

# CPD

Crawford Property Developers(PTY)LTD

34 years of building excellence  
Construction, Electrical, Plumbing, Gas and Civil's

Development Methodology &  
Process Flow  
of  
Crawford Property Developers

## DEVELOPMENT METHODOLOGY AND PROCESS

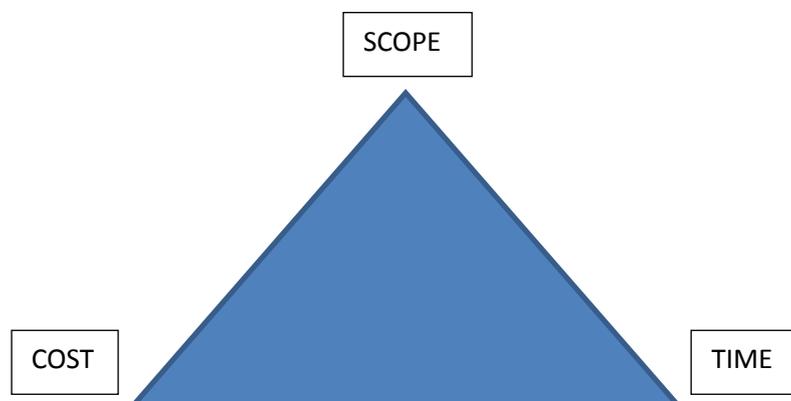
To explain the processes and methodology we will refer to the Project Management Methodology. For starters it is important to understand what a project is and how a project function, then we will set forth a summary of the process flow.

## TYPES OF PROJECTS

As mentioned in the Introduction, **Crawford Property Developers** undertake both **Investment developments** and **Speculative projects**. Stand-alone houses are only for speculative purposes, Sectional Title, Other Residential, Commercial and Industrial can be a mix. In the Project Portfolios it will be stated which type of projects is catered for. Speculative are mostly short term projects from 6 months to 40 months.

## A PROJECT

A project consists of three main deliverables namely **SCOPE**, **COST** and **TIME**. These three main deliverables are illustrated by means of what is known as the **Project Triangle**.



**SCOPE** is the physical project, a building, a road, a pipeline and so on, which must be constructed within the prescribed specifications, standards and quality.

**TIME** is representative of the time constraint applicable to the project and is also referred to as the project program or schedule.

**COST** is reference to the cost applicable to the project, the moneys to be spent to achieve the SCOPE within the TIME.

The Project Manager is overall responsible for the Project with the Design Team also known as the Professional Team. This Team consist of all the "Professionals" (Architect, Engineers, Quantity Surveyors, Town Planners and so on) and at the Construction Stage the Contractor. The Project Manager with the Design Team acts on behalf of the Employer (Client). Quantity Surveyors are responsible for the **Cost** in a Project.

Organisations performing projects usually divide a project into phases to better provide management planning and control, and identify appropriate links to the organisations on-going operations. Collectively, the project phases are known as the **Project Life Cycle**. The phases or stages are stated below;

- Stage 1 Project Inception/Initiation
- Stage 2 Concept and Viability
- Stage 3 Design Development
- Stage 4 Documentation and Procurement/Tendering
- Stage 5 Construction/Execution
- Stage 6 Close out

Each Phase is a project in its own with a beginning and an end. The Project Triangle is also applicable on the Construction Stage of the Project. Therefore, is the Construction Stage, a Project within a Project.

The **Scope, Cost** and **Time** must be managed by the Contractor to enable the successful completion of the Project. To facilitate this, the Contractor employs the skills of a Contracts Manager, also referred to as a Project Manager or an Operations Manager and a Commercial Manager. The Contracts Manager is responsible to deliver the Scope within the Time constrain and the Commercial Manager (Quantity Surveyor) is responsible for the Cost of the Project.

### **THE PROCESS FLOW.**

**The Process** will be explained following the **Project Stages**, in summary they are as follows,

- **Stage 1** Project Inception/Initiation; in this stage a property is identified, an order of magnitude estimate is developed and a **Financial Viability** is done. **Estate Agents** gives inputs as to the type of property that is required in the specific area as well as the most realistic selling price through a **CMA** (Comparative Market Analysis). The Project is appraised and if approved by Crawford Property Developers as a viable Project, then funding is obtained. In this stage the **cost will be 10% to 20% higher than the actual final cost.**
- **Stage 2** Concept and Feasibility; in this stage the property will be procured, Concept Designs done and **costing is further refined to below 10%** of the actual project cost through means of an **Elemental Estimate**. Take note that the **cost will decrease** not the selling price, therefore as the project is developed the **profit margin will increase**. In this project stage, in bigger projects such as sectional title, industrial, commercial and other projects, will **Feasibility Study** be done.
- **Stage 3** Design Development; in this stage the **Final Designs** are done and presented to the local authorities for approval. A **BOQ (Bills of Quantities)** is compiled setting

out the actual budget for the project. A BOQ's is a document which breaks down all cost into the smallest possible components, this is to ensure that not one item is missed and not priced. This document will be followed for all costing purpose going forward with the project. **Not one items cost is allowed to be more than the budget cost** in the BOQ. The budget for the project is now locked in, set in stone.

- **Stage 4** Documentation and Procurement/Tendering; in light of the fact that all construction is executed in house no tendering is required, but Construction (**All Africa PEGC** (Plumbing, Electrical, Gas & Construction) and **Triam Construction**) are issued with all the required permits, registrations, designs and budgets.
- **Stage 5** Construction/Execution; this is the construction phase and the time to construct can vary from 2 months to 1 year depending on the project. **Cost Control** is performed in this stage and the **Scope executed** as per the designs and specifications.
- **Stage 6** Close out; in this last stage the property is sold or partially let, depending on the project. Transfers are done and costs are finalized. A Final Account is done and Partners are paid.

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Development Analysis  
To  
Crawford Property Developers

## INTRODUCTION TO DEVELOPMENTS

**Crawford Property Developers (CPD)** mainly focuses on Residential Developments for the foreseeable 18 months. These are speculative in nature. The decision is not cast in stone.

Investment Projects require a longer holding period therefore additional funds will be required to bring cash flows in line with the investment strategies. Investment Projects are all lettable Projects such as Residential, Industrial and Offices.

Cognisance must also be taken of the different economical property cycles for the market as a whole and each individual sector, Residential, Industrial and Commercial. The position that the market normally finds itself can be illustrated by means of a clock. Every sector in the market will be in a different position on the clock.



Residential property has two segments namely Speculation (Selling) and Letting. For Speculation the clock will presently be standing at between 5 and 7 (Bottom of the clock). This is when the market is most depressed. It is a buyer's market, hence CPD is buying land. If this segment is at 12, then land will be very expensive and the reason for this is that from 9 to 1 everyone gets involved in the market, it is the stage that major profits are made. CPD is geared to achieve excellent ROI even with the clock at 5 to 7.

The flipside is that Residential Investment Property moves 6 hours in front of the Speculative Market. Hence the Rental Market is now between 1 and 3 (Moving downwards). Therefore the rental market will only return to better ROI's in the next 4 to 5 years. There will be spikes in the interim because of new entrants into the market such as young people who cannot afford to buy houses. But in general the Letting Market is moving downwards.

The speculation Market should, according to Economist reach the BOOM within the next 3 to 4 years. It is expected that Residential Property Prices will show a stronger increase over the next 2 years and then accelerate in the years following it.

As for the Commercial (Offices), this market is between 5 to 6 Hours, for both Rentals and Speculation. The Market segment of clients is much smaller than for the Residential market although returns are higher than Residential Properties. CPD will only in 12 months' time re-evaluate this market.

As for the Industrial Market, not very strong on speculation but yield excellent ROI's for investment purposes. This sector is presently in an upward momentum, between 10 – 1 Hours. Therefore, as to all projects speculation or Investment, one has to allow from 12 months to 4 years to complete and bring a project into the market, this holds true for Residential, Commercial and Industrial. Hence Industrial land developed now might not give the required returns. The Market needs to be tracked and determined where the Market will be 12 to 24 months from now.

As stated above, it can take from 12 months to 4 years for a project to achieve completion. Therefore as to Residential Projects CPD will be on track to ride the BOOM period in the next 2 to 3 years.

### **THE ANALYSIS METHODOLOGY FOLLOWED FOR THE DEVELOPMENTS**

In the analysis's (Financial Viability) that follows for Residential Developments. The criteria's were, as the saying goes, comparing apples with apples. The criteria was Full Title stand, Town Houses, Duplex's, and Flats higher than 1 storey.

Furthermore the Building Cost analysed was pared with the type of building that will be most suitable, including an average size of such. Average sell prices for the areas were also calculated. All possible cost were brought into the calculation under INPUT COST, except for the Building Cost required as a first input into the project, this was taken as a percentage of the full building cost.

The size of building was calculated applying the local authority requirements as to FAR, Cover, number of parking's EST. The steps followed in the analysis are as per the Financial Viability sheet attached to this document.

See page 2 of this document concerning the Project Management Stages. The Financial Viability done is in Stage 1 of the Project Management Life Cycle. It is an Order of Magnitude Estimate.

See also the NOTES at the bottom of the Development Portfolio Analysis. The objective of the Portfolio Analysis is to determine which projects will give the best ROI for the different projects. There are some Projects which, when the final analysis was done showed not to be feasible. This was mainly the case where the asking price of a property showed not to be market related when all of the above were taken into consideration.

There are also Projects that can show a higher ROI when the duration of the project is planned to be an accelerated duration. For this analysis no accelerations were applied. An example is Project Roodeplaat, Ref. 36. This Project can be accelerated from 40 months to 30 months; this will change the Annual ROI from 65% to 85%.

As stated before, the Model that CPD use is to obtain the best ROI in the most depressed market. Only present values were used and no values were discounted because of time value of money.