

# EPWP Large Projects Guidelines







# EPWP Large Projects Guidelines

Scaling Up Service Delivery  
and Contributing to Job Creation

Version 1: August 2012

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# Glossary of Terms

## Actual Expenditure

Actual expenditure = (the expenditure on the project by the contractor) + (the expenditure by the professional service provider appointed to design and supervise the project). The actual expenditure excludes expenditure on government management and administration.

## Code of Good Practice for employment and conditions of work for Expanded Public Works Programmes

The Minister of Labour periodically issues a Ministerial Determination in terms of the Basic Conditions of Employment Act of 1997 and Gazetted a Code of Good Practice for employment and conditions of work for Expanded Public Works Programmes which allows for special conditions to facilitate greater employment on Expanded Public Works Programmes (EPWP).

## Contractor

A person, trading entity or group of persons who is contracted to carry out the work on the Expanded Public Works Programme for the relevant public body or client body.

## Construction costs

This is a combined cost of labour, plant and materials, excluding professional fees.

## Cost per FTE

Cost per FTE is calculated by: dividing the total budget for an EPWP project by the number of full time equivalent jobs (FTEs) planned to be created.

## Daily Rate

A worker is paid a fixed sum each day in return for (i) working a fixed number of hours during that day, or (ii) completing a fixed task for that day.

## Demographic Characteristics of Workers

The number of workers that fall within the following categories must be recorded:

- Youth (i.e. 16 to 35 of age) (youth who are still at school shall not be employed on EPWP projects);
- Women;
- People with Disabilities.

The definitions contained in the Preferential Procurement Regulations of 2001 for these categories of beneficiaries will be utilised.

## EPWP Large Project

A large project could either be one big project or a grouping of a number of related small initiatives (various mini-projects) managed in a coordinated way to obtain benefits and control not available from managing them individually. For the purpose of these guidelines, the budgetary threshold of an EPWP Large Project is R30 million (Including Value Added Tax) and above.

## EPWP Target Group

Unemployed, local, low skilled South Africans willing to work on EPWP projects and programmes for a minimum wage rate.

## EPWP Worker

A person employed to work in an EPWP project under the Code of Good Practice for Expanded Public Works Programmes or the Learnership Determination for unemployed learners, whether they are employed directly by a government department, an implementing agent, a contractor or a sub-contractor.

## Full Time Equivalent (FTE)

FTE refers to one person-year of employment. One person year is equivalent to 230 person days of work. Person-years of employment = total number of person days of employment created for targeted labour during the year divided by 230. For task-rated workers, tasks completed should be used as a proxy for 8 hours of work per day.

## FTE Target

“FTE Target” means the targeted number of Full Time Equivalent an employment programme required to create using funding received by a public body within a stipulated financial year.

**Implementing Agent (IA)**

A business, institution or person who is contracted to implement the Expanded Public Works Programme on the relevant department's behalf. An implementing agent is bound by the same terms and conditions governing the implementation of Expanded Public Works Programme as a department.

**Incentive Grant / Amount**

The Incentive Grant / Amount earned is calculated as follows = Number of FTEs reported [by the end of a quarter] x Incentive subsidy per FTE.

**Job Creation Targets**

The number of full time equivalent jobs and work opportunities that a public body must create.

**Job Opportunity**

1 job opportunity = paid work created for an individual on an EPWP project for any period of time. In the case of social sector projects, Learnerships will also constitute job opportunities. The same individual can be employed on different projects and each period of employment will be counted as a job opportunity.

**Key Performance Indicators (KPIs)**

Indicators are qualitative and/or quantitative measure/markers that define how performance toward the achievement of the programme, project or activity objective will be measured.

**Labour Intensity**

Labour intensity refers to the labour component of a project and is calculated as the percentage of unskilled labour wages against the total expenditure.

**Labour-Intensive Construction**

Methods of construction involving a mix of machines and labour, where labour, utilising hand tools and light plant and equipment, is preferred to the use of heavy machines, where technically and economically feasible.

**Main Contractor**

A person or firm undertaking a major contract and employing one or several subcontractors to carry out specific parts of the work or provide services, labour or materials.

**Managing Contractor**

An experienced (main) contractor who is contracted to be responsible for the construction of a project through an agreement that he / she manages one or a number of smaller subcontractors for different parts of the works.

**Mentorship**

Provision of guidance, advice, technical and management support to emerging contractors or professionals to enable them to implement infrastructure projects successfully and eventually establish themselves in a competitive environment.

**Monitoring**

Monitoring is a process that involves measuring and tracking progress according to the planned outputs / outcomes including: resources, activities, quality, costs, timeframes, etc.

**Person-Days of Employment created**

The number of people who worked on a project x the number of days each person worked.

**Programme**

A programme is a coordinated approach to explore a specific area related to an organisation's mission. It usually includes a plan of action or events which identifies staff and related activities or projects leading towards defined and funded goals.



## Project

A specific intervention with a beginning and an end, with a number of distinct phases in between. A project is designed to achieve specific objectives within predetermined implementation timeframes, with a budget with an associated cash-flow, and has a single point of responsibility (project manager).

## Project Budget

The project budget = (the price tendered by the contractor) + (the professional fees for the professional service provider appointed to design and supervise the project). The project budget excludes government management and administration costs.

## Project Wage

Minimum Daily Wage Rate = daily wage (whether task-rated or time-rated) per individual project. This wage rate must be inserted in the Project tender document as per the EPWP guidelines.

## Public Body

A provincial or national department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999, a municipality and municipal public entity within the meaning of the Municipal Finance Management Act, 2003.

## Reporting

Reporting is a process of recording EPWP project data/information from sites and uploaded into the EPWP reporting system on a frequency determined by the EPWP Monitoring and Evaluation (M&E) Unit (e.g. monthly and quarterly reporting frequency), using the reporting templates developed by the EPWP.

## Subcontractor

A person or trading entity being contracted by a main contractor or employer to carry out work or deliver services, labour or materials as part of a larger project. Subcontracting could take any one form, including:

- **Domestic subcontractor:** subcontractor appointed by the main contractor at his discretion;
- **Nominated subcontractor:** a subcontractor nominated by the employer which the contractor is obliged to appoint as a subcontractor (the nominated subcontractor has to be registered with the CIDB, in accordance with the CIDB Register of Contractors, Act. 38 of 2000); and
- **Selected subcontractor:** a subcontractor selected by the contractor in consultation with the employer in terms of the requirements of the contract (the selected subcontractor has to be registered with the CIDB, in accordance with the CIDB Register of Contractors, Act. 38 of 2000).

## Targeted procurement

Procurement of construction services specifying objectives other than purely technical or financial (e.g. socio-economic). These may include labour-based technology for the optimum employment of labour, maximum use of local resources, training, and contractor or community development components.

## Task-based work

A worker is paid a fixed wage in return for a fixed quantity of work, to a specified quality, or a task. The task set should be possible for a worker (or group of workers for a group task) to complete within 8 hours.

## Training Person-Days

The number of Training Person Days is the number of people who attended training x the number of days of training.

# List of Abbreviations

<b>B-BBEE</b>	Broad-Based Black Economic Empowerment
<b>BIFSA</b>	Building Industries Federation of South Africa
<b>CIDB</b>	Construction Industry Development Board
<b>CLO</b>	Community Liaison Officer
<b>DPW</b>	Department of Public Works (national)
<b>EPWP</b>	Expanded Public Works Programme
<b>FA</b>	Framework Agreements
<b>FIDIC</b>	Fédération Internationale Des Ingénieurs-Conseils (International Federation of Consulting Engineers)
<b>FTE</b>	Full Time Equivalent
<b>GCC</b>	General Conditions of Contract
<b>IDP</b>	Integrated Development Plan
<b>IDIP</b>	Infrastructure Delivery Improvement Programme
<b>JBCC</b>	Joint Building Contracts Committee
<b>KPIs</b>	Key Performance Indicators
<b>MTEF</b>	Medium Term Expenditure Framework
<b>NEC</b>	New Engineering Contract
<b>PIC</b>	Project Implementation Committee
<b>SAFCEC</b>	South African Federation of Civil Engineering Contractors
<b>SANS</b>	South African National Standards
<b>SMME</b>	Small Micro and Medium Enterprises
<b>MFMA</b>	Municipal Finance Management Act
<b>PFMA</b>	Public Finance Management Act
<b>PPP</b>	Public Private Partnerships



# Executive Summary

The Department of Public Works, through its Large Projects Directorate of the EPWP Unit identified the need to develop guidelines that will assist the various client bodies with regard to the conceptualization, planning, design, implementation and management of large infrastructure projects which are to be implemented in accordance with the EPWP principles.

In the infrastructure sector the emphasis is on creating additional work opportunities through the use of labour-intensive construction and maintenance methods, which, involve the use of an appropriate mix of labour and machines, with a preference for labour where technically feasible and economically viable, without compromising the quality of the product.

All public bodies involved in infrastructure provision are required to participate in the EPWP. This involvement requires them to identify, plan, design, implement, manage, monitor and report their EPWP large projects in accordance with the EPWP protocols.

In terms of these guidelines a large project is defined as one with a budget threshold of R30 million or more (including Value Added Tax). The guidelines also identify a number of projects that have potential of being implemented using labour-intensive methods of construction.

In order to increase the job creation potential of large projects, the guidelines propose a number of approaches that could be considered by public bodies in the planning, implementation and management of infrastructure projects. These include established contractors implementing large projects using labour-intensive construction methods, subcontractors implementing large projects using labour-intensive construction methods and lastly the bundling of smaller projects to form large contracts. Such large contracts could be implemented using either big and established contractors or the subcontractors or a combination of the two models.

On the basis of the delivery approaches adopted, the public bodies have to choose a possible contracting strategy that meets their requirements. This could either be design by employer, develop and construct and also management contract strategies, taking into account the labour-intensive construction methods and technologies.

The implementation of large projects follows the choice of contracting strategies. The implementation of large projects must take into account the following factors, namely:

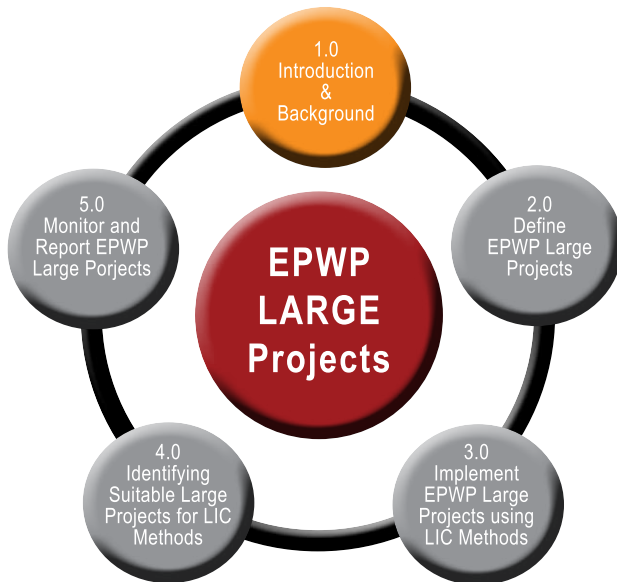
- Design & Documentation
  - *EPWP Labour-Intensive Construction skills for built environment professionals (both client side and the consultants' side as well);*
- CIDB Compliance
  - *Standard for Uniformity;*
  - *Register of Contractors; and*
  - *Register of Projects.*
- EPWP Labour-Intensive Construction Guidelines
  - *LIC Skills for Contractors*

The public bodies have to monitor the progress of the implementation of large projects and report the implementation, making use of reporting templates and in accordance with the monitoring and reporting indicators, as determined by the National Department of Public Works.

# 1. Introduction

## 1.1 Purpose of the Guidelines Document

The guidelines are intended to give guidance to public bodies including decision makers, project managers and built environment private sector consultants to enable them to plan, implement, manage, monitor and report the delivery of large projects using labour-intensive methods of construction.



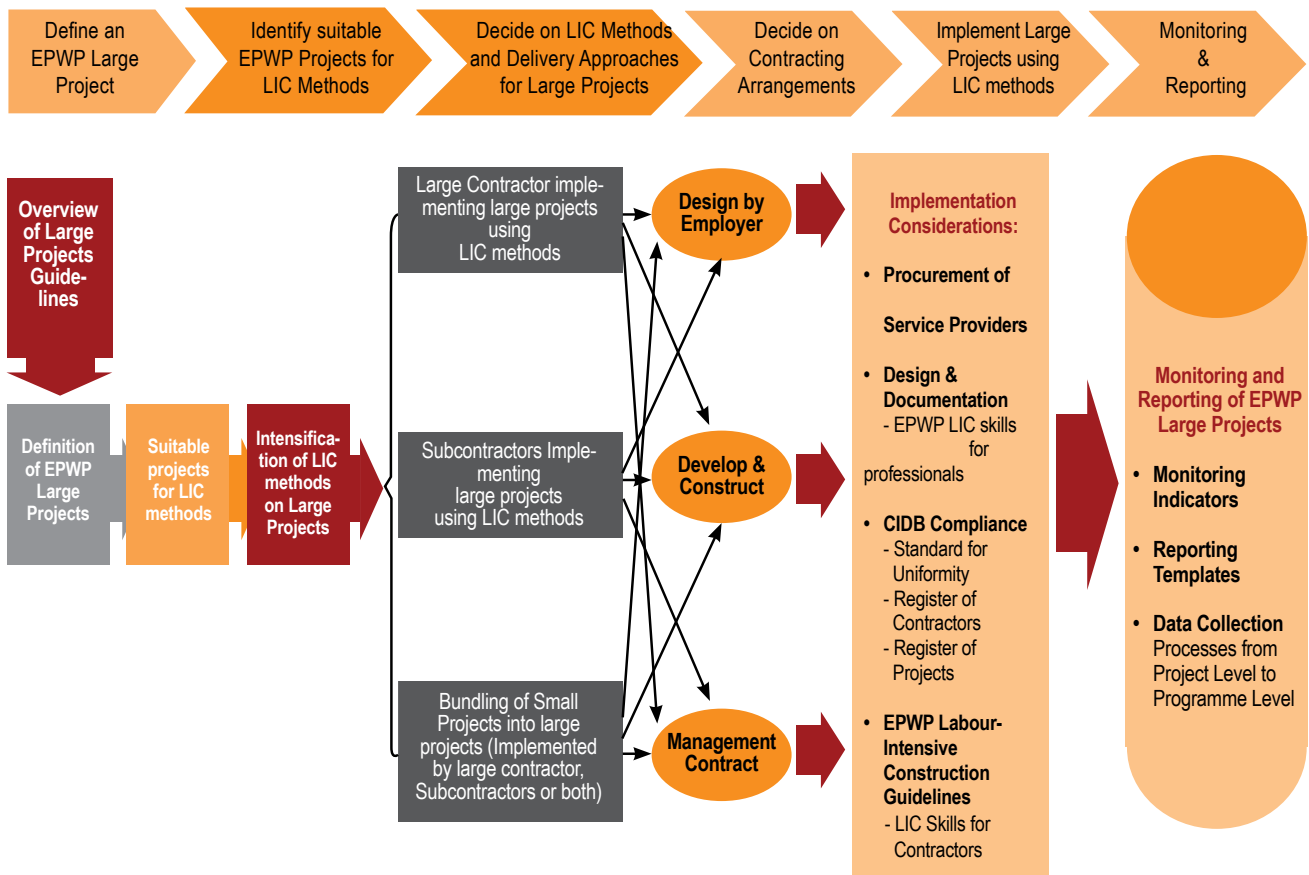
## 1.2 Scope of the Guidelines

The Guidelines comprise five core components, namely:

- Defining EPWP Large Projects;
  - Identification of suitable projects that could be implemented using labour-intensive construction methods;
  - Intensification of labour intensive construction methods on large projects;
  - Deciding on contracting strategies for large projects;
  - Implementation of large projects using labour-intensive construction methods;
- Monitoring and Reporting of EPWP Large projects using labour-intensive construction methods.

It must be noted that the scope of these guidelines does not include manual description of work methods and design standards, rather it is a reference document to be used for all types of large infrastructure works using labour-intensive construction methods. These guidelines also do not attempt to give guidance on how to “labour-intensify” current works, but focus more on the strategic level, especially from the Infrastructure planning, funding, implementation, monitoring and reporting of large infrastructure projects. References are made to the other manuals that were previously published by the National Department of Public Works and the CIDB.

## AN OVERVIEW OF EPWP LARGE PROJECTS GUIDELINES



**Figure 1: An Overview of EPWP Large Projects**

For the programme approach to be realized, public bodies have to ensure that there is a long-term view to infrastructure delivery (by starting with long-term infrastructure plans for provincial and national departments and the integrated development plans of municipalities) and the medium-term infrastructure funding model. The programme approach also affords the public bodies an opportunity to address socio-economic imperatives.

### 1.3 Application of the guidelines

The guidelines are aimed at the public bodies, in particular decision makers and the private sector built environment professionals who normally provide an extension of capacity for public sector public bodies.

It is recommended that the users of these guidelines must have a fair understanding of the framework governing the implementation of the Expanded Public Works Programme (EPWP), and also a good understanding of the Construction Industry Procurement prescripts, as regulated by the Construction Industry Development Board, in terms of CIDB Act No. 38 of 2000 and the framework governing public sector procurement in South Africa, especially the Public Finance Management Act (1999) and the Municipal Finance Management Act (2003).

These guidelines do not replace the CIDB Prescripts or the National Treasury Practice Notes or regulations that are issued by the respective institutions from time to time, rather must be understood to be interpreted as offering guidance regarding the planning, preparation and implementation of EPWP Large Projects, within the context of scaling up delivery and maximising the creation of work opportunities.

These guidelines are also not replacing the *“EPWP Infrastructure Implementation Manual” (DPW 2008) or the “Guidelines for the implementation of the Labour-Intensive Projects under the Expanded Public Works Programme” (DPW, 2005)*. The guidelines are also to be read in conjunction with these documents or their latest versions.

### 1.4 Overview of Expanded Public Works Programme (EPWP)

The EPWP is a nation-wide programme that is aimed at the reorientation of existing public sector expenditure to draw significant numbers of the unemployed into productive work, so that workers gain skills while they work, and also increase their capacity to earn an income.

The EPWP is a strategic intervention that was designed to make a significant contribution to reducing unemployment and providing livelihoods for the poor, women, youth and people with disabilities in the country. The EPWP emphasizes the need to focus our investment on social infrastructure in a manner that addresses severe conditions of underdevelopment and entrenched poverty. The EPWP is being implemented in a phased approach as described below.



#### **1.4.1 EPWP Phase 1 (April 2004 to March 2009)**

EPWP Phase 1 was from April 2004 to March 2009, and its stated target of one (1) million work opportunities was met one (1) year earlier than envisaged, which paved the way for the planning and implementation of EPWP Phase 2.

#### **1.4.2 EPWP Phase 2 (April 2009 to March 2014)**

The objective of EPWP Phase 2 is to create 4.5 million work opportunities for poor and unemployed people in South Africa so as to contribute to halving unemployment by 2014, through the delivery of public works and community services. The intention is to ensure that EPWP enables government to act as an employer of last resort as part of the Anti-Poverty Strategy. The EPWP Phase 2 has three strategic features, namely:

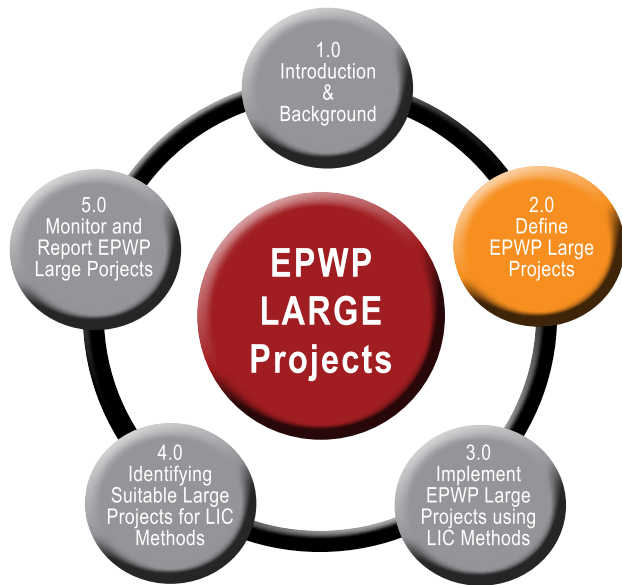
- Introduction and setting of targets and Accountability across government
- Introduction of a Fiscal Incentive
- Introduction of the non-state sector

## 2. Definition of an EPWP Large Project

### 2.1 EPWP Large Projects defined

An EPWP Large Project is defined as an infrastructure project with a value of more than R30 million (including Value Added Tax) that involves the use of labour-intensive methods on a significant scope of work to maximise the creation of work opportunities.

The EPWP Large Project could either be one big project or a grouping of a number of related small initiatives (various mini-projects) managed in a coordinated way to obtain benefits and control not available from managing them individually.



An EPWP Large Project can also be defined as a publicly funded infrastructure project or activity, whose implementation:

- Has a significant portions of the scope of work that can be implemented labour-intensively;
- Ultimately provides public goods and services to prescribed good standard.

### 2.2 Rationale for Large Projects

The July 2005 Cabinet Lekgotla raised concerns regarding the size, impact and visibility of EPWP initiatives. On the basis of these concerns, it was recommended that options for structuring Large Projects involving large contractors be investigated to accelerate capital expenditure and increase the size of EPWP projects. It is also thought that bigger projects will have greater job creation impact in an area and also makes it easier for public bodies to project manage, instead of having many small projects to manage. If properly planned, large infrastructure projects can yield a number of benefits, some of which include, but not limited to the following:

#### 2.2.1 Addressing socio-economic imperatives

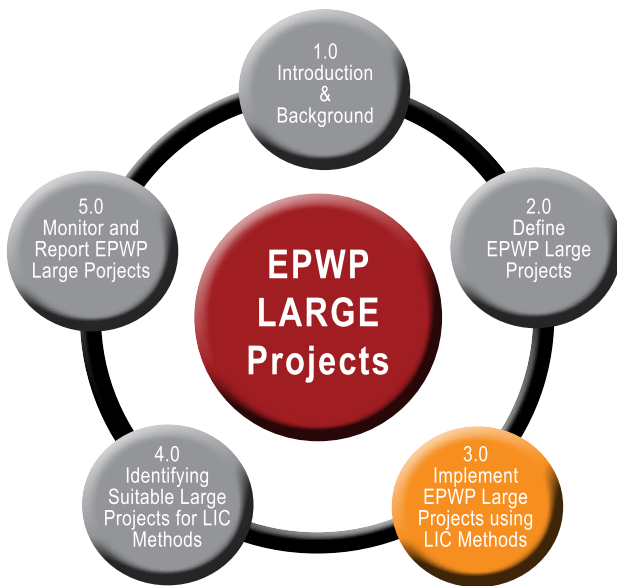
The awarding of contracts to a large contractor, due to economy of scale and the expertise residing in such companies, presents an excellent opportunity to cost effectively provide work opportunities and to develop targeted enterprises. A large contractor can provide work opportunities to and be able to contribute to the development of targeted enterprises

### **2.2.2 Development support to emerging enterprises**

Development support may, however, be provided in a much more targeted, focused and measurable manner should Key Performance Indicators (KPI) be established for large projects and bonus incentives be paid if the Contractor equals or exceeds the performance targets set. For example, KPIs can be established in respect of:

- training outcomes, e.g. number of persons attending and passing specified training courses;
- contractor development outcomes such as the number of contractors improving their CIDB contractor grading designations over the duration of the contract;
- new enterprise formation in classes of works where there is a scarcity of black owned businesses;
- number of persons employed in terms of the EPWP requirements;
- Value of work subcontracted to emerging contractors which could be implemented using labour-intensive methods of construction;
- the attainment of contract participation goals measured in terms of the SANS 1914 families of standards for targeted construction procurement;
- number of experiential opportunities offered to those who have completed specific learnerships; and
- number of employees who are learners at a university and who are undergoing experiential training so that they may complete their qualification in fulfilment of requirements for registration with the Engineering Council of South Africa; etc.

# 3. Implementation Approaches for EPWP Large Projects



There are a number of ways in which large projects can enhance labour intensity and these include, but not limited to the following:

- labour intensification in an EPWP large project; and
- labour intensification in a number of smaller EPWP projects that have been clustered together to form a large project.

There are cases where the public bodies might have large projects to implement as EPWP projects, and also cases where the public bodies might not have large projects, but a number of smaller projects that could be implemented using labour-intensive construction meth-

ods. In both instances, the public bodies might have budgets that could be stretched over a period of three to five years, with specific socio-economic deliverables built into the specifications of such infrastructure projects. The two possible approaches to labour intensification are elucidated in detail in the following section of the guidelines.

## 3.1 Labour intensification in an EPWP Large Project

### 3.1.1 Large Contractor using labour-intensive construction methods

In this approach, the intension is to get the large contractors to implement labour-intensive methods in large projects. These are ideally projects with large budgets of R30 million and above (including VAT) with components which could be conceptualised, designed, planned, tendered, implemented and managed using labour-intensive methods.

The adoption of this approach requires the public bodies to balance a number of factors, including making large projects to be more attractive for medium-sized and large contractors, and simultaneously being more developmental for small enterprises. There are a number of ways in which this can be done.

One of the ways involves the “carrot approach”, whereby public bodies can offer incentives to large contractors to implement projects in a labour intensive manner by introducing or allowing them additional preference points during the tender evaluation stage for the highest labour content.

Another method could be the “stick approach”, whereby large contractors could be penalised if they do not meet the minimum labour content prescribed in the tender specifications. This could be quantified in terms of the amount that could be deducted from the payment certificates should the specified labour-intensity / content not be realised.

One of the prerequisites for this model is that the public bodies must stipulate the labour-intensive skills requirements and capabilities of potential large contractors interested in this model. The large contractors must have in their employ personnel who have the required labour-intensive construction training in accordance with the requirements of the “Guidelines for the implementation of Labour-Intensive Infrastructure projects under the EPWP” (DPW, 2005).

### **3.1.2 Subcontractor implements the labour-intensive components of the project**

#### **3.1.2.1 Subcontracting practices in the construction industry**

Subcontracting is a well established practice within the construction industry, since it is an effective means of involving small, medium and micro enterprises in the construction works contracts. The reasons for subcontracting vary between the different types of construction works contracts. In some contracts there may be a need to acquire specialist capabilities to perform certain aspects of the work, e.g. there might be scope for labour-intensive construction work within a Large Project (*CIDB Practice Note No. 7, May 2007*).

In others, there may be a need to subcontract portions of the work to increase the contracting capacity of the contractors or to satisfy client requirements relating to the engagement of small and micro enterprises or local enterprises in a contract, in accordance with a targeted procurement strategy of a public body. Subcontracting may also be used as a means of addressing racial and gender imbalances in the ownership of contracting entities, through the different types of subcontracting arrangements, namely: Domestic, Nominated and Selected subcontractor (Refer to Glossary of Terms for definitions of various subcontracting arrangements).

The subcontractors should be engaged in fair conditions of contract which are recorded in writing. The NEC3 and the JBCC Series 2000 Agreements contain principal (prime or main) contracts and subcontracts, whereas FIDIC and GCC 2010 only provide the principal contracts (Table 1).

**Table 1: Recommended combinations of forms of contract and forms of subcontract**

Series of Contract	Recommended forms of subcontract
FIDIC	<ul style="list-style-type: none"> <li>• BIFSA Standard Subcontract Agreement 1995 Edition (Amended 2000), for use with Principal Building Agreements other than the JBCC Principal Building Agreement</li> <li>• BIFSA Labour-only subcontract</li> <li>• SAFCEC General conditions of subcontract (2003 edition)</li> </ul>
GCC 2004	
JBCC Series 2000	<ul style="list-style-type: none"> <li>• BIFSA Non-Nominated Subcontract for use with the JBCC Series 2000 Principal Building Agreement</li> <li>• JBCC 2000 Nominated / Selected Subcontract Agreement</li> </ul>
NEC3	<ul style="list-style-type: none"> <li>• NEC3 Engineering and Construction Subcontract</li> <li>• NEC3 Engineering and Construction Short Subcontract</li> </ul>

**Source: CIDB Practice Note No. 7, May 2007: Subcontracting arrangements**

The South African Federation of Civil Engineering Contractors (SAFCEC), the Building Industries Federation of South Africa (BIFSA) and the CIDB have developed forms of subcontract which may be used with any approved forms of contract.

### **3.1.2.2 Labour-intensive construction scope as a specialist category of works**

There are also cases where the public bodies might have identified the appropriate EPWP large projects that could be implemented using labour-intensive construction methods, in a manner involving the use of small and emerging contractors. In this case, the various components or work packages can be isolated and the main contractor could be informed, through the specifications and the pricing instructions to have such packages implemented using small and emerging contractors.

The same principle could be applied with regard to the skills requirements of the subcontractors, i.e. only those subcontractors with personnel who possess the relevant labour-intensive construction skills and qualification could be allowed to submit tender offers. The main contractors could make use of nominated, domestic or selected subcontractors.

The subcontracting model for the labour-intensive scope requires a contractor who has adequate and strong supervisory capacity in labour intensive construction. The implication is that even if the main contractor subcontracts the identified labour-intensive scope of work, there will still be a need for the main contractor to have personnel in his / her employ who have the required labour-

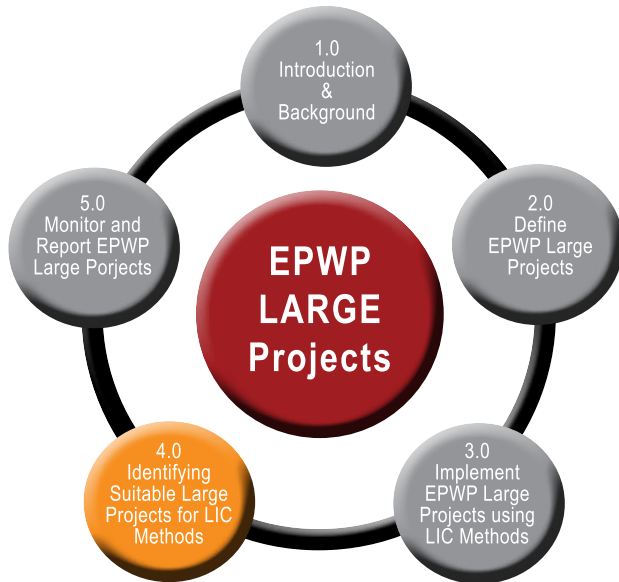


intensive construction qualification (either at NQF Level 5 of 7), provided that such a person will assist the sub-contractors otherwise the subcontractors must hire somebody with such skills.

### **3.2 Bundling of smaller contracts to form a large project**

This approach involves the grouping of smaller similar projects into packages and also ensuring that these are planned and coordinated at a programme level. This approach might require the public body to appoint a Programme Manager to coordinate the planning and implementation of the programme. These might be projects that are identified and prioritised on a yearly basis and programmed for implementation on an MTEF basis.

## Identification of Suitable Large Projects for Implementation using Labour-Intensive Methods



Labour-intensive refers to the methods of construction involving a mix of machines and labour, where labour, utilising hand tools and light plant and equipment, is preferred to the use of heavy machines, where technically and economically feasible (EPWP Guidelines, DPW 2005).

The infrastructure sector was identified as the largest employment generator, targeting the creation of approximately 900, 000 out of 1 million work opportunities during the first phase of the programme (2004 to 2009). In terms of Phase 2 (2009 to 2014), it was envisaged that this component would be a large-scale expansion of the use of labour-intensive construction methods to

build, upgrade and maintain the social and economic infrastructure in the underdeveloped rural and urban areas of the country where such infrastructure is lacking. At the same time, local people would be employed and given basic training and skills development.

The bulk of funding for large infrastructure projects is from the Infrastructure Grants to Provinces and the Municipal Infrastructure Grant (MIG). Conditions were introduced through the 2004 Division of Revenue Act (DORA), which required the municipalities and the provinces to execute public works such as low-volume roads, storm water drains and trenching work using labour-intensive methods in accordance with the EPWP Guidelines produced by the Department of Public Works, and as approved by the South Africa Local Government Association (SALGA) and the National Treasury.

In a study conducted by the ILO, titled “Enhancing Labour Intensity in the Expanded Public Works Programme, Road Infrastructure Projects, South Africa” (ILO, 2012) confirmed that overall labour intensity rate is lower for new construction projects than for maintenance projects. The implication is that for public bodies to make a difference in the implementation of large projects, from a job creation point of view, all large projects must be implemented in accordance with these guidelines.

## **4.1 Types of activities that can be implemented labour-intensively in EPWP Large Projects**

The Guidelines for the implementation of labour-intensive infrastructure projects under the Expanded Public Works Programme (DPW July 2005) provides guidance on what types of works can be carried out using labour-intensive work methods. The guidelines also deal with how additional clauses can be included in tender documents to enable the contractors to price those items that would have been identified and isolated as labour-intensive items. The types of activities that can be implemented using labour-intensive construction methods include, but not limited to the following:

### **4.1.1 Roads works**

- Site clearance
- Layer work construction including loading, hauling and spreading
- In-site concrete roads
- Segmented block paved roads
- Cast in-situ block pavements
- Road Markings
- Fencing;
- Erection of road signs;
- Grass maintenance;
- Road reserve maintenance;
- Rubble masonry bridges, culverts and retaining walls

### **4.1.2 Stormwater works**

- Gabions and reno mattresses
- Small diameter pre-cast concrete elements (pipes and arches)
- Grassed or lined water channels

### **4.1.3 Sewers**

- Sewer manholes
- Sewer manhole covers and lids
- Maturation or flocculation ponds

#### **4.1.4 Water**

- Laying of water pipes, fittings and house connections in all materials
- Construction of ferro-cement reservoirs
- Excavation for membrane lined and floating roof reservoirs
- Construction of small masonry reservoirs
- Spring and well protection measures

#### **4.1.5 Haulage of materials**

#### **4.1.6 Electricity**

- Excavation of trenches for reticulation of all voltages
- Excavation for and erection of poles for overhead lines
- Installation of all electricity cables (joints and terminations by qualified persons)

#### **4.1.7 Houses, Schools and Clinics**

- Manufacture of masonry elements on site
- Excavation of all foundation trenches by hand
- Manufacture of roof trusses on site

## **4.2 Possible Contracting Arrangements**

### **4.2.1 Option 1: Programme management approach (design by employer) using labour-intensive methods**

#### **a) Definition of Design by Employer**

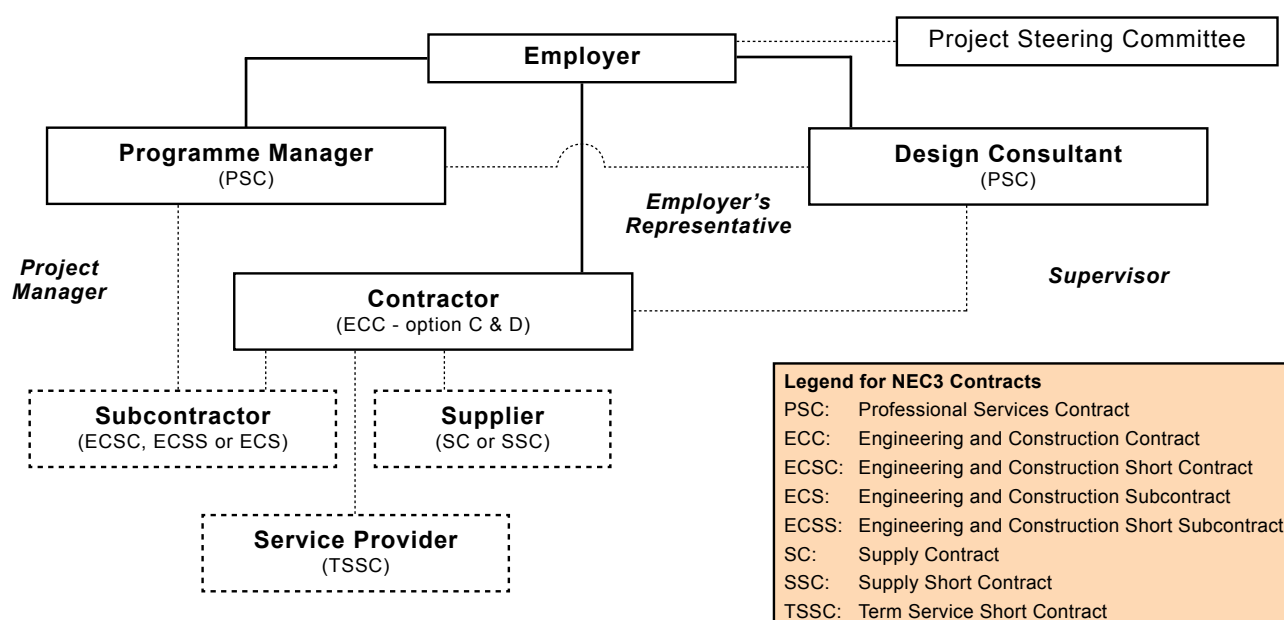
The contractor only undertakes construction on the basis of full designs issued by the employer. This contracting strategy requires that the design and specifications be adequately developed before tenders are invited (CIDB Inform Practice Note No. 1, August 2006: Scaling up delivery and accelerating empowerment) (See attached **Annexure A**).

Design is a separate function to construction and is managed by the client or his agent. The Employer has the capability and capacity to make decisions during the design process (*Delivery Management Guidelines: Practice Guide 2: Construction Procurement Strategy, 2011-04-20*)

**b) What the Model entails**

The service delivery model adopted for the multi-year programme (between 3 and 5 years) for this option is as shown in Figure 2. The Employer will procure the services of a Programme Manager to manage the delivery of the works, a Design Consultant to design the works and to monitor the quality of the constructed works and a Contractor to construct the works.

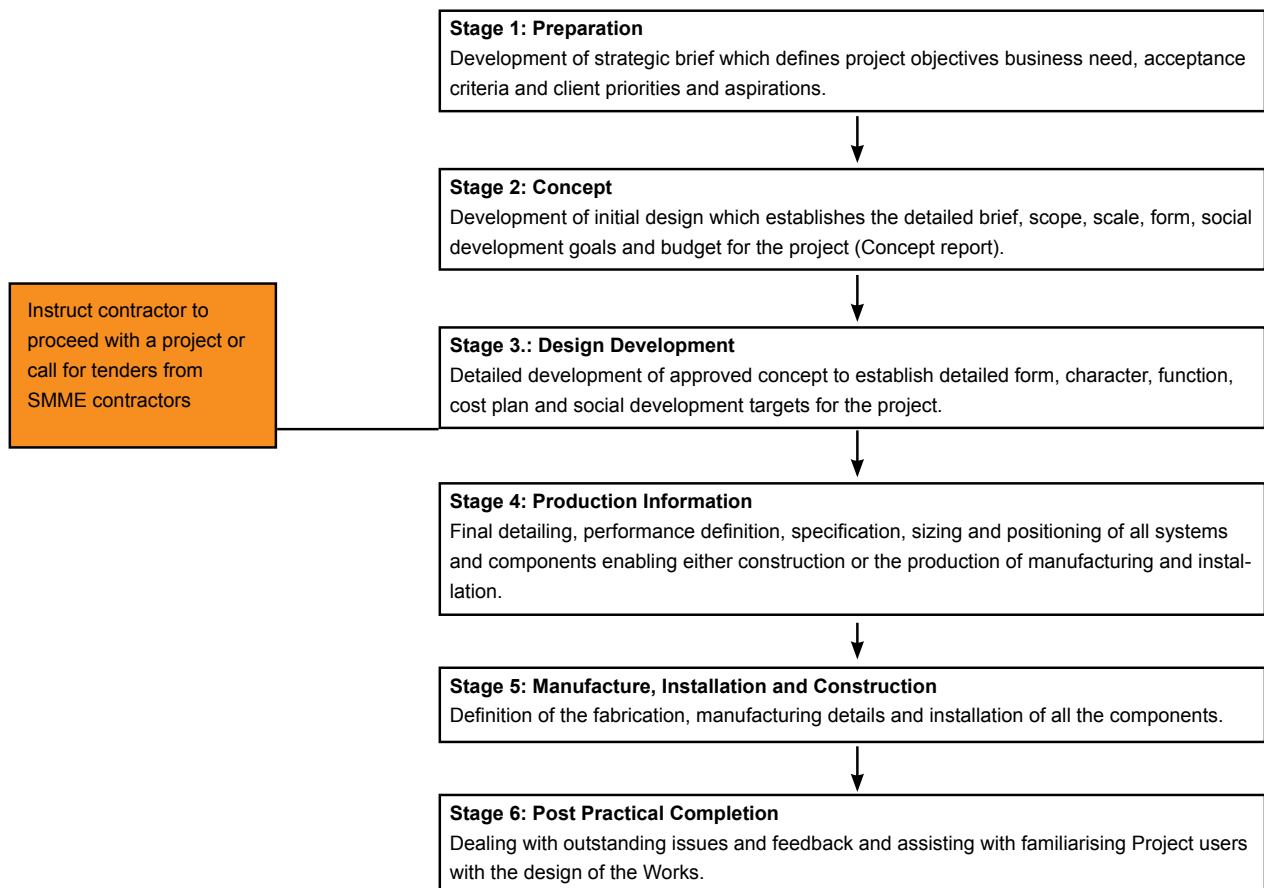
A competitive selection process is followed to appoint these participants, primarily based on quality (functionality criteria). The Contractor will be selected on the basis of quality (functionality) parameters and fee percentages for overheads and profit and related financial parameters (Watermeyer, et al, 2010).



**Figure 2: Proposed service delivery model: programme management (design by employer)**  
**Source: Watermeyer et al, 2010.**

The Programme Manager acts as the “Employer” in the professional service contract with the Design Consultant, save for making the payments due, and as the Project Manager / Principal Agent in the construction works contract with the Contractor. The Department (Employer) only interfaces with the Contractor and Design Consultant through the appointed Programme Manager (either public or private sector employee).

The Programme Manager is responsible for converting the business plan into work packages for the Design Consultant who will develop the scope of work for the Contractor and provide the drawings and specifications for each work package which will involve a single identified site where facilities are to be constructed. The Programme Manager and Design Consultant will provide services in accordance with the stages outlined in Figure 3.



**Figure 3: Stages of delivery of a project**



Projects (work packages) identified by the Programme Manager and developed to stage 4: Production Information will be:

- a) constructed by the Contractor on the basis of:
  - i). a target price for the project being fixed before commencing with construction, i.e. a guaranteed maximum price, which comprises a forecast of the probable cost of the constructing and commissioning of the works and is agreed with the Employer and the Programme Manager including all risks for construction and commissioning and the Contractor's fee (mark-up);
  - ii). the target price being amended whenever a change in the scope of the work occurs which has an effect (upwards or downwards) on the price;
  - iii). the total project cost being maintained within a margin of 10% affordability so that if the target exceeds the affordability limit, the Programme Manager, Design Consultant and Contractor provide an economic solution without prejudicing the functionality or design of the scheme to reduce the total project cost within the affordability margin; and
  - iv). the Contractor being paid his direct costs of employing people, the actual incurred cost of equipment, plant and materials and actual payments to subcontractors plus a fee for overheads and profits, provided that this amount does not exceed the target price; and
  - v). the final amount paid to the contractor being the lesser of the contract price and his cost plus his fee together with an agreed portion of the difference between the target price and this latter amount; or
  
- b). constructed by an SMME contractor who is contracted on a "one-off" basis by the Employer, based on a priced contract with bill of quantities following a competitive tendering process.

The major portion of the works, however, will be carried out by the Contractor. The abovementioned target contract is a development of cost reimbursable contracts, the idea being that a target is set jointly by the parties to serve as a motivation to decrease and control costs. Financial risks are shared, proportionally through the Contractor's share percentages, between the Employer and the Contractor. The Contractor develops and prices either an activity schedule or bills of quantities for each project (site), based on the documentation (production information) submitted by the Design Consultant and Programme Manager, in order to arrive at a target cost.

The Programme Manager advises the Employer on the reasonableness of the price for the works and finalises the target price for the package with the Contractor. Thereafter the Programme Manager provides cost control services and acts as the Project Manager / Principal Agent in the construction contract with the Contractor. The Contractor maintains records of all:

- goods received notes;
- amounts paid to subcontractors together with details of how the amounts were calculated; and
- daily allocation records for his staff and usage of equipment and plant.

## **4.2.2 Option 2: Programme management approach (develop and construct) for large projects using labour-intensive methods**

### **4.2.2.1 Description of Develop and Construct contracting strategy**

The Develop and Construct strategy is similar to the Design and Build strategy, except that the Employer issues a concept design on which tenders are based. The strategy is based on a scheme design prepared by the Employer under which a contractor finalises the production information and constructs it.

The final design details are integrated with construction and are managed by the contractor. The Employer prepares the Design Development Report setting out the integrated developed design for the project. The report is then used to develop the scope of work for the contract (See **Annexure A**).

#### **a) What this strategy entails**

This option is very similar in approach to option 1, the main difference being that the Design Consultant appointed by the Employer performs the services associated with Stage 1 (Preparation) and Stage 2 (Concept) and the Contractor appoints a Design Consultant to perform the services associated with Stage 3 (Design Development), Stage 4 (Product Information) and Stage 5 (Manufacture, Installation and Construction Information).

The Employer retains the services of his appointed Design Consultant to review the Contractor's outputs of Stages 3 to 5 for consistency with the Concept Report that was developed in Stage 2, to act as the Supervisor, in terms of the contract with the Contractor and to perform services associated with the Stage 6 (Post Practical Completion).

### **4.2.3 Option 3: Management contracts for large projects using Labour-Intensive Construction Methods**

#### **4.2.3.1 Description of the Management Contracting Strategy**

This is a contracting strategy under which a contractor is responsible for planning and managing all post-contract activities, including, if required, any design of the works or portion thereof, and for the performance of the whole contract (See **Annexure A**).

#### **4.2.3.2 What the Management Contracting Strategy entails**

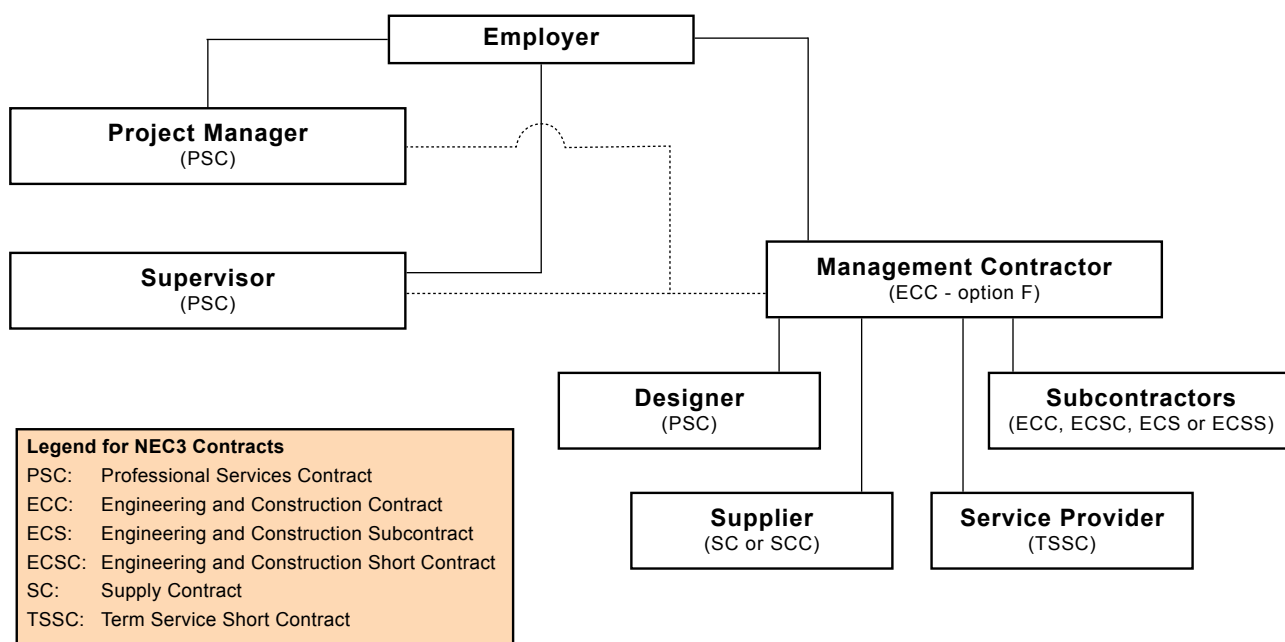
In this option, the Employer outsources the entire programme to a Management Contractor whose responsibilities in essence are to translate the business plan into work packages and to manage the work packages. The Employer only interfaces with the Contractor through the appointed Project Manager. The Employer also appoints a Supervisor to ensure that the quality of the works is in accordance with the requirements of the Contract.

The Management Contractor's responsibilities for construction work are the same as those undertaken by a contractor responsible for designing and constructing construction works in terms of options 1 and 2. The Management Contractor, however, only manages the project and is required to subcontract the design, the provision of site services and the construction and installation of works to others (See Figure 4).

A competitive selection process is followed to appoint the Management Contractor, primarily based on quality (functionality criteria). The scope of work establishes the procedures which the Management Contractor has to follow to procure the services of the Design Consultant, Contractors and others. These procedures can be framed around the requirements of the CIDB Standard for Uniformity in Construction Procurement and SANS 294, Construction Procurement Processes, Procedures and Methods.

The Contractor is paid the amount due to Subcontractors for work which the Contractor has subcontracted, plus the cost of any work carried out by the Contractor himself, less any disallowed cost, plus a fee. The Contractor is required to keep records of accounts of payment of costs, proof that payment has been made, communications about and assessment of amounts due to Subcontractors, etc.

The Management Contractor's Fee will increase as Subcontractors' prices increase due to changes in the scope of work. However, he will not receive separate payment for his work in dealing with changes in the scope of work and he will not receive any additional fee for work on changes in the scope of work which does not lead to an increase in Subcontractors' prices.



**Figure 4: Management contract of an EPWP Large Project**

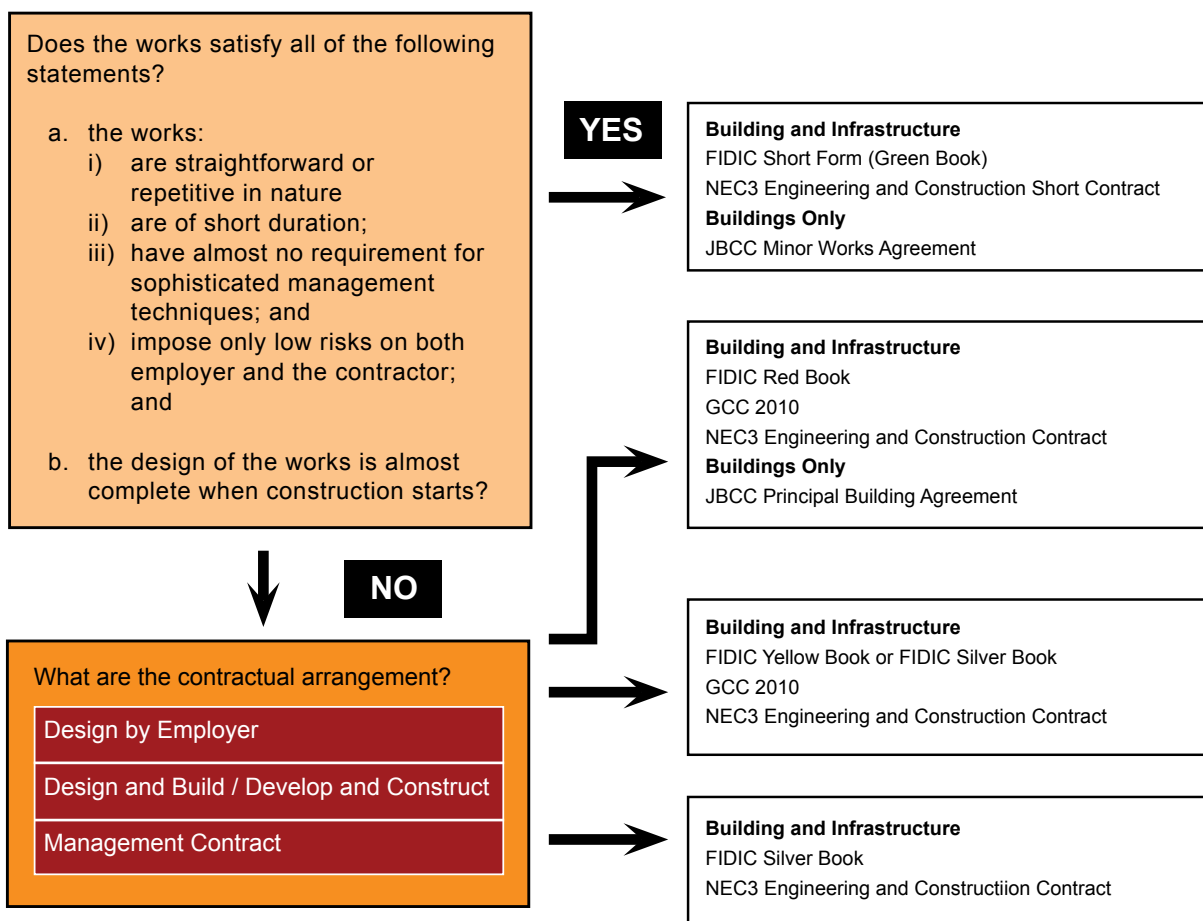
### 4.3 Determine contracting arrangements strategy

The three main functions are work transfer (to define the work that one party will undertake), risk transfer (to define how the risks inherent in doing the work will be allocated between the parties) and also motive transfer (to implant motives in the contractor that match those of the client) (*CIDB Delivery Management Guidelines: Practice Guid 2 - Construction Procurement Strategy, April 2011*).

### 4.3.1 Forms of Contracts for an EPWP Large Project

The complier should identify suitable forms of contract for the package and suitable pricing strategies for the selected forms of contract (See Figure 5) (Watermeyer, 2011). Because of the diversity of both construction and client's requirements, no single uniform approach to contractual arrangements can be specified or advocated.

A number of alternative strategies are available to the client and each contract should be formulated with a specific job in mind. There are a number of appropriate contracting strategies that could be considered include, namely: Design by Employer, Design and Build, Develop and Construct, Construction Management model, Management Contracting and Community-Based model.



**Figure 5: Decision criteria for the Selection of a Form of Contract for Construction and Maintenance Projects (Watermeyer, et al, 2011).**

The CIDB Standard for Uniformity of construction procurement documents requires that construction works be performed using one of the following forms of contract (Figure 5):

- i) General Conditions of Contract for Construction Works (GCC 2004);
- ii) Conditions of Contract for Construction, Conditions of Contract for Plant and Design-Build, Conditions of Contract for FIDIC EPC/Turnkey Projects or Short Form of Contract
- iii) JBCC series 2000 Principal Building Agreement or Minor Works Agreement; or
- iv) NEC3 Engineering and Construction Short Contract or NEC3 Engineering and Construction Contract.

The Standard further requires that the CIDB Standard Professional Services Contract or the NEC3 Professional Service Contracts be used for the appointment of professional service providers. The standard requires that these forms of contract “*be used with minimal project specific variations and additions which do not change their intended usage.*”

### **4.3.2 Decision criteria for the selection of a suitable form of contract for construction works**

There are a number of factors that influence the client bodies to choose one form of contract over another. Where several forms of contract satisfy requirements, consider the need for the following in the final selection of a form of contract (see Table 2 below):

#### **4.3.2.1 Back-to-back contract**

Eliminate FIDIC and GCC 2010 Forms of Contract as they currently do not make provision for subcontracts (FIDIC has a test version available).

#### **4.3.2.2 Risk assessment and allocation**

Changes to the price arising from the Employer’s Risk are assessed as the cost to the contractor without reference to tendered rates and prices, the philosophy being that the contractor should not be in a better or worse position than before the change. Use only NEC contracts if this is a consideration.

The proactive management of risks and the assessment of events leading to changes in the time for delivery or the cost of works to be assessed soon after the event triggering such changes occurs. Use only NEC contracts if this is a consideration.

#### **4.3.2.3 Incentivising the project team to perform better**

If it is also the intention of the client to incentivise the supply team to perform better, you must use only NEC contracts if this is a consideration.



#### 4.3.2.4 Familiarity with a particular form of contract

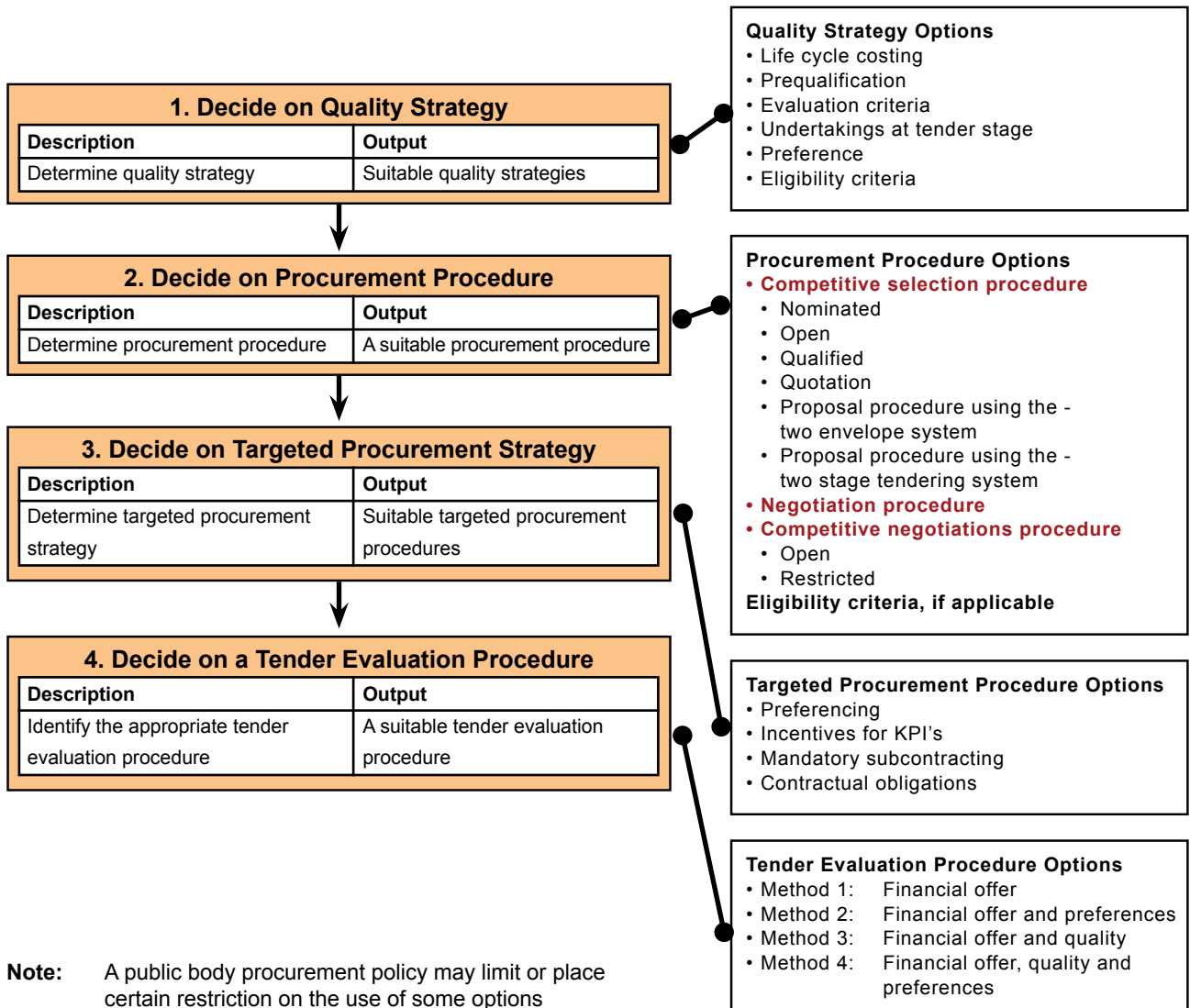
If the organisation is only familiar with a particular form of contract and the kind of projects are once off in nature, then the client can consider the use of the form of contract that is most familiar to the organisation and their professional team.

**Table 2: Decision criteria for the selection of the form of contract for construction works**

Form of Contract	Decision Criteria
FIDIC Conditions of Contract for Construction for Building and Engineering Works designed by the Employer (Red Book)	Building or Engineering works designed by the Employer. The works may include some elements of contractor designed works.
FIDIC Conditions of Contract for Plant and Design-Build for Electrical and Mechanical Plant and for Building and Engineering Works, designed by the Contractor (Yellow Book)	The provision of electrical or mechanical plant and the design and construction of building or engineering works.
FIDIC Conditions of Contract for EPC Turnkey Projects (Silver Book)	The provision on a turnkey basis of a process or power plant, of a factory or similar facility, or an infrastructure project or other type of development.
FIDIC Short Form of Contract (Green Book) as published by the International Federation of Consulting Engineers (Green Book)	Building or Engineering works of relatively small capital value or for relatively simple or repetitive work or work of short duration. Use for Design by Employer or contractor designed works.
General Conditions of Contract for Construction Work (GCC 2010)	Construction and Building works contracts, and contracting strategy. Although its focal point is on the contracting strategy of Design by Employer, it is also suitable for the Design and Construct.
JBCC Principal Building Agreement	Building works where the contractor is not responsible for design of the permanent works or the co-ordination of design elements.
JBCC Principal Building Agreement - Minor Works Building Agreement	Minor building works of simple content where: <ul style="list-style-type: none"> <li>The contractor is not responsible for the design of the works;</li> <li>The Employer appoints direct contractors for specialised work or the installation of items not undertaken by the contractor</li> <li>The construction period is not more than 9 months</li> </ul>
NEC3 Engineering and Construction Contract (ECC)	Engineering and Construction works, including any level of design responsibility.
NEC3 Engineering and Construction Short Contract (ECSC)	Engineering and Construction works which do not require sophisticated management techniques, comprise straightforward work and impose only low risk on both the Employer and contractor.

### 4.3.3 Determine procurement arrangements (Decide on Quality strategy)

The compiler is to determine the strategies to ensure quality in the procurement in addition to the full and unambiguous specification of requirements in the scope of work, based on the decision criteria contained in Figure 6 (Selecting suitable quality strategies).



**Figure 6: Deciding criteria for procurement arrangements for EPWP Large Projects**

## 4.4 Design and Documentation for EPWP Large Projects

### ***4.4.1 Design and documentation compliance to EPWP guidelines***

It is expected that the design and documentation of EPWP large projects have to comply with the “Guidelines for the implementation of labour-intensive infrastructure projects under the EPWP” (DPW, 2005). The Guidelines were developed by the National Department of Public Works, with the aim of providing provinces and municipalities with the necessary tools to successfully tender the infrastructure projects as labour-intensive projects.

The guidelines were designed with the aim of minimising the additional work required from provincial and municipal officials by providing instructions on how additional clauses can be included in contractors for consultants and contractors involved in planning and implementation of labour-intensive infrastructure projects.

The compiler of construction procurement documents is also to ensure that the tender documents do identify the types of projects that have potential for being implemented labour-intensively and simultaneously incorporate the relevant clauses in the various sections of the tender documents, especially the tender data, pricing instructions, specifications, Bill of Quantities / Schedule of Activities and the scope of works sections of the tender documents. The aim of incorporating the clauses is to ensure that the specific scope of work targeted for labour-intensive construction must yield more work opportunities in comparison to the conventional approach.

### ***4.4.2 Labour-intensive compliance for Built-Environment Professionals***

The public bodies are to ensure that the Built-Environment Professionals responsible for the design and the documentation of large projects must have the required labour-intensive construction qualification, at NQF level 5 or 7.

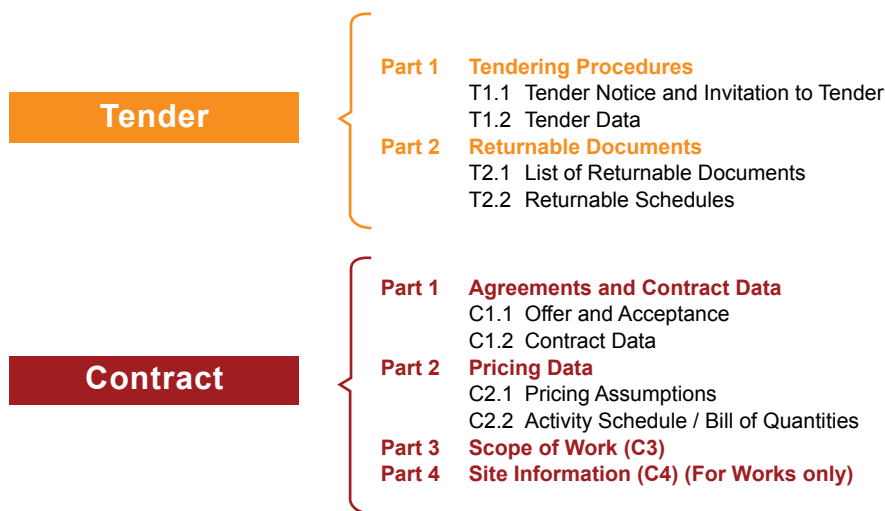
### ***4.4.3 Labour-intensive construction compliance for contractors***

The public sector client body to ensure that works contracts for large projects are awarded to contractors who have in their employ managers who have completed the necessary skills training in terms of the “*Guidelines for the Implementation of Labour-Intensive Infrastructure Projects under the EPWP*”.

## 4.4.4 Construction Industry Development Board compliance requirements

### 4.4.4.1 Standard for Uniformity of Construction Procurement Documents

The compiler to prepare the tender documents in accordance with the CIDB Standard for Uniformity in construction procurement documentation. The compiler might consider using the single volume approach or the three volume approach in the compilation of construction procurement documents. In the single volume approach, the procurement document consists of two parts compiled in a single volume. The first part comprises “The Tender” and the second part comprises “The Contract” (See Figure 7). In the three volume approach, the standard headings of the document are kept the same (as the single volume headings), but they are divided into three volumes. Only the tender returnable documents (Volume 2) are returned as part of the Tender submission (See Figure 8).



**Figure 7: Single Volume approach to the packaging of construction procurement documentation Source: CIDB SFU (Standard for Uniformity, 8 August 2005)**

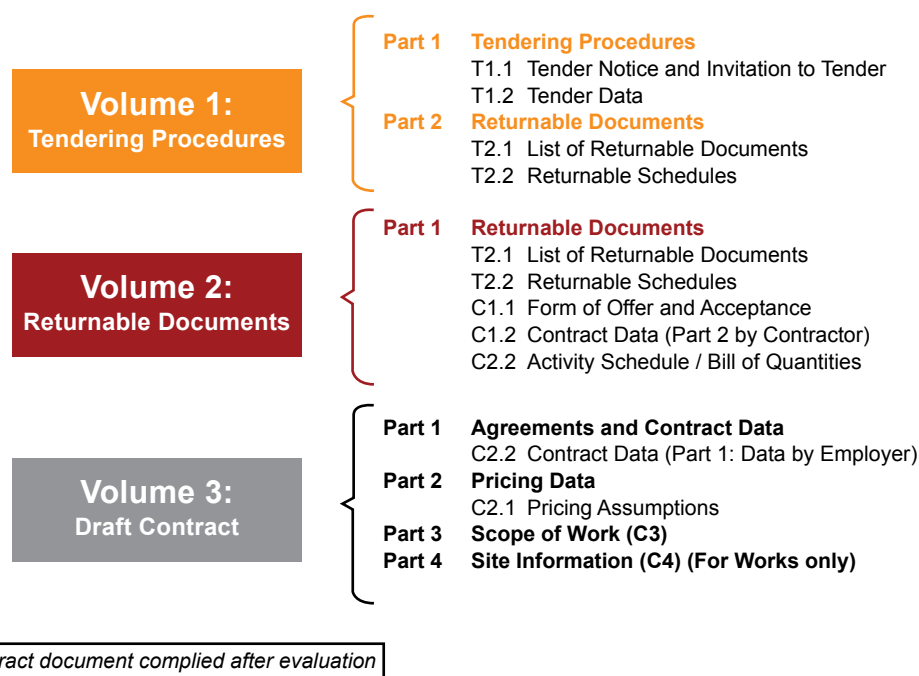
#### 4.4.4.2 Compliance with the CIDB Register of Contractors (RoC)

The CIDB Act (No. 38 of 2000) requires the CIDB to establish and maintain a Register of Contractors (RoC) to regulate those persons who contract with the public sector to provide construction works. The RoC is not mandatory for private sector contractors. Public sector client bodies implementing EPWP Large projects can only make use of CIDB registered contractors, with the correct grading designations.

#### 4.4.4.3 Compliance with the CIDB Register of Projects (RoP)

The CIDB Act (No. 38 of 2000) also permits the CIDB to establish and maintain a Register of Projects (i.e. RoP). The RoP is aimed at registering construction projects with a minimum value as determined by the CIDB Regulations in order to capture the size, distribution and profile of construction projects that are being implemented by the both the public and the private sector client bodies.

Once the successful contractors have been selected for the award of contracts, all the construction projects with a value in excess of R200, 000 must also be registered with the CIDB Register of Projects (RoP). The registration with the RoP must be complied with during the advertising, award and cancellation / termination stages of the project.

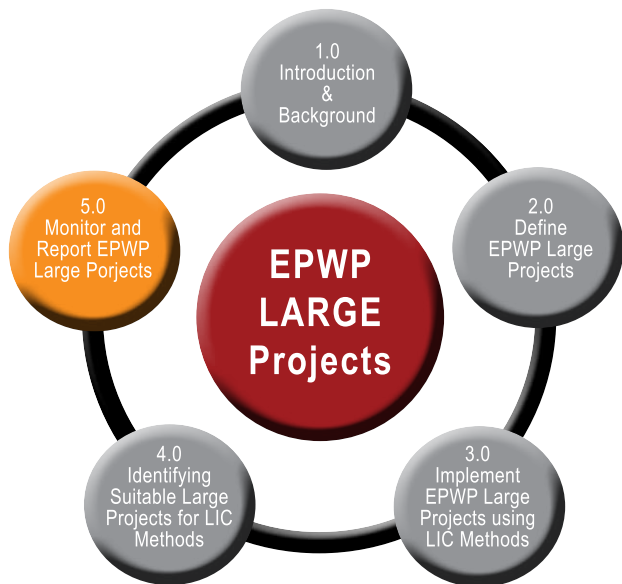


**Figure 8: Three Volume Approach to compilation of construction procurement documents**  
Source: CIDB SFU (Standard for Uniformity, 8 August 2005)

# Monitoring and Reporting Requirements of EPWP Large Projects

The Contractor is obliged to produce a work schedule (programme) as indication of the forecast progress of the works to completion. The Project Manager shall have to monitor the actual work against the planned progress and the ability of the contractor to complete the works within the contractually stipulated time.

In addition to the above, there are additional EPWP reporting requirements that have to be met by the contractors and the Project Managers. The EPWP has already developed the core monitoring indicators that are used to monitor and report progress on the implementation of EPWP initiatives across the various sectors.



## 5.1 Monitoring Indicators

The EPWP indicators referred to above include:

- Person-days of Employment created;
- Person Years of Employment / Full Time Equivalent (FTE's);
- Job Opportunities;
- Project Wage;
- Training Person-days;
- Project Budget;
- Actual Expenditure; and
- Demographic targets
  - Women;
  - Youth; and
  - People with Disabilities

## 5.2 EPWP reporting templates

The reporting templates and the definitions of the above monitoring indicators have also been developed by the EPWP Unit of the National Department of Public Works. The public body has to collect performance related data on a monthly basis and ensure that such reports are captured in the EPWP reporting system. The Reporting templates are attached to these Guidelines as **Annexures C and D**.

## 5.3 Progress monitoring

Progress monitoring and reporting must be done on a project basis. The Project Implementing Body must collect information from the Project Manager, who will in turn collect such information from the Contractor at a project level, using the project reporting templates developed by the EPWP Unit. The Daily Attendance Demographic reports are to be consolidated into monthly and then quarterly reports for submission to the public body.

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# Annexure A

## An Overview of Contracting Strategies for Construction and Engineering Projects

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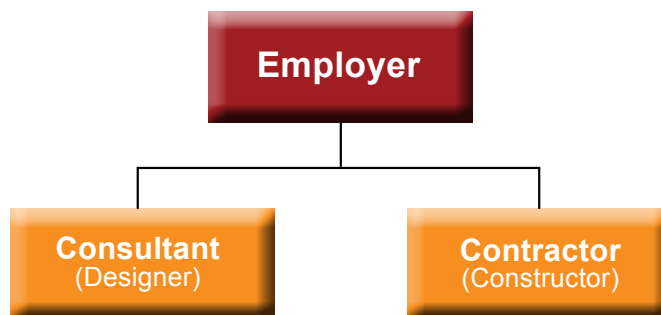
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# 1. Design by Employer

The historic approach to delivery in the civil and building sector has been the Design by Employer Strategy, whereby the contractor only undertakes construction on the basis of full designs issued by the employer (See Figure A1). This contracting strategy requires that the design and specifications be adequately developed before tenders are invited (*CIDB Inform Practice Note No. 1, August 2006: Scaling up delivery and accelerating empowerment*).

**Figure A1: Design by Employer**



Source: *Delivery Management Guidelines, (CIDB: 2011)*

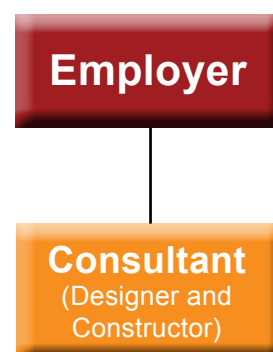
The contractor undertakes only construction on the basis of full designs issued by the employer. Design is a separate function to construction and is managed by the client or his agent. The Employer has the capability and capacity to make decisions during the design process.

# 2. Design and Build

In the Design and Build strategy, the contractor undertakes most of the design and all construction in accordance with the Employer's brief and his detailed tender submission, usually for a lump sum price (See Figure A2).

The design is integrated with construction and is managed by the contractor. In this case the client has approved a Concept Report setting out the integrated concept. This is then used by the contractor to develop the scope of work for the contract.

**Figure A2: Design and Build**

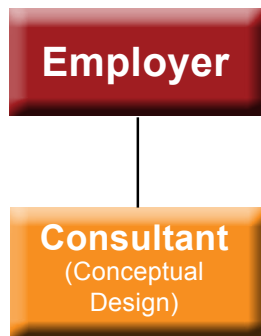


Source: *Delivery Management Guidelines, (CIDB: 2011)*

### 3. Develop and Construct

The Develop and Construct strategy is similar to the design and build strategy, except that the Employer issues a concept design on which tenders are based (See Figure A3). The strategy is based on a scheme design prepared by the Employer under which a contractor finalises the production information and constructs it. The final design details are integrated with construction and are managed by the contractor.

**Figure A3: Design and Construct**



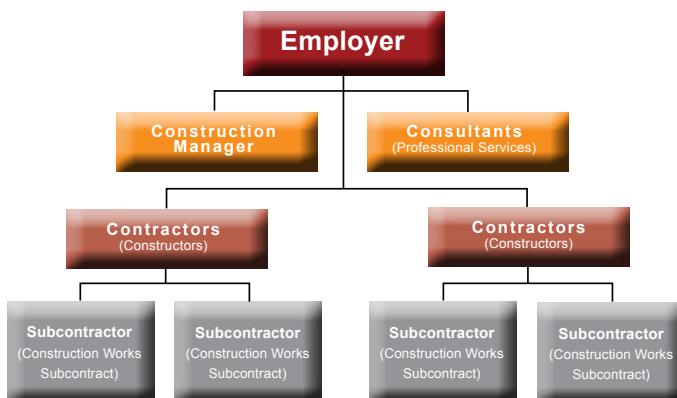
The Employer prepares the Design Development Report setting out the integrated developed design for the project. The report is then used to develop the scope of work for the contract.

Source: Delivery Management Guidelines, (CIDB: 2011)

### 4. Construction Management Strategy

This is a contracting strategy under which a third party (professional service provider) provides consultation during the design stage and is responsible for planning and managing all post-contracting activities for a group of contractors appointed by the employers (See Figure A4) (CIDB Delivery Management Guidelines: Practice Guide 2 – Construction Procurement Strategy, 2011-04-20).

**Figure A4: Construction Management Strategy**



In the construction Management Strategy a construction manager can accept responsibility for delivering the completed project by a date set for a target or fixed price.

Accordingly, a construction manager may provide management services from the time that the design process is initiated to the commissioning and hand over of the completed works which relate to the control of time and cost (Practice Note No. 1, August 2006: Scaling up delivery and accelerating empowerment).

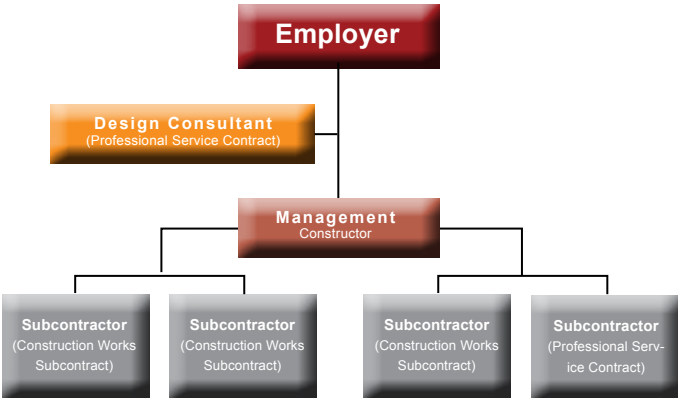
Source: Delivery Management Guidelines, (CIDB: 2011)

This is usually ideal where there is a need for the third party support to ensure the successful delivery of a project usually through a design by employer contracting strategy. This strategy is also ideal where the programme involves the participation of small or emerging contracting entities. Such enterprises may require third party support in order to complete their contracts satisfactory. Such support may take the form of construction or materials management support. Third party management, which is in the form of construction management, is required where there is a significant risk that small contractors may fail to timeously and satisfactorily complete their contracts.

The strength of this strategy lies in the high level of supervision and support that can be extended to emerging contractors. As a result, the Construction Manager’s staff should consist of people with extensive contracting experience to be able to support and mentor emerging contractors (*Department of Public Works, NPWP Branch, June 1999*).

## 5. Management Contracting Strategy

**Figure A5: Management Contracting Strategy**



This is a contracting strategy under which a contractor is responsible for planning and managing all post-contract activities, including, if required, any design of works or portion thereof, and for the performance of the whole contract (See Figure A5)

Source: Delivery Management Guidelines, (CIDB: 2011)





# Annexure B

## Review of eThekweni Metropolitan Municipality Infrastructure Delivery Model - an example of an EPWP Large Project Case Study

Case Study Review in Collaboration with the City of eThekweni Metropolitan Municipality Water and Sanitation Business Unit



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# 1. List of Abbreviations

<b>CE</b>	Civil Engineering
<b>CETA</b>	Construction and Engineering Training Authority
<b>CIDB</b>	Construction Industry Development Board
<b>CPG</b>	Contract Participation Goals
<b>DPW</b>	Department of Public Works
<b>ECC</b>	Engineering and Construction Contract
<b>ECS</b>	Engineering and Construction Subcontract
<b>ECSS</b>	Engineering and Construction Short Subcontract
<b>EPWP</b>	Expanded Public Works Programme
<b>FTE</b>	Full Time Equivalent
<b>GCC</b>	General Conditions of Contract
<b>JBCC</b>	Joint Building Contracts Committee
<b>MFMA</b>	Municipal Finance Management Act
<b>MTEF</b>	Medium-Term Expenditure Framework
<b>NEC</b>	New Engineering Contract
<b>PSC</b>	Professional Services Contract

## 2. Introduction

The EPWP Large Projects Directorate of the National Department of Public Works support Public Bodies with the implementation of labour intensive infrastructure projects with a value exceeding R30 million. The objective of the Directorate is to improve the impact on poverty alleviation by large capital projects through the increase of labour intensity of such projects. The two support strategies currently in place for implementation are:

- Increase of labour intensive components of projects with a budget exceeding R30 million; and
- Bundling of similar projects to create a single large project of a value exceeding R30 million.

The above strategies were piloted by a number of public and private sector client bodies. The unfortunate issue is that there were no elaborate user-friendly guidelines to guide the officials or the private sector with regard to the rollout of these kinds of projects. It is in the light of the above that the National Department of Public Works decided to document the implementation model of the eThekweni Metropolitan Municipality.

The purpose of documenting the eThekweni delivery model is also aimed at highlighting certain operational and strategic lessons that the public sector client bodies have to consider in the planning, implementation and management of large EPWP infrastructure projects. It is also expected that the results of the review of the Case Study will set the tone for the preparation of user-friendly guidelines that will be workshopped and eventually applied by the various public sector client bodies.

The guidelines for Large EPWP projects will have to take into account the three project management aspects, i.e. quality, time, cost and any other socio-economic deliverables / objectives. The challenge in developing and implementing a delivery model that enables allocated budgets to be spent is to do so in a manner that results not only in construction works of an acceptable quality being delivered in response to prioritized needs, but also contributes to the social and economic agenda including employment and skills development.

# 3. eThekweni Metropolitan Municipality Infrastructure Delivery Model

## 3.1 Background to the Delivery Model

The eThekweni Water and Sanitation maintains some 13 000 km of water mains in the Durban area of which approximately 3,000 km were aging undipped asbestos cement pipes of 150 mm diameter or less. During the 2007/08 Financial Year, these old asbestos cement pipes were at the end of their useful life, and used to burst frequently and needed to be replaced. eThekweni adopted the delivery model outlined in this Case Study Report which allowed the target price associated with each work package within identified reservoir zones be established once the scope of work and socio-economic deliverables were finalized.

## 3.2 Mobilization of the Project Team

### 3.2.1 Appointment of the Design Consultants

The municipality appointed the Design Consultants through an open procurement process using the Expression of Interest and then invited Tender option. The municipality appointed a total of four (4) successful professional service providers who later signed contracts with the municipality, in accordance with the NEC3 Engineering and Construction form of contracts.

### 3.2.2 Appointment of the Programme Manager

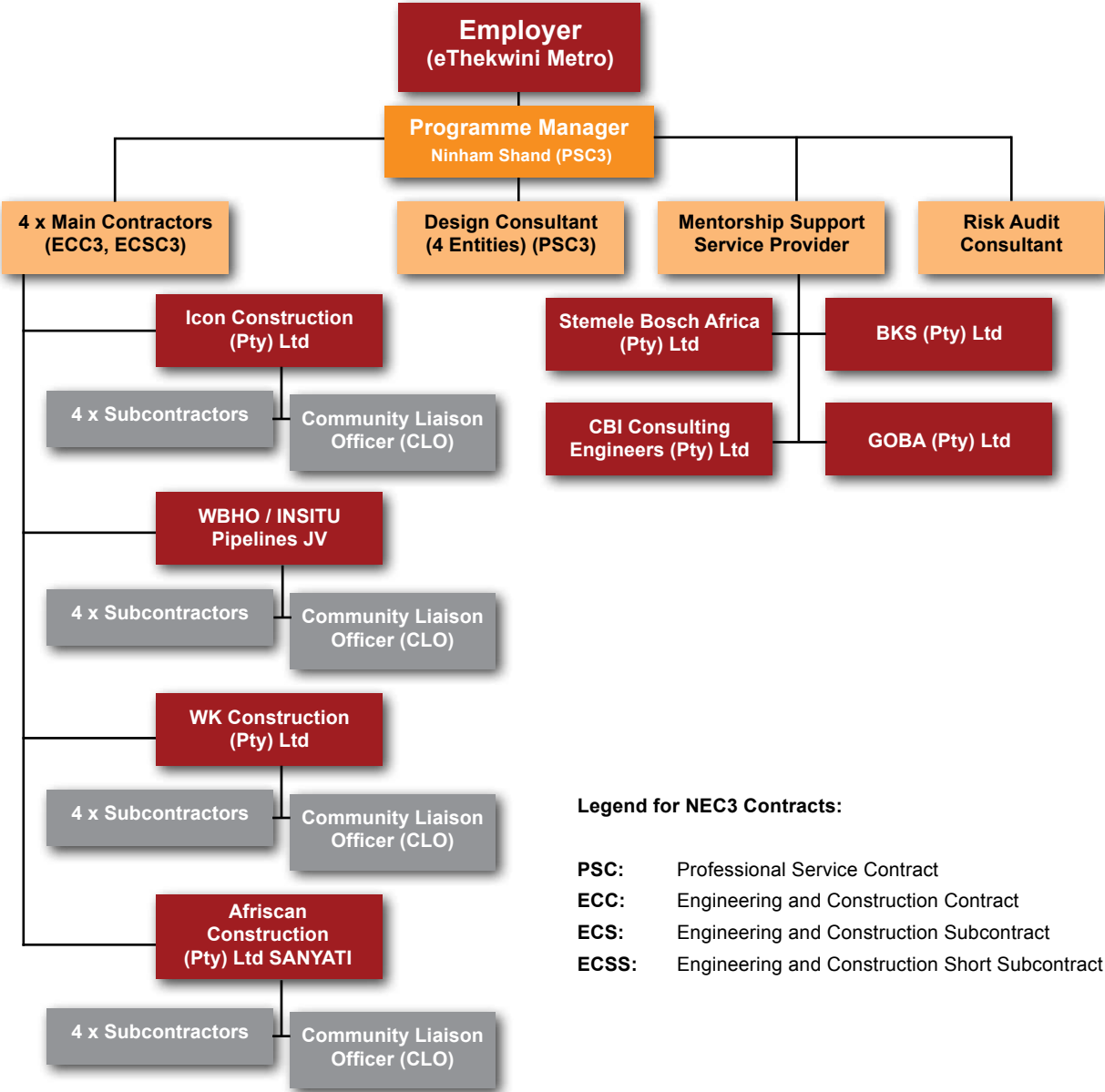
The Programme Manager was also appointed using the open process, with the Expression of Interest and invited tender option used. Only one (1) programme manager was appointed to manage the programme and to interface with the municipal executive manager.

## 3.3 Mobilization of the Construction Team

### 3.3.1 Appointment of Contractors

A total of four (4) main contractors were appointed by the municipality. These were contractors with cidb grading designations of 7 CE or higher. The intention was for the four main contractors to train and mentor the sixteen subcontractors who were later appointed by the municipality, as nominated subcontractors (See Figure 2 below).

**Figure B1: Organizational Structure of eThekweni Infrastructure Delivery Model**



**Legend for NEC3 Contracts:**

- PSC:** Professional Service Contract
- ECC:** Engineering and Construction Contract
- ECS:** Engineering and Construction Subcontract
- ECSS:** Engineering and Construction Short Subcontract

**3.3.2 Appointment of Subcontractors**

A total of sixteen (16) subcontractors were eventually selected to be part of the programme. The selection process was also an open process, whereby the municipality issued an expression of interest calling upon interested contractors to apply and submit their credentials and corporate profiles. The subcontractors were grouped into four teams, with each team comprising of one Design Consultant, one Main Contractor, and four Subcontractors.

These were selected subcontractors, i.e. a procurement process whereby the subcontractors are selected by the contractor in consultation with the employer in terms of the requirements of the contract. At the end the contractors had to sign the normal subcontract agreements with the subcontractors using the NEC Subcontract Agreements.

## 3.4 Roles and Responsibilities

### 3.4.1 Client (eThekwini Municipality)

The Client was responsible for the conceptualization of the model and the appointment of the professional team and the four (4) construction teams (contractors).

### 3.4.2 Design Consultants

The four (4) design consultants appointed by the Municipality were allocated to the four (4) main contractors to take responsibility for the detailed designs within the reservoir zones that were allocated to the four teams. The three stage scope of the Design Consultants included:

- Identification of the scope of work;
- Design of the works; and
- Supervision of the works.

The Design Consultants were also responsible for quality control and compliance of the contractors with the design specifications issued by the Client.

### 3.4.3 Programme Manager

The main responsibility of the Programme Manager and Cost Consultants was to coordinate the work of the four teams and report to the municipality through the municipal senior executive who was tasked with the responsibility of delivering on this project. The Programme Manager was also the cost consultants who were responsible for the allocation of the budgets and ensuring that budgets were spent in accordance with the estimates and the approved scope of work.

### 3.4.4 Technical Mentorship Support Consultants

A full time mentor was engaged to assist the co-contractors to establish business systems in order to improve their sustainability and to grow their businesses. Key performance assessments of these contractors were undertaken by the mentor at regular intervals to monitor their progress. The expected annual turnovers of these co-contractors at the end of the contract was expected to be between R1, 000, 000.00 and R10, 000 000.00.

The technical mentorship support consultant was identified by the municipality but appointed by the Main Contractors to render mentorship support to all the appointed subcontractors. The one mentorship support consultant appointed by the Main Contractors was shared by the four teams, and was paid directly by the main contractors, on a proven cost basis.

With regard to the funding of the Mentors' fees, these were taken care of by the municipality as part of the recoverable expenses that were claimed by the Main Contractors. Considering the total budget of the programme (R2 billion at the end of the programme), the costs of mentorship support services were approximately 1% of the programme budget.

### **3.4.5 Training Service Providers**

Initially the municipality had envisaged appointing a training provider to render training to all the subcontractors and the workers. The lack of training budget and the delays from the Department of Labour and the Construction Education and Training Authority (CETA) made it almost impossible for this dream to be realized. The bulk of training was rendered on site for subcontractors by the appointed mentorship support consultants. The subcontractors were awarded the certificates of attendance, not the certificates of competence. The main weakness of the programme was the lack of a coherent training programme for the subcontractors.

### **3.4.6 Material Suppliers**

In order to ensure that the required materials were always available for the duration of the project, the various material suppliers were briefed on the materials required and all the main contractors had to buy the materials from the identified suppliers. There were a total of five (5) materials suppliers who were engaged by the municipality, on the basis of the supplier database that they had at the time.

What was of significance was that the Main Contractors purchased all the materials on their own and in some cases they were able to get better prices for the materials from outside of the eThekweni Metropolitan area of jurisdiction. In cases where the suppliers might have considered to collude and artificially raise the prices, the Main Contractors had the latitude to source such materials elsewhere, at cheaper prices than those offered by the eThekweni based suppliers.

## **3.5 The Unique Features of the eThekweni Infrastructure Delivery Model**

The delivery model of the eThekweni Water and Sanitation was informed by four strategic thrusts, namely:

### **3.5.1 Grouping of Similar Projects into a Programme**

Projects of a similar nature were grouped together within a geographic region into a single programme.

### **3.5.2 Contractors were on a Medium to Long-Term Duration (say 3 years)**

Key contracts associated with a programme are placed with a limited number of service providers and / or contractors for a period of not less than 3 years. The construction works contracts that were concluded were for a three year period and were based on the NEC3 Engineering and Construction Target Contract option (Option C).

### **3.5.3 Introduction of a Single Point of Accountability**

Single point accountability was assigned to those who were contracted for developing and overseeing the implementation of the programme. The Programme Manager was the main interface between the municipality and the Team.



### ***3.5.4 Introduction of Risk and Project Management Practices***

Efficient and integrated risk management and project management practices were introduced in the programme. The Programme Manager was required to introduce and maintain a risk register which was processed through the fortnightly project team meetings and also risk reduction meetings between the parties.

In addition, a Programme Manager was mandated to engage a separate company to carry out monthly risk audits for all the sites.

### ***3.5.5 Implementation of Projects with a Broad Scope of Work***

Typically at the commencement of the programme (series of projects), the only “knowns” were the allocated medium term budget, a list of short term priorities and possibly an indicative broad brush breakdown of the budget into prioritized reservoir zones for the first year of the programme, based on eThekweni GIS and burst records.

Individual projects within a programme were scoped, designed and documented so that construction could take place. This cycle needs to be repeated so that as projects are identified, they can be scoped, designed and documented so that construction occurs on a continuous basis over the period of the programme. Accordingly, the delivery model was capable of procuring services in the absence of a well defined scope of work.

### ***3.5.6 Maximum use of Local Resources***

The project was able to maximize the use of local resources, e.g. bedding sand, security, plant hire, amongst others. All the labour for each of the Reservoir Zone was sourced locally in the respective community where the work was to be carried out, using the labour rotational model.

### ***3.5.7 Partnership Opportunities***

The programme also offered opportunities for the development of much needed technical skills that were required by municipal staff and also by the students from the various Universities of Technology to enable them to qualify and graduates from the various institutions. The programme also offered opportunities for in-service training for a number of professional beneficiaries.

## 3.6 Construction Procurement Strategy of the Municipality

### 3.6.1 Delivery Management Strategy

Delivery management is the management of the process of public service delivery as applied to infrastructure and maintenance projects. On the basis of the analysis of the expenditure, organisational and market analysis, and informed by the procurement objectives the client makes strategic delivery management decisions. The client also decides on the delivery model, i.e. whether the delivery will be as a project or programme and ultimately the packaging of works.

In terms of the eThekweni delivery model, the municipality decided on a programme approach to delivery. The municipality identified a programme comprising a number of projects and obtained the necessary funding for it. The programme approach to delivery provided the municipality with an umbrella under which several projects were planned, implemented and managed. The use of this model for the municipality had a number of benefits, namely:

- Coordinating multiple projects which would not have been realised if the projects were managed independently;
- Projects were linked to an overall client organisational strategy;
- Projects of a similar nature and these were linked together to obtain the advantages of repetition;
- Projects were grouped together because of their similar supporting service deliveries, similar governance requirements, common stakeholder or change management or similar risk profiles;
- They had similar planning, procurement and implementation timelines; and
- The client was able to implement the programme with the active involvement of two senior executives from the municipality, while the rest of the work was carried out by the appointed programme management team.

In terms of the eThekweni delivery model, the municipality identified a programme as a grouping of individual projects and obtained the necessary funding for it. The client thereafter procured the services of a Programme Manager and one or more Design Consultants and Contractors in terms of a competitive procurement process in the absence of any detailed scope of work using the NEC3 family of standard contracts published by the Institution of Civil Engineers, London and the CIDB Standard for Uniformity in Construction Procurement.

### 3.6.2 Contracting Arrangements

#### 3.6.2.1 Definition of a contracting strategy

A contracting strategy is a strategy that governs the nature of the relationships which the employer wishes to foster with the contractor, which in turn determines the risks and responsibilities between the parties to the contract and the methodology by which the contractor is to be paid (ISO 10845-1- Construction Procurement).

### 3.6.2.2 Typical contracting strategies

There are various contracting strategies that are available in the industry. These include (See Table B4):

- Design by Employer;
- Develop and Construct;
- Design and Construct;
- Construction Management; and
- Management contractor.

**Table B1: Summary of the Generic Contracting Strategies**

Design by Employer	Develop and Construct	Design and Construct	Construction Management	Management Contractor
Contract under which a contractor undertakes only construction on the basis of full designs issued by the employer. Design is a separate function to construction and is managed by the client or his agent.	Contract based on a scheme design prepared by the client under which a contractor finalises the production information and constructs it.	Contract in which a contractor designs the works based on a brief provided by the client and constructs it.	Contract under which a third party (professional service provider) provides consultation during the design stage and is responsible for planning and managing all post-contract activities for a group of contractors appointed by the Employer.	Contract under which a contractor is responsible for planning and managing all post-contract activities, including, if required, any design of the works or portion thereof, and for the performance of the whole of the contract.

Because of the diversity of the construction and the client's requirements, no single uniform approach to contractual arrangements can be advocated. The choice of any of a contracting strategy is informed by a number of factors, namely:

- the type of work at hand;
- the allocation of risk;
- the programme management requirements;
- the design strategy; and
- the arrangements or the employment of programme manager, design consultants and the contractors.

eThekwini municipality used a combination of the Construction Management and the Design and Construct contracting strategies to deliver on this programme (See Figure B3).

### 3.6.2.3 Pricing Strategies

For the eThekweni case study, tenderers were competing on the basis of price and quality for the programme management, design consultancy and construction services. They tendered for their staff rates and certain cost parameters relating to expenses while contractors tendered a range of parameters associated with the NEC3 Schedule of Cost Components, i.e.

- A direct fee percentage;
- A subcontracted fee percentage;
- Time related charges for equipment;
- A percentage for working areas overheads;
- A percentage for manufacture and fabrication overheads;
- A percentage for design overheads; and
- Hourly rates for specified personnel and equipment

Tender assessment schedules were used to develop a comparative price for evaluation purposes, based on assumed quantities of hours and amounts and the tendered cost parameters (percentages and rates) (See Table B5).

**Table B2: Summary of costs**

Item No:	Component	Basis of assumed cost	Assumed cost, Rand
1	People	Employer estimated amount	
2	Equipment	Employer estimated amount plus tendered amounts for identified items or percentage of specific hire lists	
3	Plants and Materials	Employer estimated amount	
4	Charges	Employer estimated amount plus tendered percentage on people for overhead costs in the working areas	
5	Manufacture and Fabrication	Tendered hourly rates multiplied by employer estimate of hours and overhead percentage for employer estimated hours	
6	Design		
	<b>Subtotal</b>		
	Subcontracted Work	Employer estimated amounts	
	<b>Total Defined Cost</b>		
	Compensation Events	Employer estimated amounts plus tendered percentage for people overheads and percentage adjustment on listed prices for equipment	

(Defined cost plus compensation events) x tendered direct fee percentage ...../ 100 = Rand ...Fee 1  
 Subcontracted work x tendered subcontracted fee percentage .....100. = Rand... Fee 2

Total Comparative Figure = Defined Cost plus compensation events plus Fee 1 plus Fee 2.

### **a) Programme Manager**

The Programme Manager converts the budget into a series of works packages, manages the delivery of the works, acts as the Employer' Agent in terms of the Design Consultant's contracts, acts as the Project Manager in terms of the Contractor's contract and provides cost consultancy services.

### **b) Design Consultant**

The Design Consultant provides design services in relation to the identified work packages and monitors the quality of the constructed works. The contractor constructs the works associated with an identified works package.

### **c) Contractor**

The Contractor, prior to commencing the work, agrees a target price with the Project Manager based on an activity schedule developed from the specifications and drawings provided by the Design Consultant for the identified package of work. During the course of the contract, the contractor is paid his costs as defined in Option C of the NEC3 Engineering and Construction Contract, based on his tendered cost parameters and at the end of the contract, the contract is paid his share of the difference between the target price and his cost according to an agreed formula. If the final cost is greater than the target cost, the Contractor pays his share of the difference. This motivates the Contractor to control costs.

The Design Consultant was typically paid on a time and cost basis (Option E of the NEC Professional Service Contract) until such time as the precise scope of work was known and a target contract could be agreed with the Design Consultant (Option C).

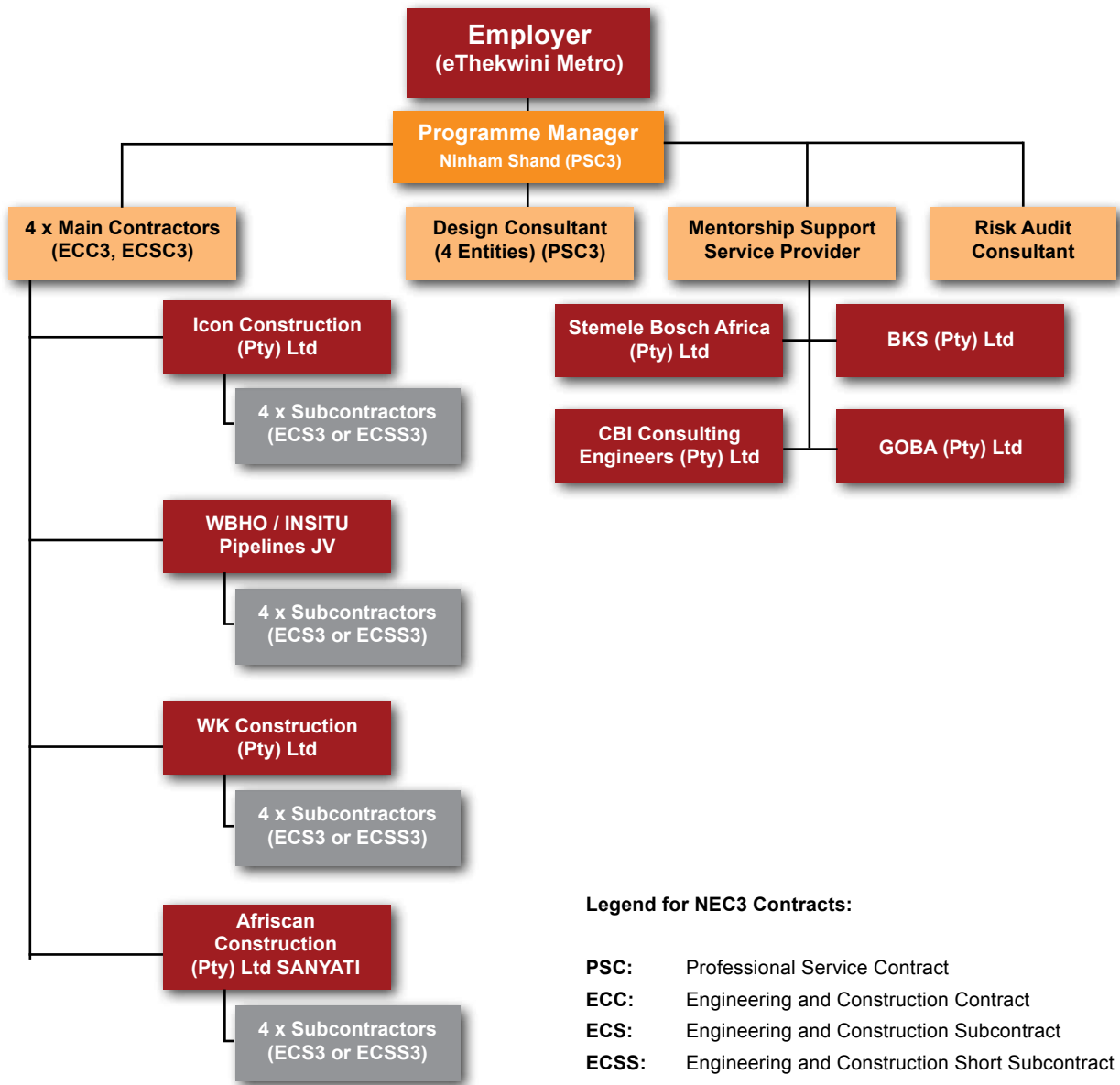
#### **3.6.2.4 Cost-based Contract**

The concept of the model using the Option C (Target Cost) NEC3 Engineering and Construction Contract was introduced to the Design Branch of eThekweni Water and Sanitation in February 2007, taking into account the fact that the Branch had not previously used the NEC3 Form of Contract. The decision to proceed with the model was made during mid February 2007 after a briefing meeting which was attended by selected officials, contractors and consultants.

#### **3.6.2.5 Forms of Contracts Used (for contractors and consultants)**

The NEC3 Professional Service Contract was used for the appointment of the consultants (Figure 3). Use was made of the Construction Industry Development Board's (CIDB) Specification for Social and Economic Deliverables in Construction Works Contracts. The contracts with both the contractors and consultants required that the project be delivered in terms of the generic project stages developed by the Construction Industry Council (UK) outlined in Table 2 (Watermeyer et al, 2010).

**Figure B2: Contracting strategy for eThekweni Metropolitan Municipality’s Delivery Model**



### 3.6.3 Procurement Arrangements for the Programme

The procurement documents for the delivery model were developed in accordance with the requirements of the CIDB Standard for Uniformity in Construction Procurement documentation.

### **3.6.3.1 Quality Strategy**

The municipality determined the quality strategies that were used in the selection of consultants (Design Consultants and the Programme Manager) and the four (4) Main contractors and the sixteen (16) subcontractors.

There are a total of six (6) possible quality strategies that could be used by public sector client bodies (Table 6 - Selecting suitable quality strategies). The municipality used the Evaluation Criteria strategy for the programme and the preference mechanism in accordance with the ISO 9000 Standards.

### **3.6.3.2 Procurement Procedure**

There are three basic competitive selection procedures, namely: Negotiated Procedure, Competitive Selection and Competitive Negotiations. Within the three basic competitive selection procedures, there are a total of eight (8) potential procedures to choose from, namely: Nominated, Open, Qualified, Quotation, Proposal procedure using the two-envelope system, Proposal procedure using the two-stage system, restricted competitive negotiations and the Open competitive negotiations (See Table B7 below).

#### **a) Pre-Qualified Approach (Competitive Selection)**

In the case of eThekweni municipality, Expressions of Interest were prepared in accordance with the CIDB's Standard for Uniformity in Construction Procurement, advertised on 9 March and closed on 23 March 2007. Submissions were evaluated and the successful respondents were invited to proceed with the preparation of a tender in accordance with the CIDB's Standard Conditions of Tender on 7 May 2007. Tenders for the Programme Manager and Design Consultants closed on 18 May 2007 and for the Contractors on 25 May 2007. From these tenders one Programme Manager, four Design Consultants and four Contractors were selected.

**Table B3: Selecting Suitable Quality Strategies**

<b>Mechanism</b>	<b>Description</b>	<b>Decision Criteria</b>
<b>Life-cycle Costing</b>	Incorporates aspects of life cycle costing in the evaluation of tender offers (Link to Evaluation Methods 3 and 4).	Use if solution(s) to performance specifications offered by tenderers have an impact upon the life-cycle of the project, e.g. the solution offered impacts upon issues such as reliability, durability, running costs, after-sales service and technical assistance, etc.
<b>Prequalification</b>	Invite tender offers only from prequalified tenderers (link to Qualified procedure)	Use where it is essential to ensure that only those tenderers who are capable of providing a quality service are invited to submit tenders.
<b>Eligibility Criteria</b>	Evaluate only submissions and tenders received from respondents and tenderers, respectively, who satisfy eligibility criteria framed around quality.	Use where the introduction of quality criteria in the eligibility criteria needs to be used to screen respondents in calls for expressions of interest or tenderers to ensure that submissions are only evaluated from those who are able to or are likely to satisfy the quality requirements for the contract.
<b>Undertakings at Tender Stage</b>	Require tenderers to submit draft quality management plans with tender.	Use where it is desirable and appropriate to have the opportunity to make inputs into quality management plans at tender stage and to finalise such plans before awarding the contract.
<b>Preference</b>	Award a preference for attainment of quality standards (Link to Evaluation Methods 2 and 4).	Use where it is desirable but not essential to meet stated quality criteria, e.g. be ISO 90000 Certified.
<b>Evaluation Criteria</b>	Incorporate objective and quantifiable aspects of quality in the evaluation of the financial offer (Link to Evaluation Methods 3 and 4).	Use if criteria such as the following have profound or significant impact on the tenderer's offer: <ul style="list-style-type: none"> <li>• Technical merit;</li> <li>• Response to (ability to relate to) the proposed scope of work / project design;</li> <li>• Aesthetic and functional characteristics;</li> <li>• Safety and environmental characteristics;</li> <li>• Quality control practices and procedures which ensure compliance with stated employer's requirements.</li> <li>• Organization, logistics and support resources relevant to the scope of work;</li> <li>• Qualifications and demonstrated experience of the key staff (assigned personnel) in relation to the scope of work; and</li> <li>• Demonstrated experience of tendering entity with respect to specific aspects of the project / comparable projects.</li> </ul>

There are a total of six (6) possible quality strategies that could be used by public sector client bodies (Table 6 - Selecting suitable quality strategies). The municipality used the Evaluation Criteria strategy for the programme.



These selections were ratified by the Bid Evaluation and Adjudication Committees and these were awarded during the last week of June 2007. Work commenced on 1 July 2007, i.e. the start of the new financial year.

**Table B4: Summary of Basic Competitive Selection Procedures**

Procedure	Description	Decision Criteria	Pre-requisites
1 <b>Negotiation Procedure</b>	A tender offer is solicited from a single tenderer.	The procurement satisfies one or more of the following criteria: <ul style="list-style-type: none"> <li>• Only one contractor is identified as possessing the necessary experience and qualifications or product to provide the required service or goods</li> <li>• The required services or construction works cannot technically or economically be separated from another contract previously performed by a specific contractor.</li> <li>• The service or construction works being procured are largely identical to works previously executed by that contractor and it is not in the public interest to solicit other tenders; or</li> <li>• The services being procured have a very low ceiling value and it is not cost effective to engage in a competitive selection process.</li> </ul>	In addition to satisfying the decision criteria, the reason for following this procedure is in accordance with the Employer's procurement policy.
2 <b>Competitive Selection</b>	The contract is usually awarded to the contractor who submits the lowest financial offer or obtains the highest number of tender evaluation points.	The criteria for the negotiation procedure or the competitive negotiation procedures do not apply.	None
3 <b>Competitive Negotiation</b>	The number of tenderers competing for the contract is reduced through a series of negotiations until the remaining tenderers are invited to submit final offers.	The procurement satisfies one or more of the following criteria: <ul style="list-style-type: none"> <li>• It is not feasible to formulate detailed specifications for the work or to identify the characteristics of construction works to obtain the most satisfactory solution to procurement needs.</li> <li>• There are various possible means of satisfying procurement needs;</li> <li>• The technical character of the construction works or nature of the services warrants the use of competitive negotiations to realize the most satisfactory solution to procurement needs.</li> <li>• There is potential for obtaining better value for money through negotiations than through a competitive selection procedure.</li> </ul>	The procedure is permitted in terms of the Employer's procurement policy and the capability exists or can be put in place to execute the procedure.

**Table B5: Summary of Generic Procurement Strategies**

Procedure		Decision Criteria
PP1	<b>Negotiation Procedure</b>	A tender offer is solicited from a single tenderer.
	<b>Competitive Selection Procedure</b>	Any procurement procedure in which the contract is normally awarded to the contractor who submits the lowest financial offer or obtains the highest number of tender evaluation points.
PP2A	<b>Nominated Procedure</b>	Tenderers that satisfy prescribed criteria are admitted to an electronic data base. Tenderers are invited to submit tender offers based on search criteria and their position on the data base. Tenderers are repositioned on the data base upon appointment or upon the submission of a tender offer.
PP2B	<b>Open Procedure</b>	Tenderers may submit tender offers in response to an advertisement by the organization to do so.
PP2C	<b>Qualified Procedure</b>	A call for expressions of interest is advertised and thereafter only those tenderers who have expressed interest, satisfy objective criteria and who are selected to submit tender offers, are invited to do so.
PP2D	<b>Quotation Procedure</b>	Tender offers are solicited from not less than three tenders in any manner the organization chooses, subject to the procedures being fair, equitable, transparent, competitive and cost-effective.
PP2E	<b>Proposal Procedure Using the Two-Envelope System</b>	Tenderers submit technical and financial proposals in two envelopes. The financial proposal is only opened should the technical proposal be found to be acceptable.
PP2F	<b>Proposal Procedure Using the Two-Stage System</b>	Non-financial proposal are called for. Tender offers are then invited from those tenderers that submit acceptable proposals based on revised procurement documents. Alternatively, a contract is negotiated with the tenderer scoring the highest number of evaluation points.
PP2G	<b>Shopping Procedure</b>	Written or verbal offers are solicited in respect of readily available supplies obtained from three sources. The supplies are purchased from the source providing the lowest price once it is confirmed in writing.
PP3	<b>Competitive Negotiation Procedure</b>	A procurement procedure which reduces the number of tenderers competing for the contract through a series of negotiations until the remaining tenderers are invited to submit final offers.
PP3A	<b>Restricted Competitive Negotiations</b>	A call for expressions of interest is advertised and thereafter only those tenderers who have expressed interest, satisfy objective criteria and who are selected to submit tender offers, are invited to do so. The employer evaluates the offers and determines who may enter into competitive negotiations.
PP3B	<b>Open Competitive Negotiations</b>	Tenderers may submit tender offers in response to an advertisement by the organization to do so. The employer evaluates the offers and determines who may enter into competitive negotiations.

### 3.6.3.3 Targeted Procurement Strategy

#### a) Accommodating the Social and Economic Agenda

There are a number of techniques and mechanisms associated with targeted procurement procedures, all of which are designed to promote or attain the participation of targeted enterprises and targeted labour in contracts (CIDB Practice Note No. 10, February 2008). These procedures (also see SANS 10396, Implementing preferential construction procurement policies using targeted procurement procedures) relate to the:

- measurement and quantification of the participation of target groups;
- definition and identification of target groups;
- unbundling of contracts;
- granting of preferences;
- provision of incentives for the attainment of key performance indicators in the performance of contracts;
- creation of contractual obligations to engage target groups in the performance of the contract;
- provision of third party management contract;
- requirements for minimum prescribed levels of equity in the tendering entity;
- acceleration of targeted enterprises in rotating electronic databases; and
- evaluation of procurement outcomes.

Contract participation goals measure the participation of targeted enterprises and targeted labour, i.e. the flows of money from the contract to the target groups. They provide a key performance indicator.

SANS 1914, Targeted Construction Procurement, provides a series of performance based specifications to facilitate the establishment of a contract participation goal for a particular contract in respect of the participation of targeted enterprises, targeted partners in joint ventures, local resources and targeted labour, as relevant. These specifications, upon award of the contract, form the basis for monitoring and verifying that the contractor achieves the contract participation goals in the performance of the contract.

Contract participation goals (CPGs) may be used, in addition to measuring and reporting on a key performance indicator which reflects the quantum of business or employment generated in respect of targeted enterprises or targeted labour through the performance of the contract, to:

- Reserve a portion of the contract work for specified target groups through the setting of minimum contrast participation goals;

- Establish the basis for the awarding of preferences in proportion to the quantum of the CPG that is tendered; or
- Establish performance targets for the payment of financial incentives relating to the attainment of key performance indicators.

### **c) SMME Development and Job creation achievements of the project**

Approximately 3,800 temporary workers (unemployed persons) were employed on the programme at any one time to excavate trenches and were rotated every 4 months to allow others to financially benefit from the construction activities. The total number of jobs created was approximately 46,000. The total amount of money paid to workers was approximately 21% of the total project expenditure.

### **d) Allocation of Work between Contractors**

The Reservoir Zones were assigned to specific consultants and contractors. The target price was negotiated with the contractor after the design of the water network was completed. The Reservoir Zones were handed over to contractors who became responsible for the maintenance of the existing pipe work in the district, including the repair of burst pipes, until such time that the new pipelines were installed, the old pipes were decommissioned and the zones were handed back to eThekweni Water and Sanitation Division. The target was for 80 km of water mains to be replaced each month.

### **e) Role of Subcontractors in the Model**

A total of 16 subcontractors were also offered work opportunities. These contractors who had annual turnovers ranging from well below R750, 000.00 to R5, 500 000.00, started off by undertaking 10% of the construction work and were being developed to undertake 20% of the construction work.

#### **3.6.3.4 Tender Evaluation procedure**

There are four generic tender evaluation methods, namely:

- Method 1: Financial offer
- Method 2: Financial offer and preferences
- Method 3: Financial offer and quality
- Method 4: Financial offer, quality and preferences

In terms of the evaluation of the tender offers from the professional service providers and the construction service providers, it appears that Method 2 was used in the evaluation of the Expression of Interest.

## 3.7 Enterprise Development Opportunities

### 3.7.1 Targeting Strategy of Participants

An Expression of Interest was advertised by the municipality, calling all potential civil engineering contractors within the jurisdiction of the Metropolitan municipality to submit their corporate credentials and other requirements. A total of 76 contractors responded to the Expression of Interest, of which 30 were shortlisted. Of the 30 that were shortlisted, only 16 were successful with regard to accessing procurement opportunities within the programme and they continued for the full duration of the implementation of the programme.

### 3.7.2 Subcontracting within the eThekweni Delivery Model

Subcontracting is a well established practice within the construction industry. It is an effective means of involving small, medium and micro enterprises in the construction works contracts. The reasons for subcontracting vary between the different types of construction works contracts. In some contracts there may be a need to acquire specialist capabilities to perform certain aspects of the work.

In others, there may be a need to subcontract portions of the work to increase the contracting capacity of the contractor or to satisfy client requirements or expectations relating to the engagement of small and micro enterprises or local enterprises in a contract (as part of its targeted procurement strategy / obligations). Subcontracting may also be used as a means of addressing racial and gender imbalances in the ownership of contracting companies (as part of the construction industry transformation agenda of public sector client bodies). There are three different types of subcontractors, name:

- **Domestic subcontractor:** subcontractor appointed by the main contractor at his discretion;
- **Nominated subcontractor:** a subcontractor nominated by the employer which the contractor is obliged to appoint as a subcontractor; and
- **Selected subcontractor:** a subcontractor selected by the contractor in consultation with the employer in terms of the requirements of the contract.

For the purpose of eThekweni Model, there were selected subcontractors. These were identified by the Municipality but appointed by the Main Contractors, through a competitive, open and transparent process.

### 3.7.3 Entry level of subcontractors

In terms of the development of small and emerging contractors, the municipality had appointed a total of four (4) main contractors and sixteen (16) subcontractors who were appointed to be part of the programme. With the exception of the main contractors, who had cidb grading designations of 7CE and above, the majority of subcontractors had cidb grading designations of 2CE PE or 3CE PE.

Working under the guidance of the main contractors and the mentors that were appointed by the main contractors, the majority of subcontractors were able to improve their entry level grading designations by at least two grading designations when they exited the programme.

### 3.7.4 Standard forms of subcontract

The subcontractors should be engaged in fair conditions of contract which are recorded in writing. The NEC3 and the JBCC Series 2000 Agreements contain principal (prime or main) contracts and subcontracts, whereas FIDIC and GCC 2004 only provide the principal contracts.

The South African Federation of Civil Engineering Contractors (SAFCEC), the Building Industries Federation of South Africa (BIFSA) and the CIDB have developed forms of subcontract which may be used with any approved forms of contract (See Table B9 below).

**Table B6: Recommended combinations of Forms of Contract and Forms of Subcontract**

Series of Contract	Recommended Forms of Subcontract
FIDIC	BIFSA Standard Subcontract Agreement 1995 Edition (Amended 2000), for use with Principal Building Agreements other than the JBCC Principal Building Agreement
GCC 2004	BIFSA Labour-only subcontract SAFCEC General conditions of subcontract (2003 edition)
JBCC Series 2000	BIFSA Non-Nominated Subcontract for use with the JBCC Series 2000 Principal Building Agreement JBCC 2000 Nominated / Selected Subcontract Agreement
NEC3	NEC3 Engineering and Construction Subcontract NEC3 Engineering and Construction Short Subcontract

Source: CIDB Practice Note No.7, May 2007: Subcontracting Arrangements

### **3.7.5 CIDB Registration Requirements**

In terms of the Construction Industry Development Regulations, prime or main contractors who contract with an organ of state / public sector client bodies must be registered with the CIDB. Subcontractors need not be registered, but nominated subcontractors must, however, be registered as they are nominated by an organ of state in terms of the public procurement system.

The Regulations exempt from registration labour only contractors, and those contractors who are provided with the bulk of the materials required for engineering and construction works by the employer or an agent of the employer from registration. Given the fact that the subcontractors were selected subcontractors, all of them were required to have been registered with the CIDB for them to participate in the eThekweni water and sanitation programme.

## **3.8 Training and Skills Development Issues of the Model**

### **3.8.1 Training and Capacity Building Opportunities for the Subcontractors**

The beauty with the eThekweni infrastructure model was that the four (4) main contractors were very experienced and skilled contractors in their own rights. They were able to impart valuable skills to the sixteen (16) subcontractors that were engaged by the municipality. The municipality had initially submitted an application for funding from the Department of Labour, through the Construction Education and Training Authority (CETA). The funding for training never came through because the CETA took too long to respond and later it was placed under administration.

The lack of funding for training and support from the CETA forced the municipality to fund its own training, hence the training that was offered was not accredited. The lesson is that the public sector client bodies have to allocate their own funding if they are serious about enterprise development, because the state entities (e.g. CETA) that have been mandated to address the training and skills development issues do not seem to have their ducks in a row.

Another challenge is that if public sector client bodies initiate large EPWP initiatives with the hope that the CETA or other appropriate institutions will come to the party, this might not necessarily be the case. This also implies that before the plans for initiating such projects, client bodies must sign memoranda of understanding / agreements with the various potential partners to ensure that all the stakeholders are able to come to the party.

### **3.8.2 Technical Training for Workers**

Selected workers were provided with training in pipe laying. All workers received HIV/Aids training. Work place experience was also provided by the design consultants to enable eThekweni staff members to gain suitable experience to facilitate their registration as built environment professionals. The only weakness with regard to training was that a lot of unaccredited training was rendered and unfortunately the beneficiaries will have nothing to show for it, with the exception of the certificates of attendance.

Trench excavation for the replacement of secondary water mains in pilot project was generally done by hand. It was also reported that a number of selected workers were trained in pipe laying. The training rendered was not accredited. All workers received training on HIV/AIDS.

### **3.8.3 Workplace Experience for Built Environment Students and young professionals**

Work place experience for municipal staff was provided by the design consultants to enable the young professionals to gain suitable experience to facilitate their registration as Built Environment Professionals. A total of seventy-five (75) students were offered in-service training during the implementation of the programme. The in-service training enabled the students from the various Universities of Technology with KwaZulu-Natal to benefit in terms of completing their practical training obligations towards their Built Environment Qualifications. The students were divided between the four (4) Design Consultants, the four (4) Main Contractors and the Sixteen (16) Subcontractors.

## **3.9 Job Creation Potential of eThekweni Infrastructure Delivery Model**

### **3.9.1 Targets set for Employment Opportunities**

From the interviews with the management of the programme it became clear that there were no job creation targets set from the outset. The intention was that at least 10% of the programme budget was supposed to go to local labour, given the capital intensive nature of the programme.

### **3.9.2 Actual Job Creation Actual**

On the basis of the secondary data from the municipality, it was clear that the 10% target for funds that had to go to local labour was doubled to 21%. This was attributed to the successful incorporation of the EPWP guidelines in the procurement documents of the projects, whereby more construction activities were identified to be implemented using hands, as opposed to using machines (EPWP guidelines, 2006).

### **3.9.3 Quality of Work Opportunities Created**

There was a total of over 300 work packages, with a budget of almost R2 billion. These work packages were grouped in accordance with the geographic areas and the reservoir networks of the municipality. For example, one reservoir could be servicing three or four wards, and the work packages would be spread in the three or four wards, not in an equal number, but in various proportions. There was a proportional allocation of labour based on the scope of work.



The local labour was sourced with the participation of the ward committees and the Community Liaison Officers and also with the participation of the Ward Councillors. The wards where the work packages were implemented had to identify and engage their own local labour for the duration of the implementation of the work package. This implied that the quality of the work opportunities ranged on average between four and six months. The further implication was that the quality of any training that could have been offered to the local labour was compromised and could not be sustained. It was reported that the total number of work opportunities created for all the work packages amounted to 46 000, during the full duration of implementation of the programme (i.e. over a period of three years).

### **3.9.4 Conditions of Employment of the Local Labour**

The local workers were appointed by the contractors and subcontractors in accordance with the standard industry conditions of employment. The feedback from the interview with the eThekweni senior executive involved in the programme revealed that the conditions of employment of local labour was not in accordance with the *Code of Good Practice for Special Public Works Programmes*, instead, these were based on the conventional conditions of employment.

## **3.10 Monitoring, Reporting and Evaluation of the model**

The Project Team had developed a monitoring and evaluation framework that was used as a basis for capturing the progress of the implementation of the programme. The subcontractors had to submit their reports to the main contractors, who would in turn consolidate their cluster report for submission to the Programme Manager. The Programme Manager would then consolidate all the Cluster Reports and submit to the Senior Executive of the Municipality.

Despite the fact that the templates and the reporting indicators were not necessarily those of the EPWP, an attempt was made to ensure that the EPWP data was collected and reported on, in accordance with the quarterly reporting requirements.

## **3.11 Funding Model of the Programme**

The municipality had a budget of over R2 billion, over a period of three years. The expenditure on this project up to 1 September 2008 was approximately R400 million, but to date almost R2 billion has been spent by the municipality.

## 4. Observations and Lessons Emanating from the Review of the Case Study

The review of the implementation of the model on the pilot project has demonstrated a number of lessons that are to be used by decision makers and programme implementing agents in the planning and implementation of EPWP Large projects. The lessons emanating from the eThekweni Infrastructure Delivery Model are summarized in the following section:

### 4.1 Early buy-in and commitment of key decision makers

The early buy-in and commitment of the key stakeholders was critical in ensuring that the programme was implemented. The nature of support was reflected in the financial support that was given to the programme, despite the other competing priorities of the municipality.

### 4.2 Change management processes

The adoption of the Programme Delivery Model implied that the Municipality had to ensure that the internal business processes had to be streamlined to accommodate the new way of doing business. This implied that the procurement processes had to be realigned with the model and also to ensure that the municipal Supply Chain Personnel and the Built Environment Professionals within the Water and Sanitation business unit had to be capacitated to implement the new infrastructure delivery model.

### 4.3 Mobilization workshops

With the understanding of the complexity and the dynamism when it comes to community-based infrastructure developments, the municipality ensured that there was thorough stakeholder mobilization programme involving the Political Office Bearers (Ward Councillors), Ward Committees, Material suppliers, amongst others.

The aim of the mobilization programme was to ensure that there was minimal or no resistance on the part of the key stakeholders when it came to the actual implementation of the programme. These consultative sessions were also aimed at ensuring that there was commitment and buy-in from the various stakeholders prior to the actual rollout of the programme. This was to ensure that all the stakeholders were on the same platform when implementation kicked in, and this was one of the factors that contributed to the successful rollout of the programme throughout the metropolitan municipality.

#### **4.4 Value of social facilitation in infrastructure development programmes**

In order to strengthen dialogue between the main contractor and the communities where the work was being carried out, a Community Liaison Officers (CLOs) were appointed by the Municipality (but paid for by the main contractors). This proved to have been very successful because there were virtually no issues of discontent that threatened the implementation of the programme because the CLOs were able to play their part in terms of maintaining community dialogue not only with the community stakeholders, but with other stakeholders as well.

The implication is that for successful implementation of Large EPWP Projects, the value of social facilitation cannot be underestimated. This also implies that the public sector client body has to ensure that the Terms of Reference for social facilitation must be clearly developed to ease the implementation processes.

#### **4.5 Procurement in the absence of detailed scope of work**

The implementation of the eThekweni water and sanitation programme also revealed that it is possible to procure a programme of works in the absence of a detailed scope of work within the current South African public sector procurement regime.

#### **4.6 Mobilization of the Project Team at short notice**

The success of the eThekweni infrastructure delivery model also highlights the fact that it is possible to mobilize a project team to tackle a large infrastructure project within a relatively short period of time once a decision is made to proceed with a project.

#### **4.7 Long-term large contracts can be implemented by public bodies**

The eThekweni infrastructure delivery model also demonstrated that long-term, large contracts rather than short-term small contracts permit service delivery to occur at scale.

#### **4.8 Addressing socio-economic opportunities through large-scale infrastructure delivery**

Given the duration of implementation and the size of the budget of the eThekweni infrastructure delivery model, it became clear that large, long term contracts can effectively and efficiently deliver on a wide range of social and economic objectives (CIDB Practice Note No. 11, February 2008).

The approach addressing the social and economic agenda was very flexible, and unlike most other delivery models, it allowed the client to change the deliverables over time in response to emerging needs and changing circumstances. This was of particular value where the contracts extend over a few years.

The learning curve on the project relating to the maintenance of the existing water network and the supplying of households with water while decommission the old pipes and commissioning the new ones was a steep one.

#### **4.9 Advancement of the contractor development agenda / targeted procurement**

The target contract approach whereby the target price is negotiated once the scope of work in a Reservoir Zone is known has provided the client with complete flexibility in deciding on priorities and has enabled a well structured and focussed contractor development programme to be implemented with clear and measurable outcomes. The scale of the project has allowed a focussed mentorship programme to be implemented to ensure that the targeted construction businesses put in place business systems to ensure that they grow in a sustainable manner.

This delivery model using large well established contractors has been able to deliver jobs to the unemployed efficiently and effectively. The money paid to such workers which amount to 21 % of total project cost in the early stages of the project where the start up costs are high, compares very favourably with the achievements of Soweto's Contractor Development Programme which ran from 1988 to 1998 (Watermeyer, R.B., Nevin, G., Amod, S. and Hallett, R.A., 1995).

The Soweto Contractor Development Programme, which replaced secondary water mains, involved small labour only contractors and third party management support in the form of construction and materials management. This programme enabled 28 percent of the construction cost, excluding programme management and design and supervision costs, to be paid to small contractors.

#### **4.10 Addressing capacity constraints of public sector client bodies**

It is a known fact that the public sector has lost its staff to the consulting sector. What is also apparent is that there are a large number of engineers and technologists in the industry and business sector which has proportionally remained approximately the same during this period.

The current project approach that is employed in most government departments and municipalities works well where a knowledgeable client exists. With the loss of technical staff, many public sector clients have insufficient in-house capacity to get these projects up and running or to effectively oversee their implementation. The shortage of qualified engineers in a number of public sector client bodies is a known fact (Lawless, 2005). What is interesting to note is that there are more engineers and technologists working for contractors than government or local authorities.

Given the fact that there was only one senior municipal executives dedicated to the implementation of the water and sanitation programme dramatically reduced the staffing requirements of the client and this can offer a solution to overcoming capacity constraints in the public sector. The clear and well defined project stages have allowed the project team to document the delivery process and to allow the client to control the project using only one staff member.

For the purpose of this programme, eThekweni had only assigned one of its senior project managers to interface with the project team through the appointed programme manager. From the review of the eThekweni Case Study, it has become clearer that there are two distinctly different strategies to address the current lack of service delivery and poor project outcomes:

- Significantly improve and dramatically increase the skills base of built environment professionals within government to effectively and efficiently manage and oversee the current delivery processes; and
- Harness the capability and capacity of the private sector to delivery infrastructure using a radically different delivery process.

#### **4.11 Ability to harness the capability and capacity of the private sector**

The model which eThekweni has implemented harnesses the capability and capacity of the private sector to deliver and provides an alternative delivery process which enables allocated budgets to be spent in a manner that results not only in construction works of an acceptable quality being delivered in response to prioritized needs, but also contributes to the regional social and economic agenda including employment and skills development.

#### **4.12 Political Commitment**

The fact that the municipality had set aside a budget of R2 billion to be spent in a programme over a period of three financial years (within the MTEF) is a sign that there was a clear political commitment, reinforced by the funding commitment. This also made it possible for the municipality to conceptualise and plan a structured enterprise development programme.

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# Annexure C

## Municipality Reporting Forms

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# REGISTRATION FORM

THIS FORM REFERS TO THE PROJECT PLAN AS BEFORE THE START OF THE PROJECT, AND NOT TO THE ACTUAL INFORMATION.

Field request	Description if needed	Please complete this section
<b>Project Name</b>		
Public Body (Province) Reference number	The number used by the public body to identify the project. This number has to be unique for every project	
Project Name	The project name needs to be unique for projects	
Project Type	Municipal	Select one and mark with a X
<b>Project Location</b>		
Province	Indicate in which Province the project will be implemented	
District Municipality / Metro	Indicate in which district/ Metro Municipality the project will be implemented	
Local Municipality / Metro region	Indicate in which local municipality the project will be implemented	
Primary Ward	Indicate in which ward the project will be implemented. If the project is implemented in more than one ward, then name the wards in "describe project location"	
Enter the name of the Municipal Area	Indicate in which municipal area the project will be implemented	
Describe the project location	Short description, including the area or ward within the municipality	
<b>Project Ownership and Location</b>		
Project Ownership		
Public Body Type		Select one and mark with a X
Project owner (Who is funding the project)		
Department in the public body type (Implementer)	This refers to the department within the municipality	
Implementing public body type (Implementer)	This must be a district, local or metro municipality	
Project Implementer	This refers to the department within the municipality who is responsible for the implementation of the project	
<b>Project Implementation</b>		
Source of Reference number	Indicate the source of reference number	
IDP Reference Number allocated to the project		
MIG Registered?	Indicate yes/no	
<b>EPWP Information</b>		
Chooses EPWP Programme	- Not part of a programme- Contractor Development Facilities & Infrastructure Housing Delivery Labour Based Construction Programme Labour Intensive Programme EPWP Provincial MIG NYS Provincial National Youth Service Subsidised Housing Vuk uphile Vukuzakhe Zimbabwele Community based NGO	Select one and mark with a X
Project Priority	1. Labour intensive and training 2. Vuk uphile learnership 3. Labour intensive, no training 4. Other 5. Large Projects	Select one and mark with a X
Sector	Infrastructure	
Project Sub-Sector	Please choose from the following: Infrastructure Roads Ground rehabilitation Roads and Storm water Settlements and Services Housing Park Development Water Infrastructure Upgrade Sewer upgrade Pipelines Stormwater drains Sidewalks Multipurpose Other Lights Reticulation Paving of parks Parking Lots	Select one and mark with a X If sub-sector is other, then mark with an X and provide name of "other"
If Other, describe		
<b>PROJECT ALLOCATED</b>		
Estimated project start date	Provide start date of the project. This is the construction start date	
Estimated project end date	Provide estimated project end date	
Please give a short project description	Short description, no longer than one line.	
Project type:	Infrastructure	
Project Environment	Urban Rural Both Urban and Non-Urban	Select one and mark with a X
<b>BUDGET ALLOCATED</b>		
Source of funds	Which organisations will be contributing to the funding of the project. Please choose the following: District Municipality Donors EPWP IGP Loans Local Municipality MIG National Department Provincial Department	
Total Amount of budget	Provide budget amount	
<b>PROJECT CONTRACT IN PUBLIC BODY</b>		
<b>Name and Contract</b>		
Title:	Provide information	
Surname:	Provide information	
Initials:	Provide information	
E-mail address:	Provide information	
Cellular:	Provide information	
Telephone (Office):	Provide information	
Fax:	Provide information	
Physical Address:	Provide information	
Postal Address: (if different from Physical)	Provide information	

## SUBMISSION FORM

THIS FORM REFERS TO THE PROJECT PLAN AS BEFORE THE START OF THE PROJECT, AND NOT TO THE ACTUAL INFORMATION.

Field request	Description if needed	Comment
<b>BUDGET</b>		
Source of funds	<i>Which organisations will be contributing to the funding of the project and how much will each organisation contribute? Please choose from the following:</i> District Municipality EPWP IGP Loans National Provincial Capital Budget Provincial Department Provincial Maintenance Budget Upscaling Grant	Budget amounts
What will be the annual budgets of the projects?	<i>Per national financial year. Take into account all financial years in which this project will be active.</i>  09-Oct 09/10 10/11 11/12 12/13 13/14	Annual budget amount
<b>MILESTONES</b>		
<b>Milestone</b>	<i>Will this milestone be measured (Yes / No)</i>	<i>Target Date</i>
Project approved		
Consultant appointed		
Detailed Design specifications approved		
Tender report approved		
Construction started		
Implementation complete		
<b>EPWP INDICATORS</b>		
<b>Indicator</b>	<i>Indicate (Yes / No)</i>	
Consultant contract		
Contractor compliant with EPW requirements		
Exit Strategy		
Branding Compliant		
<b>Planned EPWP Infrastructure outputs</b>		
<b>Output</b>	<i>Tick if applicable</i>	<i>Measure in km/sqm/no etc - Indicate value i.e. km roads to be constructed</i>
Km of roads constructed to standard		
Km of pipelines installed to standard		
Km of storm water drains constructed to standard		
Km of sidewalks constructed to standard		
No of bridges		
No of erf connections		
No of pipe / box culverts		
No of pump stations		
No of Reservoirs		
No of retention dams		
No of standpipes		
No of transfer facilities		
No of VIP's		
Sqm of bus ranks		
Sqm of community halls		
Sqm of landfill site		
Sqm of taxi ranks		
Sqm of treatment works		
Sqm of buildings		
Sqm of Grass cutting		
Km of fencing		
Sqm of Clinic Construction and Rehabilitation		
Number of classroom construction and rehabilitation		
<b>PLANNED TRAINING</b>		
<b>Accredited courses</b>		
Cost estimate	<i>Provide information if available</i>	
Number of person training days	<i>The total number of days for all persons to attend training</i>	
Number of people to attend	<i>The total number of people that will attend training</i>	
Number of women to attend	<i>This includes adult women and youth women</i>	
Number of youth to attend	<i>All persons aged 35 and under</i>	
<b>Non-accredited</b>		
Cost estimate	<i>Provide information if available</i>	
Number of person training days	<i>The total number of days for all persons to attend training</i>	
Number of people to attend	<i>The total number of people that will attend training</i>	
Number of women to attend	<i>This includes adult women and youth women</i>	
Number of youth to attend	<i>All persons aged 35 and under</i>	
<b>PLANNED LABOUR</b>		
<b>Employment generation details</b>	<b>Planned number of persons days of employment</b>	<b>Planned persons to be employed</b>
Adult men		
Adult women		
Youth men		
Youth women		
Disabled		
<b>PLANNED LABOUR</b>		
Minimum daily wage	<i>As per the contract document</i>	R
Planned number of employees from the indigent list	<i>Has this public body specified that a number of persons from the indigent list has to be employed? If so, what number of persons?</i>	

# PROGRESS REPORT

DATA FOR A 12 MONTHS PERIOD (APRIL - MARCH)

	April	May	June	July	August	September	October	November	December	January	February	March
<b>Financial Report</b>												
Expenditure for current month												
<b>EPWP Certified Contractors</b>												
Number of contractors												
Amount Spent												
<b>SMME Contractors</b>												
Amount Spent												
<b>Milestones</b>	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.
Project Approved												
Consultant appointed												
Detailed Design specifications approved												
Tender report approved												
Construction started												
Implementation complete												
<b>Actual Outputs</b>												
Type of output												
Quantity achieved												
Date achieved												

# BENEFICIARY INFORMATION

PLEASE PROVIDE BENEFICIARY INFORMATION ON THIS SHEET FOR EACH MONTH OF THE YEAR (APRIL - MARCH)

										APRIL - MARCH		
First Name	Initials	Last Name	I.D.Number	DOB dd/mm/yyyy	Gender M or F	Has Disability Y or N	Education Level See codes at bottom of list	Start Date dd/mm/yyyy	No. of Labour days for April	Daily wage rate for April	Total Wages paid April	Total No. of training days April
1											0	
2											0	
3											0	
4											0	
5											0	
6											0	
7											0	
8											0	
9											0	
10											0	
11											0	
12											0	
13											0	
14											0	
15											0	
16											0	
17											0	
18											0	
19											0	
20											0	
21											0	
22											0	
23											0	
24											0	
25											0	
26											0	
27											0	
28											0	
29											0	
30											0	
<b>TOTAL (Do not enter data in this line)</b>											0	0

**EDUCATIONAL LEVELS:** use the codes (1,2,3) on the above spreadsheet

**1** - Unknown      **3** - Grade 1-3 (Sub A-Std 1)      **5** - Grade 5-6 (Std 3-4) ABET 2      **7** - Grade 9 (Std 7) ABET 4      **9** - Grade 12 (Std 10)  
**2** - No Schooling      **4** - Grade 4 (Std 2) ABET 1      **6** - Grade 7-8 (Std 5-6) ABET 3      **8** - Grade 10-11 (Std 8-9)      **10** - Post Matric



# Annexure D

## Provincial Reporting Forms

# index

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<b>2. Submission Form</b>	<b>86</b>
<b>3. Progress Report</b>	<b>87</b>
<b>4. Beneficiary Information Form</b>	<b>88</b>

# REGISTRATION FORM

THIS FORM REFERS TO THE PROJECT PLAN AS BEFORE THE START OF THE PROJECT, AND NOT TO THE ACTUAL INFORMATION.

Field request	Description if needed	Please complete this section
<b>Project Name</b>		
Public Body (Province) Reference number	<i>The number used by the public body to identify the project. This number has to be unique for every project</i>	
Project Name	<i>The project name needs to be unique for projects</i>	
Project Type	Provincial National	Select one and mark with a X
<b>Project Location</b>		
Province	<i>Indicate in which Province the project will be implemented</i>	
District Municipality / Metro	<i>Indicate in which district/ Metro Municipality the project will be implemented</i>	
Local Municipality / Metro region	<i>Indicate in which local municipality the project will be implemented</i>	
Primary Ward	<i>Indicate in which ward the project will be implemented. If the project is implemented in more than one ward, then name the wards in "describe project location"</i>	
Enter the name of the Municipal Area	<i>Indicate in which municipal area the project will be implemented</i>	
Describe the project location	<i>Short description, including the area or ward within the municipality</i>	
<b>Project Ownership and Location</b>		
<b>Project Ownership</b>		
Public Body Type	Provincial Department	Select one and mark with a X
Project owner (Who is funding the project)	<i>This refers to the provincial department who is providing the money (It cannot be a metro, district or municipality)</i>	
Department in the public body that is responsible for the project	<i>This refers to the department within the provincial department</i>	
Implementing public body type (Implementer)	<i>This can be the same/another provincial dept, a metro, district or municipality</i>	
Project Implementer	<i>The name of the provincial department, metro district or province</i>	
Implementing department	<i>This refers to the department within the public body who is responsible for the implementation of the project</i>	
<b>Project Implementation</b>		
Source of Reference number	<i>Indicate the source of reference number</i>	
IGP Registered?	<i>Indicate yes/no</i>	
If the project is IGP registered, what is the IGP reference number?	<i>Provide the IGP number</i>	
<b>EPWP Information</b>		
Chooses EPWP Programme	- Not part of a programme- Contractor Development Facilities & Infrastructure Development Programme Housing Delivery Labour Based Construction Programme Labour Intensive Programme EPWP Provincial MIG NYS Provincial National Youth Service Subsidised Housing Vuk uphile Vukuzakhe Zimbambele Community based NGO	Select one and mark with a X
Project Priority	1. Labour intensive and training 2. Vuk uphile learnership 3. Labour intensive, no training 4. Other 5. Large Projects	Select one and mark with a X
Sector	Infrastructure	
Project Sub-Sector	<i>Please choose from the following:</i> Infrastructure Roads Ground rehabilitation Roads and Stormwater Settlements and Services Housing Park Development Water Infrastructure Upgrade Sewer upgrade Pipelines Stormwater drains Sidewalks Multipurpose Other Lights Reticulation Paving of parks Parking Lots	Select one and mark with a X If sub-sector is other, then mark with an X and provide name of "other"
If Other, describe		
<b>PROJECT ALLOCATED</b>		
Estimated project start date	<i>Provide start date of the project. This is the construction start date</i>	
Estimated project end date	<i>Provide estimated project end date</i>	
Please give a short project description	<i>Short description, no longer than one line.</i>	
Project type:	Infrastructure	
Project Environment	Urban Rural Both Urban and Non-Urban	Select one and mark with a X
<b>BUDGET ALLOCATED</b>		
Source of funds	<i>Which organisations will be contributing to the funding of the project. Please choose the following:</i> District Municipality Donors EPWP IGP Loans Local Municipality MIG National Department Provincial Department	
Total Amount of budget	<i>Provide budget amount</i>	
<b>PROJECT CONTRACT IN PUBLIC BODY</b>		
<b>Name and Contract</b>		
Title:	Provide information	
Surname:	Provide information	
Initials:	Provide information	
E-mail address:	Provide information	
Cellular:	Provide information	
Telephone (Office):	Provide information	
Fax:	Provide information	
Physical Address:	Provide information	
Postal Address: (if different from Physical)	Provide information	

## SUBMISSION FORM

THIS FORM REFERS TO THE PROJECT PLAN AS BEFORE THE START OF THE PROJECT, AND NOT TO THE ACTUAL INFORMATION.

Field request	Description if needed	Comment
<b>BUDGET</b>		
Source of funds	<i>Which organisations will be contributing to the funding of the project and how much will each organisation contribute? Please choose from the following:</i>	Budget amounts
	Donors	
	EPWP	
	IGP	
	Loans	
	National	
	Provincial Capital Budget	
	Provincial Department	
	Provincial Maintenance Budget	
	Upscaling Grant	
What will be the annual budgets of the projects?	<i>Per national financial year. Take into account all financial years in which this project will be active.</i>	Annual budget amount
	09/10	
	10/11	
	11/12	
	12/13	
	13/14	
<b>MILESTONES</b>		
<b>Milestone</b>	<i>Will this milestone be measured (Yes / No)</i>	<i>Target Date</i>
Project approved		
Consultant appointed		
Detailed Design specifications approved		
Tender report approved		
Construction started		
Implementation complete		
<b>EPWP INDICATORS</b>		
<b>Indicator</b>	<i>Indicate (Yes / No)</i>	
Consultant contract compliant with EPW guidelines		
Contractor compliant with EPW requirements		
Exit Strategy		
Branding Compliant		
<b>Planned EPWP Infrastructure outputs</b>		
<b>Output</b>	<i>Tick if applicable</i>	<i>Measure in km/sqm/no etc - Indicate value i.e. km roads to be constructed</i>
Km of roads constructed to standard		
Km of pipelines installed to standard		
Km of storm water drains constructed to standard		
Km of sidewalks constructed to standard		
No of bridges		
No of erf connections		
No of pipe / box culverts		
No of pump stations		
No of Reservoirs		
No of retention dams		
No of standpipes		
No of transfer facilities		
No of VIP's		
Sqm of bus ranks		
Sqm of community halls		
Sqm of landfill site		
Sqm of taxi ranks		
Sqm of treatment works		
Sqm of buildings		
Sqm of Grass cutting		
Km of fencing		
Sqm of Clinic Construction and Rehabilitation		
Number of classroom construction and rehabilitation		
<b>PLANNED TRAINING</b>		
<b>Accredited courses</b>		
Cost estimate	<i>Provide information if available</i>	
Number of person training days	<i>The total number of days for all persons to attend training</i>	
Number of people to attend	<i>The total number of people that will attend training</i>	
Number of women to attend	<i>This includes adult women and youth women</i>	
Number of youth to attend	<i>All persons aged 35 and under</i>	
<b>Non-accredited</b>		
Cost estimate	<i>Provide information if available</i>	
Number of person training days	<i>The total number of days for all persons to attend training</i>	
Number of people to attend	<i>The total number of people that will attend training</i>	
Number of women to attend	<i>This includes adult women and youth women</i>	
Number of youth to attend	<i>All persons aged 35 and under</i>	
<b>PLANNED LABOUR</b>		
<b>Employment generation details</b>	<b>Planned number of persons days of employment</b>	<b>Planned persons to be employed</b>
Adult men		
Adult women		
Youth men		
Youth women		
Disabled		
<b>PLANNED LABOUR</b>		
Minimum daily wage	<i>As per the contract document</i>	R
Planned number of employees from the indigent list	<i>Has this public body specified that a number of persons from the indigent list has to be employed? If so, what number of persons?</i>	



**PROGRESS REPORT**  
DATA FOR APRIL, MAY AND JUNE

	April	May	June	July	August	September	October	November	December	January	February	March
<b>Financial Report</b>												
Expenditure for current month												
<b>EPWP Certified Contractors</b>												
Number of contractors												
Amount Spent												
<b>SMME Contractors</b>												
Amount Spent												
<b>Milestones</b>	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.	If milestone has been achieved provide the achievement date otherwise indicate "NO" for each milestone not achieved.
Project Approved												
Consultant appointed												
Detailed Design specifications approved												
Tender report approved												
Construction started												
Implementation complete												
<b>Actual Outputs</b>												
Type of output												
Quantity achieved												
Date achieved												

# BENEFICIARY INFORMATION

PLEASE PROVIDE BENEFICIARY INFORMATION ON THIS SHEET FOR EACH MONTH OF THE YEAR (APRIL - MARCH)

										APRIL - MARCH		
First Name	Initials	Last Name	I.D.Number	DOB dd/mm/yyyy	Gender M or F	Has Disability Y or N	Education Level See codes at bottom of list	Start Date dd/mm/yyyy	No. of Labour days for April	Daily wage rate for April	Total Wages paid April	Total No. of training days April
1												0
2												0
3												0
4												0
5												0
6												0
7												0
8												0
9												0
10												0
11												0
12												0
13												0
14												0
15												0
16												0
17												0
18												0
19												0
20												0
21												0
22												0
23												0
24												0
25												0
26												0
27												0
28												0
29												0
30												0
<b>TOTAL (Do not enter data in this line)</b>												0

**EDUCATIONAL LEVELS:**  
use the codes (1,2,3) on the above spreadsheet

**1** - Unknown      **3** - Grade 1-3 (Sub A-Std 1)      **5** - Grade 5-6 (Std 3-4) ABET 2      **7** - Grade 9 (Std 7) ABET 4      **9** - Grade 12 (Std 10)  
**2** - No Schooling      **4** - Grade 4 (Std 2) ABET 1      **6** - Grade 7-8 (Std 5-6) ABET 3      **8** - Grade 10-11 (Std 8-9)      **10** - Post Matric





**NATIONAL DEPARTMENT OF PUBLIC WORKS**  
264 Madiba Street, Central Government Office (CGO) Building  
Private Bag X 65, Pretoria, 0001  
Tel: +27 12 406 2000 • [www.epwp.gov.za](http://www.epwp.gov.za)