



**DEPARTMENT OF WATER AND SANITATION  
REPUBLIC OF SOUTH AFRICA**

DUE AT 11:00 ON

**CLOSING DATE: 12 MARCH 2026**

**BID: WTE-0441 CS**

**THE DESIGN, HIRE, AND DELIVERY OF FORMWORK TO THE DEPARTMENT OF WATER AND SANITATION, KWAGGASKLOOF DAM IN THE WESTERN CAPE FOR A PERIOD OF 40 WEEKS FOR DWS CONSTRUCTION SOUTH.**

**SUBMIT BID DOCUMENTS TO:**

**POSTAL ADDRESS:**

DIRECTOR-GENERAL:  
WATER AND SANITATION  
PRIVATE BAG X3042  
PAARL  
7620

**OR**

**TO BE DEPOSITED IN:**

THE BID BOX AT THE ENTRANCE  
OF 4-6 ALKMAAR STREET  
DALJOSAPHAT  
PAARL  
7646

**A COMPULSORY SITE MEETINGS WILL BE HELD AT THE KWAGGASKLOOF DAM SITE OFFICES ON THE 25th of FEBRUARY FROM 13:00 TILL 14:00 WITH CO-ORDINATES AS FOLLOWS: 33.7711° S, 19.4400° E**

BIDDER: (Company address and stamp)

**COMPILED BY: SCM CONSTRUCTION SOUTH MANAGEMENT**



**water & sanitation**

Department:  
Water and Sanitation  
REPUBLIC OF SOUTH AFRICA

**NOTICE TO ALL PROSPECTIVE BIDDERS**

**BID NO** : **WTE-0441 CS**  
**CLOSING DATE** : **12 MARCH 2026**  
**TIME** : **11:00 AM**

**Compulsory briefing session will be held as follows:**

**DATE** : **25 February 2026**  
**VENUE:** : **KWAGGASKLOOF DAM SITE OFFICES**  
: **CO-ORDINATES: 33.7711° S, 19.4400° E**  
**TIME** : **13:00 TILL 14:00**

**CONTACT PERSON** : **T DANIELS**  
**TEL.** : **(021) 8720591**

**DEPARTMENT OF WATER AND SANITATION**

**BID: WTE-0441 CS**

**THE DESIGN, HIRE, AND DELIVERY OF FORMWORK TO THE DEPARTMENT OF WATER AND SANITATION, KWAGGASKLOOF DAM IN THE WESTERN CAPE FOR A PERIOD OF 40 WEEKS FOR DWS CONSTRUCTION SOUTH.**

**INVITATION TO BID (SBD 1)**

**PART A  
INVITATION TO BID**

<b>YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (NAME OF DEPARTMENT/ PUBLIC ENTITY)</b>					
BID NUMBER:	<b>WTE-0441 CS</b>	CLOSING DATE:	<b>12 MARCH 2026</b>	CLOSING TIME:	<b>11H00</b>
DESCRIPTION	<b>THE DESIGN, HIRE, AND DELIVERY OF FORMWORK TO THE DEPARTMENT OF WATER AND SANITATION, KWAGGASKLOOF DAM IN THE WESTERN CAPE FOR A PERIOD OF 40 WEEKS FOR DWS CONSTRUCTION SOUTH.</b>				
<b>BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT (STREET ADDRESS)</b>					
THE TENDER BOX AT THE ENTRANCE OF:					
DEPARTMENT OF WATER AND SANITATION					
4-6 ALKMAAR STREET					
DAL JOSAPHAT					
PAARL 7646					
<b>BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO</b>			<b>TECHNICAL ENQUIRIES MAY BE DIRECTED TO:</b>		
CONTACT PERSON	<b>T. Daniels</b>		CONTACT PERSON	<b>J. Van der Heever</b>	
E-MAIL ADDRESS	<b>danielst@dws.gov.za</b>		E-MAIL ADDRESS	<b>vanderheerverjw@dws.gov.za</b>	
<b>SUPPLIER INFORMATION</b>					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		OR	CENTRAL SUPPLIER DATABASE No:	MAAA
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]		ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER THE QUESTIONNAIRE BELOW]	
<b>QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS</b>					
IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?				<input type="checkbox"/> YES	<input type="checkbox"/> NO
DOES THE ENTITY HAVE A BRANCH IN THE RSA?				<input type="checkbox"/> YES	<input type="checkbox"/> NO
DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?				<input type="checkbox"/> YES	<input type="checkbox"/> NO
DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?				<input type="checkbox"/> YES	<input type="checkbox"/> NO
IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?				<input type="checkbox"/> YES	<input type="checkbox"/> NO
<b>IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 BELOW.</b>					

**PART B  
TERMS AND CONDITIONS FOR BIDDING**

<b>1. BID SUBMISSION:</b>	
1.1.	BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
1.2.	<b>ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED- (NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.</b>
1.3.	THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
1.4.	<b>THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).</b>
<b>2. TAX COMPLIANCE REQUIREMENTS</b>	
2.1	BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
2.2	BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
2.3	APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
2.4	BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
2.5	IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED; EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
2.6	WHERE NO TCS PIN IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
2.7	NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE."

**NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.**

SIGNATURE OF BIDDER: .....

CAPACITY UNDER WHICH THIS BID IS SIGNED: .....  
(Proof of authority must be submitted e.g., company resolution)

DATE: .....

**DEPARTMENT OF WATER AND SANITATION**

**BID: WTE-0441 CS**

**THE DESIGN, HIRE, AND DELIVERY OF FORMWORK TO THE DEPARTMENT OF WATER AND SANITATION, KWAGGASKLOOF DAM IN THE WESTERN CAPE FOR A PERIOD OF 40 WEEKS FOR DWS CONSTRUCTION SOUTH.**

**SECTION 1: LEGALITIES**

**CONTENTS**

- SIGNED SITE BRIEFING CERTIFICATE
- INSTRUCTIONS TO BIDDERS
- DECLARATION OF INTEREST (SBD 4)
- TERMS OF THE PREFERENTIAL PROCUREMENT REGULATION, 2011 (SBD 6.1)

**DEPARTMENT OF WATER AND SANITATION**

**BID: WTE-0441 CS**

**THE DESIGN, HIRE, AND DELIVERY OF FORMWORK TO THE DEPARTMENT OF WATER AND SANITATION, KWAGGASKLOOF DAM IN THE WESTERN CAPE FOR A PERIOD OF 40 WEEKS FOR DWS CONSTRUCTION SOUTH.**

**1. INSTRUCTIONS TO BIDDERS**

**CONTENTS**

1. ISSUING OF DOCUMENTS
2. QUERIES WITH RESPECT TO THIS BID
3. COMPLETION OF BIDS
4. SUBMISSION OF BIDS
5. SIGNATURE ON BIDS
6. GENERAL CONDITIONS OF CONTRACT
7. BIDS TO COMPLY WITH DOCUMENTS
8. TELEGRAPHIC BIDS
9. THE DEPARTMENT'S RIGHT TO DECLINE ANY BID
10. DEPARTMENT IS NOT LIABLE FOR BIDDER'S EXPENSES
11. PAYMENTS MADE UNDER THIS CONTRACT
12. EVALUATION CRITERIA
13. REJECTION OF BIDS
14. RESULTS OF BIDS

## INSTRUCTIONS TO BIDDERS

### 1. ISSUING OF DOCUMENTS

- (a) A complete set of bid documents can be downloaded from the e-tender portal.

Contact Person: Terry-Lee Daniels  
Email: danielst@dws.gov.za

- (b) Bidders must satisfy themselves that the document is complete and conform to the index of this document. Should any figures or writing be indistinct or should any pages be missing from this document or should this document or the drawing(s) contain any obvious errors, the Bidders must immediately notify the Department in order to have any discrepancy rectified or clarified before submitting his bid. Such clarification will be valid only if made by the Department by means of formal amendment as described hereunder prior to the date of submission of bids. The Department may issue amendments to clarify or modify the Bid Documents. A copy of each amendment will be issued to each bidder and shall be acknowledged on the form issued with the amendments. No claim whatsoever will be entertained for faults in the bid price resulting from the above-mentioned discrepancies.
- (c) No alterations, omissions or additions shall be made to this document, but should it be deemed necessary to do so, the Bidder is at liberty to qualify his bid.
- (d) All Bidders shall be deemed to have waived, renounced and abandoned any conditions printed or written upon any stationery used by them for the purpose of or in connection with the submission of bids which are in conflict with the conditions laid down in this document.

### 2. QUERIES WITH RESPECT TO THIS BID

Each communication between the Department and a tenderer shall be to or from the Department's contact person only, and in a form that can be read, copied and recorded. Writing shall be in the English language. The employer shall not take any responsibility for non-receipt of communications from or by a tenderer. The name and contact details of the Department's contact person are:

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:		TECHNICAL INFORMATION MAY BE DIRECTED TO:	
DEPARTMENT / PUBLIC ENTITY	<b>Water and Sanitation</b>	DEPARTMENT	<b>Construction South</b>
CONTACT PERSON	T. Daniels	CONTACT PERSON	J. W van der Heever
E-MAIL ADDRESS	danielst@dws.gov.za	E-MAIL ADDRESS	<u>vanderheeverj@dws.gov.za</u>

### 3. COMPLETION OF BIDS

- (a) The bid must be signed on the Invitation to Bid form (SBD 1) annexed hereto with all blanks in the bid and the appendix filled in.
- (b) All spaces in the bid forms and other annexures shall be completed in full.
- (c) Section 4 in the bid document and the Pricing Schedule must be fully completed and priced out by the bidder. Failure to do so will deem your bid invalid.
- (d) The bid documents shall not be separated in any way, nor must any pages be detached from the original documents.

### 4. SUBMISSION OF BIDS

The Bid Document shall be completed, signed and submitted as follows:

- (a) The original Bid, together with a covering letter and supporting documents, shall be sealed in an envelope endorsed:

**ORIGINAL BID FOR BID: WTE-0441 CS: THE DESIGN, HIRE, AND DELIVERY OF FORMWORK TO THE DEPARTMENT OF WATER AND SANITATION, KWAGGASKLOOF DAM IN THE WESTERN CAPE FOR A PERIOD OF 40 WEEKS FOR DWS CONSTRUCTION SOUTH.**

and the name of the Bidder shall be clearly shown.

- (b) Bids, sealed and endorsed as above, will be received by: The Supply Chain Management Office or may be deposit in the bid box at the entrance of 4-6 Alkmaar Street, Dal Josaphat, Paarl and not later than 11:00 on the date stipulated on the front cover of this document.

**5. SIGNATURE ON BIDS**

The Bid, if by an individual, must be signed by that individual or by someone on his behalf duly authorised thereto and proof of such authority must be produced. If the bid is by a Company, it must be signed by a person duly authorised thereto by a Resolution of a Board of Directors a copy of which Resolution, duly certified by the Chairman of the Company is to be submitted with the bid.

If the bid is submitted by joint venture of more than one person and/or Companies and/or firms it shall be accompanied by the following:

- (a) The original or a notarially certified copy of the original document under which such joint venture was constituted which must define precisely inter alia the conditions under which the joint venture will function, its period of duration and the participation of the several constituent persons and/or companies and/or firms.
- (b) A certificate signed by or on behalf of each participating person and/or company and/or firm authorising the person who signed the bid to do so.

**6. GENERAL CONDITIONS OF CONTRACT**

The National Treasury General Conditions of Contract shall be regarded as an integral part of the contract documents.

**7. FORM SBD 1**

The copy of Form SBD 1 (Invitation to Bid), annexed to these documents, must be completed and signed by the Bidder. **Failure to do so will deem your bid invalid.**

**8. BIDDERS TO COMPLY WITH DOCUMENTS**

Where applicable, Bidders must allow in their Bids for all labour, material, machinery and everything necessary for the execution and completion of the Contract in accordance with the bid documents. No alterations may be made in the Invitation to Bid, Schedule of Quantities or other documents and the bid will be deemed to comply entirely with the terms of the documents.

**9. THE DEPARTMENTS RIGHT TO DECLINE ANY BID**

The Department does not bind itself to accept the lowest or any bid.

**10. DEPARTMENT NOT LIABLE FOR BIDDER'S EXPENSES**

The Department will not be held liable for any expenses incurred in preparing and submitting bids.

**11. PAYMENTS UNDER THE CONTRACT**

All payments due to the Bidder in terms of the contract will be done by means of Electronic Fund Transfer.

**12. EVALUATION CRITERIA**

The evaluation of bids will be conducted in four (4) phases as follows:

- **Phase 1: Mandatory Requirements**
- **Phase 2: Administrative Compliance**
- **Phase 3: Technical Evaluation and Specification Compliance**
- **Phase 4: Preference Points system**

**Phase 1:**

**Mandatory Requirements**

Failure to submit any of the documents as listed and detailed in Table 1 below will render your bid non-responsive and will be disqualified.

**Table 1**

No	Detail of Document to be submitted	Does the document submitted comply or not-comply?	
		Comply	Not-Comply
1	Attendance signed the briefing register and attached Certificate <b>Compulsory Briefing Session.</b> Letter of appointment of duly authorized person to attend the Compulsory briefing session. Proof of such authority must be submitted upon signing of the register.		

**Phase 2:**

**Administrative Compliance:**

Bidders are required to comply with the following listed below:

**Table 2**

No	Criteria	Comply	Not-Comply
1	Companies must be registered with National Treasury’s Central Supplier Database must submit CSD report.		
2	Tax compliant with SARS (to be verified through CSD and SARS). Attach a copy of SARS Tax Clearance letter and PIN.		
3	Active registration with Company Intellectual Property Commission (to be verified through CSD and CIPC). Attach copy of CIPC / CIPRO certificate.		
4	An original or certified copy of B-BBEE Status Level Verification Certificate ( <b>failure to submit B-BBEE Certificate and complete SBD 6.1, the Bidder will forfeit the preferential points to be claimed</b> )		

No	Criteria	Comply	Not-Comply
5	Letter of appointment of duly authorized person to sign bid. Proof of such authority must be submitted with the bid. If by an individual, must be signed by that individual or by someone on his behalf duly authorised thereto and proof of such authority must be produced. If the bid is by a Company, it must be signed by a person duly authorised thereto by a Resolution of a Board of Directors a copy of which Resolution, duly certified by the Chairman of the Company is to be submitted with the bid.		
6	Complete, sign, submit SBD1, SBD3.1, SBD 4, SBD 6.1		

### **Phase 3:**

#### **Technical Evaluation and Specification Compliance**

Only Bidders that passed Phase 1 shall be considered for this phase of the evaluation process.

The bid will be evaluated using the criteria as indicated in *Technical Information section 3.2.14*. by comparing it to the information submitted in Phase 1.

The Bid Evaluation Committee will also confirm that the Bidders has indicated compliance with the technical specification in *Technical Information, Section 3.2.14*.

#### **Table 3**

Item	Description of Services	Did the bidder comply with the requirement?	
		Comply	Not-Comply
All	Did the bidder indicate compliance in <i>Technical Information, Section 3.2.14</i> and sign the declaration under Section 3?		

### **Phase 4:**

#### **Preference Points system**

The bid will be awarded in terms of Regulation 4: Preferential Procurement Regulations, 2022 pertaining to the Preferential Procurement Policy Framework Act, 2000 (Act 5 of 2000).

Bid proposals will be evaluated based on the 80/20 preference points where a maximum of 80 points will be awarded in respect of price and a maximum of 20 points will be awarded for goals.

Points claimed will be according to a bidder's specific goals claimed as indicated in Table below.

#### **Table: Specific goals for the tender and points allocation are indicated as per the table below:**

In terms of Regulation 4(2); 5(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this bid the bidder will be allocated points based on the bidder's goals claimed as per table. Bidder's goal claimed must be supported by proof/ documentation stated as per table and the special conditions of this bid where applicable:

**Table 4**

The specific goals allocated points in terms of this tender	Number of maximum points allocated (80/20 system)	Bidder's points claimed for specific goals (To be completed by Bidder)
Women Ownership	5	
Disability Ownership	5	
Youth Ownership	5	
Location of enterprise (local equals province)- Western Cape	2	
B-BBEE status level contribution from level 1 to 2 which are QSE or EME	3	
<b>TOTAL SCORED POINTS</b>	<b>20</b>	

**Specific goals**” means specific goals as contemplated in section 2(1)(d) of the PPPFA Act which may include contracting with persons, or categories of persons, historically disadvantaged by unfair discrimination on the basis of race, gender and disability including the implementation of programmes of the Reconstruction of Development Programme as published in *Government Gazette* No. 16085 date 23 November 1994.

**“Ownership”** means the percentage ownership and control, exercised by individuals within an enterprise.

**"Disability"** means, in respect of a person, a permanent impairment of a physical, intellectual, or sensory function, which results in restricted, or lack of, ability to perform an activity in the manner, or within the range, considered normal for a human being.

- i. A blind person (in terms of the Blind Persons Act, 1968 (Act no.26 of 1968).
- ii. A deaf person, whose hearing is impaired to such an extent that he/she cannot use it as a primary means of communication.
- iii. A person who, because of permanent disability, requires a wheelchair, calliper or crutch to assist him/her to move from one place or another.
- iv. A person who requires an artificial limb; or
- v. A person who suffers from a mental illness (in terms of the Mental Health Act, 1973 (Act no. 18 of 1973).

**"Youth"** means, in respect of a person younger than 35 years of age.

**"Location of enterprise"** Local equals province. Where a project cuts across more than one province, the bidder may be located in any of the relevant provinces to claim and be allocated the points.

**Women, disability, and youth** will be measured by calculating the pro-rata percentage of ownership of the bidding company which meets the criterion. E.g., Company A has five shareholders each of whom own 20% of the company. Three of the five shareholders meet the criterion, i.e., they are women/disability/youth. Therefore, this bidder will obtain 60% of the points allowable for this goal.

**Table: Documents required for verification of Bidder's claimed points**

Documents/ information listed on the below table must be submitted to support and verify points claimed as per table above.

**Table 5**

<b>Specific Goal</b>	<b>Requires Proof Documents</b>
Women Ownership	Full CSD Report
Disability Ownership	Full CSD Report
Youth Ownership	Full CSD Report
Location of enterprise	Full CSD Report
B-BBEE status level contribution from level 1 to 2 which are QSE or EME	Valid B-BBEE certificate/sworn affidavit. Consolidated B-BBEE certificate in cases of Joint Ventures (JV) Full CSD Report for each bidder who formed a (JV)

Failure on the part of a bidder to submit proof of documentation required in terms of this tender to claim for specific goals with the bid, will be interpreted to mean that preference points for specific goals are not claimed and will not be allocated

**13. REJECTION OF BID**

Bids not complying with the above-mentioned requirements and specifications may be regarded as incomplete and may not be considered.

**14. RESULTS OF BIDS**

Results of non-acceptance of bids will be sent to individual unsuccessful bidders.

**COMPULSORY DOCUMENTS TO BE COMPLETED BY THE BIDDER:**

- DECLARATION OF INTEREST (SBD 4)
- TERMS OF THE PREFERENTIAL PROCUREMENT REGULATION, 2022 (SBD 6.1)

## BIDDER'S DISCLOSURE

### 1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

### 2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest<sup>1</sup> in the enterprise, employed by the state? **YES/NO**

2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**

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<sup>1</sup> the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

2.2.1 If so, furnish particulars:

.....  
.....

2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract?

**YES/NO**

2.3.1 If so, furnish particulars:

.....  
.....

**3 DECLARATION**

I, \_\_\_\_\_ the \_\_\_\_\_ undersigned, (name)..... in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

- 3.1 I have read, and I understand the contents of this disclosure.
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect.
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium<sup>2</sup> will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.

<sup>2</sup> Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

3.6 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....	.....
Signature	Date
.....	.....
Position	Name of bidder

**PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022**

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

**NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022**

**1. GENERAL CONDITIONS**

1.1 The following preference point systems are applicable to invitations to tender:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 **To be completed by the organ of state**

*(delete whichever is not applicable for this tender).*

- a) The applicable preference point system for this tender is the 80/20 preference point system.
- b) The 80/20 preference point system will be applicable in this tender. The lowest/highest acceptable tender will be used to determine the accurate system once tenders are received.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

- (a) Price; and
- (b) Specific Goals.

1.4 **To be completed by the organ of state:**

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
<b>Total points for Price and SPECIFIC GOALS</b>	<b>100</b>

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim regarding preferences, in any manner required by the organ of state.

## 2. DEFINITIONS

- (a) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation.
- (b) **“price”** means an amount of money tendered for goods or services and includes all applicable taxes less all unconditional discounts.
- (c) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes.
- (d) **“tender for income-generating contracts”** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) **“the Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

## 3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

### 3.1. POINTS AWARDED FOR PRICE

#### 3.1.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

$$\begin{array}{ccc} \mathbf{80/20} & \mathbf{or} & \mathbf{90/10} \\ \mathbf{Ps} = \mathbf{80} \left( \mathbf{1} - \frac{\mathbf{Pt} - \mathbf{Pmin}}{\mathbf{Pmin}} \right) & \mathbf{or} & \mathbf{Ps} = \mathbf{90} \left( \mathbf{1} - \frac{\mathbf{Pt} - \mathbf{Pmin}}{\mathbf{Pmin}} \right) \end{array}$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender



**Table 1: Specific goals for the tender and points claimed are indicated per the table below.**

*(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.)*

*Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)*

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Women Ownership		5		
Disability Ownership		5		
Youth Ownership		5		
Location of enterprise (local equals province)- Western Cape		2		
B-BBEE status level contribution from level 1 to 2 which are QSE or EME		3		
<b>TOTAL SCORED POINTS</b>		<b>20</b>		

**DECLARATION WITH REGARD TO COMPANY/FIRM**

4.3. Name of company/firm.....

4.4. Company registration number: .....

4.5. TYPE OF COMPANY/ FIRM

- Partnership/Joint Venture / Consortium
- One-person business/sole propriety
- Close corporation
- Public Company
- Personal Liability Company
- (Pty) Limited
- Non-Profit Company
- State Owned Company

[TICK APPLICABLE BOX]

- 4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:
- i) The information furnished is true and correct.
  - ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form.
  - iii) In the event of a contract being awarded because of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct.
  - iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
    - (a) disqualify the person from the tendering process.
    - (b) recover costs, losses, or damages it has incurred or suffered because of that person’s conduct.
    - (c) cancel the contract and claim any damages which it has suffered because of having to make less favourable arrangements due to such cancellation.
    - (d) recommend that the tenderer or contractor, its shareholders, and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
    - (e) forward the matter for criminal prosecution, if deemed necessary.

	..... <b>SIGNATURE(S) OF TENDERER(S)</b>
<b>SURNAME AND NAME:</b>	.....
<b>DATE:</b>	.....
<b>ADDRESS:</b>	.....
	.....
	.....
	.....

**DEPARTMENT OF WATER AND SANITATION**

**BID: WTE-0441 CS**

**THE DESIGN, HIRE, AND DELIVERY OF FORMWORK TO THE DEPARTMENT OF WATER AND SANITATION, KWAGGASKLOOF DAM IN THE WESTERN CAPE FOR A PERIOD OF 40 WEEKS FOR DWS CONSTRUCTION SOUTH.**

**SECTION 2: CONDITIONS OF CONTRACT**

**CONTENTS**

1. THE NATIONAL TREASURY - GENERAL CONDITIONS OF CONTRACT (NT GCC)
2. SPECIAL CONDITIONS OF CONTRACT

## **CONDITIONS OF CONTRACT**

### **1. NATIONAL TREASURY - GENERAL CONDITIONS OF CONTRACT (NTGCC)**

The Contract shall be governed by: "National Treasury - General Conditions of Contract", which is attached to this bid document.

The only variations from these National Treasury - General Conditions of Contract (NTGCC) shall be given in the Special conditions of Contract below.

**THE NATIONAL TREASURY**

**Republic of South Africa**



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**GOVERNMENT PROCUREMENT:  
GENERAL CONDITIONS OF CONTRACT**

**July 2010**

**GOVERNMENT PROCUREMENT  
GENERAL CONDITIONS OF CONTRACT  
July 2010**

## NOTES

The purpose of this document is to:

- (i) Draw special attention to certain general conditions applicable to government bids, contracts, and orders; and
- (ii) To ensure that clients be familiar with regard to the rights and obligations of all parties involved in doing business with government.

In this document words in the singular also mean in the plural and vice versa and words in the masculine also mean in the feminine and neuter.

- The General Conditions of Contract will form part of all bid documents and may not be amended.
- Special Conditions of Contract (SCC) relevant to a specific bid, should be compiled separately for every bid (if (applicable) and will supplement the General Conditions of Contract. Whenever there is a conflict, the provisions in the SCC shall prevail.

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## General Conditions of Contract

### 1. Definitions

1. The following terms shall be interpreted as indicated:
  - 1.1. "Closing time" means the date and hour specified in the bidding documents for the receipt of bids.
  - 1.2. "Contract" means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
  - 1.3. "Contract price" means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.
  - 1.4. "Corrupt practice" means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.
  - 1.5. "Countervailing duties" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.
  - 1.6. "Country of origin" means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
  - 1.7. "Day" means calendar day.
  - 1.8. "Delivery" means delivery in compliance of the conditions of the contract or order.
  - 1.9. "Delivery ex stock" means immediate delivery directly from stock actually on hand.
  - 1.10. "Delivery into consignees store or to his site" means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the supplies are so delivered and a valid receipt is obtained.
  - 1.11. "Dumping" occurs when a private enterprise abroad market its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.
  - 1.12. " Force majeure" means an event beyond the control of the supplier and not involving the supplier's fault or negligence and not foreseeable. Such events may include, but is not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
  - 1.13. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the bidder of the benefits of free and open competition.
  - 1.14. "GCC" means the General Conditions of Contract.
  - 1.15. "Goods" means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.

- 1.16. "Imported content" means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the supplies covered by the bid will be manufactured.
- 1.17. "Local content" means that portion of the bidding price which is not included in the imported content provided that local manufacture does take place.
- 1.18. "Manufacture" means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.
- 1.19. "Order" means an official written order issued for the supply of goods or works or the rendering of a service.
- 1.20. "Project site," where applicable, means the place indicated in bidding documents.
- 1.21. "Purchaser" means the organization purchasing the goods.
- 1.22. "Republic" means the Republic of South Africa.
- 1.23. "SCC" means the Special Conditions of Contract.
- 1.24. "Services" means those functional services ancillaries to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such obligations of the supplier covered under the contract.
- 1.25. "Written" or "in writing" means handwritten in ink or any form of electronic or mechanical writing.

## **2. Application**

- 2.1. These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services, sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.
- 2.2. Where applicable, special conditions of contract are also laid down to cover specific supplies, services or works.
- 2.3. Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.

## **3. General**

- 3.1. Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable a non-refundable fee for documents may be charged.
- 3.2. With certain exceptions, invitations to bid are only published in the Government Tender Bulletin. The Government Tender Bulletin may be obtained directly from the Government Printer, Private Bag X85, Pretoria 0001, or accessed electronically from [www.treasury.gov.za](http://www.treasury.gov.za)

## **4. Standards**

- 4.1. The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.

## **5. Use of contract documents and information; inspection.**

- 5.1. The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only as far as may be necessary for purposes of such performance.
- 5.2. The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause 5.1 except for purposes of performing the contract.
- 5.3. Any document, other than the contract itself mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so, required by the purchaser.
- 5.4. The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so, required by the purchaser.

## **6. Patent rights**

- 6.1. The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.

## **7. Performance security**

- 7.1. Within thirty (30) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC.
- 7.2. The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.
- 7.3. The performance security shall be denominated in the currency of the contract, or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms:
  - (a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or
  - (b) a cashier's or certified cheque
- 7.4. The performance security will be discharged by the purchaser and returned to the supplier not later than thirty (30) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, unless otherwise specified in SCC.

## **8. Inspections, tests, and analyses**

- 8.1. All pre-bidding testing will be for the account of the bidder.
- 8.2. If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the Department or an organization acting on behalf of the Department.

- 8.3. If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.
- 8.4. If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the supplies to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.
- 8.5. Where the supplies or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such supplies or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.
- 8.6. Supplies and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.
- 8.7. Any contract supplies may on or after delivery be inspected, tested or analysed and may be rejected if found not to comply with the requirements of the contract. Such rejected supplies shall be held at the cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with supplies which do comply with the requirements of the contract. Failing such removal, the rejected supplies shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute supplies forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected supplies, purchase such supplies as may be necessary at the expense of the supplier.
- 8.8. The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 23 of GCC.

## **9. Packing**

- 9.1. The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.
- 9.2. The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by the purchaser.

## **10. Delivery and documents**

- 10.1. Delivery of the goods shall be made by the supplier in accordance with the terms specified in the contract. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.
- 10.2. Documents to be submitted by the supplier are specified in SCC.

## **11. Insurance**

- 11.1. The goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the SCC.

## **12. Transportation**

12.1. Should a price other than an all-inclusive delivered price be required, this shall be specified in the SCC.

## **13. Incidental services**

13.1. The supplier may be required to provide any or all the following services, including additional services, if any, specified in SCC:

- (a) performance or supervision of on-site assembly and/or commissioning of the supplied goods.
- (b) furnishing of tools required for assembly and/or maintenance of the supplied goods.
- (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods.
- (d) performance or supervision or maintenance and/or repair of the supplied goods, for a period agreed by the parties, provided that this service shall not relieve the supplier of any warranty obligations under this contract; and
- (e) training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.

13.2. Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier for similar services.

## **14. Spare parts**

14.1. As specified in SCC, the supplier may be required to provide any or all the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:

- (a) such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and
- (b) in the event of termination of production of the spare parts:
  - (i) Advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and
  - (ii) following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

## **15. Warranty**

15.1. The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.

15.2. This warranty shall remain valid for twelve (12) months after the goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the

contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise in SCC.

- 15.3. The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.
- 15.4. Upon receipt of such notice, the supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.
- 15.5. If the supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract.

## **16. Payment**

- 16.1. The method and conditions of payment to be made to the supplier under this contract shall be specified in SCC.
- 16.2. The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfilment of other obligations stipulated in the contract.
- 16.3. Payments shall be made promptly by the purchaser, but in no case later than thirty (30) days after submission of an invoice or claim by the supplier.
- 16.4. Payment will be made in Rand unless otherwise stipulated in SCC.

## **17. Prices**

- 17.1. Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices quoted by the supplier in his bid, with the exception of any price adjustments authorized in SCC or in the purchaser's request for bid validity extension, as the case may be.

## **18. Contract amendments**

- 18.1. No variation in or modification of the terms of the contract shall be made except by written amendment signed by the parties concerned.

## **19. Assignment**

- 19.1. The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.

## **20. Subcontracts**

- 20.1. The supplier shall notify the purchaser in writing of all subcontracts awarded under these contracts if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.

## **21. Delays in the supplier's performance**

- 21.1. Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract.

- 21.2. If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.
- 21.3. No provision in a contract shall be deemed to prohibit the obtaining of supplies or services from a national department, provincial department, or a local authority.
- 21.4. The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated at or near the place where the supplies are required, or the supplier's services are not readily available.
- 21.5. Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 21.2 without the application of penalties.
- 21.6. Upon any delay beyond the delivery period in the case of a supplies contract, the purchaser shall, without cancelling the contract, be entitled to purchase supplies of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.

## **22. Penalties**

- 22.1. Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

## **23. Termination for default**

- 23.1. The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:
  - (a) if the supplier fails to deliver any or all the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2.
  - (b) if the Supplier fails to perform any other obligation(s) under the contract; or
  - (c) if the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.
- 23.2. In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.
- 23.3. Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.

- 23.4. If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than fourteen (14) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated fourteen (14) days the purchaser may regard the intended penalty as not objected against and may impose it on the supplier.
- 23.5. Any restriction imposed on any person by the Accounting Officer /Authority will, at the discretion of the Accounting Officer / Authority, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the Accounting Officer / Authority actively associated.
- 23.6. If a restriction is imposed, the purchaser must, within five (5) working days of such imposition, furnish the National Treasury, with the following information:
- (i) the name and address of the supplier and / or person restricted by the purchaser.
  - (ii) the date of commencement of the restriction
  - (iii) the period of restriction; and
  - (iv) the reasons for the restriction.

These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.

- 23.7. If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.

## **24. Anti-dumping and countervailing duties and rights**

- 24.1. When, after the date of bid, provisional payments are required, or antidumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidized import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the contractor to the State or the State may deduct such amounts from moneys (if any) which may otherwise be due to the contractor in regard to supplies or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him

## **25. Force Majeure**

- 25.1. Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.
- 25.2. If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier

shall continue to perform its obligations under the contract as far as is reasonably practical and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

## **26. Termination for insolvency**

26.1. The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

## **27. Settlement of Disputes**

27.1. If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.

27.2. If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.

27.3. Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.

27.4. Mediation proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.

27.5. Notwithstanding any reference to mediation and/or court proceedings herein,

- (a) the parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and
- (b) the purchaser shall pay the supplier any monies due the supplier.

## **28. Limitation of liability**

28.1. Except in cases of criminal negligence or wilful misconduct, and in the case of infringement pursuant to Clause 6.

- (a) the supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and
- (b) the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

## **29. Governing language**

29.1. The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the parties shall also be written in English.

### **30. Applicable law**

30.1. The contract shall be interpreted in accordance with South African laws, unless otherwise specified in SCC.

### **31. Notices**

31.1. Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail and any other notice to him shall be posted by ordinary mail to the address furnished in his bid or to the address notified later by him in writing and such posting shall be deemed to be proper service of such notice.

31.2. The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.

### **32. Taxes and duties**

32.1. A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.

32.2. A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.

32.3. No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid the Department must be in possession of a tax clearance certificate, submitted by the bidder. This certificate must be an original issued by the South African Revenue Services.

### **33. National Industrial Participation (NIP) Programme**

33.1. The NIP Programme administered by the Department of Trade and Industry shall be applicable to all contracts that are subject to the NIP obligation.

### **34. Prohibition of Restrictive practices**

34.1. In terms of section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, an agreement between, or concerted practice by, firms, or a decision by an association of firms, is prohibited if it is between parties in a horizontal relationship and if a bidder (s) is / are or a contractor(s) was / were involved in collusive bidding (or bid rigging).

34.2. If a bidder(s) or contractor(s), based on reasonable grounds or evidence obtained by the purchaser, has / have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in the Competition Act No. 89 of 1998.

34.3. If a bidder(s) or contractor(s), has / have been found guilty by the Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and / or terminate the contract in whole or part, and / or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding ten (10) years and / or claim damages from the bidder(s) or contractor(s) concerned.

Js General Conditions of Contract (revised July 2010)

## 2. SPECIAL CONDITIONS OF CONTRACT

<b>Item</b>	<b>Sub- Clause</b>	<b>Data</b>
<b>Application</b>	2.2	No additional specifications is applicable
<b>Performance Security</b>	7.1 7.4	No performance security is required.
<b>Packing</b>	9.2	The material will be transported in suitable vehicles.
<b>Delivery and documents</b>	10.1	Each consignment will be delivered to the designated store yard at the site, accompanied by the necessary data sheets and delivery documents, stating the tender number, item description and quantity delivered.
	10.2	These documents will be signed on delivery by a designated person. A copy of the delivery note will be provided to the designated person.
<b>Insurance</b>	11.1	It is the supplier's responsibility to be fully insured against loss or damage incidental to manufacture or acquisition and transportation till it is delivered to site.
<b>Transportation</b>	12.1	An all-inclusive delivered price is required.
<b>Incidental services</b>	13.1	Client will assist with personnel and hydraulic crane to offload material if required (to be considered by bidder when pricing).
<b>Spare parts</b>	14.1	Not applicable.
<b>Payment</b>	16.1	Payment will be made once every month. An original Tax Invoice clearly stating the items and quantities delivered will be provided to the client. Payment will be done within 30 days of receipt of the approved Tax Invoice by depositing the payment directly into the bank account of the successful bidder. No cash payment will be done.
	16.4	Payment will be made in Rand.
<b>Prices</b>	17.1	No price adjustments will be considered.
<b>Settlement of Disputes</b>	27.4	Mediation proceedings shall be conducted in accordance with the rules of arbitration.
<b>Additional Special conditions</b>	35	Refer to Section – Specification

**DEPARTMENT OF WATER AND SANITATION**

**BID: WTE-0441 CS**

**THE DESIGN, HIRE, AND DELIVERY OF FORMWORK TO THE DEPARTMENT OF WATER AND SANITATION, KWAGGASKLOOF DAM IN THE WESTERN CAPE FOR A PERIOD OF 40 WEEKS FOR DWS CONSTRUCTION SOUTH.**

**SECTION 3: SPECIFICATIONS**

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### **3.1 STANDARD SPECIFICATIONS**

#### **3.1.1. APPLICABLE STANDARD SPECIFICATIONS**

The applicable standard specifications are:

SANS 2001-CC1: 2007 Edition 1: Construction Works Part CC1: Concrete works (Structural). Section 4.3 FORMWORK.

SABS 085: Code of Practice entitled “The Design, Erection, Use and Inspection of Access Scaffolding”;

SABS 1808: Standard Specification entitled: “Safety requirements on suspended access equipment – Design calculations, stability criteria, construction-tests”.

SABS 1903: Standard Front-end Specification entitled: “Safety requirements on suspended access equipment – Design calculations, stability criteria, construction-tests”.

In the event of any discrepancy between a part or parts of the National Treasury General Conditions of Contract or Standard specifications and the Project Specifications, the Project Specifications shall take precedence.

In the event of a discrepancy between the Specifications, (including the Project Specifications) and the drawings and / or the Bill of Quantities, the discrepancy shall be resolved by the Engineer before the execution of the work under the relevant item.

The applicable standard specifications are mentioned in the Project Specification.

### **3.2 PROJECT SPECIFICATION**

#### **3.2.1 DESCRIPTION OF THE PROJECT**

The Sub-Directorate: Dam Safety Surveillance (DSS) within the Directorate: Strategic Asset Management (SAM) of the Department of Water and Sanitation (DWS) is doing rehabilitation works on the Kwaggaskloof Dam to improve the redundancy of the water supply at the dam and to create a safe environment. The scope of the rehabilitation works is:

##### **1. REHABILITATION OF THE DOWNSTREAM DRAINAGE WORKS:**

At the left downstream toe of the main embankment, improve the reliability of the current pressure relief well system by cleaning out the existing vertical pressure relief wells through compressed air, water jetting and drilling to design depths. After cleaning out the pressure relief wells install new stainless steel filter screens with an adequately graded surrounding filter within the existing wells. Rehabilitate the existing concrete collector channel at the existing pressure relief well system by placing a new layer of concrete which would resist chemical degradation over the existing concrete.

At the right flank downstream toe, excavate and lay horizontal sub-surface toe drain along the downstream toe with associated concrete manholes and outfall structures.

##### **2. REDUCE EROSION OF THE LEFT BANK OF THE RESERVOIR:**

On the upstream side, wind and wave action leads to severe erosion of earth fill material on the left bank just upstream of the intake tower. These sediment materials are deposited in front of the intake tower and could lead to damages to the outlet pipes, gates and valves.

For these rehabilitation works it is recommended to dump rockfill along the left bank upstream of the inlet tower to dissipate the wave energy through absorption and prevent scouring.

### 3. INCREASE THE REDUNDANCY OF THE OUTLET WORKS:

The outlet works currently consists of two outlet pipes which lead from the upstream dry intake tower to a downstream canal and pumping station separately. From the intake tower the left 1200mm diameter outlet pipe is encased in concrete as it runs through the embankment to the downstream outlet. It discharges into a downstream stilling basin and irrigation canal. The right outlet pipe is encased in concrete for 46m with a 1200mm diameter outlet pipe and then enters into a 70m length of open culvert (gallery). From the open gallery the outlet pipe is 700mm in diameter and exits the embankment the pipe at an open concrete culvert structure and is then buried and connected to the downstream pump station (Bossieveld Pump Station).

For this project the configuration of the outlet pipes needs to be altered to install a cross-over system which uses both outlet pipes for both the pump station and the canal. In the newly designed system, the 700mm diameter outlet pipe within the open gallery will be removed and replaced by a 1200mm diameter outlet pipe. Both the left and right 1200mm diameter outlet pipes as it is exiting the embankment will run into a newly constructed concrete outlet structure. From there the two outlet pipes will discharge into a re-designed stilling basin through sleeve into the irrigation canal. In the new outlet structure a new separate 900mm diameter outlet pipe will be connected to both 1200mm diameter left and right outlet pipes. This 900mm diameter outlet pipe will be buried underground and run to the downstream pump station. The old buried 700mm diameter outlet pipe which runs to the pump station must be removed.

The rehabilitation of these outlet works comprises of both **civil works** and **mechanical and electrical** works. The **civil works** include removal of the 700mm diameter outlet pipe in the gallery and running underground to the pump station, grouting of the existing outlet gallery after placement of the new 1200mm outlet pipe, construction of the new outlet structure and stilling basin and alterations to the existing canal, encasement of the new 900mm diameter outlet pipe running underground to the pump station and the construction of a flow meter chamber and strainer room along the new 900mm diameter outlet pipe.

As a result of these planned rehabilitation works, this project is summarised into the following main parts:

- Site establishment, maintenance and clearance
- **Part A** includes all the works related to the **Civil Works** for the rehabilitation of the downstream drainage works, the placement of upstream erosion protection and the rehabilitation of the outlet works at the dam.
- Maintaining the operational condition at the dam.

Separate attachments have been compiled for **Part A (Civil Works)**

- Bill of Quantities applicable for that part. The Contractor shall take note to complete the entire BOQ as included in Part C2 (Pricing Data) to determine the total Contract Price.
- The variations, amendments and additions to the Standardized Specifications and Particular Project Specifications applicable for that part as included in Part C3 (Scope of Work).

The Contractor shall take note that **Part A (Civil Works)** will form part of this Contract. The Contractor shall also be responsible for site establishment, maintenance and clearance, and maintaining the operational condition at the dam. The detailed scope of works for this Contract is described in PS-3.

#### 3.2.1.1

#### TERMINOLOGY

For this Contract, the following terms shall apply:

**KDSRP** is the acronym for Kwaggaskloof Dam Safety Rehabilitation Project.

**DSS** is the acronym for Dam Safety Surveillance.

**SIAM** is the acronym for Strategic Infrastructure Asset Management.

**EA** is the acronym for Employer's Agent (according to SAICE GCC 2015)

**EAR** is the acronym for Employer's Agent Representative (according to SAICE GCC 2015)

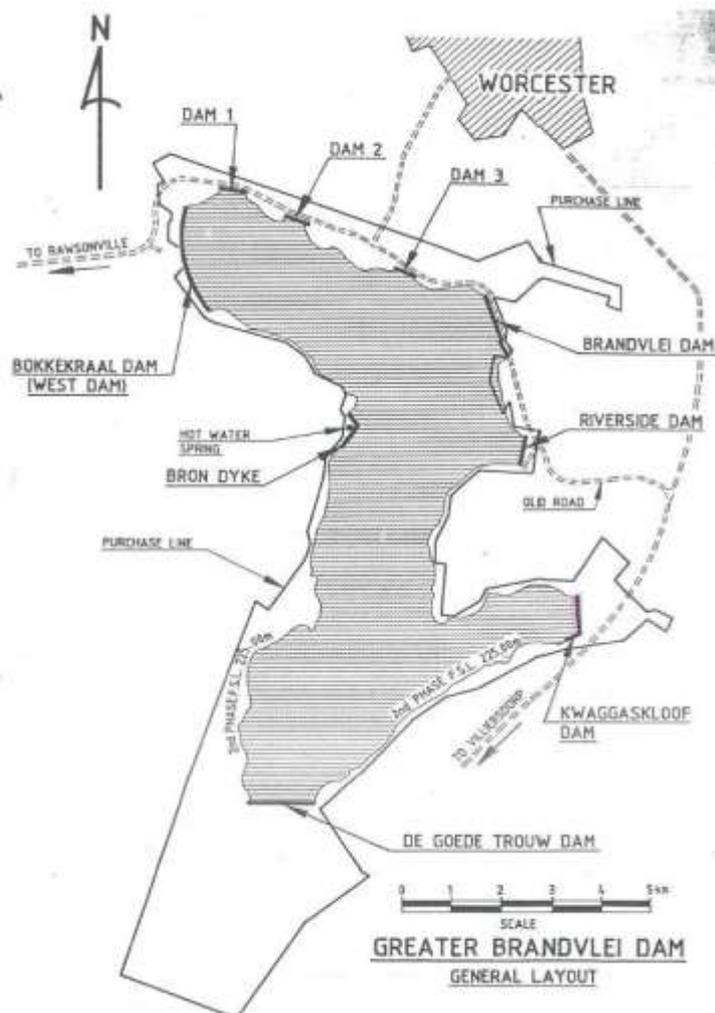
**DWS** is the acronym for Department of Water and Sanitation.

### 3.2.2

#### **LOCATION AND ACCESS TO SITE**

##### **GENERAL DESCRIPTION**

Kwaggaskloof Dam forms part of the Greater Brandvlei Scheme. The Scheme is an off-river storage reservoir situated on the right bank of the Breede River and located approximately 14.5km south of Worcester in the Western Cape Province. The Kwaggaskloof embankment is one of nine embankments which impound the Greater Brandvlei reservoir (refer to the general layout of Greater Brandvlei Dam shown in Figure 1):



**Figure 1: General plan layout of the Greater Brandvlei Scheme impounded by nine embankments**

The plan view of the Greater Brandvlei Scheme and the Kwaggaskloof Dam wall as obtained from Google Earth is shown in Figure 2. The Kwaggaskloof embankment is approximately 1202m long with a maximum height of 25m and a crest width of 8m. The embankment has an upstream slope of 2.5H:1V up to a 16m wide berm at RL 204.8m and from there continues at a slope of 3H:1V up to a Non-Overspill Crest (NOC) at RL 215.0m. The downstream slope is 2H: 1V with a 20m wide berm encountered at RL 198.5m.



**Figure 2: Plan view of Greater Brandvlei Scheme (Google Earth, 2013)**

As illustrated in the Figure 2, access to the downstream toe of the dam wall, the right downstream side of the outlet works, and the pump station is gained via a short section of existing gravel road which runs from the R43 road (Worcester/Villiersdorp) turn-off (**route 1**). Access to the left side of the outlet works Non-Overspill Crest (NOC) and inlet works can be provided through an access bridge over the outlet works canal (**route 2**) or an alternative gravel road which can also be accessed from the R43 road (**route 3**). Access to the right downstream toe or the Dam for recreational purposes is controlled by means of the Quaggaskloof Waterski Club.

Kwaggaskloof Dam / Coordinates  
33.7711° S, 19.4400° E

### **3.2.3 ROAD CONDITIONS**

Bidders are advised to acquaint themselves with roads, road conditions, distances, etc. on and to the site, before bidding.

### **3.2.4 SERVICE REQUIRED**

**THE DESIGN, HIRE, AND DELIVERY OF FORMWORK TO THE DEPARTMENT OF WATER AND SANITATION, KWAGGASKLOOF DAM IN THE WESTERN CAPE FOR A PERIOD OF 40 WEEKS FOR DWS CONSTRUCTION SOUTH.**

The service required is for the design, hire, supply and delivery of formwork to the department of water and sanitation, Kwaggaskloof dam for a period of 40 weeks.

The design calculation(s) and drawing(s) for the applicable formwork will be prepared and signed off by a registered professional engineer. It is a requirement that the formwork shall be so designed and constructed

that the concrete can be properly placed and compacted to the required shapes, finishes, positions, levels and dimensions as shown on the Drawings.

The formwork and joints shall be capable of resisting the dead load, including the pressure exerted by the wet concrete, wind forces and all other superimposed loads and forces.

The quality of the formwork shall be such that the finished surface shown on the drawings is consistently produced.

### **3.2.5 QUANTITIES**

The quantities are estimates only and subject to change on re-measuring during the execution of the work. Orders will be placed as and when requirements become known. No price adjustments or claims will be allowed for or entertained due to a change in total quantities.

**Note: The Department reserves the right to purchase only one or more items as required.**

### **3.2.6 DELIVERY**

The successful bidder to provide the Department with a delivery schedule within 5 working days of accepting the BID. The delivery of the material must commence within 10 working days of placement of the first order issued by DWS.

Note: All communication, requests and instructions to and from the Bidder will be managed by a designated person.

**The delivery point is at the Kwaggaskloof Dam Construction Site Offices.**

Deliveries may be made during working hours: 08h00 to 15h00, but not on the following days or periods:

- (i) Saturdays and Sundays.
- (ii) All public holidays.
- (iii) The period 11 December to 9 January.
- (iv) The last Friday of every month, unless otherwise agreed before delivery.

The Successful Bidder shall make available a designated contact person with whom the Department will arrange and schedule supply and delivery of the material.

The Department will decline products that do not comply with the specification and load(s) will not be accepted and will not be paid for. The declined load(s) must be removed from site ASAP for the Successful Bidders own cost.

### **3.2.7 PROGRAMME**

Delivery will be for a period of 40 weeks. In the case of hiring specific periods will be provided for different items at the time of order.

Delivery of formwork will commence by placement of an official order for a specific item on the Bill of Quantities as required.

During the compulsory site meeting briefing, a construction programme for the planned works will be available on request.

### **3.2.8 PENALTY FOR LATE DELIVERY**

If the Bidder fails to supply the goods or render the service within the period stipulated in the contract, the Department shall have the right, in its sole discretion to deduct as a penalty as described in paragraph 22 of National Treasury General Conditions of Contract (NTGCC).

### **3.2.9 PACKAGING**

All materials will be safely packed for transportation.

### **3.2.10 TRANSPORTATION**

All transportation cost of the formwork material should be included in the pricing schedule.

### **3.2.11 BIDDER'S VEHICLES**

The delivery vehicles will be roadworthy, in a good condition and fit for purpose.

### **3.2.12 PAYMENT**

Payments will be made monthly on receipt of specified approved tax invoices.

Payment will not be made for consignment unless supported by delivery notes duly signed by the designated official checking the delivery.

No escalation will be considered.

Payment will be done within 30 days of receipt and approval of original invoice by depositing the payment directly into the bank account of the Successful Bidder. No cash payment or cheque payment will be done.

No Payment for standing time at the delivery and collection points will be made.

### **3.2.13 COSTS**

All-inclusive bid prices are required, delivery and any other cost mentioned in the specification for the Bidders account must be included in the unit price.

Bidders shall provide in their bid for all labour, plant, material, implements and vehicles necessary for the execution of the contract and all operating and maintenance costs in accordance with the bid documents.

### **3.2.14 SAFETY, HEALTH AND ENVIRONMENTAL**

The successful bidder will be required to adhere to the site-specific Health, Safety and Environmental requirements while on site.

The successful bidder will be required to provide the OHS - Construction Regulation documentation as mentioned below, for approval by DWS CHS Officer, before any material can be delivered to site.

The following to be complied with: OHS ACT 85 OF 1993- CONSTRUCTION REGULATION 7

- Safety plan specifically for their activities on site
- Risk assessment and method statement
- Mandatory in terms of section 32
- All legal appointments in terms of OHS act 85 of 1993
- Proof of competency
- Medical fitness
- Letter of good standing

### 3.2.15 TECHNICAL INFORMATION

The below table details the technical requirements for the services required for this bid.  
The Bidder shall confirm that he has familiarized himself with the specification and complies with said requirements by indicating as such for each item in the table below by **initialling in the relevant column**.

Item	SHORT DESCRIPTION	Specification / Requirements	Do the items priced in the pricing schedule comply with the indicated specification/requirement?		Photo
			Comply	Not Comply	
A	<b>DESIGN, HIRE, SUPPLY AND DELIVERY OF FORMWORK TO KWAGGASKLOOF DAM PROJECT FOR A PERIOD OF 40 WEEKS.</b>	<p><b>SCOPE OF WORK</b></p> <p>Formwork proposals adhering to the requirements for the different sections of work, as well as a financial proposal in terms of hiring of the formwork for the Kwaggaskloof dam rehabilitation project are required for the different sections with the requirements as listed below:</p> <p><b>NEW OUTLET STRUCTURE, RAISING OF CANAL WALLS, STRAINER ROOM, ENCASEMENT OF DN90 OUTLET PIPE &amp; THE FLOW METER CHAMBER</b></p> <p>The new structures mentioned above are to be constructed with single side formwork on the inside and outside where applicable.</p> <p><b>OUTSIDE AND INSIDE PERIMETER WALLS (Refer to Drawings 174858/16 TO 174870/16)</b></p> <p>One sided climbing formwork to accommodate a 1.0m to 2.0 m concrete lifts as specified by Tenderer's Design.</p>			 <p><b>For illustration purposes only</b></p>

The formwork proposed must consist of sections and adhere to the following standards:

The section must consist of standard formwork items, and the number of items must be kept to the minimum.

The standard width and length of the section will be according to the Engineers Design unless otherwise indicated.

The formwork must be easy to erect, to join and adjustable in height as well as verticality.

The formwork must be able to tilt backwards in order to install climbing cone/brackets.

The formwork must be supported on two support brackets with a hanging platform with railings and flooring with stiffeners as required for retrieving climbing cone/bracket and making concrete repairs as required.

The whole formwork section must be able to be lifted by a mobile crane.

The formwork section must have a top access platform with railings and flooring.

The formwork must be able to join effectively and efficiently on all corners.

The formwork must be able to produce a smooth concrete finish



**For illustration purposes only**

**RECESSES (BOX OUTS)**

Different size recesses will be required for the different lifts. The recesses (box outs) will be manufactured from wood. The vertical recesses will be provided with a lifting-hook on top, in order to be pulled up by crane. The horizontal recesses will be of such lengths, that it could be manhandled and supplied with a screw in eye bolt to enable the attachment of a chain block to assist with removal if required. The recess box outs will be screwed to the formwork in such a way that after the screws are removed there will be no protruding elements preventing the formwork to be lifted upwards. The recesses (box outs) will be of such a nature that they will prevent ingress of mortar into the recess (box outs) by filling each box with a hard industrial foam or similar.

**DRAWINGS**

The drawings issued as part of the bid documents must be regarded as provisional and preliminary for the bidder's benefit to generally assess the scope of work. The work shall be carried out in accordance with the latest available revision of the drawings approved for construction (AFC).

**LIST OF DRAWINGS (Will be issued at mandatory site briefing session)**

<b>DRAWING NO.</b>	<b>SHEET NO</b>	<b>DESCRIPTION OF DRAWINGS</b>
174851 / 16	04 of 54	NEW OUTLET STRUCTURE
174853 / 16	06 of 54	NEW OUTLET STRUCTURE
174854 / 16	07 of 54	NEW OUTLET STRUCTURE
174855 / 16	08 of 54	NEW OUTLET STRUCTURE
174856 / 16	09 of 54	NEW OUTLET STRUCTURE
174857 / 16	10 of 54	NEW OUTLET STRUCTURE
174858 / 16	11 of 54	NEW OUTLET STRUCTURE
174859 / 16	12 of 54	NEW OUTLET STRUCTURE

174871/ 16	24 of 54	RAISING CANAL WALLS
174872/ 16	25 of 54	RAISING CANAL WALLS
174873/ 16	26 of 54	RAISING CANAL WALLS
174893/ 16	46 of 54	STRAINER ROOM
174894/ 16	47 of 54	STRAINER ROOM
174882/ 16	35 of 54	DN900 - OUTLET PIPE
174883/ 16	36 of 54	DN900 - OUTLET PIPE
174884/ 16	37 of 54	DN900 - OUTLET PIPE
174886/ 16	39 of 54	FLOW METER CHAMBER
174887/ 16	40 of 54	FLOW METER CHAMBER
174888/ 16	41 of 54	FLOW METER CHAMBER

## Formwork Related Load, Pressure and Force Types

### 1. Load Types related to Formwork designs:

- 1.1. Dead Load from reinforced concrete density (DIN 1055):
  - 1.1.1. For slab thickness less than 1m = 25 kN/m<sup>3</sup>
  - 1.1.2. For slab thickness greater than 1m and beams = 26 kN/m<sup>3</sup>
  - 1.1.3. Allowance for fresh concrete (heaping) = 1 kN/m<sup>3</sup>
- 1.2. Live Loads:
  - 1.2.1. Construction Live Loads assumed as 20% of fresh concrete dead load, but not less than 1.5 kN/m<sup>2</sup> and not more than 5 kN/m<sup>2</sup>. Self Weight of formwork is included in allowable Construction Live Load (DIN4421).
  - 1.2.2. Access Live Loads for heavy human traffic and tools assumed as 1,6 kN/m<sup>2</sup>.
  - 1.2.3. Platform Live Loads assumed as 1 kN/m<sup>2</sup> where work is done without heavy tools and equipment.
- 1.3. Dynamic Live Loads:
  - 1.3.1. Imposed Plant Loads, if such loads are expected load values must be supplied by manufacturer,
  - 1.3.2. Concrete Skip impact Loads,
  - 1.3.3. Concrete pipe dynamic movement during pumping,
  - 1.3.4. Excessive heaping of concrete during concrete placement.
- 1.4. Horizontal Loads:
  - 1.4.1. Minimum horizontal stability force (containment force), for example 15% for Sta-Flex.
- 1.5. Environmental Loads:
  - 1.5.1. Snow and Ice loads (not applicable in South Africa),
  - 1.5.2. Wind Loads;
    - 1.5.2.1. Generally 0.5kN/m<sup>2</sup> for h<8m and 0.8kN/m<sup>2</sup> for 8<h<20m,
    - 1.5.2.2. If more accurate of greater heights formwork wind loads are required, refer to the Wind Pressure Section of this manual.
    - 1.5.2.3. The aerodynamic coefficient, C<sub>p</sub>, for formwork will be simplified to 1.3 due to the geometry.
- 1.6. Hydrostatic Concrete Pressure:
  - 1.6.1. 3 international methods are used for determining concrete pressure in vertical formwork;
    - 1.6.1.1. CIRIA report 108 (United Kingdom), (used by Pre-Form),
    - 1.6.1.2. ACI 347R (USA),
    - 1.6.1.3. DIN 18218 (Germany).
- 1.7. Formwork Self Weight:
  - 1.7.1. Under normal construction conditions Formwork Weight Loads are included in the construction live loads, but special conditions require additional load consideration;
    - 1.7.1.1. where large imposed loads have to be supported, resulting in above average amount of support,
    - 1.7.1.2. great heights of support or access scaffolding,
    - 1.7.1.3. climbers on walls and cores,
    - 1.7.1.4. loading platforms,
    - 1.7.1.5. specialized formwork, etc.

### 2. Back Propping Loads

- 2.1. Two common types of loads are normally given, refer to the Back Propping section of this manual for more information and calculations:
  - 2.1.1. Slab resistance as a percentage of initial dead and live loads, imposed by the fresh concrete pour,
  - 2.1.2. Design Live Loads for what the slab was designed for.

# Vertical Formwork Related Slab and Beam Loads

## 1. Units and symbols:

- 1.1.  $F$  = total vertical load for an area due to the combined dead and live loads in kN;
- 1.2.  $F_d$  = dead load of the concrete and reinforcing for an area in kN;
- 1.3.  $F_l$  = live loads imposed by construction activities and form work for an area in kN;
- 1.4.  $\omega$  = total load per unit length in kN/m;
- 1.5.  $P$  = total area load that the concrete will impose in kN/m<sup>2</sup>;
- 1.6.  $P_d$  = dead area load of concrete in kN/m<sup>2</sup>;
- 1.7.  $P_L$  = construction live area load in kN/m<sup>2</sup>;
- 1.8.  $\rho$  = density in kN/m<sup>3</sup>;
- 1.9.  $A$  = area of interest in kN/m<sup>2</sup>;
- 1.10.  $d$  = thickness or depth of slab in m;

## 2. Vertical loads imposed by fresh slab on support formwork during normal construction conditions casting:

### 2.1. Formulas:

- 2.1.1.  $F = \text{dead load} + \text{live load} = \rho \cdot d \cdot A + P_L \cdot A$  (kN) - Load in kN for  $d < 250\text{mm}$  and  $d > 1000$
- 2.1.2. or  $F = \text{dead load} \times 20\% = \rho \cdot d \cdot A \times 1.2$  (kN) - Load in kN for  $250 < d < 1000\text{mm}$
- 2.1.3.  $P = \rho \cdot d + P_L$  (kN/m<sup>2</sup>) - Pressure in kN/m<sup>2</sup>

### 2.2. Dead Load:

- 2.2.1.  $F_d = \rho \cdot d \cdot A$  (kN)
- 2.2.2.  $P_d = \rho \cdot d$  (kN/m<sup>2</sup>)
- 2.2.3.  $\rho = 26\text{kN/m}^3, (25\text{kN/m}^3 + 1\text{kN/m}^3)$  if  $d < 1\text{m}$  ...  $1\text{kN/m}^3$  for heaping
- 2.2.4.  $\rho = 27\text{kN/m}^3, (26\text{kN/m}^3 + 1\text{kN/m}^3)$  if  $d > 1\text{m}$  ...  $1\text{kN/m}^3$  for heaping

### 2.3. Live Load:

- 2.3.1.  $P_L = 1,2 \cdot P_d$  but  $1,5 < P_L < 5$  kN/m<sup>2</sup>
- 2.3.2. Refer to "Construction Live Loads vs. slab thickness graph" at bottom right side of page.

### 2.4. Other Loads:

- 2.4.1. The formulas stated and table is for normal construction conditions without excessive heaping during concrete placement. If dynamic or other type of loads are expected, it must be added.

## 3. Tabulated concrete loads for slab thickness:

Vertical Wet Concrete Loads (kN/m <sup>2</sup> )			
Slab Thickness (m)	Dead Load (kN/m <sup>2</sup> )	Live Load (kN/m <sup>2</sup> )	Total Load (kN/m <sup>2</sup> )
0.17	4.4	1.5	5.9
0.2	5.2	1.5	6.7
0.25	6.5	1.5	8
0.3	7.8	1.6	9.4
0.35	9.1	1.8	10.9
0.4	10.4	2.1	12.5
0.45	11.7	2.3	14
0.5	13	2.6	15.6
0.55	14.3	2.9	17.2
0.6	15.6	3.1	18.7
0.65	16.9	3.4	20.3
0.7	18.2	3.6	21.8
0.75	19.5	3.9	23.4
0.8	20.8	4.2	25
0.85	22.1	4.4	26.5
0.9	23.4	4.7	28.1
0.95	24.7	4.9	29.6
1	26	5	31

DIN 1055 and DIN 4421

### Concrete weight alternative formula:

To calculate the force or weight of an area wet concrete, use the table to determine Total Load for a corresponding slab thickness.

#### 1. Formula

- 1.1.  $F = P \cdot A$  (kN)
- 1.2. eg. the weight of a 2 x 2m, and 400mm slab will be :  $F = 12.5 \times (2 \times 2) = 50$  kN

#### 2. Uses:

- 2.1. Leg load,
- 2.2. Prop Load,
- 2.3. Total weight to be back propped,
- 2.4. Counter balance block weight, etc.



# Hydrostatic Formwork Concrete Pressures

CIRIA Report 108

$$P_{des} = \rho(k_1\sqrt{R} + k_2.k_T\sqrt{H-k_1\sqrt{R}}) \dots \text{lateral design pressure}$$

or

$$P_{hyd} = \rho H \dots \text{full hydrostatic pressure}$$

whichever is smaller.

Parameters for equation:

$\rho$  = density of concrete ( $\text{kN/m}^3$ );

$R$  = pour rate ( $\text{m/h}$ );

$H$  = Pour Height ( $\text{m}$ );

$k_1$  = Cross - Section Coefficient\*, (1 for walls and 1.5 for columns);

$k_2$  = 0.3 for normal concrete, and 0.45 for concrete with setting retarders;

$k_T$  = temperature coefficient where:  $k_T = \left(\frac{36}{T+16}\right)^2 \text{ } ^\circ\text{C}$ .

\*Note:

$k_1$  = Cross-Section Coefficient.

$k_1$  in the CIRIA Report 108 is 1 for walls and 1.5 for columns.

If both edge lengths in plan are smaller than 2m, the cross-section are designated as a column.

Example:

Assume normal concrete of density  $25\text{kN/m}^3$ , wall section, 3m shutters, with a pour rate of  $2\text{m/h}$  at  $10^\circ\text{C}$ .

$$P_{des} = 25(1\sqrt{2} + 0,3 \times 1,349\sqrt{3-1\sqrt{2}}) = 48 \text{ kPa}$$

or

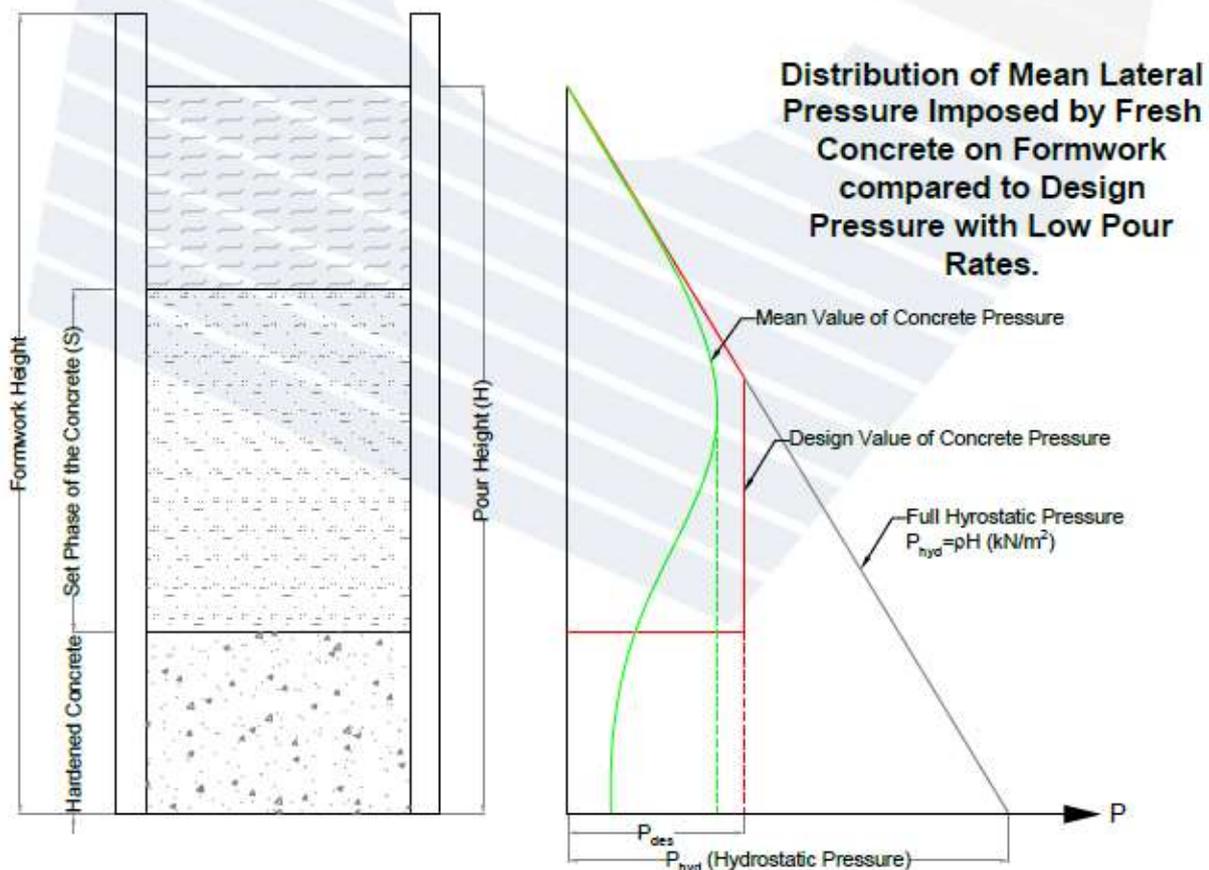
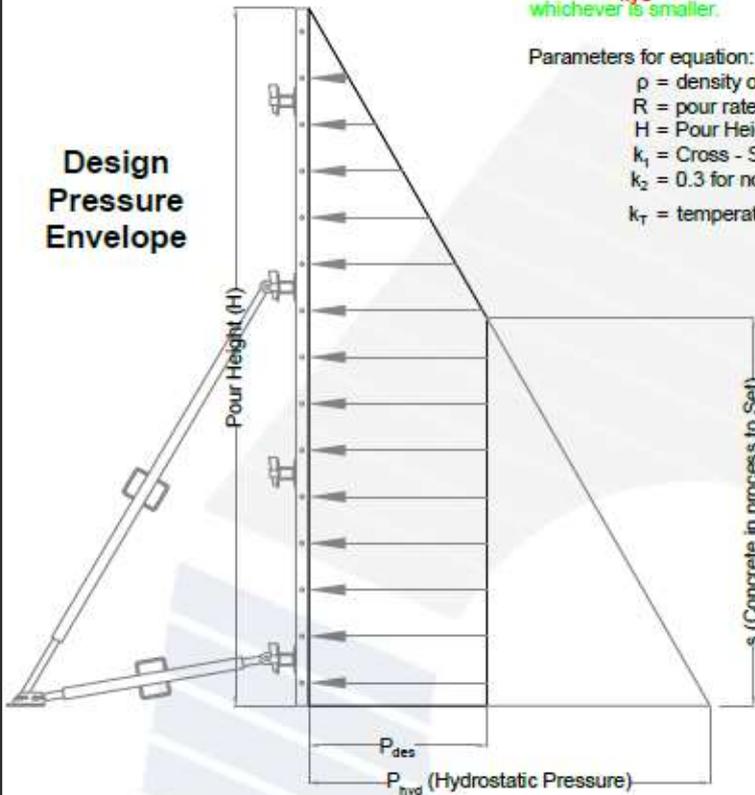
$$P_{hyd} = \rho H = 25 \times 3 = 75 \text{ kPa}$$

Pressure will be approximate 48 kPa.

How to determine s:

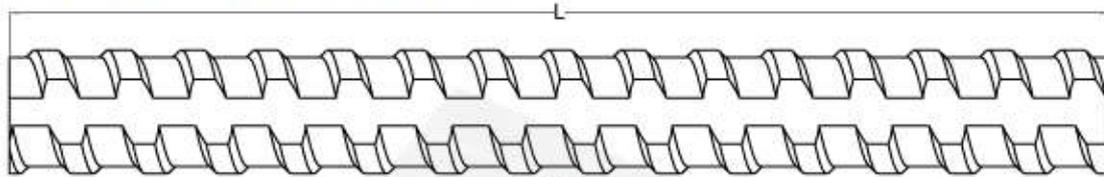
$$\text{Formula: } s = (\rho H - P_{des}) / \rho$$

$$\text{Example: } s = ((25 \times 3) - 48) / 25 = 1.08 \text{ m}$$



# Tie Rods

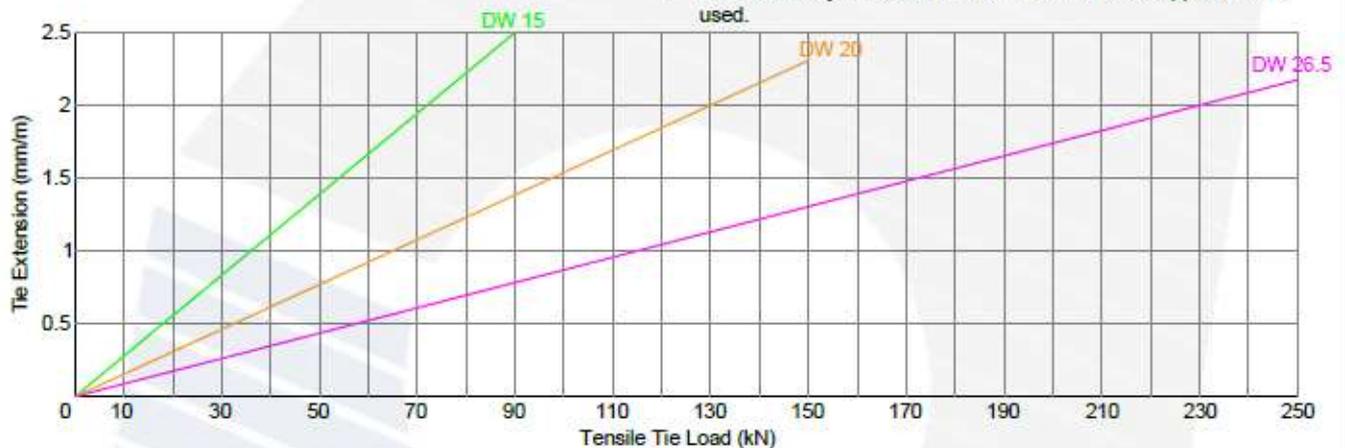
## Diwidag tie rods (DW 15; DW 20; DW 26.5)



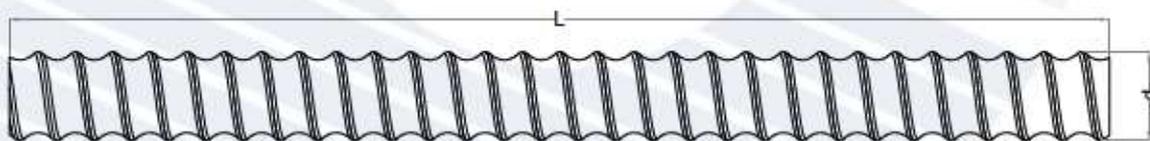
	DW 15	DW 20	DW 26.5
Nominal cross-section area (mm <sup>2</sup> )	177	314	551
Weight (kg/m)	1.5	2.6	4.5
Safe working load (kN)	90	150	250
Maximum diameter (mm)	18	23	31
Maximum shear (kN)	5	10	15

### Note:

1. Shear force to a small extent allowed on Diwidag Bars.
2. Concrete strength must be at a minimum of 10MPa for the shear values.
3. If Diwidag rod is in shear, no large tensile forces are allowed.
4. If larger shear force are required use climbing anchor.
5. No welding or heat allowed.
6. Weldable Diwidag bar can be supplied on request.
7. If weakened by corrosion the Form Tie must be scrapped and not used.



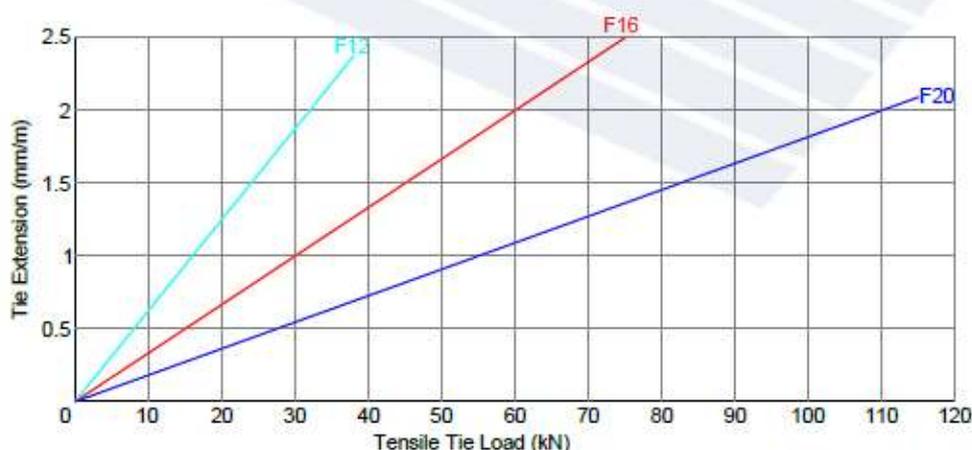
## Form tie rods (F12; F16; F20)



	F12	F16	F20
Actual diameter (mm)	12.2	16.1	21.1
Weight (kg/m)	0.8	1.6	2.5
Safe working load (kN)	38	80	114
Nominal cross-section area (mm <sup>2</sup> )	78.5	145	269

### Note:

1. No shear force permitted on Form Ties.
2. No welding or heat allowed.
3. If weakened by corrosion the Form Tie must be scrapped and not used.



# Wind pressure in South Africa

## 1. Regions:

Wind pressure calculations according to SANS 10160 section 5.5.

Values in the Wind Pressure Table were calculated for Zone 1 on the map.

Pressures for sites in Zone 2, and other regions, can be supplied by Preform Design Office.

Refer to Wind Classifications and values for more information.

## 2. Design requirements:

The simplified wind forces set out below may be adapted for design purposes, provided that the shutter complies with the following requirements:

- 2.1. it is rectangular in shape, and
- 2.2. its overall height does not exceed 200m above ground level, and
- 2.3. the ratio of its overall height to its lesser plan dimension does not exceed

If all 3 requirements are not met, refer to the Wind Pressure in South Africa Table.



## Pressure and wind speed for a 10 year return period on wall formwork

Site Altitude (m)	Height above ground, z (m)	Terrain Category 1			Terrain Category 2			Terrain Category 3			Terrain Category 4		
		V <sub>z</sub> (km/h)	Q <sub>z</sub> (kN/m <sup>2</sup> )	P <sub>w</sub> (kN/m <sup>2</sup> )	V <sub>z</sub> (km/h)	Q <sub>z</sub> (kN/m <sup>2</sup> )	P <sub>w</sub> (kN/m <sup>2</sup> )	V <sub>z</sub> (km/h)	Q <sub>z</sub> (kN/m <sup>2</sup> )	P <sub>w</sub> (kN/m <sup>2</sup> )	V <sub>z</sub> (km/h)	Q <sub>z</sub> (kN/m <sup>2</sup> )	P <sub>w</sub> (kN/m <sup>2</sup> )
0	5	133.49	0.82	1.07	121.82	0.69	0.89	86.83	0.35	0.45	84.24	0.33	0.43
	10	141.26	0.92	1.20	129.60	0.78	1.01	95.90	0.43	0.55	84.24	0.33	0.43
	15	145.15	0.98	1.27	134.78	0.84	1.09	104.98	0.51	0.66	84.24	0.33	0.43
	20	147.74	1.01	1.31	138.67	0.89	1.16	111.46	0.58	0.75	84.24	0.33	0.43
	50	158.11	1.16	1.50	150.34	1.05	1.36	129.60	0.78	1.01	111.46	0.58	0.75
	100	165.89	1.27	1.66	159.41	1.18	1.53	143.86	0.96	1.25	129.60	0.78	1.01
	150	169.78	1.33	1.73	165.89	1.27	1.66	152.93	1.08	1.41	139.97	0.91	1.18
	200	173.66	1.40	1.82	169.78	1.33	1.73	159.41	1.18	1.53	158.11	1.16	1.50
500	5	133.49	0.77	1.00	121.82	0.64	0.83	86.83	0.33	0.42	84.24	0.31	0.40
	10	141.26	0.86	1.12	129.60	0.73	0.94	95.90	0.40	0.52	84.24	0.31	0.40
	15	145.15	0.91	1.18	134.78	0.78	1.02	104.98	0.48	0.62	84.24	0.31	0.40
	20	147.74	0.94	1.23	138.67	0.83	1.08	111.46	0.54	0.70	84.24	0.31	0.40
	50	158.11	1.08	1.40	150.34	0.98	1.27	129.60	0.73	0.94	111.46	0.54	0.70
	100	165.89	1.19	1.55	159.41	1.10	1.43	143.86	0.89	1.16	129.60	0.73	0.94
	150	169.78	1.25	1.62	165.89	1.19	1.55	152.93	1.01	1.31	139.97	0.85	1.10
	200	173.66	1.30	1.69	169.78	1.25	1.62	159.41	1.10	1.43	158.11	1.08	1.40
1000	5	133.49	0.73	0.95	121.82	0.61	0.79	86.83	0.31	0.40	84.24	0.29	0.38
	10	141.26	0.82	1.06	129.60	0.69	0.89	95.90	0.38	0.49	84.24	0.29	0.38
	15	145.15	0.86	1.12	134.78	0.74	0.97	104.98	0.45	0.59	84.24	0.29	0.38
	20	147.74	0.89	1.16	138.67	0.79	1.02	111.46	0.51	0.66	84.24	0.29	0.38
	50	158.11	1.02	1.33	150.34	0.92	1.20	129.60	0.69	0.89	111.46	0.51	0.66
	100	165.89	1.13	1.46	159.41	1.04	1.35	143.86	0.85	1.10	129.60	0.69	0.89
	150	169.78	1.18	1.53	165.89	1.13	1.46	152.93	0.96	1.24	139.97	0.80	1.04
	200	173.66	1.23	1.60	169.78	1.18	1.53	159.41	1.04	1.35	158.11	1.02	1.33
1500	5	133.49	0.69	0.89	121.82	0.57	0.74	86.83	0.29	0.38	84.24	0.27	0.36
	10	141.26	0.77	1.00	129.60	0.65	0.84	95.90	0.35	0.46	84.24	0.27	0.36
	15	145.15	0.81	1.06	134.78	0.70	0.91	104.98	0.43	0.55	84.24	0.27	0.36
	20	147.74	0.84	1.09	138.67	0.74	0.96	111.46	0.48	0.62	84.24	0.27	0.36
	50	158.11	0.96	1.25	150.34	0.87	1.13	129.60	0.65	0.84	111.46	0.48	0.62
	100	165.89	1.06	1.38	159.41	0.98	1.27	143.86	0.80	1.04	129.60	0.65	0.84
	150	169.78	1.11	1.45	165.89	1.06	1.38	152.93	0.90	1.17	139.97	0.76	0.98
	200	173.66	1.16	1.51	169.78	1.11	1.45	159.41	0.98	1.27	158.11	0.96	1.25
2000	5	133.49	0.65	0.84	121.82	0.54	0.70	86.83	0.27	0.36	84.24	0.26	0.33
	10	141.26	0.72	0.94	129.60	0.61	0.79	95.90	0.33	0.43	84.24	0.26	0.33
	15	145.15	0.76	0.99	134.78	0.66	0.86	104.98	0.40	0.52	84.24	0.26	0.33
	20	147.74	0.79	1.03	138.67	0.70	0.91	111.46	0.45	0.59	84.24	0.26	0.33
	50	158.11	0.91	1.18	150.34	0.82	1.07	129.60	0.61	0.79	111.46	0.45	0.59
	100	165.89	1.00	1.30	159.41	0.91	1.20	143.86	0.75	0.89	129.60	0.61	0.79
	150	169.78	1.05	1.36	165.89	1.00	1.30	152.93	0.85	1.10	139.97	0.71	0.92
	200	173.66	1.09	1.42	169.78	1.05	1.36	159.41	0.92	1.20	158.11	0.91	1.18

# Wind Terrain Classification

## 3. Terrain Categories:

### 3.1. Terrain Category 1:

Exposed smooth terrain with no obstructions and in which the height of any obstruction is less than 1,5m. This category includes open sea coasts, lake shores, treeless plains with little vegetation other than short grass.

### 3.2. Terrain Category 2:

Open terrain with widely spaced obstructions (more than 100m apart) having heights and plan dimensions generally between 1,5m and 10m. This category includes large airfields, open parklands, farmlands and undeveloped outskirts of towns and suburbs, with trees. This is the category on which the regional basic wind speed  $V$  is based.

### 3.3. Terrain Category 3:

Terrain having numerous closely spaced obstructions generally having the size of domestic houses. This category includes suburbs, towns and industrial areas, fully or substantially developed.

### 3.4. Terrain Category 4:

Terrain with numerous large, tall, closely-spaced obstructions. This category includes large city centres.

## 4. Local topography:

Where the local topography, and large buildings, is such that increases in wind speeds may occur as a result of funneling or other effects, adjust the design wind speed accordingly, on the basis of appropriate metrological advice or tests.

### Values:

$V_z$	from SABS 0160 Drg. 11701-EC/00-07
$K_r$	from SABS 0160 Drg. 11703-EC/00-07
$k_z$	from SANS10160 Table 5
$k_p$	from SANS 10160 section 5.5.3.1
$C_p$	generally 1,3 for wall formwork

### Formulae:

- $V_z = k_z K_r V$  ...m/s
- $q_z = k_p V_z^2$  ...kN/m<sup>2</sup>
- $P_w = q_z C_p$  ...kN/m<sup>2</sup>

### Note:

1 m/s = 3.6 km/h

# Timber Platforms, Handrail Holders and Railing Posts

## Timber Scaffold Plank/Board Span Spacing

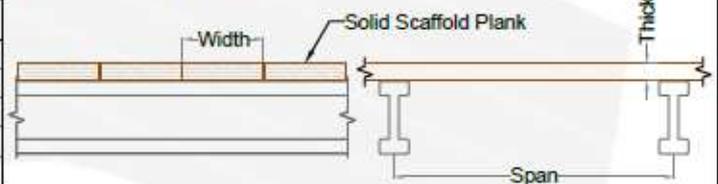
Scaffold Groups as per DIN 4420-1:2006

Scaffold Group	Min. platform width (m)	Live load (kN/m <sup>2</sup> )	Description and areas of application
1	0.5	0.75	Inspection activities with light weight tools. No storage of materials. Walkways with light traffic. Retrieve platforms.
2	0.6	1.5	Work activities that do not require storage of material or heavy tools. Access platforms.
3	0.6	2	Platforms for persons and tools. Tools and materials must not be put on platform with lifting device. Climber platforms.
4	0.9	3	Platforms for persons and materials loaded with lifting device. Klik-Klak platforms.
5	0.9	4.5	Same use as Scaffold Group 4 but with higher load permitted.
6	0.9	6	Same use as Scaffold Group 4 but with higher load permitted.

### Max spans for scaffold plank as platforms (m) - DIN 4420-3:2006-01

Scaffold Group	Plank Width (mm)	Plank Thickness (mm)				
		30	35	40	45	50
1, 2, 3	200	1.25	1.5	1.75	2.25	2.5
	240, 280	1.25	1.75	2.25	2.5	2.75
4	200	1.25	1.5	1.75	2.25	2.5
	240, 280	1.25	1.75	2	2.25	2.5
5	200, 240, 280	1.25	1.25	1.5	1.75	2
6	200, 240, 280	1	1.25	1.25	1.5	1.75

A minimum service load of 0.75kN/m<sup>2</sup> should be assumed on all platforms. Minimum timber quality of S5 (SA Pine Gr5) must be used.



## Upright Post Support Spacing

1. Timber railing design as per SABS 0136-2001.
2. Minimum timber quality of S5 (SA Pine Gr5) must be used.
3. Ø48.3mm Scaffold tube design as per SANS 10162-2005.
4.  $C_p$  of 1.3 will be used in wind pressure.
5. Wind pressure,  $P_w$ , will be assumed 1.7kPa.
6. A horizontal load of  $F = 0.3kN$  will be used in calculations.
7. For other railing material not shown in table, the allowable spans and cantilever must be calculated.

Railing material	Maximum Span (m)	Maximum Cantilever (m)	Influence Width (m)
114 x 38mm S5 Structural Grade SA Timber	3.6	1.2	3.6
280 x 32mm Scaffold Board	2.7	0.9	2.7
280 x 50mm Scaffold Board	4.7	1.7	4.7
Ø48.3 x 2.5mm S355 Scaffold Tube	5	1.3	5

### Railing

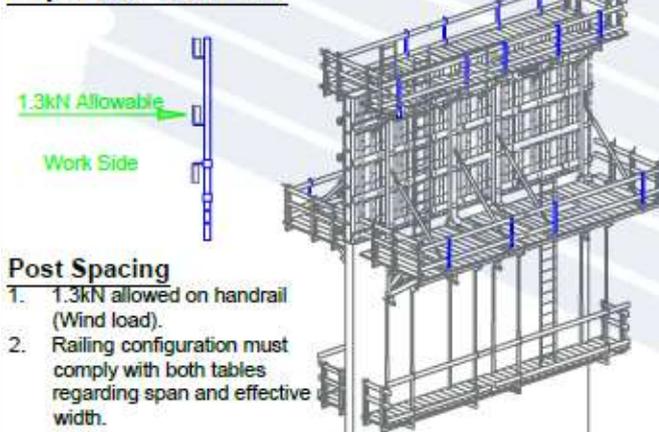
This table is not for closed up (no-gap) configurations. Where the railings are closed up with plyboard, sheeting or mesh that will increase the wind loadings on the railings.

### Influence Width and Span

It is important to distinguish between Span and Influence Width. The table show the maximum Influence Width and Maximum Span.



## Rapid Handrail Post



### Post Spacing

1. 1.3kN allowed on handrail (Wind load).
2. Railing configuration must comply with both tables regarding span and effective width.

### Maximum Effective Widths L<sub>E</sub> (m) of Handrail Post

Railing material	0-50m above ground (q <sub>z</sub> =1kN/m <sup>2</sup> )	50-100m above ground (q <sub>z</sub> =1.3kN/m <sup>2</sup> )
114 x 38mm S5 Structural Grade SA Timber	3.6	2.9
280 x 32/50mm Scaffold Board	1.6	1.2
Closed up (no gap) configuration	1	0.8
Ø48.3 x 2.5mm S355 Scaffold Tube	5	5

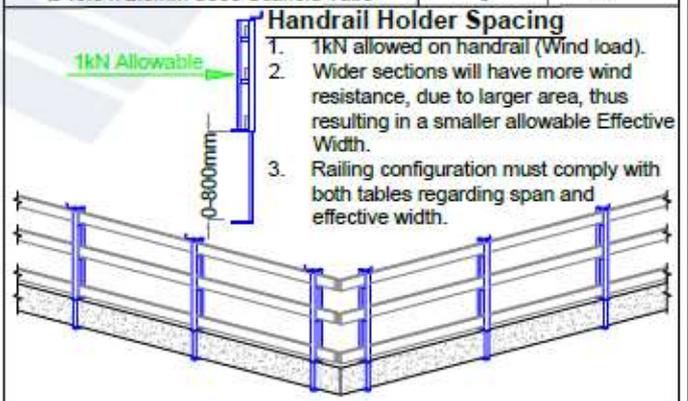
## Adjustable Handrail Holder

### Maximum Effective Widths L<sub>E</sub> (m) of Handrail Holders

Railing material	0-50m above ground (q <sub>z</sub> =1kN/m <sup>2</sup> )	50-100m above ground (q <sub>z</sub> =1.3kN/m <sup>2</sup> )
114 x 38mm S5 Structural Grade SA Timber	2.9	2.3
280 x 32/50mm Scaffold Board	1.2	0.9
Closed up (no gap) configuration	1	0.8
Ø48.3 x 2.5mm S355 Scaffold Tube	5	5

### Handrail Holder Spacing

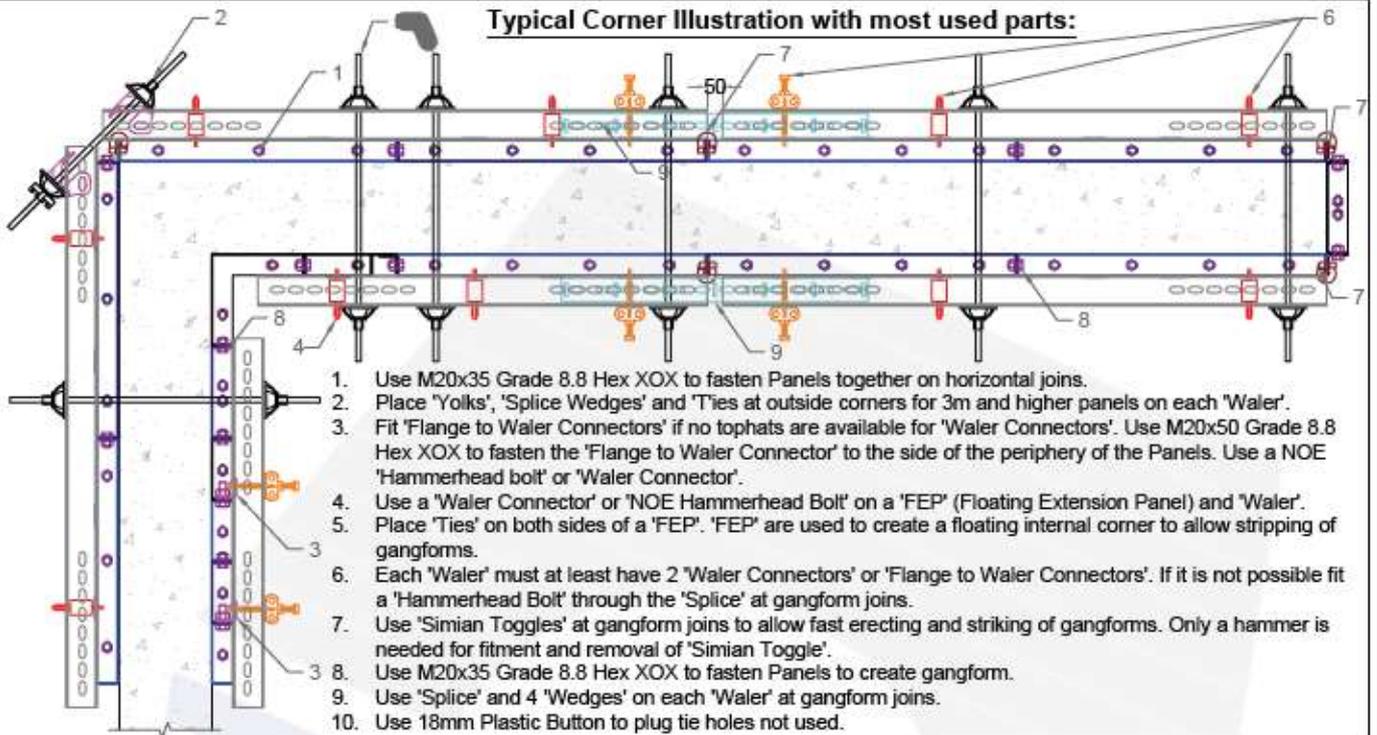
1. 1kN allowed on handrail (Wind load).
2. Wider sections will have more wind resistance, due to larger area, thus resulting in a smaller allowable Effective Width.
3. Railing configuration must comply with both tables regarding span and effective width.





# HD Wall Recommended Design Parameters

**Typical Corner Illustration with most used parts:**

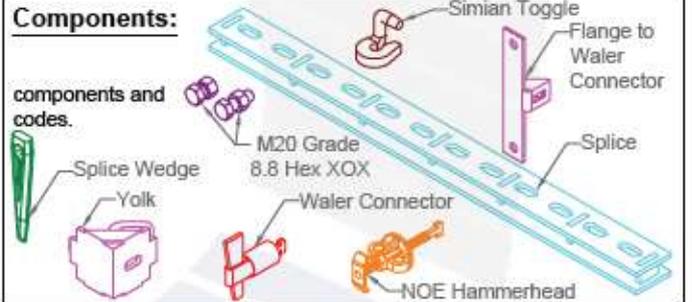


1. Use M20x35 Grade 8.8 Hex XOx to fasten Panels together on horizontal joints.
2. Place 'Yolks', 'Splice Wedges' and 'Ties' at outside corners for 3m and higher panels on each 'Waler'.
3. Fit 'Flange to Waler Connectors' if no tophats are available for 'Waler Connectors'. Use M20x50 Grade 8.8 Hex XOx to fasten the 'Flange to Waler Connector' to the side of the periphery of the Panels. Use a NOE 'Hammerhead bolt' or 'Waler Connector'.
4. Use a 'Waler Connector' or 'NOE Hammerhead Bolt' on a 'FEP' (Floating Extension Panel) and 'Waler'.
5. Place 'Ties' on both sides of a 'FEP'. 'FEP' are used to create a floating internal corner to allow stripping of gangforms.
6. Each 'Waler' must at least have 2 'Waler Connectors' or 'Flange to Waler Connectors'. If it is not possible fit a 'Hammerhead Bolt' through the 'Splice' at gangform joints.
7. Use 'Simian Toggles' at gangform joints to allow fast erecting and striking of gangforms. Only a hammer is needed for fitment and removal of 'Simian Toggle'.
8. Use M20x35 Grade 8.8 Hex XOx to fasten Panels to create gangform.
9. Use 'Splice' and 4 'Wedges' on each 'Waler' at gangform joints.
10. Use 18mm Plastic Button to plug tie holes not used.

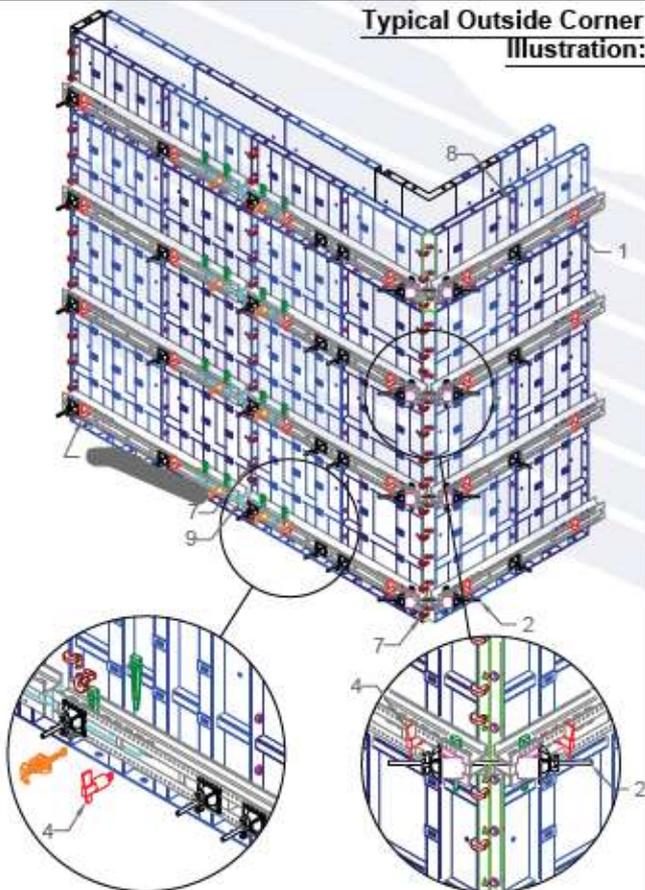
## HD (Heavy Duty) System:

A crane handled, all steel system with 4mm faceplate, enforced with tophats in both the vertical and horizontal direction. Ideal for off-shutter finish and repetitive elements, eg. cores and retaining walls. The system is designed for 100 kN/m<sup>2</sup>.

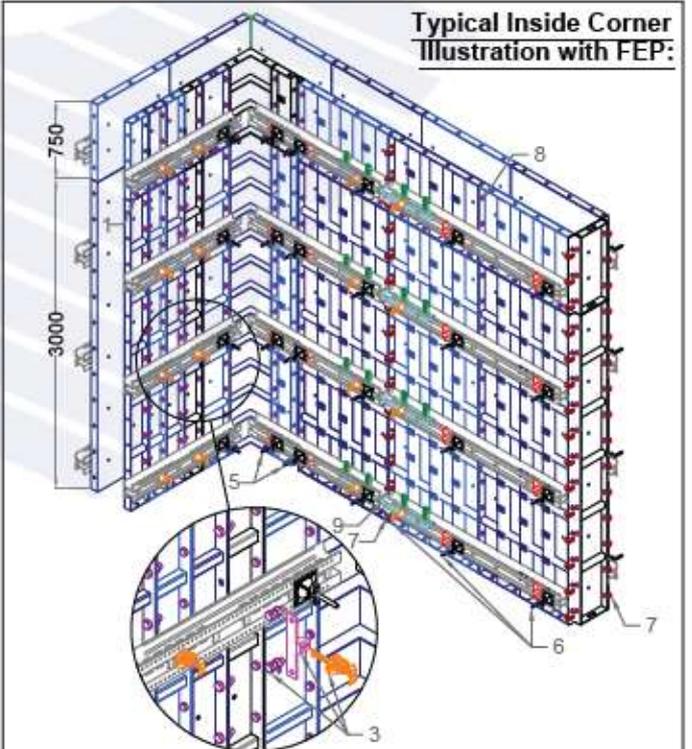
## Components:



**Typical Outside Corner Illustration:**



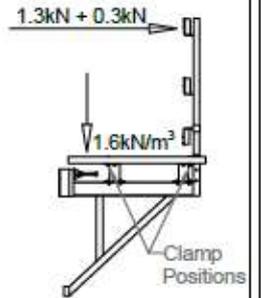
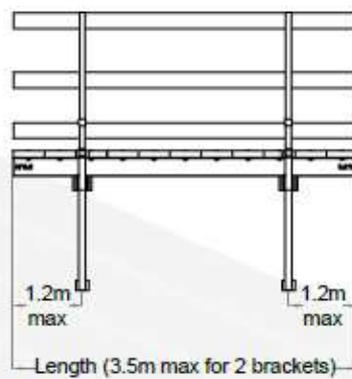
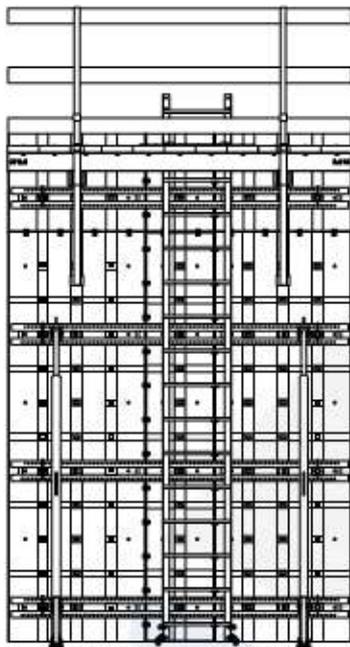
**Typical Inside Corner Illustration with FEP:**



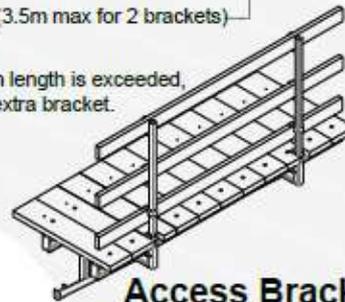


# HD Access Platforms

114 x 38mm S5 Structural Grade SA Timber shown for handrail.



**Note:**  
If the 3.5m length is exceeded, place an extra bracket.

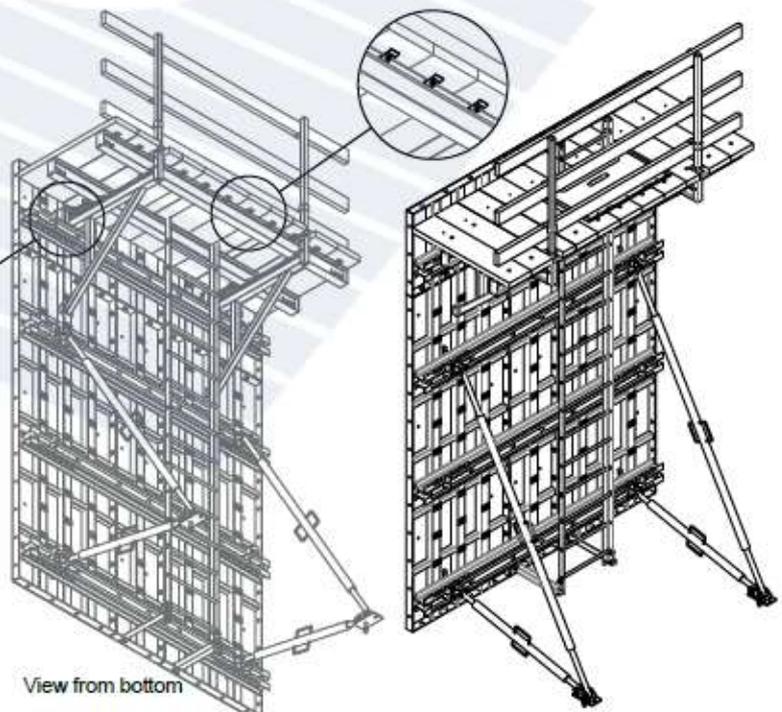
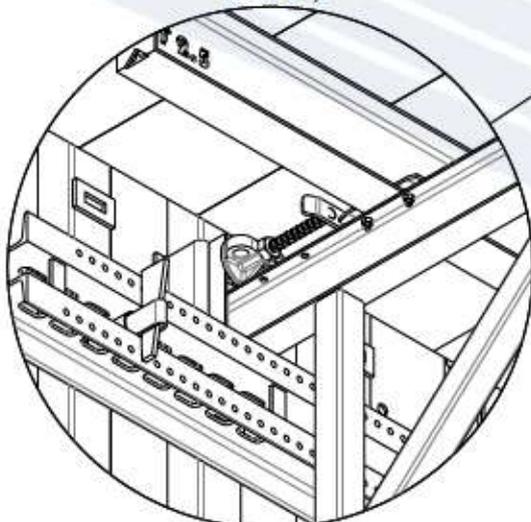


## Access Bracket Design

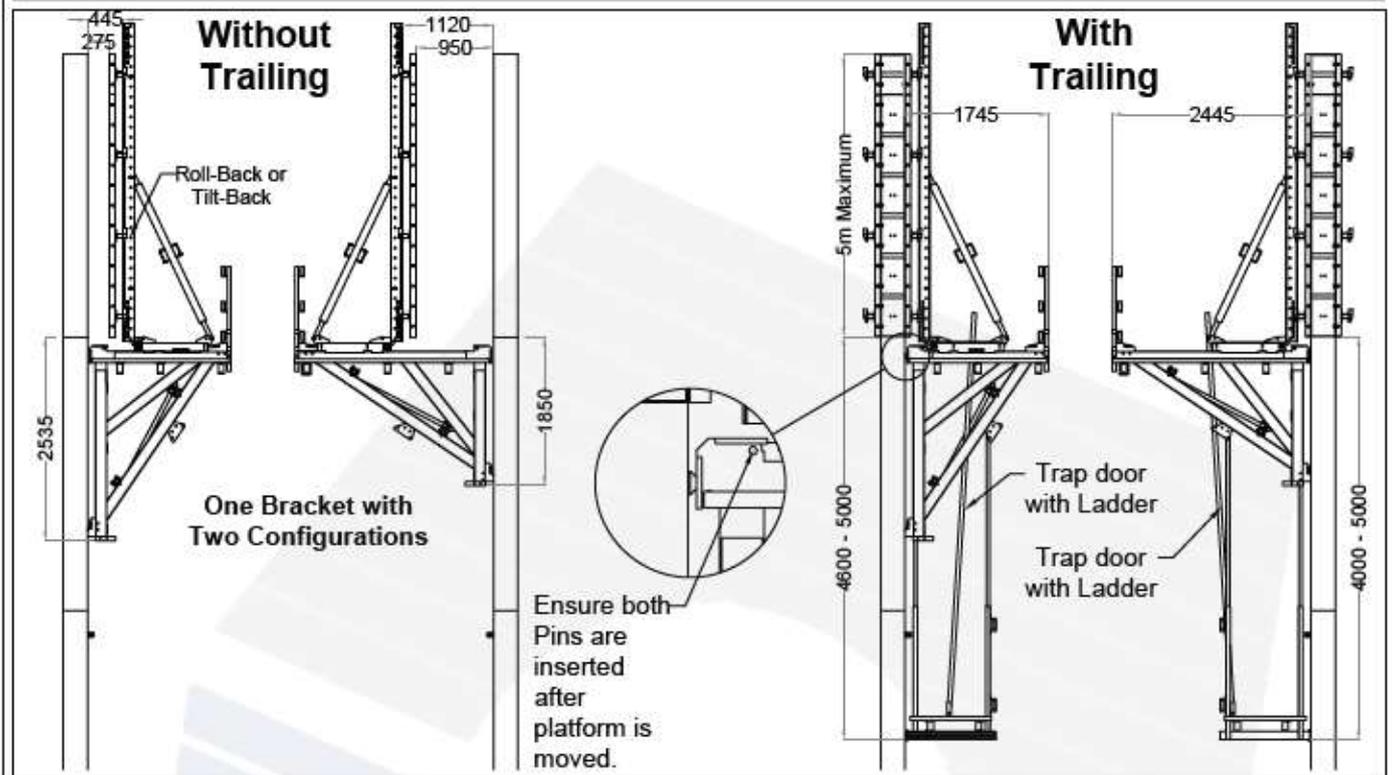
1. Timber railing design as per SABS 0136-2001.
2. Minimum timber quality of S5 (SA Pine Gr5) must be used.
3. Ø48.3mm Scaffold tube and bracket design as per SANS 10162-2005.
4.  $C_p$  of 1.3 will be used in wind pressure.
5. Wind pressure,  $P_w$ , will be assumed 1.7kN/m<sup>2</sup>.
6. A horizontal load of  $F = 0.3kN$  will be used in calculations.

Estimated mass calculator per Access platform (5% factored) kg		Length of Access Platform (mm)											
		500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
Access Platform (3 brackets from 3,5m wide)	Access Platform	-	104	134	164	194	224	276	328	380	432	484	536
	Trapdoor set	-	60	60	60	60	60	60	60	60	60	60	60
	One end safety	-	44	44	44	44	44	44	44	44	44	44	44
	Both ends safety	-	88	88	88	88	88	88	88	88	88	88	88

View on the connections of the brackets and secondary platform beams. HT20 can be screwed and not clamped like IPE (as per illustration).



# Climber Configurations

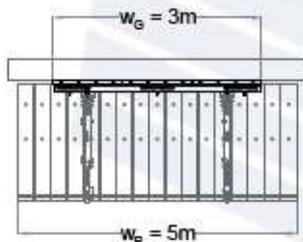
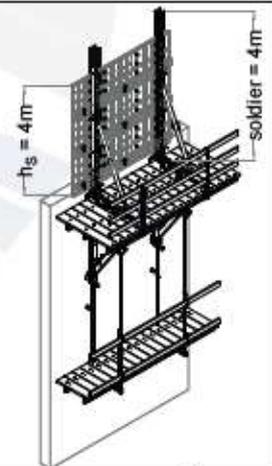


# Climber Mass Estimation

## Example:

- $w_g = 3m$  Gangform
- $h_g = 4m$  Gangform (Shutter) Height
- $w_p = 5m$  Platform Width
- Climber in 2400mm Configuration with Trailing
- 4m Soldier

\* Mass of slings or spreaders must be added.



## Crane Requirement:

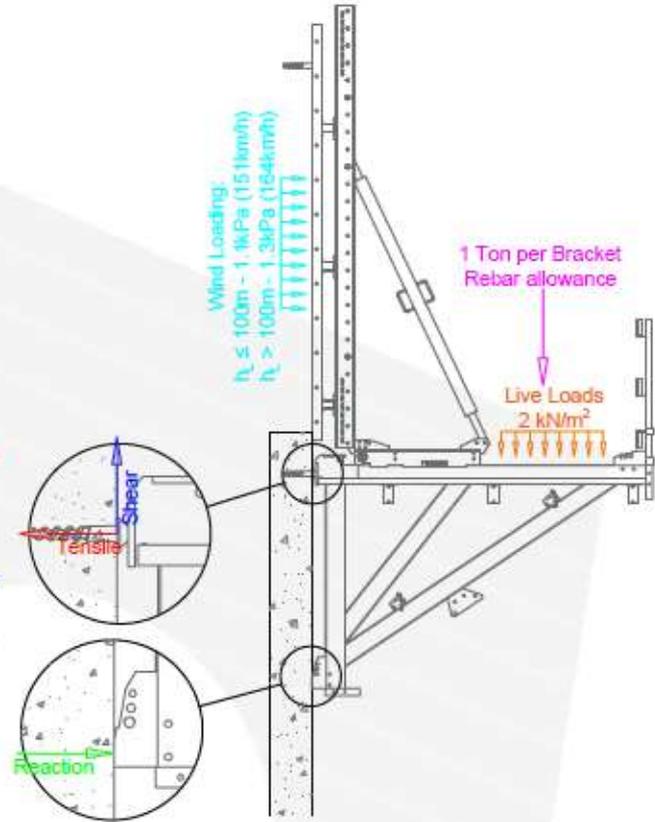
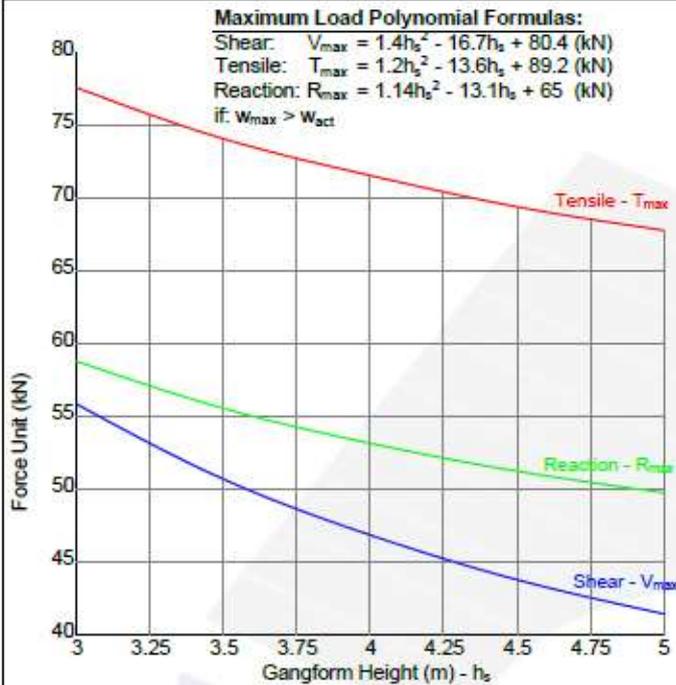
Table 1 =	= 0 kg
Table 2 = 5m Wide and 4m Soldier	= 1200kg
Table 3 = 5m Wide Trailing	= 343 kg
Table 4 = 3m Wide and 4m High	= 1556 kg
<b>Total = 0 + 1200 + 343 + 1556</b>	<b>= 3100kg</b>

Table 1 1600mm Configuration				Table 2 2400mm Configuration				Table 3 Trailing System		Table 4 Estimated HD Gangform Mass						Add to Estimate Total Mass (kg)
Platform Width (m)	No Soldier	3m Soldier	4m Soldier	Platform Width (m)	No Soldier	3m Soldier	4m Soldier	Platform Width (m)	Mass (kg)	Gangform Width (m)	3m High	3.5m High	4m High	4.5m High	5m High	
Mass (kg)				Mass (kg)				Mass (kg)								
1	352	691	763	1	365	704	776	1	136	1	526	587	644	704	762	
1.5	395	734	806	1.5	417	456	828	1.5	163	1.5	695	786	872	963	1049	
2	440	779	851	2	471	810	882	2	188	2	864	985	1100	1221	1336	
2.5	483	822	894	2.5	524	863	935	2.5	215	2.5	1032	1184	1328	1479	1623	
3	527	866	938	3	577	916	988	3	240	3	1201	1383	1556	1738	1911	
3.5	571	910	982	3.5	630	969	1041	3.5	266	3.5	1392	1604	1806	2018	2220	
4	616	955	1027	4	684	1023	1095	4	290	4	1582	1825	2056	2298	2529	
4.5	659	998	1070	4.5	736	1075	1147	4.5	317	4.5	1773	2046	2306	2579	2838	
5	703	1042	1114	5	789	1128	1200	5	343	5	1964	2267	2555	2859	3147	
5.5	748	1087	1159	5.5	843	1182	1254	5.5	368	5.5	2145	2488	2805	3139	3457	
6	793	1132	1204	6	897	1236	1308	6	394	6	2345	2709	3055	3420	3776	

Add 70kg for platforms with Trapdoor and 5m Ladder.

Access included. For Large panels reduce with 6%

# Climber Anchor Loads and Reactions



## Example:

Shutter height of 3.5m at 75m above ground ( $h_b$ )  
 Actual width = 2m per bracket  
 Allowable width = 4.3m per bracket  
 M24x200 Anchor wit Grade 8.8 to be used

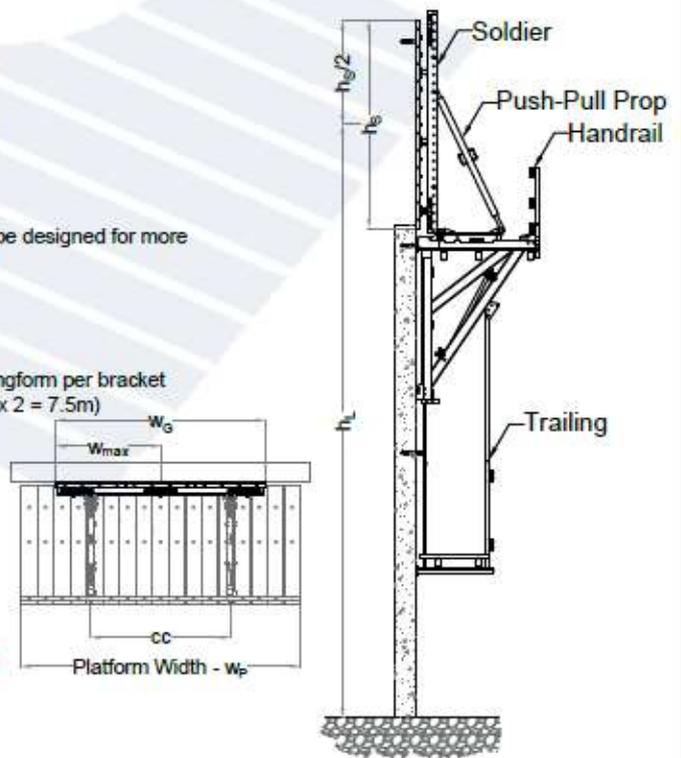
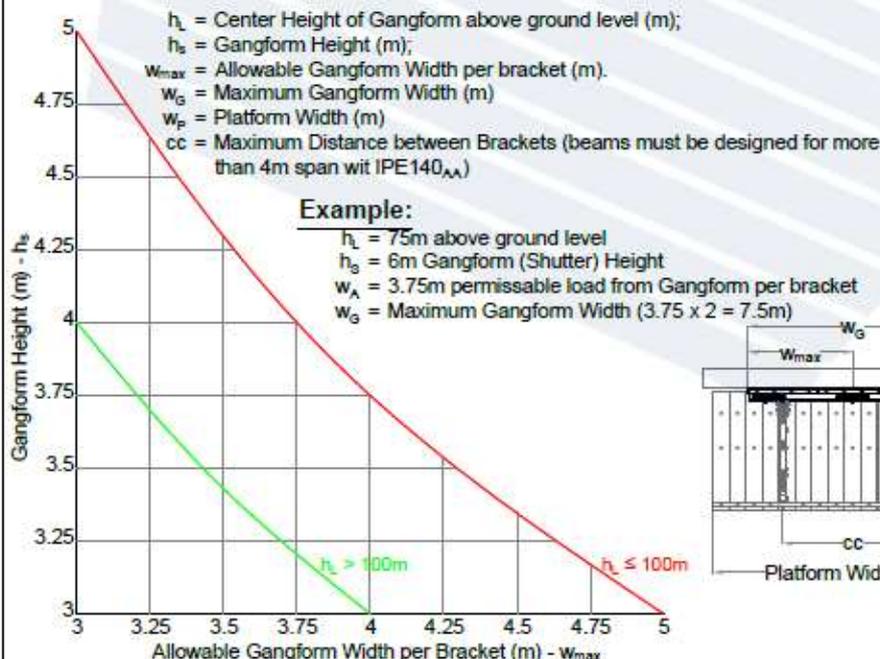
Actual  $V = (W_{act}/W_{max}) \cdot V_{max} + 2.4 = (2/4.3) \times 51 + 2.4 \approx 26.5$  kN  
 Actual  $T = (W_{act}/W_{max}) \cdot T_{max} + 2.4 = (2/4.3) \times 74 + 2.4 \approx 37.5$  kN  
 Actual  $R = (W_{act}/W_{max}) \cdot R_{max} + 2.4 = (2/4.3) \times 56 + 2.4 \approx 28.5$  kN

Anchor bolt check:  
 $V_u/V_c + T_u/T_r \leq 1.4$   
 $26.5/131.5 + 37.5/148.6 = 0.45 \dots < 1.4 \dots \text{OK}$

## Actual Loads vs. Maximum Live Loads:

Actual  $V = (W_{act}/W_{max}) \cdot V_{max} + 2.4$   
 Actual  $T = (W_{act}/W_{max}) \cdot T_{max} + 2.4$   
 Actual  $R = (W_{act}/W_{max}) \cdot R_{max} + 2.4$

## Allowable Gangform Widths



# Retrievable Anchor Screws Limits

Recommended Nominal Embedment Clearance (mm)	
M20x120	136
M20x200	163
M24x140	188
M24x200	215
M24x280	240
M30x360	290
M36x430	290

$T_a$  = Ultimate Tensile of Anchor (kN),  $T_r$  taken into account  
 $T_r$  = Ultimate Tensile Capacity of the internal bolt (ISO 6g)  
 $T_u$  = Ultimate Tensile Design Load  
 $V_r$  = Ultimate Shear Capacity of the internal bolt (ISO 6g)  
 $V_u$  = Ultimate Shear Design Load  
 $f_{cu}$  = Compressive Concrete Strength (MPa)  
 $\phi_s$  = Safety Factor of the Anchor in Tension, taken as 0.67

Anchor Maximum Limitations			
Anchor	Force	Bolt Grade	
		4.8	8.8
M20x120	$T_r$ (kN)	53	81.4
	$V_r$ (kN)	45.9	90.8
M20x200	$T_r$ (kN)	53	104.8
	$V_r$ (kN)	45.9	90.8
M24x140	$T_r$ (kN)	76.8	84.6
	$V_r$ (kN)	66.5	131.5
M24x200	$T_r$ (kN)	76.8	148.6
	$V_r$ (kN)	66.5	131.5
M24x280	$T_r$ (kN)	76.8	151.9
	$V_r$ (kN)	66.5	131.5
M24x280 H/D	$T_r$ (kN)	76.8	151.9
	$V_r$ (kN)	66.5	131.5
M30x361	$T_r$ (kN)	123	243.2
	$V_r$ (kN)	104.5	206.6
M36x431	$T_r$ (kN)	180.1	355.9
	$V_r$ (kN)	151.1	298.6

## Load Reduction Factors for Spacing and Edge Distance on Anchors

Anchor Designation	Tension Only Loads				Shear Loads			
	Anchor Spacing (mm)	Load Reduction Factor	Edge Distance (mm)	Load Reduction Factor	Anchor Spacing (mm)	Load Reduction Factor	Edge Distance (mm)	Load Reduction Factor
M20x120	240	0.7	107	0.7	286	0.6	53	0.5
	480	1	120	1	480	1	45.9	1
M20x200	275	0.7	100	0.7	300	0.6	53	0.5
	550	1	200	1	550	1	45.9	1
M24x140	245	0.7	106	0.7	283	0.6	76.8	0.5
	490	1	140	1	525	1	66.5	1
M24x200	275	0.7	100	0.7	300	0.6	76.8	0.5
	550	1	200	1	550	1	66.5	1
M24x280	231	0.7	107	0.7	280	0.6	76.8	0.5
	462	1	213	1	493	1	66.5	1
M30x361	263	0.7	116	0.7	360	0.6	123	0.5
	526	1	210	1	587	1	104.5	1
M36x431	322	0.7	140	0.7	430	0.6	180.1	0.5
	643	1	257	1	712	1	151.1	1

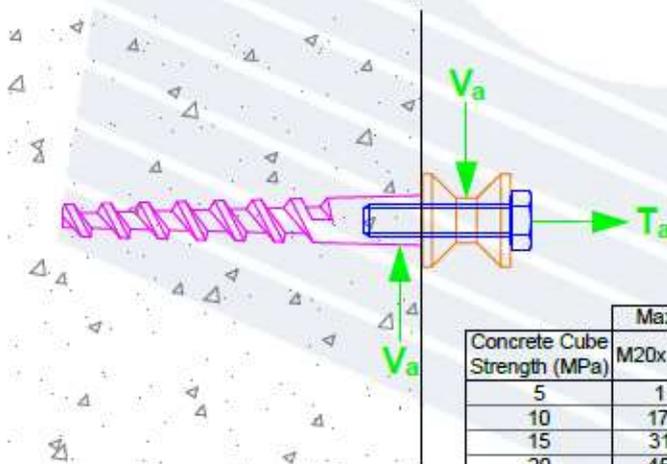
Linear interpolation can conservatively be applied to the above values as per the discretion of the designer. Recommended to use spacing and edge distances greater or equal to a reduction of 1.

## Anchor Tensile Load Capacity Polynomial Formulas:

$M20x120: T_a = \phi_s[-1.57 \times 10^{-2} \cdot (f_{cu})^2 + 3.296 \cdot f_{cu} - 14.619]$   
 $M20x200: T_a = \phi_s[-7.34 \times 10^{-2} \cdot (f_{cu})^2 + 8.9426 \cdot f_{cu} - 61.192]$   
 $M24x140: T_a = \phi_s[-1.52 \times 10^{-2} \cdot (f_{cu})^2 + 3.2696 \cdot f_{cu} - 10.564]$   
 $M24x200: T_a = \phi_s[-6.27 \times 10^{-2} \cdot (f_{cu})^2 + 8.3748 \cdot f_{cu} - 53.447]$   
 $M24x280: T_a = \phi_s[-7.95 \times 10^{-2} \cdot (f_{cu})^2 + 10.611 \cdot f_{cu} - 55.269]$   
 $M30x360: T_a = \phi_s[-7.54 \times 10^{-2} \cdot (f_{cu})^2 + 12.711 \cdot f_{cu} - 11.101]$   
 $M36x430: T_a = \phi_s[-1.171 \times 10^{-1} \cdot (f_{cu})^2 + 18.491 \cdot f_{cu} - 15.932]$

This formulas can be used to design the tensile load application for anchors as long as the shear- and tensile steel failure load limitations presented in above table is not exceeded.

The maximum concrete vale to substitute  $f_{cu}$  in the polynomial formulas should not exceed 56.7MPa.



Formula for Combined Tension and Shear:  
As per SANS 0162-1:Part 13.11.4

$$V_u/V_r + T_u/T_r \leq 1.4$$

## Notes on Maximum Tensile Load Vs Concrete Strength Tables and Limit Graphs:

The Tabulated values presented herein include the material safety factors.

These factors are applied to the Anchors tested or calculated failure values and not the maximum elastic limit of the Anchor itself, the designer should apply the necessary load factors to the ULS (ultimate design loads).

The ULS calculated by designer should be below values presented herein.

Concrete Cube Strength (MPa)	Maximum Tensile Load vs Concrete Cube Strength for Grade 4.8 Bolts (kN)							
	M20x120	M20x200	M24x140	M24x200	M24x280	M24x280 H/D	M30x361	M36x431
5	1	1	1	1	1	1	51	74
10	17	21	21	21	43	58	108	157
15	31	56	35	56	86	106	163	235
20	45	88	49	89	125	149	213	307
25	58	116	62	117	160	189	260	373
30	70	131	74	141	164	190	302	433
35	81	131	85	149	164	190	305	446

Concrete Cube Strength (MPa)	Maximum Tensile Load vs Concrete Cube Strength for Grade 8.8 Bolts (kN)							
	M20x120	M20x200	M24x140	M24x200	M24x280	M24x280 H/D	M30x361	M36x431
5	1	1	1	1	1	1	51	74
10	17	21	21	21	43	58	108	157
15	31	56	35	56	86	106	163	235
20	45	88	49	89	125	149	213	307
25	58	116	62	117	160	189	260	373
30	70	131	74	141	164	190	302	433
35	81	131	85	149	164	190	305	446

### 3.2.16

#### **DOCUMENTS TO BE SUBMITTED WHEN MATERIAL IS DELIVERED ON SITE**

- The following documents must be submitted when material is delivered on site:
- A drawing for each type of formwork with full details and design
- A table listing all the components of the proposed formwork
- Clear indication on what is a standard item; special items and what must be supplied by the contractor.
- The required delivery period for each type/section from receipt of official order to delivery to site.
- The types will be priced as a whole per unit as per the Bill of Quantities for a purchase price and a rental rate. **It must be noted that the supplier must include any delivery and or collection cost with the price.**
- It is a requirement of this bid that the successful bidder/supplier shall submit a detail list of items with prices of each type/section that will be used in the case of replacement or augmentation.

### 3.2.17

#### **ACCEPTANCE CRITERIA**

- The formwork will only be accepted if the design calculation(s) and drawing(s) signed by a registered professional engineer was submitted and approved by the contractor prior to delivery.
- The formwork must adhere to the drawing dimensions and standards and is not damaged.
- The formwork must accompany a list of items and quantities per type/structure.

### 3.3

#### **PARTICULAR SPECIFICATION**

**BIDDERS MUST INITIAL ALL PAGES UNDER SECTION 3 SPECIFICATIONS AND SIGN THE DECLARATION BELOW.**

Therewith I, \_\_\_\_\_ (Bidder's Name) declare that I have read, completed, and understood the above specifications.

\_\_\_\_\_  
BIDDER'S SIGNATURE

**DEPARTMENT OF WATER AND SANITATION**

**BID: WTE-0441 CS**

**THE DESIGN, HIRE, AND DELIVERY OF FORMWORK TO THE DEPARTMENT OF WATER AND SANITATION, KWAGGASKLOOF DAM IN THE WESTERN CAPE FOR A PERIOD OF 40 WEEKS FOR DWS CONSTRUCTION SOUTH.**

**SECTION 4: SBD 3.1 – PRICING SCHEDULE**

**CONTENTS**

PRICING INSTRUCTIONS

SBD 3.1 – PRICING SCHEDULE

## **PREAMBLE TO THE SBD 3.1 – PRICING SCHEDULE**

### **1. GENERAL**

The Schedule of Quantities forms part of the Contract Documents and must be read and priced in conjunction with all the other documents comprising the Contract Documents which include the Conditions of Tender, Conditions of Contract, the Specifications (including the Project Specification) and the Drawings.

### **2. DESCRIPTION OF ITEMS IN THE SCHEDULE**

The Schedule of Quantities has been drawn up generally in accordance with Civil Engineering Quantities 1990 issued by the SA Institution of Civil Engineers.

The short descriptions of the items in the Schedule of Quantities are for identification purposes only and the measurement and payment clause of the Standardised Specifications and each Particular Specification, read together with the relevant clauses of the Project Specification and directives on the drawings, set out what ancillary or associated work and activities are included in the rates for the operations specified.

### **3. QUANTITIES REFLECTED IN THE SCHEDULE**

The quantities given in the Schedule of Quantities are estimates only, and subject to remeasuring during the execution of the work. Where quantities or sums are indicated as "Provisional, the Employer reserves the right to adjust the quantity or sum upwards or downwards as necessary, or the item can be omitted altogether. The Contractor shall obtain the Engineer's detailed instructions for all work before ordering any materials or executing work or making arrangements for it.

The Works as finally completed in accordance with the Contract shall be measured and paid for as specified in the Schedule of Quantities and in accordance with the General and Special Conditions of Contract, the Specifications and Project Specifications and the Drawings. Unless otherwise stated, items are measured net in accordance with the Drawings, and no allowance has been made for waste.

The validity of the contract will in no way be affected by differences between the quantities in the Schedule of Quantities and the quantities finally certified for payment.

### **4. PRICING OF THE SCHEDULE**

The prices and rates to be inserted in the Schedule of Quantities shall be the full inclusive prices to be paid by the Employer for the work described under the several items, and shall include full compensation for all costs and expenses that may be required in and for the completion and maintenance during the defects liability period of all the work described and as shown on the drawings as well as all overheads, profits, incidentals and the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the Tender is based.

Each item shall be priced and extended to the "Total" column by the Tenderer. If the Contractor omits to price any items in the Schedule of Quantities, then these items will be Considered to have a nil rate or price.

All items for which terminology such as "inclusive" or "not applicable" have been added by the Tenderer will be regarded as having a nil rate which shall be valid irrespective of any change in quantities during the execution of the Contract.

All rates and amounts quoted in the Schedule of Quantities shall be in Rand and shall include all levies and taxes (other than VAT). VAT will be added in the summary of the Schedule of Quantities.

### **5. CORRECTION OF ENTRIES**

Incorrect entries shall not be erased or obliterated with correction fluid, use of correction fluid will invalidate your bid, but must be crossed out neatly. The correct figures must be entered above or adjacent to the deleted entry, and the alteration must be initialled by the Bidder, failure to initial where the correction was done will invalidate your bid.

## 6. MONTHLY PAYMENTS

Unless otherwise specified in the Specifications and Project Specifications, progress payments in Interim Certificates, referred to in Clause 16 of the National Treasury General Conditions of Contract, July 2010, in respect of "sum" items in the Schedule of Quantities shall be by means of interim progress instalments assessed by the Employers Agent and based on the measure in which the work actually carried out relates to the extent of the work to be done by the Contractor.

## 7. UNITS OF MEASUREMENT

The units of measurement described in the Schedule of Quantities are metric units for which the standard international abbreviations are used. Non-standard abbreviations which may appear in the Schedule of Quantities are as follows:

<b>Non-Standard Abbreviations</b>	
Abbreviation	Unit
%	Percent
No.	Number
Prov sum ; PS	Provisional sum
R/only ; R/o	Rate only
Sum, Lump sum	sum
W/day	Work day
h	Hour
wk	Week
d	Day
<b>Standard Abbreviations</b>	
kPa	kilopascal
mm	millimetre
m	metre
km	kilometre
m <sup>2</sup>	square metre
ha	hectare
m <sup>3</sup>	cubic metre
kN	Kilonewton
MN	meganewton
MN.m	meganewton-metre
MPa	megapascal
kg	kilogram
t	ton (1000 kg)

**PRICING SCHEDULE  
(Firm Price)**

**DEPARTMENT OF WATER AND SANITATION**

**BID: WTE-0441 CS**

**THE DESIGN, HIRE, AND DELIVERY OF FORMWORK TO THE DEPARTMENT OF WATER AND SANITATION, KWAGGASKLOOF DAM IN THE WESTERN CAPE FOR A PERIOD OF 40 WEEKS FOR DWS CONSTRUCTION SOUTH.**

THIS PRICING SCHEDULE MUST BE COMPLETED IN FULL – FAILURE TO COMPLY WILL INVALIDATE YOUR BID

**OFFER TO BE VALID FOR 120 DAYS FROM CLOSING DATE OF BID**

**NOTE: NO PRICE ADJUSTMENTS WILL ONLY BE ALLOWED**

ITEM NO.	DESCRIPTION	UNIT	QTY	WEEKLY HIRE RATE/m <sup>2</sup>	BID PRICE (Excluding VAT)
<b>NEW OUTLET STRUCTURE (Refer Drawing 174854/16 TO 174859/16)</b>					
Formwork design, supply and deliver including anchors and accessories for:					
1	Outside perimeter walls of New Outlet Structure per 3m Lift	m <sup>2</sup>	145	R...../m <sup>2</sup>	R.....
2	Inside perimeter walls of New Outlet Structure per 3m Lift	m <sup>2</sup>	135	R...../m <sup>2</sup>	R.....
3	Roof support and decking for New Outlet Structure	m <sup>2</sup>	140	R...../m <sup>2</sup>	R.....
Total Carried Forward to Summary					R.....
<b>NEW STRAINER ROOM (Refer Drawing 174893/16 TO 174894/16)</b>					
Formwork design, supply and deliver including anchors and accessories for:					
4	Outside perimeter walls of New Strainer Room	m <sup>2</sup>	120	R...../m <sup>2</sup>	R.....
5	Inside perimeter walls of New Strainer Room	m <sup>2</sup>	110	R...../m <sup>2</sup>	R.....
6	Roof support and decking for New Strainer Room	m <sup>2</sup>	50	R...../m <sup>2</sup>	R.....
Total Carried Forward to Summary					R.....
<b>NEW FLOW METER CHAMBER (Refer Drawing 174886/16 TO 174888/16)</b>					
Formwork design, supply and deliver including anchors and accessories for:					
7	Outside perimeter walls of New Flow Meter Chamber	m <sup>2</sup>	40	R...../m <sup>2</sup>	R.....
8	Inside perimeter walls of New Flow Meter Chamber	m <sup>2</sup>	30	R...../m <sup>2</sup>	R.....
9	Roof support and decking for New Flow Meter Chamber	m <sup>2</sup>	10	R...../m <sup>2</sup>	R.....
Total Carried Forward to Summary					R.....

<b>RECONSTRUCTION AND RAISING OF CANAL WALLS (Refer Drawing 174871/16 TO 174873/16)</b>					
Formwork design, supply and deliver including anchors and accessories for:					
10	Outside perimeter walls	m <sup>2</sup>	120	R...../m <sup>2</sup>	R.....
11	Inside perimeter walls	m <sup>2</sup>	80	R...../m <sup>2</sup>	R.....
Total Carried Forward to Summary					R.....
<b>ENCASEMENT OF DN900 OUTLET PIPE (Refer Drawing 174882/16 TO 174884/16)</b>					
Formwork design, supply and deliver including anchors and accessories for:					
12	Outside perimeter walls	m <sup>2</sup>	310	R...../m <sup>2</sup>	R.....
Total Carried Forward to Summary					R.....

<b>SUMMARY OF BILL OF QUANTITIES FOR WEEKLY HIRE OFFER FOR 40 WEEKS</b>	
<b>SECTION DESCRIPTION</b>	<b>BID AMOUNT (Excluding VAT)</b>
NEW OUTLET STRUCTURE FORMWORK PER 3M LIFT	R.....
NEW STRAINER ROOM FORMWORK	R.....
NEW FLOW METER CHAMBER FORMWORK	R.....
RECONSTRUCTION AND RAISING OF CANAL WALLS FORMWORK	R.....
ENCASEMENT OF DN900 OUTLET PIPE FORMWORK	R.....
	<b>TOTAL BID AMOUNT (Excluding VAT)</b>
	R.....
	<b>15 % VAT</b>
	R.....
	<b>TOTAL BID AMOUNT (Including VAT)</b>
	R.....

**NB: IN TERMS OF THE DWS SCM POLICY, THE TENDER PRICE MAY BE SUBJECTED TO PRICE NEGOTIATION WITH THE PREFERRED BIDDER, PRIOR THE SIGNING OF THE CONTRACT.**

**NOTE: ALL FIELDS ON THIS FORM SHOULD BE COMPLETED IN FULL. IF A FIELD IS NOT APPLICABLE, THE FIELD SHOULD BE INDICATED AS “NOT APPLICABLE”.**

**THE DEPARTMENT OF WATER AND SANITATION WILL NOT ENTERTAIN ANY CLAIMS FOR NON-FIRM PRICES INCREASES CLAIMED AT A LATER DATE, UNLESS SUCH NON-FIRM PRICE ADJUSTMENTS ARE CLEARLY MOTIVATED IN THIS FORM.**

- Required by: Construction South
- At (Place where service is required): Kwaggaskloof Dam Rehabilitation Project
- Delivery basis. See note hereunder To Site
- **Period required for delivery after receipt of order:** **7 Days**.....
- Delivery period: \* **FIRM / (40 WEEKS)**
- Are you a manufacturer of the items offered by you? \*YES / NO
- Name and addresses of the factories where the goods will be manufactures and may be inspected, if required? .....
- Does the item offered comply with any recognise Standards body (e.g. SANS) \* YES / NO
- If so furnish valid certificate to this end \*ATTACHED / NOT ATTACHED
- Is offer strictly to specification? \* **YES / NO**
- If not to specification, state deviation(s) .....
- .....

**\*\*\*"All Applicable Taxes" includes value-added tax, pay as you earn, income tax, unemployment insurance fund, Contributions and skills development levies.**

**NOTE:** All delivery and/or transport costs must be included in the bid price.

**\*\*\*"All Applicable Taxes" includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.**

Any enquiries regarding bidding procedures may be directed to the –

For Administrative enquiries  
Mrs T Daniels  
[danielst@dws.gov.za](mailto:danielst@dws.gov.za)

**Or**

For Technical or Site information  
Mr. J W van der Heever  
[vanderheeverj@dws.gov.za](mailto:vanderheeverj@dws.gov.za)