

Richard Cook

The Business of Architecture

WORKSHOP 7: PRACTICE MANAGEMENT – SITE SERVICE

INTRODUCTION

Following on with the theme of ‘Saving Money’ as opposed ‘Making Money’ that was covered in Module 1, I want to discuss the challenges of being appointed Principal Agent from the experiences and standpoint of a practicing Architect. I don’t intend to cover the JBCC, and the specifics of the duties it places upon the Principal Agent as there are several specific CPD courses that cover this topic in great detail. I intend to provide a heads up on various aspects of the task that most often cause us professional and financial distress. Lessons normally learned the hard way.

Every single type of documentation that I have created and refined as discussed in the previous workshops has evolved in response to the various conflicts and mishaps that have occurred to me in my professional career, especially undertaking the task of Principal Agent. Please take cognizance of the fact that this entire workshop series was written to help upskill and empower emerging architects and new practitioners. If you are involved in a multi-million rand high-end office development, some of the methods I suggest here may not necessarily be appropriate.

WHY WE GO WRONG

When appointed as a Principal Agent, we do not set about our task in pursuit of legal protection. We are not looking to carefully cover ourselves against any and all possible liability. Our objective first and foremost is to battle against the forces of nature and bureaucracy in order try and pull a complex structure out of the ground on time and for the agreed cost. This is an all-encompassing task that will test our resolve, challenge our creativity and require the utmost expediency.

But let me be unequivocally clear, do not mess with the JBCC. If we are administering the JBCC as the Principal Agent, we must make sure we are fully conversant with it and the duties it bestows upon us.

1. FEE ALLOCATION

Primarily, we go wrong because we do not charge enough for the service. I cover this in great detail in “Workshop 2: Business Management - Calculating Costs and Fees”.

The standard client / architect agreement and the government gazette do not accurately represent the true cost of Principal Agency and its duties. They allow 30 % for workstage 5 and 3 % for workstage 6. My own calculations based on time sheets show that workstage 5 and 6 will consume at least 60 % of the time invested into the project, but generally even more. To exacerbate this, principal agency is generally undertaken by the most qualified or most senior staff member and is therefore the most expensive ‘cost to company’ time.

As architects we may be smart, we may be creative, and we may be mathematical. But very few of us are truly administrative and legal. Generally, on site, we are playing our weak suite, and we are financially back-footed.

2. OPPORTUNITY FOR CLIENT CONFLICT

Experience has taught us that providing service as a PA places us in a precarious position, between the bull’s horns would be the classical description. Our fundamental duties are to:

- Serve our Client’s interests in the building contract.
- Act as our Client’s legal participant in the building contract.
- Perform the duties bestowed upon us by the building contract on behalf of our Clients.

But in the execution of these duties as per our contractual obligations, in the perception of our client, our actions may seem to make us act indisputably in the interests of the Contractor (or other contracting parties as the case may be). We are bound legally and morally to make regular decisions and adjudications that are impartial and equitable to all the contracting parties, not only our Client; and sometimes not in our Client’s interests.

As a result of this ‘built-in’ conflict of interest, Principal Agency is an onerous task that is fraught with risk. Every action we take or decision we make has the potential to place us in direct conflict with our client. The following instances come to mind:

- Site Meeting discipline and minutes.
- Certificates of Payment and Valuations.
- Issuing Variation Orders (VO’s) and allocating costs accordingly.
- Adjudicating Extension of Time claims (EoT’s) and allocating P & G costs accordingly.
- Acting as Principal Agent (PA) for a Developer / Contractor.
- Acting as PA without an appointed Quantity Surveyor (QS).

AVOIDING CONFLICT AS PRINCIPAL AGENT:

It is only with a clear view of our responsibilities under the contract (as covered by a multitude of specialist CPD courses on the subject), and a very intensive and pro-active management of our Client's expectations, that we can hope to navigate this precarious path unscathed.

At this stage we can start to bring to bear the fruits of our thorough process of documentation as discussed in the earlier section of this course: "Workshop 6: Practice Management – Office & Documentation". In performing our duties as Principal Agent the careful management of our Client's expectations using our documentation starts to bring real value.

1. TENDER DOCUMENTATION

Assuming that using our thorough and unambiguous documentation, as discussed at length in the previous workshop, we have brought our tender process to a successful conclusion, we should at this stage have the following at our disposal:

- Municipal approved drawings.
- Construction drawings and details.
- Energy efficiency drawings and documents.
- General Specification.
- Schedule of Finishes.
- PC Items and Provisional Sums spreadsheet.

Now is the time to bend these tools to their task, and to incorporate a few on-site documents, all of which can help us manage our Client and keep them, and us, on-side through most of the challenges of construction.

Disclaimer: These notes are not an exhaustive list of our duties as PA under the Building Contract, and must not be read as such. The particular Building Contract being used takes precedence of any comments or observations I may make here. The purpose of this workshop is to share some of the strategies I have learned and refined in over 35 years of private practice.

2. SITE MANAGEMENT

Managing a site inspection and meeting can present Architects with enormous challenges. It is a volatile environment where tempers fray, accusations are thrown and sometimes fists fly. Decisions made in a site meeting may result in costs running into the millions for one or more of the parties. Condemning work, adjudicating contract increases and time over-runs can and will result in an a highly charged emotional and temperamental environment.

AUTHORITY ON SITE:

As I have done throughout this entire series, I am going to say out loud the unmentionable; with very little exception, building sites stubbornly remain a lingering outpost of racism, sexism and ageism (directed against the young, in this case). There has been progress, and some of the larger contractors have really dealt with the problem. However, it persists as a situation endemic to our industry.

To successfully manage the site environment, we need a clarity of purpose, a galvanized resolve, a dogged tenaciousness, and most importantly, authority.

Authority is different to leadership, in that authority forms the foundation of leadership. Importantly, authority can be acquired through learning and preparation, and is therefore available to all of us.

Typically, if we are employed as the principal agent on a project, our primary duty will be to chair the site meetings. It is critical that we do this, and equally critical that we prepare our own site minutes and never delegate that task to any other party. By holding a firm grip over the chair and minutes, we retain our authority bestowed upon us by the duties of the building contract, and from here we can exercise full control of the project.

To maintain authority it is essential that we;

- Have solid documentation (as described in Workshop 6 and itemized above).
- Understand our project and documentation intimately and retain an unwavering faithfulness to its realization.
- Understand the building contract intimately like a favourite poem, all the answers and solutions reside within.
- Keep on top of our duties as PA at all times.
- Make the hard decisions when and as they are required of us.
- Never make hollow or unenforceable threats.
- Enforce the provisions of the building contract faithfully, and without fear or favour.
- Be unflinching on punitive action, lead the Contractor to understand that we stand by our task.
- Above all else, manage expectations (the Client and the Contractor). Avoid surprises at all costs.

It is not the participant with the loudest voice or the most money who carried the most authority. It is not the bully with a truckload of lawyers at his beck. Authority is a designated task and it is by necessity and common sense designated to the Architect, the most knowledgeable person (of both the project and the contract) at any site meeting.

The following sections will give you practical and easily implemented tips on how to tackle this duty in a structured manner.

SITE MEETINGS:

The 'Cost of Sales' exercise as detailed in Module 1 of this course paints an unflinching picture of how our time as Architects is spent, and what it is costing. The time of our fellow professionals, the Contractor, and especially our Client, is no doubt equally precious to them. As PA, and therefore the traditional chair of all Site Meetings, it behoves us to treat the participants' time with respect, and manage the meeting in an organized and efficient manner accordingly;

- The meeting should start promptly at the given time.
- All necessary documentation required for the meeting should be available.
- The order of business should be consistent.
- Time limits and duration should be rigidly adhered to.
- Spill-over business should be undertaken by only the affected parties and after the meeting.

SITE INSPECTION:

My preference is always to start with the Site Inspection so that any issues identified on the works can be gathered up and dealt with in the meeting itself and while all affected parties are present and able to contribute. This saves an enormous amount of phone calls and follow-up at a later stage.

- Excuse unaffected parties – walk around with the necessary parties only.
- Manage building quality as the work progresses, mark acceptable work as an identified sample that is used to set the standard for all future work.
- Assess the quality of building work as the work progresses. This facilitates ease with future snag-listing and sets the standard early for an agreeable standard of quality between the Architect and the Client.
- Condemn unacceptable work immediately and instruct its prompt removal. Do not let the situation fester to the point when the contractor is facing penalties that he holds the PA responsible for delays when work that was previously condemned but not removed is now required to be so.
- Be consistent on the understanding of “Acceptable local standards and practice” – more often than not, this is a conflict with our Client, not our Contractor!
- Apply all of the above standards to the work of the sub-contractors.
- Do not institute spontaneous design changes from the Client during a site inspection. Investigate all spatial and technical ramifications, costs and delays before agreeing to such changes. Issue the instruction only once costs and delays have been determined by the Contractor and agreed upon by the Client.

THE SIT-DOWN MEETING:

Rigid discipline and consistent behaviour is the key to maintaining order and efficiency during the sit-down meeting:

- Ensure the Contractor provides a suitable and appropriate venue on site to hold a site meeting. As PA we are typically the chair of such meetings, and I will discuss the task as such.
- Ensure the Contractor has laminated and mounted a full set of the construction drawings on the meeting room walls. Make sure they are the correct and latest revision. If the set is too large, all general arrangement drawings should be laminated and mounted on the walls, and a full bound set available in the middle of the table - the impact and ramifications of all site instructions becomes immediately apparent to all parties when presented this way.
- Ensure that the latest revision of all other documentation is available in the meeting room – General Specifications and Schedule of Finishes for example.
- Ensure that a copy of the signed building contract and all appendices is available.
- Ensure the Contractor has laminated his Construction Program and mounted it to the wall. This program should be updated at every meeting, clearly illustrating the progress of the works against the program and making clear the impact of EoT claims and other delays. The original program should always remain irrespective of granted EoT's.
- Order the meeting to relieve sub-contractors that are not required for the full duration of the meeting as soon as possible. Having parties in a meeting that have no direct involvement in the matters under discussion can be disruptive and can create a false ‘quorum’.

- If possible, in the event that your Client does wish to attend site meetings, move all business that directly involves them to the beginning of the meeting and relieve them thereafter.
- If the Client is present, always bear in mind that most discussions between a Client and their Principal Agent are confidential and should never be discussed openly at a Site Meeting.
- Try to keep the Client's participation to a minimum and exclude them from any decision making that does not directly involve them.
- Do not permit the Client to manage contractual tasks or decisions that they are paying us to undertake as their professional representative and legal agent on site.
- If possible, keep tenants and other such third parties out of our site meetings. Those meetings must always be held off site and with our Client present.
- If we are not tasked with chairing the Site Meeting as the appointed PA, it requires a careful investigation on our part. If the meetings are chaired by a Project Manager, our duties and rights (to issue instructions, disseminate new revisions or documentation, sign off payment certificates and adjudicate VO's and EoT's) need to be very clearly understood with that party. We can quickly find ourselves burdened with 100 % responsibility and 0 % authority on the project. The thorough allocation of each these duties should be itemized in writing and signed into agreement. I would be inclined to send such an agreement to my PI insurer.

SITE MINUTES:

Either we, or someone employed by us at the meeting, must be tasked with the capture, transcription and issue our own site minutes. Fundamentally, to not have control of the minute taking process is to not have control of the project.

Site minutes offer us a great opportunity to manage our Clients expectations. Informative and well-structured minutes can serve the purpose of removing the need for our Client to attend Site Meetings, and build his trust in us and our team that the project is being competently and effectively managed.

Distribution list and attendance list:

Clearly state position (Architect or Racking Consultant as the case may be), name of representative or attendee, name of company, cell phone number and email address.

Acceptance:

I will only make provision for a show of hands for acceptance of the minutes as distributed and will make note accordingly. I do not make provision for the proposal and acceptance of my minutes. The Site Meeting is not a democracy and I do not seek nor require that those whose actions I document are accorded the opportunity of rebuttal. If there is an error or an inaccuracy in the capture of the contents of the meeting, I will properly correct the entry in due course with an explanation if required. I do not wish to invite conflicting parties to use my minutes to wage war over an unresolved dispute. The dispute can be documented for factual sake, but the adjudication is our duty and is to be done privately and with proper consideration.

Action Column

Provide a column to delegate specific actions to members of the Distribution List with a date for the entry. It is a not-so-subtle method to keep pressure on the team members and a way of tracking performance and completion of tasks. This should especially apply to the Client, normally the most culpable member of the entire team.

Occupation Certificate:

Include all documentation that is required for the Occupation Certificate as a list and provide the status of each required certificate as the work progresses. If the waterproofing sub-contractor completes his installation, make sure he issues his certificate promptly. It is the Contractors duty to secure the Occupation Certificate, this is a method to ensure he does not fall behind in the paperwork.

Operating manuals, Warranties and Guarantees:

In a similar manner to above, create a list for documentation to be collected such as operating manuals and guarantees for installations such as garage doors etc.

Cost Management Status:

Include a management status that shows:

- The revised Contract Sum as per the last issued Payment Certificate
- The revised date of Practical Completion as per the latest adjudication
- The date and value of the last Payment Certificate
- The date and value of the last payment made by the Client.

That all required and necessary insurance policies are in place and valid and held by the relevant and applicable parties.

Practical Completion:

Create a 'countdown' to Practical Completion. Our idea of Practical Completion and a Client's often differs substantially. One can avoid conflict by managing the expectations of this process from early on in the minutes. Provide the Practical Completion date as stated in the contract, show any extension of time claims that have been adjudicated, and the revised date of Practical Completion. This enables both the Contractor and the Client to have a continuous and up-to-date expectation of when this milestone will be reached.

Regulatory Compliance:

Show the progress of all compliance with the municipality and home-owner associations, SAHRA or any other regulatory body with which the project is compelled to comply. Show submission and approval dates for the SDP, HOA applications and building plans, with municipal reference numbers if available, so that this information is readily at hand should a Building Inspector be appear on site.

Site Instructions:

Itemize in an ordered fashion all site instructions that have been issued to the Contractor showing:

- Reference number.
- Date of issue.
- Status with regard to approved variation cost.
- Approved extension of time claim.
- Dates of written and signed acceptance.
- Percentage of completion on site of approved work as described in the site instruction.

This enables us to graphically illustrate to the Client the cost and time impact of design and scope changes during the construction phase.

Variation Orders:

In a similar manner as above, include a schedule of each and every VO. Indicate whether it has been costed and accepted, the progress of the work and the status of the costs for such a Variation.

Extensions of Time:

Include a schedule of each and every EoT claim:

- Indicate the nature of the claim.
- The cause for the claim.
- The first date the cause of the claim became apparent.
- The date the issue was resolved.
- The impact of the issue on the Building Program (illustrated).
- The outcome and extent of the adjudication.
- The revised date of Practical Completion.
- The adjudication of Preliminary and General costs if appropriate.

This is essential when adjudicating EoT claims and their material impact in the future, and in the JBCC management process of such claims. Trying to follow the track of a prolonged claim months after the event is impossible.

Equally, use the minutes as an opportunity to itemize all decisions outstanding by the Client. Place a time-cap on these items. This is to forewarn your client of potential EoT's with P&G costs should he be the cause of a delay. Any outstanding information from members of the professional team, such as the Engineer, for example, can be similarly highlighted in this section.

Direct Instructions:

Do not permit direct instructions by the Client to the Contactor on site. If this becomes a persistent problem, we may have to limit access to the site by the Client to those times we are present.

Sub-Contractors:

Include all the considerations for the sub-contractors and trades in a similar manner, adding them into the minutes as identified in the tender documentation, and then populating them as they are required. This is a great aid in pre-empting the need for certain products and services, and making sure we are on top of our workload.

Conclusion

Our Contractors tend to be experienced in the game of contracting and in the obligations and duties of modern building contracts. It is generally our clients who have limited experience in this field, sometimes none at all. Under those circumstances, it seems clear that our efforts are more urgently required in the management of our Clients than in the management of our Contractors.

3. CERTIFICATES OF PAYMENT

In pursuit of our effort to manage the expectations of our clients; it is useful to be aware that a Certificate of Payment can do so much more than just allocate payments, it can become a very useful management tool and perform many other functions.

FRONT PAGE

This includes all the usual suspects. This particular one shows the use of retention sums, still popular mainly due to the fact that a lot of smaller contractors find it financially challenging to tie up funds to secure a payment guarantee.

SECOND PAGE

This page starts with the total builders work component, made up of percentage completion and materials on site. Estimating percentage completion without the aid of a QS deserves some discussion. Using a QS to undertake this task is the normal route, but sometimes the size or simplicity of the project does not warrant the professional cost of a QS.

Valuations and other dark arts:

- There are tables and lists that can assist with this, but generally it just takes experience.
- Do not be pressured into paying deposits or other up-front payments. These are often in effect embedded in 'Site Establishment' costs. Be careful of leaving our client exposed.
- Do not depend on the contractors claim, it is nothing more than a happy coincidence if it matches our valuation.
- Be wary of front end-loading. Do not leave our client exposed.
- Dog sense: A poor contractor cannot build, and progress will suffer accordingly. Another aspect to judging percentage completion the more subtle issue of facilitation.
- The contractor finances the project out of his own pocket and is only reimbursed for work approved and completed. Not an enviable position to operate from and it places a large burden of trust for the contractor to have in the Employer and the Employer's contract breaching bank.
- As an aside, we try never sign a building contract with a contractor we do not trust. It is part of our due diligence and the JBCC does not support our lack of faith. If we get ourselves into business with a contractor with whom we lack confidence, the JBCC does not give us an out.

On this page, authorized Variation Orders are itemized, their total cost quoted for by the contractor and accepted by the Employer, and the interim payments allocated. In this particular table I also take into account P & G costs for EOT's that make allowance for attendant P & G costs in the JBCC. Bringing this up front to the Client's attention keeps him abreast of the situation.

PC Items and Provisional Sums are itemized, with their total allowances and spending status. This is transferred from my earlier spreadsheet, and now keeps track of payments made to the contractor included in previous certificates and the current payment.

THIRD PAGE

This page brings together several reconciliations. The contract price adjustment tallies up VO's and PC overruns and gives a clear indication of the budgetary performance. This is useful as an early warning system, and spending behaviour can be modified timeously.

This method forces conflicts to be dealt with and when they are current and quantifiable, and does away with withheld final payments and post contract arbitrations.

At the bottom of this page I provide a cost reconciliation that totals the value of each individual certificate up to the current date, and compare it against the accumulative certified value on the current certificate. Any arithmetic mistakes and errors are instantly picked up using this checker, so at a glance your spreadsheet automatically helps us confirm its accuracy. We can see at a glance every cent spent on the project, and prevents embarrassing mistakes, oversights, short payments and disgruntled contractors.

The subcontractor payment schedule is there to provide a detailed account of all payments made to sub-contractors and when. This information is carried forward to the page 2 PC list. We forward this table to the sub-contractors to ensure that our main contractor is actually making these payments. Sometimes he will try to either avoid his responsibility and push it onto the employer, or he will hold onto the payment and not pass it onto the relevant sub-contractor. Never allow your Employer to find himself in a position where he has paid the work done by a sub-contractor in a certificate, only to have the sub-contractor plea for a direct payment because the main contractor has withheld payments.

4. VARIATION ORDERS

These are normally required in the pursuit of the project, and typically, they originate from the following scenarios:

- The Client has found something better on Pinterest that they far prefer to what we specified.
- There is a better solution to a problem that we had originally detailed and priced for.
- As a result of circumstances occurring on site whose impact only becomes adequately clear as the work progresses – a dynamic situation requiring a dynamic solution.
- The building program 1 – deferred risk passed down by either the client or the developer, impact on budget.
- The building program 2 – deferred risk passed down by either the client or the developer, time pressure.

These are normally easy enough to bring our Client on board with, as the benefits are clear, and the causal path unambiguous. We can convince our Client that there was no reasonable way we as the Architects could have predicted the necessity for the remedial action.

Alternatively, we may find ourselves facing a hostile Client who feels that the remedial work is a result of an oversight on our behalf, and that he fully expects us to pick up the cost. The difference is generally in the way we manage the situation and our clients, the following strategies can help:

- Build leeway into the documentation that can assist in these situations – make provisions or allow for a formal Contingency Sum.
- Work with a good and familiar professional team, often we can cobble a solution that neither generates a VO, nor causes any professional embarrassment.
- Get the VO acknowledged in both the site minutes and the certificate of payment as soon as possible.
- A documented history of a VO keeps it tracked and is critical in the resolution of disputes.

As our Professional Practice lecturer, Bryan Prisgrove, always used to pose “what would the arbitrator say?” This is a very simple test, especially if we are inescapably the cause of the problem. It is always better that we own it and discuss it with our client, acknowledgement is 60 % of the solution. Deflecting will most likely cause us a lot more harm in the long run.

The other important reason for carefully tracking a Variation Order through the site documentation is that often it is this tracking that will, in dispute resolution, prove that at the time the error, fault or omission became apparent, there had been no earlier opportunity to identify and rectify the problem.

5. EXTENSION OF TIME CLAIMS

Another area of Employer / PA conflict is in the adjudication of extension of Time claims. It is always dismayed me that in spite of the fact that we are the Architect and not the Contractor, the Employer will always hold us personally responsible for these delays. Even when they are caused by the employer himself !! As mentioned earlier, when we become PA, we become responsible for the performance of every person and every event that takes place for the duration of the contract (and for years later).

These claims generally arise as a result of the following:

- Instructions issued by the Employer.
- Circumstances arising during the execution of the work, weather, and delayed building materials.
- An omission of the professional team.

We incorporate these claims as soon as they arise into our site documentation. We log the receipt of the claim in our minutes, and if possible, even log the possibility of a claim.

The problem with the adjudication of EOT claims is that their impact and resulting delays can often take place a long time after the actual event that caused it.

The JBCC gives strict instructions with regard to the notification of intention to claim and then the submission of an actual EOT claim within a certain time period after the causal event. All this does is encourage the contractor to cover himself generously, since often he cannot predict the full effect of the event and has to guess at the possible delay. By tracking EOT's through our documentation we make the resolution of any disputes far easier to manage, and greatly reduce our professional risk accordingly.

6. ACTING AS PRINCIPAL AGENT FOR A DEVELOPER / CONTRACTOR

There is a no-man's land of Principal Agency: for several developer clients, we have often been employed on the project to act in this role. This is an untenable position, and to be avoided at all costs if possible.

As architects we are hard-wired to protect the interests and rights of our clients. We normally associate this entity as being the ultimate end-user of the building. In the event of a turn-key project being undertaken by a developer on behalf of the eventual owner, performing your task as a principal agent can become very awkward.

Ultimately, the root of the problem is that our authority as bestowed in the building contract is completely undermined. We are unable to enforce the clauses and provisions, and our adjudications can be unanimously overruled by our employer / contractor.

The task can become more difficult if the end user is invited to be present at site meetings. This can lead to Mobius loop of conflicting demands and agendas as the two parties battle to enforce their wills and avoid responsibility for costs. We are placed in the unenviable position of somehow trying to bring satisfaction to opposed parties. It is important to remember, and to remind your developer Client, that:

- The end-user is not entitled to attend site meetings and should engage with the developer in separate meetings held at a different time, and preferably off-site.
- They tend to muddy the water and will hold opposing positions to the developer on just about all points.
- They can arrive with an endless list of changes and demands which may take the project beyond its original scope, impacting on cost and delivery.
- They can issue multi-page snag lists to us, complicating handover, and placing us in conflict with our Client, the developer, thus frustrating our efforts to secure settlement on our accounts.

In the end we simply refused to be involved in the contractual issues pertaining to the project, as there was no safe place from which we could perform the task. We either limited our involvement to design consultant, or excused ourselves completely.

7. PROJECT MANAGER APPOINTED BY THE EMPLOYER OR THE CONTRACTOR

As Architects, we will be appointed under the JBCC contract as the Principal Agent. This is a very different role to that of Project Manager who is an entity that can be appointed by either the Employer or the Contractor. Usually, this person is qualified as a Project Manager, a Quantity Surveyor, or a Construction Sciences Professional.

If we are working on a site under a Project Manager appointed by the Employer, it is essential to fully understand our position. We are in effect a consulting design architect, our presence on site is to facilitate and co-ordinate the documentation for any design issues that may arise.

Under these circumstances we are not the Principal Agent and should not allow ourselves to be designated in the signed JBCC as such. Doing so places us in the precarious legal position of carrying the burden of 100% responsibility with 0% authority.

Additionally, is the duty of the Project Manager himself to disseminate documentation. Only ever send documents and drawings to the Project Manager so that he may ensure that all parties receive the correct revision.

Ultimately, the boundaries of each other's responsibilities have to be crystal clear. When it comes to variations that carry a cost penalty (or cost saving to the contractor) these boundaries can become obscure, and a clear head is required as to with whom your responsibility lies.

8. WHEN TO INSIST ON A QUANTITY SURVEYOR

Another pitfall in the path of our efforts to be an effective Principal Agent is knowing when to insist on the appointment of additional professionals. The one professional who can help mitigate a lot of the risk we encounter as PA is the Quantity Surveyor. Always identify where risk belongs and whose cost it should be to mitigate it.

Simply stated: Don't do stuff you do not know how to do.

--o-0-o--