Practical Training Report

Con1007x

3/31/2013

Thato Seetelo
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**Terms of reference:**
The Department of Construction Economics and Management has instructed all Construction Studies students at the University of Cape Town to undertake in practical training. These instructions are given in the year of registration. Students are to partake in practical training during their vacation time. They are then required to document and present the practical training in a report. We are required to complete 12 weeks, over the 3 year undergraduate program, and the report is to be finished and handed in by 31st October, in the year of graduation.

**Summary**
This report entails my practical training experience (CON1007X). It is a description of the construction activities I got exposed to and the skills acquired. The main purpose is to highlight the lessons learnt with specific reference to course outcomes. I found, in my first year, that a Quantity Surveyor’s job is not exactly what I had in mind. Their work is a lot more detailed than I had deemed it to be. I conclude that the practical training serves me better in my academia, as it exposes me to a lot more than a classroom can. I also found that it aided with courses which required insight.
Introduction

Subject of and Motivation for report
This report describes two weeks spent on site, with a construction team working for Grinaker-Lta (although it was a joint venture). Having done Construction Technology 1 and Building Sciences, it was all but theory. The two weeks got me exposed to the field; what goes into running a successful site, managing people, and effectively communicating goals.

Background to Investigation
Grinaker-Lta has embarked on a joint venture with Boitshoko and Moleme Company in the re-work of a part of the N3 IN Johannesburg. The joint companies dubbed GLMB, with a few sub-contractors under them, such as Screbante worked really well together. This tender was given out in parts, and the rest of the N3 was getting re-worked by other construction companies. This part was named; Package F.

Objectives of report
The objectives of the report are therefore to:

- Produce detailed, descriptive diary of the work experience during the practical training.
- Evaluate lessons/or skills learnt during practical training, with specific reference to course outcomes.
Week 1: (29 November – 3 December 2010)

This day, saw me venturing into one of the leading Construction companies in South Africa- Grinaker-Lta. The company having assisted in projects such as the renovation of Soccer City; Nelson Mandela Bay Stadium and the Nelson Mandela Bridge, to name a few, this promised to be a fruitful journey.

I went for medical tests as I needed a medical certificate declaring me fit for work, before I could go on site. Once that was done, an induction followed, where the safety officer went through safety measures on site, naming things to be on the lookout for. Because the N3 (the road they were working on), is close to a township, we were warned to be alert for hijackers or robbers. The other part of the road is still in use; therefore we needed to be on the lookout for traffic, to avoid accidents as some the space we worked in was confined. We were further informed on PPE and its importance on site. Once that was done, I got handed over my certificate and could go on site.

I got the chance to work with three qualified Quantity Surveyors; one junior (Mr. Malaatjie) and two seniors (Mr. Thorn and Mr. Tshele). Mr Malaatjie started off with a brief overview of what quantity surveyor’s do. He described them as Cost Estimators/‘budget rollers’. He described the process: as the junior, he goes down to site to take up measurements, which he then uses together with the BOQ to calculate a rough estimate of much the project will cost (or at least costs for the next month). Together with the seniors, they make provision for extra’s and under. They then evaluate what they’ve gathered, so as to compile a report on the cost estimates. This all seemed length some, but I understood that it had to be done. It then gets submitted and at the end of the month, progress is checked, as he again goes on site to check for work that has actually been done. A comparison is made between their estimates and the current costs, from here onwards, payment certificates are produced. I learnt that, this is an ongoing process until the end of the project.

First site visit

Being on site, I noticed how big a role safety played and the employees played their parts and ensured that they had covered their bases. It was apparent that another 20kms of the N3, Package C, was another project Grinaker had undertaken. Package F, spans 18kms, with workers working on the actual road (milling), safety rails, gabions, guard rails, channels, pavement, building walls to prevent cars from toppling into homes, construction of the medians as well as tollgates. The first site visit turned out to be quite the adventure, as the Mr. Malaatjie patiently walked me through it, discussing the activities.
Figure 1- Formwork for forming concrete wall

Figure 2- Formation of V-channel
The rest of the week was spent on site, observing site operations and helping as far as I can with measurements on site.
**Week 2 (6 – 15 December 2010)**

This week, I started helping out in the site office. I helped filing documents, including their estimations and payment certificates. The estimates are filed according to sections corresponding with the Bills of Quantities. These include: Prefabricated curbs, mass earthworks, Fencing, Gabions, Road signs, Road accommodation etc. the compiling of payment certificates requires much detail as the figures of the junior QS need to match the senior’s; the hours, rate and material, otherwise the company stands to be at a loss. The week went on with basic runnings and chats. I was astonished to hear about their long hours.

The talks we had opened my eyes to things, to things such as site establishment. It came to my attention that costs aren’t only related to the ‘structure’ at hand, that they may be indirectly linked. We discussed Preliminaries and General (P& G’S), and they explained what it entailed and how they account for it for costing. I understood that it was a percentage of the total tender amount.

I had struggled to understand the tender process, and deemed it appropriate to ask about it. Mr. Tshele explained how it begins with the owner, hiring consultants (Architect, Engineers, and Professional Quantity Surveyor). They then produce a tender document, which Contractor’s can bid on. Whoever gets awarded gets to take on the project. At this stage, they get handed over the Bills of Quantities and Contractor’s document.

I also learnt that this road got closed in the evenings, for workers to carry on with work. GLMB was responsible for making sure that it was open by 6am. A penalty was attached to this, so the foreman had to work efficiently, else the company would be losing money.

Other than updating the file system, I spent the rest of this week on site, learning about Barriers/Medians, Gabions, Stone Pitching, Blinding and Milling.

We were headed for work holidays, and on the 15th of December, GLMB celebrated 2000 injury free hours. This was done by a braai and awards given out to the health and safety heads. The rest of the staff members got tog bags. I realized that this served as an incentive for the workers to work effectively, and under safe conditions.
Conclusion
I have learnt a lot more than I thought I would, on this practical training. Because this was a road we were working on, and not a building (as it we would in class), I had my doubts as to how relevant this would be to me and if beneficial at all. I was proved wrong.

Topics such as ‘site establishment’ had come up in Construction Technology 1, although we didn’t go as far as costing it. I was well aware of it as an item, but not what it fully encompassed. It is only on this site that I got to learn more about it. Again, we had done the tender process in Construction technology 1, in a form of a triangle (hierarchy). I did know of the individuals, and the roles they played, it was only after being on site that I understood the whole process.

Being on site does make a difference. When things learnt in class become more than theory, understanding comes a lot easier and better. I watched the workers use formwork to form blocks, and for the first time, I got to see the formwork we had talked about in class.

The practical training experience was a success, and proved to be extremely vital for learning purposes. The University does offer good theoretical teachings, although some things can only be learnt on site.
Submission Declaration

Summary of Submission

I hereby declare that I have checked that I am correctly registered for the appropriate practical training courses for 2013, and have maintained the attendance records of my 2013 practical training sessions.

Further, I confirm that I have read the 2013 syllabus and have the following requirements for the department of construction economics and management, understood the contents and acknowledged what my obligations for 2013 are. By ticking the checklist, I confirm that I have adhered to the minimum submission requirements applicable for 2013.

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Plagiarism Declaration

1. I know that plagiarism is wrong. Plagiarism is to use another’s work and present it as one’s own.
2. I have used the [moodle] convention for citation and referencing. Each contribution to and quotation in the report from the works of other people has been attributed, and has been cited and referenced.
3. This report is my own work.
4. I have not allowed, and will not allow, anyone to copy my work with the intention of passing it off as his or her own work.
5. I acknowledge that copying someone else’s assignment, essay, or part of it, is wrong, and declare that this is my own work.

Signature: [Signature]

Date: [Date]

Faculty of Engineering and the Built Environment
Department of Civil and Construction Engineering

ANNEXURE B

SUBMISSION DECLARATION

NOMINATED STUDENT

Full Name of Student: Tiau Sree

Student Number: S14THA005
Letter of employment

GLMB Joint Venture Package F
a Joint Venture between Grinaaker-LTA, Mosenee Road Construction and Baitshoks Road Surfacing and Civil Works

The Dean
University of Cape Town
The Department of Construction and Economic Management.
14 December 2013

Dear Sir/Vodame,

Gauteng Freeway Improvement Project; National Route 3,
Sections 12: Gedenhuyys Interchange to Buccleuch Interchange.

Thato Seckela is one of the Bursary students here at Grinaaker-LTA; it is standard practice for us to pull off all our students from the different campuses during this time of the year to afford them some much needed exposure to the real work.
We see this as a step in the right direction not only for our talent retention but also for the students own individual development.

She joined us on the 29 Nov 2010 and completed her time with us on the 15 Dec 2010; she has worked a total of 13 days during this period on the normal ten hour day for the industry. She has displayed a great sense of interest in the industry as a whole and continued to ask some very intelligent questions during this period which we were quite happy to answer.

We did expose her to measure and certificator and one or two aspects of contract financial reporting. It goes without say that she did a lot of filing as well for which the site is very grateful. Her stay with us has been very short but her value add phenomenal.

She is definitely one of our stars for the future and we are glad she is embarking on her career with us.

Yours faithfully,

L. Tshele
Senior Quantity Surveyor
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