Visit To Securities Commission and Talk on "Critical Project Management Elements in the Securities Commission Building Project"

By: Ir. Faizal bin A. Sanusi

The Project Management Technical Division organised a visit to the Securities Commission on 13 September 2005 with 37 registered participants. Ir. Faizal A. Sanusi was the speaker and the visit was chaired by First Admiral Ir. Hj. Ahmad Murad.

The event commenced at 9.30 a.m. with Ir. Faizal providing a 1-1/2 hour talk and a question and answering session with respect to the project management aspects of managing the Securities Commission (SC) building project. Ir. Faizal's talk touched on:-

- Project Definition
- Project Organisation
- Project Schedule Control System
- Contract Administration
- Formulation of Essential Project Procedures
- ICT in the Project Management Process
- Interpersonal and Communication Skills

Because of the time constraint the talk emphasised on the macro requirements specific to the SC project which could be related to large scale projects of a different nature (e.g. oil and gas facilities, property developments). The talk could be summarised as follows.

INTRODUCTION OF THE SC PROJECT

Ir. Faizal prefaced the talk by presenting to the participants an overview of the SC project. Essentially the SC project was executed in the fast track approach (i.e. where the Design, Tender and Construction phases of the project were compressed as tightly as possible) to obtain the earliest possible completion milestone. The fast track approach was augmented by the Construction Management (vis-à-vis the traditional Management Contractor approach). Ir. Faizal proceeded to briefly explain the difference between the two approaches whereby the Construction Management (CM) approach allowed the SC to have better control over the construction activities as the construction contracts were procured at the trade level. This meant that the SC could dictate where and when the trade contractors could access the site without the usual issues concerning site handover. However, in this arrangement, the SC project team had to contend with providing the facilities, utilities and coordination of the site activities via the Construction Management organisation. In short, the SC was directly responsible for the site and had to administrate in excess of forty trade contractors.

PROJECT DEFINITION

In the early stages of the SC project, crystallising the project scope was critical to ensure that the project stakeholders' requirements were eventually met and to avoid any rework that would affect the cost and schedule criteria of the project.

Ir. Faizal mentioned that identifying the project stakeholders within the user organisation was important in obtaining the user requirements and managing the expectations of the project.

PROJECT ORGANISATION

As projects are unique activities - so are the organisations associated with it. The SC Project Team had to establish an organisation hierarchy for the purposes of:-

- ensuring that the owner's (i.e. the SC) operating policies were incorporated into the project management process
- ensuring a channel of upward communication to the stakeholders and decision makers with respect to project progress and making contractual decision of the numerous contractors (in excess of 40 Trade Contractors)
- ensuring that the latest accurate information was relayed to parties in a timely manner and to avoid information overload
- ensuring a better quality of decision making in a timely manner at the working level of the project organisation

Ir. Faizal stressed that for the SC project (and any large scale project), the two most essential functions in the project organisation were schedule control and contracts administration. In the SC's case, the cost control function was critical at the front end of the project during the Project Definition phase and since most the awarded contracts were on a Lump Sum basis the cost control function was limited to ensuring that the variation orders were within the total project budget which contained contingencies.

PROJECT SCHEDULE CONTROL SYSTEM

As explained in the talk, schedules serve as:-

- a reporting tool to management
- a tool to monitor and control progress
- evidence in arbitration of legal proceedings in event of a dispute as a basis for determining EOT's, LAD's and VO's
- a coordination tool between resources

In the case of the SC project with 40 trade contractors working a four acre project site, the scheduling tool was indispensable.

In utilising schedule control techniques, Ir. Faizal emphasised that a robust system had to be instituted which meant that :-

(i) the system had to carefully worded in the contract to make it operable and legally enforceable

(ii) the schedule control process is a continuous process beginning from the inception of the base contract schedule to the periodic monitoring of the project and to the revised contract schedule (if any)

(iii) the necessity of having a dedicated team or individual to execute the schedule control system

(iv) the necessity of having competent individual or individuals who are not just able to use a scheduling tool (e.g. Primavera or MS Project) and understand scheduling concepts (critical path, effort-driven activities, productivity factors, etc.) but also able to simulate "what-if" scenarios to predict, avoid or mitigate delays

In short, schedule control, as informed in the talk, can be considered a discipline on its own. Ir. Faizal mentioned that for the less complex projects with discrete activities or disciplines, a dedicated schedule control function may not be warranted. However, for mega projects, the investment of implementing this function may have positive returns in terms of LAD or EOT disputes of which the speaker had personally experienced.

CONTRACT ADMINISTRATION

The quality of the contract administration function is largely proportionate to the level of competency of the contract administrator. This individual had to be proficient in:-

- selecting the appropriate form of contract to be used
- must know how to apply the clauses in the contract; in particular to consequential damages, general damages, certifications, deductions, EOT, LAD, VO

- must be objective, impartial; act in a fair and equitable manner

As the contract being let out were not the typical construction type contract in the local industry (because of the Construction Management approach), clauses in the contract had to drafted / constructed to ensure that it can be applicable/operable, enforceable and stand up against differing interpretations whilst maintaining its spirit or intention.

FORMULATION OF ESSENTIAL PROJECT PROCEDURES

In mega projects, with many people within the project organisation, to ensure that the work flow and the management deliverables are achieved within the desired standards, procedures need to be in place. The speaker stated that procedures need to be simple and easily understood for implementation. It can be in the form of a flowchart with durations of each step or activity and the actionable party mentioned. For the SC project, among the many procedures drafted, the more critical procedures were:-

- Design Management Procedure
- Schedule Control Procedure
- Communications and Document Control
- Tendering and Procurement
- Certification and Payment

ICT IN THE PROJECT MANAGEMENT PROCESS

To effectively implement the project elements, use of Information and Communication Technology tools were seamless within the project management process. Some of the tools used were:-

- Database application used to manage information pertaining to drawing revisions
- Scheduling software to manage time
- Customised-programmed spreadsheets to manage cost
- Local Area Networking for group information sharing and communication

INTERPERSONAL AND COMMUNICATION SKILLS

Lastly, the speaker mentioned a few skills required of the project manager. As opposed to once being a technocrat, the project manager has to endow him/her self with a multitude of soft skills as the functions of a large project organisation is populated with several individuals from various disciplines and may originate from different cultures and backgrounds - as was the case with the SC project. Among some of the some skills paramount to a project manager are communication skills, leadership skills, decision making skills and organisation/planning skills.

Ir. Faizal reminded the participants that in the position of a project manager, decisions made are the consideration of facts from various disciplines (i.e. engineer, architect, QS, scheduler, contracts administrator), hence the project manager must avoid the bias of viewing situations from his (or her) own professional discipline. It is the function of the project manager to ensure that advice received has been thoroughly analysed by the respective parties by scrutinising the facts and arguments culminating to the recommendation. With strong interpersonal and communication skills, the project manager can encourage, influence and direct his team to an optimum level to obtain quality decisions.

Subsequent to the talk by Ir. Faizal, the head of the SC Property and Facilities Management Department, En. Razman Muhd. Redzuan, gave a briefing of the SC building's architectural concept and M&E features followed by a short video presentation of the SC Building Project. The remaining 45 minutes of the visit was a tour of the SC building which included the following:-

- the Building Control Management System control room
- raised flooring system showing the under floor systems of air-conditioning plenum, power supply, IT cabling, telephone cabling and central vacuum piping
- the rotary and diesel gensets and UPS systems
- thermal flue system

The Project Management Technical Division would like to extend its gratitude to the Securities Commission for hosting this half day event. ■