

**THE PNG PRIVATE SURVEYOR OF THE FUTURE
PROFESSIONAL OR ARTISAN?**

MICHAEL J. LARMER FASPNG

SURVEYING - THE NEW GENERATION

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PROLOGUE: -

The Surveying Profession in Papua New Guinea at the turn of the Century was just about the top of the Professional tree. At that time the Surveyors' colleagues in Australia were held in similarly high esteem with the Surveyors General of the various Australian States being second only to the Governor in the States hierarchy

Things have changed dramatically since then with the result that with the turn of this century imminent Surveyors in P.N.G. are way, way down the pecking order and hard pressed to maintain their Professional status both in terms of public perception and quantum of remuneration.

1. **WHERE WE ARE AT.**

If this Paper is brief it is because Private Practice makes one lean & mean & there is no time to be sitting around writing Papers for which there will be no income but not insignificant expenditure.

When I was asked to write the Paper I figured it would cost my firm between K500 & K5000 depending on how much time was committed to the exercise. As can be clearly evidenced the cost has been kept to K 500 even with our new baby kina.

I must hasten to say that I do not use the word artisan in the title in any derogatory sense, indeed I believe artisans are strong, reliable, hard working craftsmen & I should be honoured to be counted amongst their ranks.

The trouble is the artisan is not a Professional. The Community does not think of him as a Professional & they do not remunerate him as a Professional. This guy could be a Surveyor; the description fits to a tee.

I go to the Horse Races whenever I get the chance & in the middle sixties when I first made a comparison of Professional Fees in PNG here's what I found:-

First were Lawyers by about a length to the Accountants & then there was a gap of about 4 lengths to the Architects, Engineers & Surveyors in what was almost a dead heat for third.

I checked again recently & believe it or not the old Lawyer is still a length in front of the Accountant & you wouldn't want to know but the Engineer is still 4 lengths away in third place.

The Architect obviously got a slight check in running, as he is now a length & a half away in fourth place. The Clerk of the Course was still looking for the Surveyor at the time we went to Press.

Appendix A of this Paper shows the recommended Minimum Hourly Rates for members of the Association of Consulting Engineers of PNG (ACEPNG). These rates are nearly three times what surveyors of similar qualifications & experience are getting at the moment.

The following four paragraphs are taken from a letter to me from the ACEPNG.

'The Association considered that the rates should be reviewed by an external and impartial entity and so commissioned the accounting firm Coopers & Lybrand to conduct an independent analysis on survey data from all member firms.

The survey recommended time basis charges which are aimed at a commercially reasonable level of profitability.

In order to ensure that the appropriate level of professional service is attained member firms are required to charge in accordance with the recommended scale.

The increases in rates follow trends set by all other professional bodies'.

Our Engineering colleagues certainly don't consider us Professionals in this context, as we have set no such trend.

I should say right here & now that I consider that we are still Professionals because while we may not get paid a true Professional fee we continue to provide a Professional service. What I am concerned about is how much longer we can keep this up.

2. WHY WE ARE WHERE WE ARE.

The Private Practitioner is a businessman & it is essential that profits be made if a business is to survive. Not every year maybe but more often than not. If a business cannot make a regular profit it ceases to exist usually at considerable cost to the owner, his family & his employees.

A little earlier in the Paper the Engineers referred to a commercially reasonable level of profitability. 'If the figures in Appendix A are any indication of what it takes to achieve a commercially reasonable level of profitability' then the Surveying Profession in this country is just about bankrupt.

Forgive me going on about money, everyone knows that it is the root of all evil, the trouble is they don't care. What bright young student is going to be seduced into the survey Profession if facts & figures show him or her that the real money is elsewhere. It is only natural that the best students will enter other Professions causing a downward spiral in the talent available to Surveying.

As the academic standard of Surveyors goes down so will their Professionalism. Technicians & artisans are fine but they are not Professionals.

So what are we going to do about it? The decline in the Status of the Surveyor in Papua New Guinea & I believe also in Australia, has been going on for at least 50 years so it is going to take a long time to repair the damage & turn things around, if indeed it is possible. I am not sure that it is but I am sure that it is worth a try.

I am convinced the LAE University always strives to produce a better 'product' i.e. Graduate. How can they do this if the teachers themselves are not exceptional? Why would the teachers be exceptional if their rates of pay are inadequate for both Nationals & Expatriates?

Ordinary teachers = Ordinary Graduates =
 Ordinary Surveyors = Declining Profession.

It's that money thing again. Maybe we should ask Bill Gates to help. If we could pay top salaries to get top teachers they would impart their excellence onto the surveying students, standards would rise & the public may be persuaded to pay more for surveying services. Surveyors would then earn more money encouraging a better class of student to enter the Profession to be trained by the excellent teachers. Theoretically we would then have an upward spiral. An increasingly better trained, better qualified, and better paid Surveyor.

Eventually the Profession would restore its former glory. Those were the days when the Surveyor General was just about the most important man in the land.

What if Bill wont help? How are we going to get Lecturers in Surveying a significant pay rise? I really don't know. If we don't achieve excellence in teaching we are back to square one, i.e. ordinary graduates.

The ball is then in the Private Practitioners court to turn this ordinary graduate into an extra ordinary Professional Surveyor over a number of years. Which of us has the time & the skill to do that? Not many I expect. I certainly don't.

Well, I do have a bit of time.

Maybe we should just put up our fees anyway, skill increase or not. The trouble with this is Competition.

Clients are so inured with our present low fee scale that the sort of increase that we need would cause them to go ballistic.

They would immediately look for alternate sources of supply. If all the Private Surveyors in PNG closed ranks & held the line the client would look elsewhere. Australia, New Zealand, Malaysia, Indonesia, Philippines, anywhere.

They would not only look, they would find. We have had numerous cases of overseas survey firms doing work in PNG over the last 20 years. They were undercutting our existing rates, think what they would do to our proposed new rates. It would be a bloodbath.

Of course I am only talking about big jobs here. No one is going to fly in from Kempsey or Kuala Lumpur to do a D.T.M. survey of 2 hectares in Melanesian Way. So what do we do, charge the little guy our proposed new rates for his small job & stick to our present rates for the Multinationals? I have a bit of an ethical problem with that.

So how do the other Professions get away with charging multiples of what we charge? Are they quarantined from competition? A bloody good question if I say so myself. They have an annual ceremony in Stockholm that awards very large prizes to people who can answer questions like that.

If anyone is reading this Paper they will be saying to themselves about now 'what's Larmer on about, he is writing a Paper that asks more questions than it answers, he has no solutions.'

You bet I don't have any solutions, if I did I would not have waited until July 1998 to tell you about them.

In my defence I did not volunteer to write the paper, I was hijacked by the Congress Committee.

3. WHERE DO WE GO FROM HERE?

I do not pretend to know anything about Land Information Systems (L.I.S.), Geographic Information Systems (G.I.S.), Remote Sensing or any of the many other new fields of opportunity now open to the Profession. I do find these new developments very encouraging however and it is essential that the Private Surveyor be at the forefront of exploiting these opportunities and not allow other Professions to grab what really is ours.

This will probably help Surveyors get both their image and their rates up as assuming we are in competition with say the Engineers in bidding for an L.I.S. Consultancy we can charge significantly more than we are charging now and still be the underbidders. This will over time tend to lift all our rates as if for example a PNG Registered Surveyor is charged out at K100 an hour for L.I.S. work it would be quite inappropriate to drop his fee back to K65 per hour for Cadastral work. His rate would be now firmly fixed at K100 per hour and rates of other Surveyors in the firm would rise in concert.

These new facets of Surveying then may be a critical component in the Professions quest for an acceptable Professional fee.

One other essential ingredient required for the Private Survey Practitioner to flourish is good business management.

A firm can have more work that it can handle and negotiate an acceptable professional fee to carry out that work but can still fail if the practice is badly managed.

This subject of course is complex enough to warrant a Paper by itself, in fact I presented such a paper to an ASPNG Congress some years ago.

Briefly these are some of the matters which must be addressed by the principals of a firm when they have obtained a large project at profitable professional fees:

- a) Sufficient numbers of experienced, qualified Professional and Technical staff must be available and ready to work on the project for as long as it takes and commence when required.
- b) Head Office must supply the appropriate level of financial and logistical support. This includes providing the field teams with up to date, calibrated survey equipment, with spares in the case of work in remote locations.
- c) A system of quality control over field methods and information must be put in place both at the job site and in the office where the final information for the client is being prepared.
- d) Fee accounts should be prepared from Surveyors' time sheets within seven days of the end of each month and submitted to the client on the basis that the fee be paid in full within say 21 days.

Positive cash flow is all important particularly if the firm has had to negotiate Bank overdraft facilities to get the project started. This facility may be required to finance the purchase or lease of new vehicles, Total Station Theodolites, camping equipment and payment of all the fortnightly wages in those critical first few weeks of project.

If this sort of large up front expenditure is required the firm needs to negotiate a one-off mobilisation fee from the client.

- e) Professional Indemnity and all other relevant Insurance Policies should be in place. Do not leave anything to chance. One on-site motor vehicle accident could ruin the whole project.

f) Be sure you have a formal, signed letter of commission or even better a signed Purchase Order detailing the work that has to be done and the Agreed Fees. There must be no doubt as to who is the Client responsible for paying for the Surveying Services.

g) Etc. etc. etc.

4. TO SUMMARISE.

So what does the future hold for the PNG Private Surveyor?

I remind you of an old Danish proverb:-

'Prediction is always difficult, particularly of the Future'.

Ah, those Danes!

The situation as I see it is as follows:-

The Surveying Profession in PNG has let itself be marginalised over the last 20-30 years. We have been too sensitive to both internal and external competition and have let our rates fall away to unacceptably low levels.

Clients have now got used to it and any efforts to significantly increase our rates will meet, initially at least, strong client resistance.

Lower charge out rates mean lower remuneration for Surveyors, which will not attract the best students.

Current salaries at the Lae University do not encourage the best Teachers.

It follows then that we do not have the best and the brightest being taught by the best and the brightest, so in turn it is more difficult to produce a true Professional.

5. THE SOLUTION?!?

The Association of Surveyors of Papua New Guinea in conjunction with the Surveying Department at the Lae University establish a Promotion/Marketing campaign at the High Schools to attract the best students by highlighting the outdoor life style, pioneering spirit, travel and job satisfaction aspects of being a Land Surveyor.

The University by whatever means it has available to it lobbies for increased salaries and allowances for teaching staff so as to attract the best local and overseas Lecturers.

The ASPNG requires all its Members to charge a fee commensurate with the expertise and responsibilities of the 1998 Professional. The falling Kina will presumably discourage foreign competition.

The Profession ensures that it is in the vanguard in the marketing and exploitation of the advances in Surveying and Mapping sciences.

Good business practice be taught at the University and ASPNG produce a Manual on the subject to be made available at nominal cost to Members.

If we have success with all of the above, the Private Surveyor has a 75% chance of being considered a true Professional in the future. We will lose about 10% for each one of the above targets we do not achieve.

EPILOGUE:-

Surveyors have worked in P.N.G. for well over one hundred years and have bequeathed us a proud legacy. Let us not be the generation who leaves nothing to those coming behind us.

APPENDIX A PNG ENGINEERS SCALE OF FEES

ACEPNG - Terms of Engagement & Scale of Fees

APPENDIX F

Charges on a Time Basis

1 Fees on a Time Basis To apply from 01-Jan-97
as amended by ACEPNG 13-Mar-97

Time basis charges fixed by the ACEPNG are based on Staff Grades as follows:

<u>GRADE POSITION</u>	<u>QUALIFICATIONS</u>	<u>MINIMUM HOURLY RATE</u> subject to regular review
A Director/Company Manager	In excess of Grade B	K 247
B Senior Expatriate Engineer	In excess of 7 years	K 225
C Expatriate Engineer	3 to 7 years	K 190
D Senior National Engineer	In excess of 7 years	K 135
E National Engineer	4 to 7 years	K 100
F Junior National Engineer	0 to 3 years	K 84
G Expatriate Senior Draftsman	In excess of 6 years	K 187
H Expatriate Draftsman	3 to 6 years	K 153
I Senior National Draftsman	In excess of 7 years	K 76
J National Draftsman	4 to 7 years	K 60
K Junior National Draftsman	0 to 3 years	K 49

Note: Hourly rates are reviewed on a regular basis by independent accounting reviews of all ACEPNG member companies. Latest rates published by the ACEPNG are to apply.

The rates are applicable for Simple and Straightforward Commissions.
Complex Commissions are to be charged at higher rates.

2. Fees when Engaged as an Expert Witness.

In addition to the retaining fee provided for in Clause 17.01 the fee is as agreed upon between the consulting engineer and the client, but the suggested rate for time spent as described in Clause 17.01 is from 50% in excess of the rate determined in accordance with item 1 above.

3. Fee When Engaged as Arbitrator, Umpire, Commissioner, etc.

The fee is as agreed upon between the consulting engineer and the client but the suggested rate for time spent as described in Clause 17.05 is in accordance with rates and conditions determined by the ACEPNG, from time to time.

4. Disbursements

Reference should be made to appendix "L"

PNG BASED CONSULTANTS ARE PART OF AND BENEFIT THE PNG ECONOMY.

Practice Note

Fee guide no. 8

This is a reference or guideline document only. Architects and prospective clients are free to agree conditions of engagement and fees on any basis whatsoever, providing that these are not in conflict with the law applicable in the State or Territory concerned.

1. Introduction

The following information provides guidance on the application of percentage-based and time-based fees.

Whatever fee bases are adopted by practices, each practice is responsible for identifying its own optimum fee levels, taking into account its expertise and experience, its financial objectives, and the characteristics of each project at hand. On the basis of such knowledge each practice is in a position to successfully establish appropriate fees with clients.

The interests of clients and architects are best served by architects charging fees that will enable them to maintain sound long term business performance and competency of service.

2. Percentage fees

2.1 Percentage fee graphs

The graphs have been prepared in relation to various building types, classified in accordance with their degree of complexity and the extent and nature of services required to be provided in relation to them.

They have been prepared where the core services denoted in the current RAI/ACA *Client and Architect Agreement* are to be provided.

The graphs are based on information from the architectural services cost survey conducted twice a year by the RAI.

In applying the graphs, account needs to be taken of any services additional to the core

services to be provided by the practice, and also such project factors as tendering climate, building procurement procedures, the characteristics of the site, and other regional characteristics.

The graphs are applicable to new projects only. For alterations and additions a higher fee will generally be appropriate. The graphs do not include provision for payment by the practice to other consultants or for reimbursable expenses.

Architects should confirm in the 'Scope of Services' who is responsible for payment of the fees of secondary consultants and sub-consultants and adjust the fee upwards if the architect is responsible for paying such consultants.

2.2 Building classifications

For purposes of the percentage profile graphs buildings are classified as those listed below.

As a guide, examples of building types typically included within each classification are:

Classification I (Conventional)

Abattoir
Ambulance Station
Apartment House
Bank*
Boiler House
Brewery*
Cafeteria
Child Care Centre

* Indicates building type which might be classifiable in more than one category depending upon the degree of complexity.

Classroom Building
 Community Centre*
 Cool Store*
 Court House*
 Department Store
 Dining Hall
 Educational Facility*
 Exhibition Building
 Factory
 Fire Station
 Funeral Parlour
 Grandstand*
 Gymnasium
 Hall (not Theatre)
 Hostel
 Indoor Recreation Building
 Laundry
 Library
 Motel
 Municipal Centre*
 Multiple Unit Housing
 Nursing Home*
 Office Building
 Parking Station
 Passenger Terminal
 Police Station
 Post Office
 Prison*
 Residential College
 Service Station
 Shopping Centre
 Sports Pavilion
 Stadium*
 Storage (special)
 Swimming Pool
 Telephone Exchange
 Town Hall*
 Transport Terminal

Classification II (Complex)

Complex buildings involving special or prolonged study or calculation, or requiring the application of special skills and experience or where the work provided by the practice is increased as a result of the nature of the building.

Amenities Building
 Art Gallery
 Bank*

Brewery*
 Broadcast Studio
 Church
 Cinema
 Community Centre*
 Cool Store*
 Court House*
 Crematorium
 Dental Surgery
 Educational Facility*
 Film Studio
 Hospital
 House (individual)
 Kitchen
 Laboratory
 Lecture Theatre
 Medical Centre
 Municipal Centre*
 Museum
 Nursing Home*
 Operating Theatre
 Prison*
 Railway Station
 Restaurant
 Shop*
 Theatre
 Town Hall*
 TV Studio

Classification III (Simple)

Cool Store*
 Hangar
 Shed or Shelter
 Storage (general)
 Warehouse

2.3 Progress payments

There will be variations between practices as to the extent of services to be provided within each of the service stages and therefore the proportion of the fee reasonably chargeable for each of those stages. Each practice must identify its own most suitable fee apportionment for each service stage or each part thereof, and include this within the client and architect agreement.

Examples of possible fee apportionments are as shown below.

Service Stage	Examples:	1	2	3	4
		Percentage proportion of fee to be charged			
Schematic Design		15	17.5	15	12
Design Development		15	12.5	15	13
Contract Documentation		40	40	30	35
Tendering and Negotiating		2.5	2.5	5	5
Contract Administration					
– Construction		25	25	30	35
– Post Construction		2.5	2.5	5	0

2.4 Reduced services

The percentage graphs relate to the continuous provision of all of the core services. Provision of services less than the core services in the one project may incur additional work for the architect and warrant a fee surcharge. In many instances a surcharge of 10%–15% of the fee would not be unreasonable.

2.5 Protracted contract administration services

Where the architect is required to provide protracted services a fee surcharge would be warranted (refer clause 8.12 of the *Client and Architect Agreement*).

2.6 Deferred services

If the architect is required to defer services for 30 days or more, a fee surcharge would be warranted (refer clause 8.13 of the *Client and Architect Agreement*).

3. Lump sum fee

The architect may agree with the client to charge a lump sum fee for those services defined in the 'Scope of Services'. The fee charged could be derived from a percentage calculation, time charge calculation, or some other method.

Should either the scope of services, or the scope of the project defined within the written brief change then the lump sum fee should be re-negotiated.

4. Time charges

4.1 Principal's and staff time

The charge for principal's and staff time should be calculated by each practice (for guidance refer to AN02.02.300).

For services in connection with litigation a time charge fee is typically appropriate. Consideration should be given to charging a minimum of three hours. Such services normally warrant a higher fee than that applicable for other architectural services. For example, an hourly rate of 30% higher than the principal's usual rate might be warranted.

5. Copyright and ownership of documents

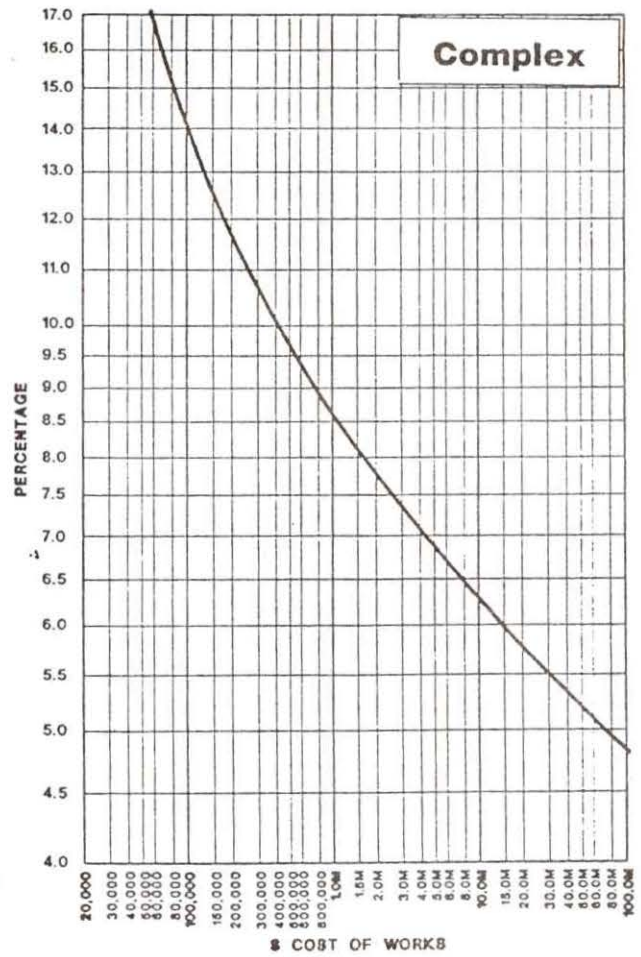
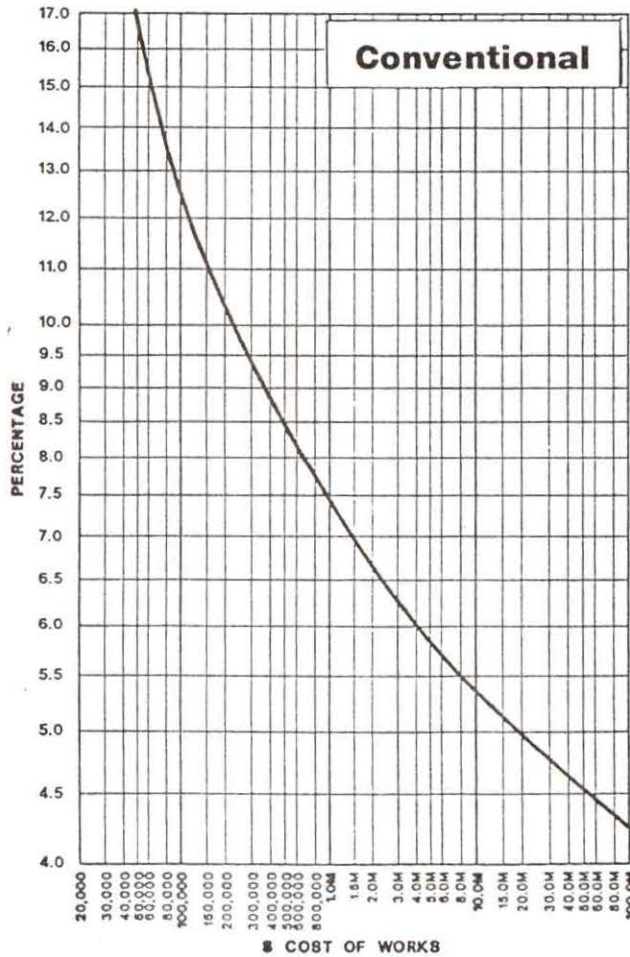
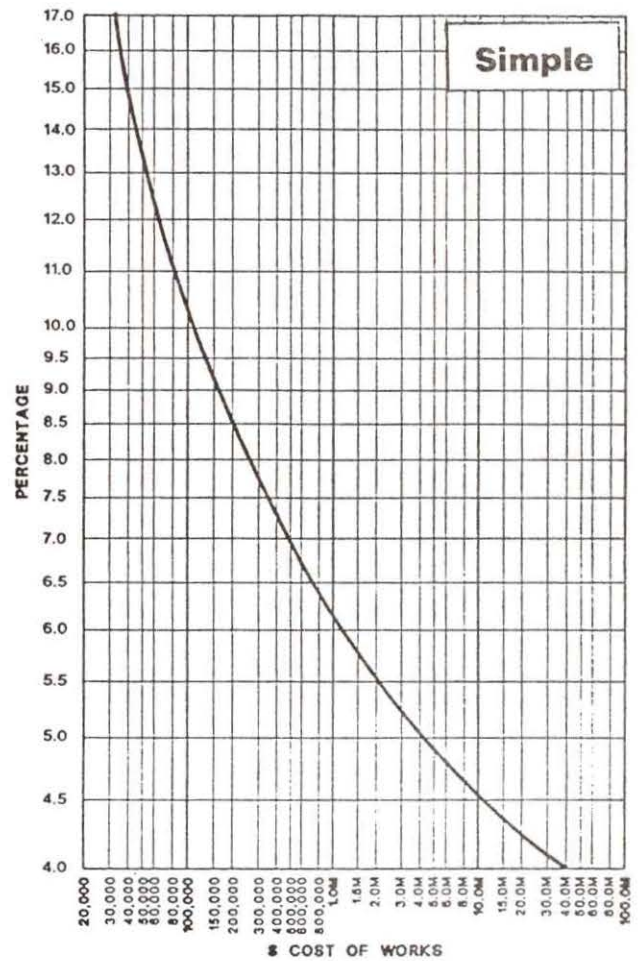
The foregoing information is based on the architect retaining copyright in the architects work and retaining ownership of all documentation. Should copyright or ownership of the documents be assigned to the client this should be taken into account in assessing the fee, having regard to the likely extent of reuse.

These Notes are issued by the RAIA for general guidance only. No responsibility for their accuracy or currency is accepted by the RAIA, its office-bearers, members or staff or by the author.

These graphs indicate a fee for continuous service consisting of schematic design, design development, contract documentation, tendering and negotiating and contract administration.

They allow for adequate expenditure on professional development, marketing, salaries at commercial rates and investment in new technologies.

They allow for a commercial rate of profit.



SCALE OF FEES FOR BASIC SERVICES

