the works;

(k) negotiating any contract or sub-contract with a contractor selected other than by competitive tendering including checking and agreeing on the quantities and net costs of materials and labour, arithmetical checking and agreeing on the added percentages to cover overhead costs and profit;

(l) providing project management services or construction management services;

(m) carrying out special cost investigations or detailed valuations including estimates or cost analysis based on measurement or forming an element of a cost planning service;

(n) preparing drawings for manufacture and installation or detailed checking of such for erection or installation of works as well as detailed operation and maintenance manuals and other documents describing the design and operation of the works;

(o) preparing builder's work drawings, record drawings or any detailed schedules where necessary; and

(p) any other additional services of whatever nature specifically agreed to in writing between the engineer or firm and the client.

Additional professional engineering services of a specialist nature.

13. An engineer or firm may provide additional professional engineering services of a specialist nature including—

(a) obtaining specialist technical advice on any abnormal aspects of the works;

(b) investigations on the nature and strength of existing works and the making of model tests or special investigations;

(c) obtaining architectural, legal, cost consultancy, financial and other professional services for the client;

(d) providing services in connection with the valuation, purchase, sale or leasing of land and the obtaining of wayleaves;

(e) geotechnical and geospatial services, 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;

(f) carrying out special inspections or tests as may be recommended by the professional engineer; and

(g) carrying out commissioning procedures or performance tests.

On-site supervision.

14. (1) The engineer or firm shall be in full control of, and be responsible for, the supervision of the works on-site.

(2) If, in the opinion of the engineer or firm, the nature of the works under rules 13 (e) and (f) warrants full-time or part-time on-site supervision in addition to the site visits made by the engineer or firm, the engineer or firm shall—

(a) advise the client of the fact; and

(b) advise the client of the desired qualifications and experience which the site staff shall possess.

(3) All site staff shall be under the control of, and take instructions from, the engineer or firm only.

Construction monitoring.

15. (1) If the construction monitoring is deemed to be insufficient by the engineer or firm, the engineer or firm may, with the prior written consent of the client, appoint or make available additional staff for such construction monitoring as are necessary to the extent specifically defined and agreed with the client.

(2) The additional staff shall report to and take instructions from the engineer, firm or an authorized representative of the engineer or firm only, and shall be deemed to be in the employ of the engineer or firm.

(3) Where any changes regarding the persons utilized for additional on-site monitoring or their remuneration is necessary, the utilization of such persons or their remuneration shall be agreed to in writing with the client prior to the implementation of the changes.

(4) If, for any reason, no additional staff or inadequate staff for construction monitoring is appointed, the engineer or firm shall provide additional services, including additional site visits, as required and agreed to in writing with the client before commencement thereof.

Duties of the professional engineer during construction monitoring.

16. The duties of the engineer or firm for the following four defined levels of construction monitoring, respectively, shall be as follows—

(a) at Level 1—

(i) monitoring the outputs from any other party's quality assurance programme against the requirements of the plans and specifications;

(ii) visiting the works at the frequency agreed to with the client to review important materials, critical work procedures or completed elements or components; and

(iii) being available to advise the contractor on the technical interpretation of the plans and specifications;

(b) at Level 2—

(i) promptly review a sample of each important work procedure or construction material for compliance with the requirements of the plans and specifications;

(ii) samples of important completed works before enclosure or completion as appropriate;

(iii) visit the works at the frequency agreed to with the client to review important materials, critical work procedures or completed elements or components; and

(iv) be available to provide the contractor with technical interpretation of the plans and specifications;

(c) at Level 3—

(i) maintain a part-time presence on site as agreed with the client to review random samples and review important completed work prior to enclosure or on completion as appropriate

(ii) where the engineer or firm is the sole consultant or principal agent, carry out such administration of the project as is necessary on behalf of the client

(iii) be available to provide the contractor with technical interpretation of the plans and specifications;

(d) at Level 4—

(i) maintain a full-time on-site presence to review work procedures, construction materials for compliance with the requirements of the plans and specifications, and completed work before enclosure or on completion as appropriate;

(ii) where the engineer or firm is the sole consultant or principal agent, carry out such administration of the project as is necessary on behalf of the client; and

(iii) be available to provide the contractor with technical interpretation of the plans and specifications.

Occupational safety and health duties.

17. Where the client requires the engineer or firm to undertake duties relating to any provisions of the Occupational Safety and Health

No. 15 of 2007.

Act, 2007, and any other relevant Regulations on behalf of the client, the additional professional services may include—

(a) arranging, formally and in writing, for the contractor to provide documentary evidence of compliance with all the requirements of the Occupational Safety and Health Act, 2007; and

(b) the execution of the duties of the client, as the client's appointed agent, as contemplated in the Occupational Safety and Health Act, 2007.

Quality assurance system.

18. (1) Where the client requires that a quality management system or quality assurance services in addition to the construction monitoring services be applied by the engineer or firm to the project, the additional services shall be in addition to the standard services provided by the engineer or firm.

(2) The client and engineer or firm shall define and separately agree to in writing on the provision of a quality management system or quality assurance services.

(3) The quality management system or quality assurance services may include conducting of technical and financial audits of an ongoing or already commissioned project.

Lead professional engineer.

19. Where the client has appointed more than one engineer or firm and appoints one engineer or firm to lead the other engineers or firms so appointed, the lead engineer or firm may provide the following services—

(a) responsibility for the overall administration of all sections of professional services provided by the team including parts of the services which fall within the ambit of the other engineers or firms;

(b) responsibility for the overall co-ordination, programming of design and financial control of all the works included in the services; or

(c) processing certificates or recommendations for payment of contractors.

Engineering management services.

20. (1) For the purposes of this rule, "engineering management" means the application of management principles to the engineering practice including technical problem-solving ability of engineering and the organizational, administrative and planning abilities of management for the purpose of overseeing the operational performance of a complex engineering-driven enterprise or project.

(2) Where the client requires the engineer or firm to undertake duties of an engineering management nature on behalf of the client, the additional services and respective deliverables shall be in accordance with the Eighteenth Schedule.

Dispute resolution.

21. Where the client requires the engineer or firm to, on the client's behalf, offer professional services relating to dispute resolution, the extent of, and fees for the services, shall be as agreed to between the client and the engineer an firm subject to these Rules.

Principal agent of the client.

22. (1) A client may appoint an engineer or firm as the principal agent of the client for the purposes of project management.

(2) An engineer or firm appointed under subrule (1) shall be responsible for the services specified in the Nineteenth Schedule and the deliverables thereof.

PART IV—SCALE FEES FOR STANDARD PROFESSIONAL ENGINEERING SERVICES

Determination of scale fees.

23. (1) The following factors may be taken into considering when determining the fees for professional engineering services—

(a) project complexity;

(b) monetary value of the works;

(c) the duration of the project;

(d) the level of risk and responsibility;

(e) the level of skills, experience and expertise required;

(f) the technology required;

(g) any duplication of works;

(h) the client requirements; and

(i) the scope of the project.

(2) Subject to the factors in rule 23(1), the client and engineer or firm shall agree on the applicable fees at the time of the engagement of the engineer or firm or as soon as possible thereafter, but in all cases prior to the engineer or firm rendering any services to the client.

(3) Where the standard professional engineering services required on a project relate to more than one engineering discipline, a separate fee for the services in each discipline shall be agreed on between the client and engineer or firm.

(4) The fees for services shall be set out in writing in the agreement between the client and the engineer or firm and agreed on in any of the following ways—

(a) percentage fee based on the cost of works or cost of the project;

(b) fees for additional professional engineering services in addition to fees charged for the standard professional engineering services;

(c) time-based fees calculated in man-hours or man-months; or

(d) reimbursable expenses.

(5) In a case where the scope of works is uncertain, the fees shall be based on time and reimbursable expenses.

(6) In the case where the location, size and nature of the works has been previously defined through previous investigations that have formed part of the client's normal practise or have been the subject of previous separate engagements paid for on a time and cost basis, the fees may be determined using schedules based on the cost of the works or cost of the project

(7) In the case where the application of schedules under subrule (6) would not be appropriate, the fees may be determined as time-based.

Minimum fees for standard professional engineering services.

24. The engineer or firm, in performing the standard professional engineering services specified in Part III of these Rules, shall be paid in accordance with one or a combination of the modes of remuneration provided for in rule 23 (4), taking into account the different stages or parts of the project.

Payment to be based on the cost of works.

25. (1) The actual percentage fee that is applicable shall depend on the general factors applicable to all project types outlined in the First Schedule and specific factors applicable to each project type.

(2) The fee paid to the engineer or firm shall be an amount equal to the product of the total cost of the works or the cost of the project and the percentage determined from the scale of fees set out in the Second Schedule.

(3) This rule shall not apply to supervision, which shall be on full fees as determined under the relevant Schedule.

Minimum fees for engineering projects.

26. (1) The minimum fees for standard professional engineering services in the different engineering disciplines pertaining to engineering projects shall be determined based on the nature and scope of the projects.

(2) The minimum fees determined under subrule (1) shall be for specific cost of works in respect of which the services were rendered on the project but shall not include costs related to the report stages specified under Part III which shall be reimbursed on a time basis in accordance with rule 23 (7).

(3) All costs of works in respect of which the services are shall not include reimbursable expenses by the professional engineer.

(4) For standard professional engineering services relating to a description of the works mentioned in the first column of the Third Schedule, the proportion of the basic fee relating to the specific item calculated in terms of this rule shall be multiplied by the category factor mentioned against that description in the second column of Third Schedule.

(5) Subrule (4) shall apply to all other works but not the works specified in the Fourth Schedule.

(6) For professional services relating to building projects, where the building units are based on one design for which one set of drawings and specifications can be reused without alteration or with only minor modification, the fees shall reduce in accordance with the Fourth Schedule.

(7) Subrule (6) shall not apply to supervision which shall be on full fees as calculated using the relevant Schedule.

Professional fees under engineering disciplines.

27. (1) The professional fee for professional services rendered under an engineering discipline for an engineering project shall be determined in accordance with the Fifth, Sixth, Seventh, Eighth, Ninth, Tenth, Eleventh and Twelfth Schedules.

(2) With regard to electrical services, mechanical services and civil engineering services where the interior fit-out, large-scale housing projects and extensive civil works respectively are required as part of the services, rule 26 and the Third Schedule shall apply:

Provided that the percentage shall be at least four per cent of the cost of the project, depending on the engineering discipline.

Engineering discipline.

28. The engineering services that comprise engineering disciplines shall include the services and activities specified in the Twenty-first Schedule.

Services provided partially or in stages.

29. (1) For the purpose of this rule—

"cost of works" means the fair estimate amount or value of the works at the onset inclusive of value added tax and all applicable taxes, as certified or which would, normally, be certifiable for payment to contractors (irrespective of who actually carries out the works) in respect of the works designed, specified or administered by the professional engineer, before deduction of liquidated damages or penalties, including—

(a) escalation, assuming continuity of the project through to completion where delays occur in the project cycle the client and the professional engineer should come to an agreement on the escalation that will be applicable to various stages of services;

(b) a *pro rata* portion of all preliminary and general items applicable to the works; and

(c) the cost of new materials, goods or equipment, or a fair valuation of any labour, 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,

but does not include—

(i) administration expenses incurred by the client;

(ii) costs incurred by the client under the agreement between the client and the professional engineer for professional engineering services for the works;

(iii) salaries, travelling, out of pocket and office expenses of resident site staff, unless the works are carried out by direct labour;

(iv) interest on capital during construction, and cost of raising moneys required for carrying out the construction of the works;

(v) cost of land and way leaves;

(vi) external services designed, documented and supervised by others including power and water authority mains; and

"cost of the project" means all costs of all elements of the project including value added tax.

(2) The fees for professional services rendered over more than one stage of a project shall be apportioned in accordance with the Fourteenth Schedule.

(3) Notwithstanding subrule (2), the percentage used shall be adjusted for each stage through negotiation based on the work involved in each stage, the value added in each stage and any commercial considerations.

(4) Interim payments shall be calculated on basis of the cost of works or any portion thereof or the cost of the project, but before allowing for any modifications to the design by the client after approval.

(5) For the purpose of calculating fees for interim payments under subrule (4) for design stage services, the cost of works or cost of the project shall be the professional engineers' reasonable estimate of the value of the works designed after deducting contingency sums and provisional sums.

(6) Where not all the stages of the standard professional engineering services are provided for by the professional engineer, the fee is, subject to rule 26, calculated as a percentage of the total fees calculated under this rule, which percentage is the sum of the percentage points appropriate to each stage as set out in the Fifteenth Schedule or Sixteenth Schedule for the respective stages of the project.

(7) Where the professional engineer is be required to conduct supervision during implementation of the project, the fees charged shall be time-based.

Time-based fees.

30. (1) Time based fees shall—

(a) be inclusive of all fees charged by the professional engineer; and

(b) incorporate allowances for—

(i) overhead charges incurred by the professional engineer as part of normal business operations;

(ii) the payroll costs of all technical staff including management;

(iii) payments to administrative, clerical, and secretarial staff used to support professional and technical staff; and

(iv) all other costs incurred by the business in general and not on a specific project only.

(2) Time-based fees may be calculated on hourly basis, daily basis or monthly basis as provided for the categories of engineers specified in the Twentieth Schedule.

(3) The minimum applicable time-based fee under the Seventeenth Schedule and shall be applied as follows—

(a) hourly rates shall be applicable for projects with a total input not exceeding forty hours or one week;

(b) daily rates shall be applicable for projects with a total input between forty hours and two hundred hours; and

(c) monthly rates shall be applicable for projects exceeding two hundred hours.

PART V—FEES FOR ADDITIONAL PROFESSIONAL ENGINEERING SERVICES

Fees for additional professional engineering services.

31. The fees for an engineer or firm who renders any of the additional professional services under Part IV of these Rules shall be determined as follows—

(a) the input of partners and consultants shall be paid at the hourly rate or rates agreed between the client and the engineer or firm;

(b) the time spent by partners, consultants, technical and supporting staff in travelling in connection with additional professional engineering services shall be paid as provided in rule 31; and

(c) the engineer or firm shall not be entitled to any payment in respect of time spent by secretarial staff or by staff engaged on general accountancy or administration duties in the engineer's or firm's office.

PART VI—OTHER PAYMENTS FOR PROFESSIONAL ENGINEERING SERVICES

Reimbursable expenses.

32. (1) Minor disbursements shall be charged at the minimum rate of eight per cent of the professional fees and include—

(a) local telecommunication costs;

(b) long distance telecommunication costs;

(c) routine production of drawings and documents;

(d) local travel expenses within a radius of twenty-five kilometres from the engineer's or firm's registered office;

(e) courier and messenger services;

(f) standard software and computer costs; and

(g) office supplies.

(2) Other disbursements shall be charged at the minimum rate of ten per cent of the professional fees and include—

(a) travel expenses for travel outside the local area by appropriate means;

(b) living expenses for personnel engaged in the project;

(c) project-related advertising costs;

(d) specialised project-specific computer software or services;

(e) use of specialised equipment;

(f) testing services;

(g) approvals, permits, licenses and specific tasks applied to fees;

(h) project-specific insurance, if required by the client;

(i) any other third-party expenses paid by the engineer or firm on the client's behalf; and

(j) production of tender documents and other non-routine documents.

(3) Sub-consultant expenses shall be charged at cost of the engineer's or firm's fees plus five per cent.

(4) The client and engineer or firm shall review the projected expenses before the start of the project and agree on the applicable disbursements category and reimbursement method.

Preparation of bills of quantities in building works

33. The following fees shall be applicable for the preparation of bills of quantities by engineers or firms in respect of building works—

(a) for taking out and preparing bills of quantities—

(i) in the case of new works, the rate shall be two-point-five per cent of the cost of the works; and

(ii) in the case of alteration works, the rate shall be three-point-five per cent of the cost of the works;

(b) for measuring and making up accounts of variations upon contracts including pricing and agreeing totals with contractors or subcontractors, the rate shall be—

(i) three per cent of the gross amount of the addition; and

(ii) one-point-five per cent of the gross amount of omission less the total of the provisional sums omitted or work omitted as a whole;

(c) for measuring from drawings and specifications and preparing bills of quantities of labour only or materials only, the fee shall be charged at twice the rate prescribed in subrule (a);

(d) for pricing of bills of quantities, the rate shall be zero-point-five per cent of the cost of works;

(e) for preparing approximate quantities and estimating upon the same, the rate shall be zero-point-five per cent of the cost of the works;

(f) for surveying work in progress, taking particulars and reporting for interim payments, the rate shall be zero-point-five per cent upon each valuation, less the amount of any previous valuations upon which fees shall have been paid;

(g) for taking particulars on-site and writing specifications for works of alteration or repair, the rate shall be seven-point-five per cent of the cost of works;

(h) for measuring from completed works and preparing bills of quantities, the rate shall be three per cent of the cost of works;

(i) for preparing a full cost analysis, the rate shall be zero-point-five per cent of the cost of works; and

(j) for preparing and giving information to another professional consultant to enable him or her to incorporate the engineering services quantities in the main bills of quantities, the rate shall be one-point-five per cent of the cost of works.

Payment for alteration or modification of designs.

34. If, after the completion of the inception stage under rule 6, any design whether completed or in progress or any specifications, drawings or other documents prepared in whole or in part by the professional engineer is required to be modified or revised on instructions from the client, or by reason of circumstances which could not reasonably have been foreseen by the engineer or firm, the engineer or firm shall be paid—

(a) an additional fee by the client in accordance with rule 26 (2) calculated in accordance with the Third Schedule; and

(b) any appropriate reimbursements as specified in rule 31.

Payment for site supervision.

35. The engineer or firm shall, in additional to any other fees, be reimbursed by the client for—

(a) payroll costs incurred by the engineer or firm on engineer's or firm's own staff who have been seconded to the site in the discharge of the engineer's or firm's responsibilities under rule 14 of in accordance with the rates set out in the Fourteenth Schedule;

(b) the expenses of the engineer or firm paid to site staff who have been specially recruited by the engineer or firm in the discharge of the engineer's or firm's responsibilities under rule 14 in accordance with the rates set out the Fourteenth Schedule;

(c) all other expenditures actually incurred by the engineer or firm in connection with the selection, engagement and employment of site staff;

(d) the actual cost of providing the site office accommodation, furniture, telephones, equipment and transport as may be reasonably necessary for the use of the engineer's or firm's site staff; and

(e) for the actual running costs of the site accommodation and facilities including any stationery, telephone calls, telegrams, telex, facsimile, courier services, postage stamps and other telecommunication services where they are not provided by the client.

Payment when works are damaged or destroyed.

36. If, at any time before completion of the works, any part of the works or any materials, plant or equipment, whether incorporated in the works or not, are damaged or destroyed, resulting in additional work being required to be carried out by the engineer or firm, the engineer or firm shall be remunerated on time basis for the additional works together with any other reimbursements as specified in rule 14.

Payment following termination or suspension by the client.

37. (1) If the works or engineer's or firm's services are terminated or suspended by the client, except where the termination or suspension is due to the engineer's or firm's default or negligence, the engineer or firm shall be paid the following sums, which sums shall not include the amount of payments previously made to the engineer or firm—

(a) a sum deducible from the stage of professional services completed at the time of termination or suspension in accordance with rule 28;

(b) a disruption charge equal to one-sixth of the difference between the sum, which would have been payable to the engineer or firm under rule 25 (2) or (3) based on the nature of works, whichever may be applicable:

Provided that the professional services have advanced beyond the preliminary stage; and

(c) amounts due to the engineer or firm under Parts IV and V.

(2) If the engineer or firm is required to recommence professional services after a suspension by the client, the engineer or firm shall be paid for the performance the professional services the sum payable to the engineer or firm under rule 26 (2) or (3), whichever may be

applicable, and any payments under subrule (1) (a) or (c) of this rule shall be treated as payments on account:

Provided that the engineer or firm shall retain as an additional payment the disruption charge referred to in subrule (1) (b).

(3) If tendering for the works or any part thereof is, or is likely to be, delayed for more than nine months or postponed at the request of the client, then for the purpose of computing the fee to be paid to the engineer or firm for professional services, the applicable cost of the works shall be the estimated cost of the works or any relevant part of them at the time of completion of the designs.

(4) If the works are suspended or postponed after the tenders have been called, the fees payable to the engineer or firm shall be as follows—

(a) for the inception stage, preliminary design stage, detailed design stage and tender stage, the fees shall be computed on the lowest acceptable tender:

Provided that if no acceptable tender is received, then the fees shall be computed on the estimate made by the engineer or firm of the cost of the works at the date of calling for tenders;

(b) if the works subsequently resume and the tenders are recalled, the total fees payable to the professional engineer, which shall include the fees paid under subrule (2), shall be as follows—

(i) for the inception stage, preliminary design stage, detailed design stage and tender stage, the fees shall be computed in accordance with subrule (2); and

(ii) for the contract administration and construction stage, the fees shall be computed on the final contract sum of the works at the time of the completion of the works.

(5) If the engineer or firm is required to perform any additional services in connection with the resumption of professional services under this rule, the engineer or firm shall be paid for the performance of the additional professional services on a time basis in accordance with rule 13 and any appropriate reimbursements in accordance with rule 31.

Payment following termination by the professional engineer.

38. If there is a termination by the engineer or firm of professional services, except where the termination was occasioned by the default or negligence of the engineer or firm, the engineer or firm shall be

entitled to be paid the sums specified in rule 36 (1) and (c) after deducting any payments previously made to the engineer or firm.

PART VII—MISCELLANEOUS PROVISIONS

Offences and penalties.

39. Where an engineer or a firm charges fees that are lower than the fees prescribed by these Rules, that engineer or firm commits an offence and shall be liable, on conviction, to the penalty prescribed under section 57.

Disputes as to fees.

40. (1) Where a dispute arises as to the fees chargeable under these Rules in relation to professional services rendered by an engineer or a firm to or on behalf of a client, the aggrieved party may apply to the Board in writing for a determination of the matter.

(2) An application under subrule (1) shall be made within fourteen days of the dispute arising and be accompanied by any relevant documents.

(3) A party that makes an application under subrule (1) shall notify the other party or parties of the application within seven days of the application and the notification shall be accompanied by a copy of the application and accompanying documents.

(4) The Board shall consider and determine the application within twenty-one days of the notification under subrule (3):

Provided that before making a determination, the Board—

(a) shall hear the parties in person or through representatives; and

(b) may request additional information from any of the parties relating to the dispute.

(5) The Board's determination shall be in writing and may—

(a) affirm that the fees in dispute are the fees payable to the engineer or firm; or

(b) set aside the fees in dispute and substitute therefor fees that, in its opinion, are reasonable and just in the circumstances.

(6) A party that is dissatisfied with the determination of the Board may appeal to the High Court.

FIRST SCHEDULE
[r. 25 (2)]

Percentage charges based on Cost of Works for professional engineering services (Applicable to all engineering disciplines)

Cost of Works in Kshs.	*Fee as percentage of Cost of Works*
Up to 20,000,000	10.00 per cent of the cost of works up to Kshs. 2,000,000
From 20,000,000 up to 40,000,000	Kshs. 2,000,000 plus 7.00 per cent of balance over Kshs. 20,000,000
From 40,000,000 up to 80,000,000	Kshs. 3,400,000 plus 6.75 per cent of balance over Kshs. 40,000,000
From 80,000,000 up to 160,000,000	Kshs. 6,100,000 plus 6.00 per cent of balance over Kshs. 80,000,000
From 160,000,000 up to 320,000,000	Kshs. 10,900,000 plus 5.00 per cent of balance over Kshs. 160,000,000
From 320,000,000 up to 640,000,000	Kshs. 18,900,000 plus 3.75 per cent of balance over Kshs. 320,000,000
From 640,000,000 up to 1,250,000,000	Kshs. 30,900,000 plus 3.60 per cent of balance over Kshs. 610,000,000
From 1,250,000,000 up to 2,500,000,000	Kshs. 52,860,000 plus 3.50 per cent of balance over Kshs. 1,250,000,000
From 2,500,000,000 up to 5,000,000,000	Kshs. 96,610,000 plus 3.25 per cent balance over Kshs. 2,500,000,000
From 5,000,000,000 up to 7,500,000,000	Kshs. 177,860,000 plus 2.70 per cent of balance over Kshs. 2,500,000,000
From 7,500,000,000 up to 12,500,000,000	Kshs. 245,360,000 plus 2.30 per cent of balance over Kshs. 5,000,000,000
From 12,500,000,000 up to 25,000,000,000	Kshs. 360,360,000 plus 2.20 per cent of balance over Kshs. 12,500,000,000
Above 25,000,000,000	Kshs. 635,360,000 plus 2.17 per cent of balance over Kshs. 25,000,000,000

SECOND SCHEDULE
[r. 25 (1)]

General factors influencing fees (Applies to all the engineering disciplines)

Description of works	*Influencing factors*	*Typical factor the basic fee is multiplied with*
Alteration of existing works	Where major alterations requiring extensive assessments and investigations of the existing works will be involved, which cost has little to do with the cost of works	1.50
Duplication and repetitive work	Where complete designs can be duplicated and reused for a different project or site but alteration is required on the drawings and/or specifications. In addition, whether elements of a design can be repeated extensively resulting in a substantial reduction in effort or all elements must be designed individually. *Only applicable to design, not supervision.*	0.25 to 1.0
Integration with existing works	Where there is minimal alteration or where there is extensive integration with many detailed surveys required to facilitate good integration and involving extensive re-use of the existing works	0.85 to 1.50 (Time-based fees can be used where applicable)
Project administration	Where it is simple administration with few organisations involved or where many parties are involved with complex administration, many meetings, many interfaces and communications.	1.0 to 1.50
Project complexity	Simple projects where the designs are based on well, established common practises and industry standards (typical projects) or whether complex projects where the works call for the application of new, unusual or untried techniques and systems (extensive works)	1.0 to 1.50
Level of risk, liability and responsibility	Where the level of risks are low or where the levels of risk is high and with hazardous undertakings	1.0 to 1.35

THIRD SCHEDULE
[rr. 26 (4), 33 (b)]

Typical factors by which basic fee is multiplied with based on the description of works with regard to different engineering disciplines.

A. Civil and Structural Engineering Services Pertaining to Engineering Projects

1. The basic fee for standard professional engineering services in the disciplines of civil and structural engineering, pertaining to engineering projects, is determined from the First Schedule. The fee is applicable to the specific costs of the works in respect of which the services were rendered on the project excluding the report stage described in rule 6 which is normally reimbursed on a time basis.

2. The following additional fee is typically applicable to the value of the reinforced concrete and structural steel portions of the works, inclusive of the costs of concrete, reinforcing, formwork, structural steel work and any pro-rata preliminary and general amounts. Where structures of identical design are repeated on the same project, the combined cost is normally cumulated for the determination of the cost of the reinforced concrete and structural steel works.

3. In cases where structures require individual design, a separate additional fee is normally calculated for each structure based on the cost of the reinforced concrete or structural steel work for that structure. The additional fee is the sum of the primary fee and a figure between 1.5% to 5% as agreed between the Client and the professional engineer.

4. To calculate the fee for railway track work in terms of this part, fifty per cent of the cost of the permanent way materials is normally excluded from the cost of the works in view of the limited design input normally required for these elements, but the full cost of ballast and equipment specially designed by the professional engineer is normally included in the cost of the works.

5. For standard professional engineering services relating to a description of the works mentioned in the first column of the table in paragraph 9, the proportion of the basic fee relating to the specific item calculated in terms of paragraphs 1, 2 and 3 is normally multiplied by the category factors mentioned against that description in the second column of the table. In cases more than one of the descriptions in paragraph 9 applies, the effective factor will typically be the product of the factors involved.

6. These factors do not apply when fees are a lump sum or on a time basis.

7. In the case of road works, where the road traverses both rural and urban areas, an adjustment pro-rata to the length of road in rural and urban area is normally made.

8. In the case of road rehabilitation, a combination of factors applies depending on the situation of the road (rural or urban) and the category factor for alterations to existing works.

9. Category factors for road works:

Description of the Works	***Typical factor by which basic fee is multiplied***
Rural roads (single carriageways), excluding bridges	0.85
Rural freeways and dual carriageways, excluding bridges	0.95
Freeways and dual carriageways through existing peri- urban areas, excluding bridges	1.00
Single Carriageways through existing urban areas	1.00
Freeways and dual carriageways through existing urban areas	1.25
Dual carriageways and complex roadways with bridges	1.40
Gravel roads: Primary roads Secondary roads Informal roads	 1.25 to 1.50 1.00 to 1.25 0.75 to 1.00
Water and wastewater treatment works	1.25
Services (Excluding roads) for existing informal settlements including roads and to reduced standards or supplies	1.25 to 1.50
Water and sanitation in rural areas	1.35
Alterations to existing works. (Only applicable to the fees on the portion or section of works affected)	1.50
Mass concrete foundations, brickwork and cladding designed and detailed by the consulting engineer (Only applicable to the design portion of the fees on such works)	0.33

Duplication of works (Only applicable to the design portion of the fees on duplicated works)	0.25 to 1.0

B. Civil Engineering Services Pertaining to Building Projects

1. The basic fee for standard professional engineering services in the discipline of civil engineering, pertaining to building projects, is determined from the table in paragraph 2. The fee is applicable to the specific cost of the works in respect of which the services were rendered on the project excluding the report stage described in rule 6 which is normally reimbursed on a time basis.

2. Basic fee for standard professional engineering services in the disciplines of civil engineering pertaining to building projects:

Service	***% charge on cost of project***
Civil	1.0% to 1.5%
Structural	3.5% to 4.5%
Engineering systems	1.5% to 2.0%

3. For standard professional engineering services relating to a description of the works mentioned in the first column of the table in paragraph 4, the proportion of the basic fee relating to the specific item calculated in terms of paragraphs 1 and 2 is normally multiplied by the category factor mentioned against that description in the second column of the table. In case more than one of the descriptions below applies, the effective factor will typically be the product of the factors involved. These factors do not apply when fees are a lump sum or on a time basis.

4. Category factors for civil engineering pertaining to building projects:

Description of the Works	***Typical factor by which basic fee is multiplied***
Alterations to existing works (Only applicable to the fees on the portion or section of works affected)	1.25
Internal water and drainage for buildings upon specific agreement with the client to render such services	1.25
Duplication of works (Only applicable to the design portion of the fees on duplicated works)	0.25 to 1.0
Large scale housing estates and extensive civil works	1.50

C. Structural Engineering Services Pertaining to Building Projects

1. The basic fee for standard professional engineering services in the discipline of structural engineering, pertaining to building projects, is determined from the table in paragraph 2. The fee is applicable to the specific cost of the works in respect of which the services were rendered on the project excluding the report stage described in rule 6 which is normally reimbursed on a time basis.

2. Basic fee for standard professional engineering services in the disciplines of structural engineering pertaining to building projects:

Service	***% charge on cost of project***
Structural	3.5% to 4.5%
Engineering systems	1.5% to 2.0%

3. For standard professional engineering services relating to a description of the works mentioned in the first column of the table in paragraph 4, the proportion of the basic fee relating to the specific item calculated in terms of paragraphs 1 and 2 is normally multiplied by the category factor mentioned against that description in the second column of the table. In case more than one of the descriptions below applies, the effective factor will typically be the product of the factors involved. These factors do not apply when fees are a lump sum or on a time basis.

4. Category factors for civil engineering pertaining to building projects:

Description of the Works	***Typical factor by which basic fee is multiplied***
Alterations to existing works (Only applicable to the fees on the portion or section of works affected)	1.25
Mass concrete foundations, brickwork and cladding designed and detailed by the consulting engineer (Only applicable to the design portion of the fees on such works)	0.33
Duplication of works (Only applicable to the design portion of the fees on duplicated works**)**	0.25 to 1.0

D. Mechanical Engineering Services pertaining to Engineering Projects

1. The basic fee for standard professional engineering services in the discipline of mechanical engineering, pertaining to engineering projects is determined from

the First Schedule. The fee is applicable to the specific cost of the works in respect of which the services were rendered on the project excluding the report stage described in rule 6 which is normally reimbursed on a time basis.

2. For standard professional engineering services relating to a description of the works mentioned in the first column of the table in paragraph 3, the proportion of the basic fee relating to the specific item calculated in terms of paragraph 1 is normally multiplied by the category factor mentioned against that description in the second column of the table. In case more than one of the descriptions below applies, the effective factor will typically be the product of the factors involved. These factors do not apply when fees are a lump sum or on a time basis.

3. Category factors for mechanical engineering pertaining to engineering projects:

Description of the Works	***Typical factor by which basic fee is multiplied***
Alterations to existing works (Only applicable to the fees on the portion or section of works affected.)	1.25
Wet services, for domestic hot and cold water and drainage pipe work inside buildings.	1.25
Duplication of works (Only applicable to the design portion of the fees on duplicated works)	0.25 to 1.0

E. Electrical Engineering Services pertaining to Engineering Projects

1. The basic fee for standard professional engineering services in the discipline of electrical engineering, pertaining to engineering projects, is determined from the First Schedule. The fee is applicable to the specific cost of the works in respect of which the services were rendered on the project excluding the report stage described in rule 6 which is normally reimbursed on a time basis.

2. For standard professional engineering services relating to a description of the works mentioned in the first column of the table in paragraph 3, the proportion of the basic fee relating to the specific item calculated in terms of paragraph 1 is normally multiplied by the category factor mentioned against that description in the second column of the table. In case more than one of the descriptions below applies, the effective factor will typically be the product of the factors involved. These factors do not apply when fees are a lump sum or on a time basis.

3. Category factors for electrical engineering pertaining to engineering projects:

Description of the Works	*Typical factor by which basic fee is multiplied*
Alterations to existing works (Only applicable to the fees on the portion or section of works affected.)	1.25
Duplication of works (Only applicable to the design portion of the fees on duplicated works)	0.25 to 1.0

F. Mechanical Engineering pertaining to Building Projects

1. The basic fee for standard professional engineering services in the discipline of mechanical engineering or wet services, pertaining to Building Projects, is determined from the table in paragraph 2. The fee is applicable to the specific cost of the works in respect of which the services were rendered on the project excluding the report stage described in rule 6 which is normally reimbursed on a time basis.

2. Basic fee for standard professional engineering services in the disciplines of mechanical engineering pertaining to building projects:

Service	*% charge on cost of project*
Mechanical	2.0% to 2.5%
Engineering systems	1.5% to 2.0%

3. For standard professional engineering services relating to a description of the works mentioned in the first column of the table in paragraph 4, the proportion of the basic fee relating to the specific item calculated in terms of paragraphs 1 and 2 is normally multiplied by the category factor mentioned against that description in the second column of the table. In case more than one of the descriptions in paragraph 4 applies, the effective factor will typically be the product of the factors involved. These factors do not apply when fees are a lump sum or on a time basis.

4. Category factors for mechanical engineering pertaining to building projects:

Description of the Works	*Typical factor by which basic fee is multiplied*
Multi-tenant installations	1.25
Alterations to existing works	1.25

(Only applicable to the fees on the portion or section of works affected)	
Wet services, for domestic hot and cold water and drainage pipe work inside buildings.	1.25
Duplication of works (Only applicable to the design portion of the fees on duplicated works)	0.25 to 1.0
For projects where the cost of the works exceeds Ksh. 30,000,000 and where bills of quantities are not required from the professional engineer and all financial, tender and contractual matters are dealt with by the Quantity Surveyor or other parties.	0,75
As above, but bills of quantities for are not required from the professional engineer and all financial, tender and contractual matters are dealt with by the professional engineer (e.g. lump sum, nominated or selected sub-contracts, etc.)	0.90

G. Electrical Engineering services pertaining to Building Projects

1. The basic fee for standard professional engineering services in the discipline of electrical engineering, pertaining to building projects, is determined from the table in paragraph 2. The fee is applicable to the specific cost of the works in respect of which the services were rendered on the project excluding the report stage described in rule 6 which is normally reimbursed on a time basis.

2. Basic fee for normal services in the disciplines of electrical engineering pertaining to building projects

Service	***% charge on cost of project***
Electrical	2.0% to 2.5%
Engineering systems	1.5% to 2.0%

3. For standard professional engineering services relating to a description of the works mentioned in the first column of the table in paragraph 4, the proportion of the basic fee relating to the specific item calculated in terms of paragraphs 1 and 2 is normally multiplied by the category factor mentioned against that description in the second column of the table. In case more than one of the descriptions below applies, the effective factor will typically be the product of the factors involved. These factors do not apply when fees are a lump sum or on a time basis.

4. Category factors for electrical engineering pertaining to building projects

Description of the Works	***Typical factor by which basic fee is multiplied***
Multi-tenant installations	1.25
Alterations to existing works (Only applicable to the fees on the portion or section of works affected)	1.25
Duplication of works (Only applicable to the design portion of the fees on duplicated works)	0.25 to 1.0
For projects where the cost of the works exceeds KES 30,000,000 and where bills of quantities are not required from the professional engineer and all financial, tender and contractual matters are dealt with by the Quantity Surveyor or other parties.	0.75
As above, but bills of quantities for are not required from the professional engineer and all financial, tender and contractual matters are dealt with by the consulting engineer (e.g. lump sum, nominated or selected sub-contracts, etc.)	0.90

FOURTH SCHEDULE
[r. 26 (6)]

Typical factor for Repetitive Work/Duplication of Works applied in design in buildings including structural, electrical and mechanical engineering services (These factors do not apply to supervision of the works, where full fee will be as per Schedule 1 or time- based)

	Number of units	*Factors*
1	The first one unit	1.0 per unit
2	The next 4 units	0.6 per unit
3	The next 5 units	0.35 per unit
4	The next 15 units	0.30 per unit
5	The remainder	0.25 per unit

FIFTH SCHEDULE
[r. 27 (1)]

Typical percentage charges in building projects (in a consortium, where the engineer is not the lead consultant)-This excludes engineering systems such as internal fitouts/fittings, extensive civil works, and large-scale housing estates.

Professional engineering service(s)	*Percentage charge on the cost of the project*
Civil	1.0 per cent to 1.5 per cent
Structural	3.5 per cent to 4.5 per cent
Electrical	2.0 per cent to 2.5 per cent
Mechanical	2.0 per cent to 2.5 per cent

SIXTH SCHEDULE
[r. 26 (1)]

Typical percentage charges in projects that are predominantly structural engineering in nature and scope (structural engineer as the lead consultant)

Professional engineering service(s)	*Percentage charge on the cost of the project*
Structural	7.0 per cent to 10.0 per cent
Civil	2.5 per cent to 3.5 per cent
Electrical	2.0 per cent to 2.5 per cent
Mechanical	2.0 per cent to 2.5 per cent

SEVENTH SCHEDULE
[r. 26 (1)]

Percentage charges in projects that are predominantly mechanical engineering in nature and scope (mechanical/mechatronics as the lead consultant)

Professional engineering service(s)	*percentage charge on the cost of the project*
Mechanical/mechatronics	7.0 per cent to 10.0 per cent
Structural	2.0 per cent to 2.5 per cent
Electrical/electronics	3.5 per cent to 4.5 per cent
Civil	2.0 per cent to 2.5 per cent

EIGHTH SCHEDULE
[r. 26 (1)]

Percentage charges in projects that are predominantly civil engineering in nature and scope (civil engineers as the lead consultant)

Professional engineering service(s)	*Percentage charge on the cost of the project*
Civil	7.0 per cent to 10.0 per cent
Structural	2.0 per cent to 3.0 per cent
Electrical	2.0 per cent to 2.5 per cent
Mechanical	2.0 per cent to 2.5 per cent

NINTH SCHEDULE
[r. 26 (1)]

Percentage charges in projects that are predominantly electrical, electronic and telecommunications engineering in nature and scope (electrical engineer as the lead consultant)

Professional engineering service(s)	*Percentage charge on the cost of the project*
Electrical	7.0 per cent to 10.0 per cent
Structural	2.0 per cent to 2.5 per cent
Civil	2.0 per cent to 2.5 per cent
Mechanical	2.5 per cent to 3.5 per cent

TENTH SCHEDULE
[r.26 (1)]

Percentage charges in projects that are predominantly agricultural and chemical engineering in nature and scope (agricultural/chemical engineer as the lead consultant)

Professional engineering service(s)	*Percentage charge on the cost of the project*
Agricultural and chemical	7.0 per cent to 10.0 per cent
Civil and Structural	2.0 per cent to 2.5 per cent
Mechanical	2.5 per cent to 3.5 per cent
Electrical	2.5 per cent to 3.5 per cent

ELEVENTH SCHEDULE
[r. 27 (1)]

Percentage charges in projects that are predominantly marine engineering in nature and scope (marine engineer as the lead consultant)

Professional engineering service(s)	*Percentage charge on the cost of the project*
Marine	7.0 per cent to 10.0 per cent
Civil and Structural	2.5 per cent to 3.5 per cent
Mechanical	2.5 per cent to 3.5 per cent
Electrical	2.5 per cent to 3.5 per cent

TWELFTH SCHEDULE
[r. 26 (1)]

Percentage charges in projects that are predominantly mining engineering in nature and scope (mining engineer as the lead consultant)

Professional engineering service(s)	*Percentage charge on the cost of the project*
Mining	7.0 per cent to 10.0 per cent
Civil and Structural	2.5 per cent to 3.5 per cent
Mechanical	2.5 per cent to 3.5 per cent
Electrical	2.5 per cent to 3.5 per cent

THIRTEENTH SCHEDULE

Percentage charges in projects that are predominantly aerospace engineering in nature and scope (aerospace engineer as the lead consultant)

Professional engineering service(s)	*Percentage charge on the cost of the project*
Aerospace	7.0 per cent to 10.0 per cent
Mechanical	2.5 per cent to 3.5 per cent
Civil and Structural	2.5 per cent to 3.5 per cent
Electrical	2.5 per cent to 3.5 per cent

FOURTEENTH SCHEDULE

[r. 28 (1)]

The minimum fees payable with regard to the stage(s) of work (Applicable for to all engineering disciplines)

Item	*Stage of Work*	*Fee Payable*
1	Feasibility and Preliminary Design Stage	30 per cent
2	Detailed Design Stage	45 per cent
3	Supervision of Construction and/or Installation	25 per cent

FIFTEENTH SCHEDULE
[r. 28 (5)]

The minimum fees payable with regard to the stage(s) of work where the professional engineer is required to design and document but services don't include construction supervision

Item	*Stage of Work*	*Fee Payable (percentage of the cost apportioned to the particular stage)*
1	Feasibility and Preliminary Design Stage	60 per cent
2	Detailed Design Stage	40 per cent

SIXTEENTH SCHEDULE
[r. 28 (5)]

The minimum fees payable with regard to the stage(s) of work where the professional engineer is required to conduct review of the design and documentation but services don't include construction supervision

Item	*Stage of Work*	*Fee Payable (percentage of the cost apportioned to the particular stage)*
1	Review of Feasibility and Preliminary Design Stage	40 per cent
2	Review of Detailed Design Stage	60 per cent

SEVENTEENTH SCHEDULE
[r. 29 (3)]

Engineers' Time Charge Minimum Rates

Categories of Engineers/Positions	*Rates in Kshs.*		
	Hourly	*Daily*	*Monthly*
E1	12,500	75,000	1,250,000
E2	10,500	63,000	1,050,000
E3	8,500	51,000	850,000
E4	7,000	42,000	700,000
E5	4,500	27,000	450,000

EIGHTEENTH SCHEDULE
(rule 20)

Engineering consultancy services and typical deliverables by lead consultants

1. Stage 1 Services

(a) Facilitate development of a clear project brief.

(b) Establish the procurement policy for the project.

(c) Assist the client in the procurement of necessary and appropriate other consultants including the clear definition of their roles and responsibilities.

(d) Establish in conjunction with the client, other consultants and all relevant authorities, the site characteristics, rights and constraints for the proper design of the intended project.

(e) Define the consultant's scope of work and services.

(f) Conclude the terms of the agreement with the client.

(g) Facilitate a schedule of the required consents and approvals.

(h) Prepare, co-ordinate and monitor a project initiation programme.

(i) Facilitate client approval of all Stage 1 documentation

2. Typical Stage 1 deliverables

(a) Project brief

(b) Agreed scope of work

(c) Agreed services

(d) Project procurement policy

(e) Signed agreements

(f) Integrated schedule of consents and approvals

(g) Project initiation programme

(h) Record of all meetings

3. Stage 2 services

(a) Assist the client in procurement of the other consultants

(b) Advise the client on the requirement to appoint a health and safety consultant

(c) Communicate the project brief to the other consultants and monitor the development of the concept and viability

(d) Agree format and procedures for cost control and reporting by the other consultants

(e) Prepare a documentation programme and indicative construction programme

(f) Co-ordinate concept and viability documentation for presentation to the client for approval

(g) Facilitate approval of the concept and viability by the client

(h) Facilitate approval of the concept and viability by statutory authorities

4. Typical Stage 2 deliverables

(a) Signed consultant/client agreements

(b) Indicative documentation programme and construction programme

(c) Approval by the client to proceed to Stage 3

5. Stage 3 services

(a) Agree and implement communication processes and procedures for the design development of the project

(b) Assist the client in the procurement of the necessary other consultants including the clear definition of their roles and responsibilities

(c) Prepare, co-ordinate, agree and monitor a detailed design and documentation program

(d) Conduct and record consultants' and management meetings

(e) Facilitate input required by health and safety consultant

(f) Facilitate design reviews for compliance and cost control

(g) Facilitate timeous technical co-ordination

(h) Facilitate client approval of all Stage 3 documentation

6. Typical Stage 3 deliverables

(a) Additional signed client/consultant agreements

(b) Documentation programme

(c) Record of all meetings

(d) Approval by the client to proceed to Stage 4

7. Stage 4 services

(a) Recommend and agree procurement strategy for contractors, subcontractors and suppliers with the client and the other consultants

(b) Prepare and agree the procurement programme

(c) Advise the client, in conjunction with the other consultants on the appropriate insurances

(d) Co-ordinate and monitor preparation of procurement documentation by consultants in accordance with the project procurement programme

(e) Manage procurement process and recommended contractors for approval by the client

(f) Agree the format and procedures for monitoring and control by the quantity surveyor of the cost of the works

(g) Co-ordinate and assemble the contract documentation for signature

8. Typical Stage 4 deliverables

(a) Procurement programme

(b) Tender/contract conditions

(c) Record of all meetings

(d) Obtain approval by the client of tender recommendation(s)

(e) Contract documentation for signature

9. Stage 5 services

(a) Arrange site handover to the contractor

(b) Establish construction documentation issue process

(c) Agree and monitor issue and distribution of construction documentation

(d) Instruct the contractor on behalf of the client to appoint subcontractors

(e) Conduct and record regular site meetings

(f) Monitor, review and approve the preparation of the construction programme by the contractor

(g) Regularly monitor performance of the contractor against the construction programme

(h) Adjudicate entitlements that arise from changes required to the construction programme

(i) Receive, co-ordinate and monitor approval of all contract documentation provided by contractor(s)

(j) Agree quality assurance procedures and monitor implementation thereof by the other consultants and the contractors

(k) Monitor preparation and auditing of the contractor's health and safety plan and approval thereof by the health and safety consultant

(l) Monitor preparation of the environmental management plan by the environmental consultant

(m) Establish procedures for monitoring scope and cost variations

(n) Monitor, review, approve and issue certificates

(o) Receive, review and adjudicate any contractual claims

(p) Monitor preparation of financial control reports by the other consultants

(q) Prepare and submit progress reports

(r) Coordinate, monitor and issue practical completion lists and the certificate of practical completion

(s) Facilitate and expedite receipt of the occupation certificate where relevant

10. Typical stage 5 deliverables

(a) Signed contracts

(b) Approved construction programme

(c) Construction documentation

(d) Payment certificates

(e) Progress reports

(f) Record of meetings

(g) Certificate(s) of practical completion

11. Stage 6 services

(a) Co-ordinate and monitor rectification of defects

(b) Manage procurement of operations and maintenance manuals, guarantees and warranties

(c) Manage preparation of as-built drawings and documentation

(d) Manage procurement of outstanding statutory certificates

(e) Monitor, review and issue payment certificates

(f) Issue completion certificates

(g) Manage agreement of final account(s)

(h) Prepare and present the project close-out report

12. Typical stage 6 deliverables

(a) Completion certificates

(b) Record of necessary meetings

(c) Project close-out report

NINTETEENTH SCHEDULE

(rule 22)

Appointment of professional engineer as the principal agent of the client.

1. Stage 3 services

(a) Prepare, co-ordinate, agree and monitor a detailed design and documentation programme

(b) Assisting with or participating in contemplated or actual mediation, arbitration or litigation proceedings.

2. Stage 3 deliverables

(a) Detailed design and documentation programme

3. Stage 4 services

(a) Recommend and agree procurement strategy for contractors, subcontractors and suppliers with the client and the other consultants

(b) Prepare and agree the procurement progamme

(c) Advise the client, in conjunction with the other consultants on the appropriate insurances

(d) Manage procurement process and recommended contractors for approval by the client

(e) Agree the format and procedures for monitoring and control by the quantity surveyor of the cost of the works

(f) Co-ordinate and assemble the contract documentation for signature

4. Stage 4 deliverables

(a) Procurement programme

(b) Tender/contract conditions

(c) Contract documentation for signature

5. Stage 5 services

(a) Arrange site handover to the contractor

(b) Establish construction documentation issue process

(c) Agree and monitor issue and distribution of construction documentation

(d) Instruct the contractor on behalf of the client to appoint subcontractors

(e) Conduct and record regular site meetings

(f) Monitor, review and approve the preparation of the construction programme by the contractor

(g) Regularly monitor performance of the contractor against the construction programme

(h) Adjudicate entitlements that arise from changes required to the construction programme

(i) Receive, co-ordinate and monitor approval of all contract documentation provided by contractor(s)

(j) Agree quality assurance procedures and monitor implementation thereof by the other consultants and the contractors

(k) Monitor preparation and auditing of the contractor's health and safety plan and approval thereof by the health and safety consultant

(l) Monitor preparation of the environmental management plan by the environmental consultant

(m) Establish procedures for monitoring scope and cost variations

(n) Monitor, review, approve and issue certificates

(o) Receive, review and adjudicate any contractual claims

(p) Monitor preparation of financial control reports by the other consultants

(q) Prepare and submit progress reports

(r) Coordinate, monitor and issue practical completion lists and the certificate of practical completion

6. Stage 5 deliverables

(a) Signed contracts

(b) Approved construction programme

(c) Construction documentation

(d) Payment certificates

(e) Progress reports

(f) Record of meetings

7. Stage 6 services

(a) Co-ordinate and monitor rectification of defects

(b) Manage procurement of operations and maintenance manuals, guarantees and warranties

(c) Manage preparation of as-built drawings and documentation

(d) Manage procurement of outstanding statutory certificates

(e) Monitor, review and issue payment certificates

(f) Issue completion certificates

(g) Manage agreement of final account(s)

(h) Prepare and present the project close-out report

8. Stage 6 deliverables

(a) Completion certificates

(b) Record of necessary meetings

(c) Project close-out report

TWENTIETH SCHEDULE
[rule 29 (2)]

Categories of engineers for which time-based fees shall apply

1. E1 – Specialist Registered as a Consulting Engineer with the Board

(a) A recognised authority or top practitioner in a field of major importance
(b) Exercises general authority over a group of highly qualified professionals engaged in complex engineering applications.

2. E2 – Principal Registered as a Consulting Engineer with the Board

(a) A partner, sole proprietor, a director or a member who jointly or with other partners bears the risks of the business
(b) Provides strategic guidance in planning and executing a project and has authority over several related professional groups in different fields

3. E3 – Senior Engineer Registered with the Board as a professional engineer or consulting engineer

(a) Has adequate expertise and relevant experience performing work of engineering nature (at least 5 years as a registered professional engineer)
(b) Successfully managed large projects, responsible for a large site team. Has demonstrated that they can successfully manage a team.

4. E4 – Engineer Registered with the Board as a professional engineer

(a) Demonstrate that they are able to take responsibility for project work with limited/minimal supervision
(b) Demonstrate that they have been responsible for varied engineering assignments of limited scope and complexity including project managers or resident engineers of a small project or responsible for a section in a larger project.

5. E5 – Graduate Engineer University graduate registered with the Board as a graduate engineer

TWENTY-FIRST SCHEDULE
[rule 28]

Engineering Disciplines

1. Aerospace engineering services

Design, development, testing and production of aircraft and space crafts and related systems including—

(a) aeronautical engineering services which deal with the development of systems and products relating to aircraft that operate within Earth's atmosphere; and

(b) astronautical engineering services which deal with the design, development, and deployment of objects in space.

2. Agricultural engineering services

Design, construction and improvement of farming equipment, machinery and systems including soil management, erosion control, farm drainage, water supply and irrigation, processing technology and value addition to food and animal products.

3. Biomedical or medical engineering services

Application of engineering principles and design concepts to medicine and biology for healthcare purposes including diagnosis, monitoring and therapy.

4. Chemical engineering services

Design and development of processes to produce, transform and transport products from raw materials into useful and beneficial products.

5. Civil and structural engineering services

Design, construction, supervision and maintenance of the physical and naturally-built environment including public works which are categorized as civil engineering works, water engineering works, structural engineering services using reinforced concrete and structural steel works, and structural engineering services for structural building works.

6. Electrical, electronic and telecommunication engineering services

(a) Electrical engineering services: Design, installation supervision and maintenance of electrical control systems, machinery and equipment. These include high voltage (HV), medium voltage (MV), low voltage (LV), extra-low voltage (ELV) systems and related reticulation and accessories.

(b) Electronic and telecommunications engineering services: Design, installation supervision and maintenance of electronic, telecommunications, radio communications and Information Communication & Telecommunication (ICT) systems and detailing the terminations, signals and interconnections of the electronic components as distinct from conventional High Voltage (HV), Medium Voltage (MV) and Low Voltage (LV) systems and related reticulation;

7. Marine engineering services

Design, development, operation and maintenance of watercraft propulsion and on-board systems or structures including boats, ships, submarines, off-shore platforms and drilling equipment, and oceanographic technologies.

8. Mechanical engineering services

Design, construction, installation and maintenance of plants, equipment and systems and may be classified as general mechanical engineering services; and mechanical engineering building services.

9. Mechatronics engineering services

Efficient and effective integration of precision mechanical and electrical engineering systems, electronic control, information systems (computer science) for the design and production of intelligent or smart products, processes and systems.

10. Mining engineering services

Extraction of minerals from underneath, above or on the ground;

Made on the ……, 2021.

ERASTUS K. MWONGERA,
Chairman of the Engineers Board of Kenya.