Video: Victoria Park Swimming Pool Complex
Construction Process
[Student notes]
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Preamble

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**Lesson 1: Construction Process**

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Topic 02
Video: Victoria Park Swimming Pool Complex
Construction Process

Major teaching areas

Design and Applied Technology
Strand 2 Technology Principles
- Nature of Technology
- Production process
- Systems and control

Related teaching areas

Design and Applied Technology
Strand 3 Value and Impact
- Values in technology and design

Learning objectives

- To learn about a typical demolition and construction process
- To understand construction management planning
- To be able to formulate effective construction strategies for a specific site

Learning plan

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Lesson 1
Construction Process

1.1 Background of Victoria Park Swimming Pool Complex

The redevelopment of the Victoria Park Swimming Pool Complex includes a new pool complex constructed to meet the Federation Internationale de Natation (FINA) standard (FINA is the international governing body of swimming, diving, water polo, synchronized swimming and open water swimming). The new complex will include a 50 x 25 m indoor heated main pool, and a 33 x 25 m indoor heated multi-purpose pool that can accommodate more than 2,500 spectators. Provision will also be made for shower and toilet facilities in the park management office and the changing rooms.

The area where the existing swimming pools are located will be converted into a handball court, two skating rinks and a landscaped area. In addition, the construction project includes refurbishment and re-surfacing for the four tennis courts located in the park, and upgrading the lighting system to meet world-class standards.

The area of the site occupies approximately 24,000 m², with the total construction floor area consisting of 18,500 m². Construction work commenced in late November 2009. This redevelopment project is expected to take approximately 55 months to complete.

Client : Architectural Services Department, HKSAR Government
Building Contractor : Gammon Construction
Contract Value : HK$930 million (US$120 million)
Construction Period : November 2009 - May 2014

(Source: Gammon Construction http://www.gammonconstruction.com)

▼ The new Victoria Park Swimming Pool Complex is under construction.
Explain the following aspects of site inspection and planning required before the commencement of construction at the new Victoria Park Swimming Pool Complex. Any other factors?
1.3 Construction Process

Here are procedures of the construction process of the new Victoria Park Swimming Pool Complex. Can you link them up according to the order of the construction process?

- Site access identified and site clearing
- Termination of utilities
- Erection of hoardings
- Demolition of existing sports facilities
- Drainage upgrade works
- Tree transplantation and protection
- Site inspection and advance piling works
- Sheet piling and temporary shoring
- Excavation
- Installation of steel roof decks and trusses
- Pile-cap construction
- Ground beam and tie beam works
- Closure of equipment entry/exit gaps
- Finishes and pool facility installation
- Column and slab superstructure construction
- Building services installation
- Site improvements
- Landscaping

[Media Corner]
Video ‘Understanding the Building Process and Teamwork’
(「建築工程的幕後團隊」短片)

http://www2.archsd.gov.hk/teachingkits/TK2/
1.4 Construction Concerns

The existing swimming pool is still in use during the construction of the new swimming pool complex.
© Gammon Construction Ltd.

[Discussion]

1. What advantages can be gained from pre-construction planning?
   Efficiency

Health and safety of the site environment (for construction workers and passersby)

Sustainability

...
1.4.1 Efficiency
What measures did the construction team think of to facilitate the construction process?

1.4.2 Health and Safety
What health and safety precautions were taken during the demolition and construction of the new swimming pool complex?

1.4.3 Sustainability
How did Gammon reuse the dismantled materials of the old swimming pool complex?

Dismantled materials were crushed into smaller pieces to backfill the excavated site. © Gammon Construction Ltd.
Summary
1. Construction Management Planning can enhance
   - Efficiency
   - Health and safety
   - Sustainability
   throughout the construction process.
2. In order to formulate the most suitable construction strategies for a specific site, the construction manager should understand the work flow of the construction process and do site inspections.

Key words
Constructions process  Excavation
Health and safety  Landscaping
Sustainability
Foundation

Further reading
1. Gammon Construction, ‘Sustainable Construction’
2. Hong Kong Construction Industry Council
3. City of Melbourne, ‘Construction Management Plan guidelines’
### Master Progress Chart

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<th>Job No.</th>
<th>B-13937</th>
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**Date:** December 2000

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**Remarks:**

John Hui & Associates
Architects & Development Consultants

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**Appendix:**

In real life, the construction schedule is much more complicated, in terms of plan and time distribution, as you can see below from a professional construction consultant company.