

PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

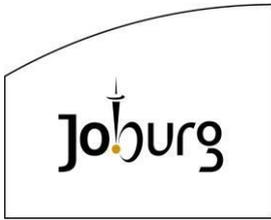
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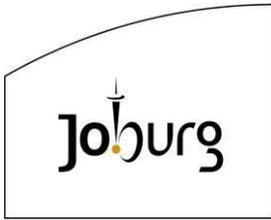
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MBD 1

PART A

INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR [REQUIREMENTS] OF THE CITY OF JOHANNESBURG					
BID NUMBER:	COJ/DEVP001/25-26	CLOSING DATE:	02 MARCH 2026	CLOSING TIME:	10:30AM
DESCRIPTION	PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).					

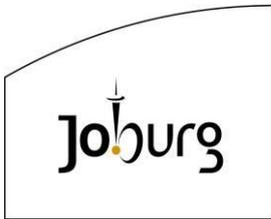
BID DOCUMENTS MUST BE DEPOSITED IN THE TENDER BOX SITUATED AT:

**SAPPI BUILDING
48 AMESHOFF STREET.
BRAAMFONTEIN,
JOHANNESBURG 2001.**

COMPULSORY BRIEFING SESSION:

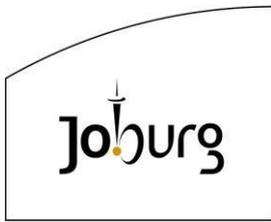
DATE: 16 FEBRUARY 2026
TIME: 10:00 AM
VENUE: MICROSOFT TEAMS (INTERESTED BIDDERS MUST SEND AN EMAIL TO MR. ETIENNE ERASMUS AT ETIENNE@JOBURG.ORG.ZA REQUESTING THE VIRTUAL MEETING LINK. MEETING LINK REQUESTS WILL BE ACCEPTED UNTIL ONE HOUR BEFORE THE COMMENCEMENT OF THE VIRTUAL MEETING.)

SUPPLIER INFORMATION			
NAME OF BIDDER			
POSTAL ADDRESS			
STREET ADDRESS			
TELEPHONE NUMBER	CODE	NUMBER	
CELLPHONE NUMBER			



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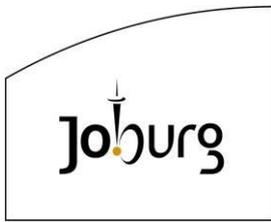
EMAIL ADDRESS			
VAT REGISTRATION NUMBER			
TAX COMPLIANCE STATUS	TCS PIN:	CSD No:	
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	<input type="checkbox"/> Yes <input type="checkbox"/> No	B-BBEE STATUS LEVEL SWORN AFFIDAVIT	<input type="checkbox"/> Yes <input type="checkbox"/> No
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE / SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED			
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 PART B:3]
TOTAL NUMBER OF ITEMS OFFERED		TOTAL BID PRICE	R
SIGNATURE OF BIDDER		DATE	
CAPACITY UNDER WHICH THIS BID IS SIGNED			
BIDDING PROCEDURE ENQUIRIES AND TECHNICAL INFORMATION MAY BE DIRECTED TO:			
DEPARTMENT:	DEVELOPMENT PLANNING	CONTACT PERSON:	ETIENNE ERASMUS
EMAIL ADDRESS:	ETIENNE@JOBURG.ORG.ZA		



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BUSINESS STRUCTURE	
Individual	
Joint Venture	
Company	
Consortium	
Sub – Contractor	
Other	
If individual	
Name of Bidder	
Contact Person	
Registration number	
Vat number	
CIDB number	
CSD registration number	
Business Address [not postal address]	
Telephone	
E-mail address	
COMPANY	
Name of Bidder	
Contact Person	
Registration number	

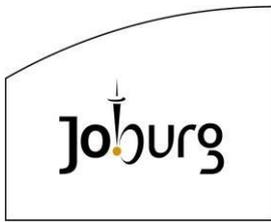
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Vat number	
CIDB number	
CSD registration number	
Business address [not postal address]	
Telephone	
E-mail address	
If Joint Venture	
Name of Bidder	
Contact Person	
Registration number	
Vat number	
CIDB number	
CSD registration number	
Business address [not postal address]	
Telephone	
E-mail address	
If consortium	
Name of Bidder	
Contact Person	
Registration number	

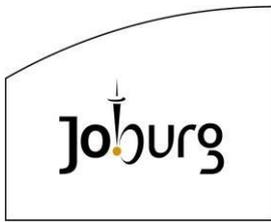
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Vat number	
Business address [not postal address]	
Telephone	
E-mail address	
If Subcontracting	
Name of Sub-contractor	
Contact Person	
Registration number	
Vat number	
CIDB registration	
CSD registration number	
Business address [not postal address]	
Telephone	
E-mail address	
If other	
Name of Bidder	
Contact Person	
Registration number	
Vat number	
CIDB number	
CSD registration number	

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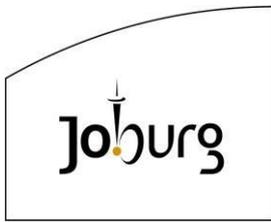
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Business address [not postal address]	
Telephone	
E-mail address	

MUNICIPAL DETAILS	
SUPPLIER NUMBER [if applicable]	

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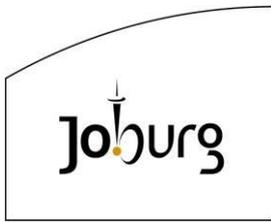
JOINT VENTURE CERTIFICATE

We, the undersigned member firms in the Joint Venture _____ [Name of the Joint Venture], hereby authorize Mr./Ms. _____ to sign this bid document as well as any contract resulting from bid number _____ and any other documents and correspondence in connection with this bid and/or contract for and on behalf of the Joint Venture.

NAME OF THE MEMBER FIRM(S)	REPRESENTATIVE OF THE FIRM	DESIGNATION OF THE REPRESENTATIVE OF THE FIRM	SIGNATURE

NOTE: A copy of the Joint Venture Agreement, Joint Venture Certificate indicating the percentage contribution of each firm to the Joint Venture and the allocation of responsibilities and the resolution authorizing the above-mentioned person to sign all relevant documents must be attached.

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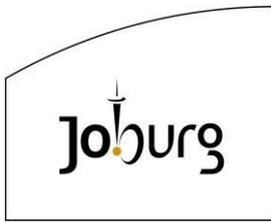
CONSORTIUM CERTIFICATE

We, the undersigned consortium partners, hereby authorize _____
[Name of entity] to act as lead consortium partner and further authorize
Mr./Ms. _____ to sign this offer as well as any contract resulting
from bid number _____ and any other documents and correspondence in
connection with this bid and / or contract for and on behalf of the consortium.

CONSORTIUM PARTNER	FULL NAME OF CONSORTIUM MEMBER	PARTICIPATION %	SIGNATURE

NOTE: A copy of the Consortium Agreement, Consortium Certificate indicating the allocation of responsibilities of consortium partner to the Consortium and the resolution authorizing the above-mentioned person to sign all relevant documents must be attached.

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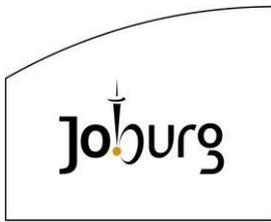
SUBCONTRACTING CERTIFICATE

I/We, the undersigned bidder undertake to subcontract _____% of the total bidding value to the below subcontractor/s.

<i>NAME OF SUBCONTRACTOR</i>	<i>CONTACT MEMBER OF THE SUBCONTRACTOR</i>	<i>% TO BE SUBCONTRACTED</i>	<i>SIGNATURE</i>

NOTE: A copy of the Subcontract Agreement indicating the allocation of responsibilities of each subcontractor must be attached. Subcontracting of the work to the bidder’s own subsidiaries must be declared.

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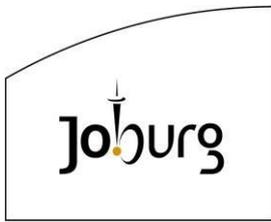
PARTNERSHIP CERTIFICATE

We, the undersigned partners in the business trading as _____ hereby authorize Mr./Ms. _____ to sign this offer as well as any contract resulting from bid number _____ and any other documents and correspondence in connection with this bid and / or contract for and on behalf of the abovementioned partnership.

<i>NAME OF PARTNER</i>	<i>IDENTITY NO.</i>	<i>OWNERSHIP %</i>	<i>SIGNATURE</i>

NOTE: A copy of the Partnership Agreement indicating the allocation of responsibilities of each partner to the Partnership and the resolution authorizing the above-mentioned person to sign all relevant documents must be attached.

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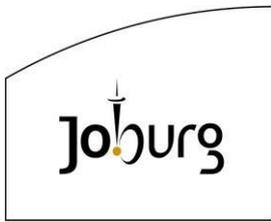
MBD 1 – PART B

1. IMPORTANT NOTICE

A bidder is required to take notice of the following in the preparation and submission of this bid. **THIS IMPORTANT NOTICE APPLIES TO THE BID AS A WHOLE AND MUST BE READ AS PART OF EVERY SECTION AND ANNEXURE TO THIS BID DOCUMENT.**

- 1.1. The bidder must read this bid document diligently and where possible take advice or refer to the relevant legislation and regulation applicable to procurement.
- 1.2. The bid document must be completed in black ink and in full, correctly and truthfully. Provided that it's not relevant to the bidder, it must be marked "N/A".
- 1.3. Bid documents must be sealed when submitted. The submission must be delivered at the correct address as it reads from this bid document on or before the closing date and before the closing time. The correct time to be used will be Telkom time. No submission shall be accepted other than in the manner described in this paragraph.
- 1.4. Information requested must be provided. Such information must be genuine. Should information be a copy of the original, such copy must be certified and commissioned as the true copy of the original in terms of the relevant laws.
- 1.5. Documents requested [including those under "returnable documents" under specifications / terms of reference] must be attached at the end of that particular annexure requesting such information. Should the information exceed the provided space, an addendum must be attached at the end of that particular annexure requesting such information.
- 1.6. Any requirement for signature must be signed at the appropriate space provided. It shall be deemed that the signatory is the bidder or a duly authorized person of the bidder.
- 1.7. The briefing session **must** be attended if compulsory. If not, the municipality highly recommends that the briefing session be attended.

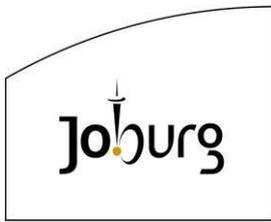
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- 1.8. **Error/s made must be scratched and signed next to the error by the same person who signs the bid document. Therefore, no tipex is allowed. In addition, error/s made and relating to price must be accompanied by a letter [in the bidder's letterhead] pointing out the error made and acknowledging that it is his or her signature and was signed by the bidder for reasons of correcting the error.**
- 1.9. The bid may be rejected in the event that the bidder:
- 1.9.1. fails to complete fully this bid document or to provide the information requested, or to sign the bid at the appropriate spaces provided or next to errors, his/her/its bid may be rejected due to non-compliance or being invalid;
 - 1.9.2. is found to be a role player or commits criminal act/s including fraud, price rigging, corruption, collusion, or forgery, the bidder shall be rejected. In the case of an award already made, the award or contract shall be terminated; or
 - 1.9.3. any of its director/s or those of the subcontractor/s or partner/s:
 - 1.9.3.1. owe municipal charges and is in arrears for more than 3 (three) months;
 - 1.9.3.2. had during the last 5 (five) years failed to perform satisfactorily on previous contract with the municipality or municipal entity or organ of the state after written notice was given to perform satisfactorily;
 - 1.9.3.3. abused the supply chain management of the municipality or municipal entity or committed an improper conduct;
 - 1.9.3.4. has been listed in the register of tender defaulters; or
 - 1.9.3.5. if any of the bidder's principals are in the service of the state.
- 1.10. Any steps taken because the bidder has failed to comply as provided in terms of this important notice or breached terms and conditions of the bid, shall not prevent the municipality from taking any steps available in law in addition to the remedies taken because of non-compliance or breach.

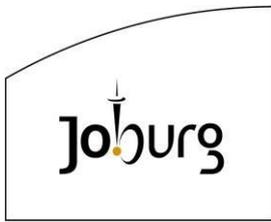
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- 1.11. **Failure to take note of the advice and recommendations made under this important notice, shall be at the bidder's own risk.**
- 1.12. This bid will be subject to public adjudication and notice of the date and time of the sitting shall be published on the Municipality's website.
- 1.13. Bid documents must be collected at the stipulated address, date and time as advertised, or downloaded from the appropriate websites.
- 1.14. Bid documents will be opened after the closing time and all bidders and their prices will be published on the municipality's website.
- 1.15. The bid award shall be published in the municipal websites.
- 1.16. **BID SUBMISSION:**
- 1.16.1. Bids must be delivered by the stipulated time to the correct address. Late bids will not be accepted for consideration.
- 1.16.2. This bid is subject to the Preferential Procurement Policy Framework Act, 2000 and the Preferential Procurement Regulations, 2022, the General Conditions of Contract (GCC) and, if applicable, any other Special Conditions of Contract.
- 1.16.3. The successful bidder will be required to sign a written service level agreement.
- 1.17. The City of Johannesburg reserves the right to source information from various sources to verify the information provided by the bidder in this bid and to enable the City to assess the bidder's financial stability and viability, and record of business conduct. The information to be sourced may include information relevant for the verification of all the information submitted by the bidder in this bid and any other information that may reasonably be deemed necessary to enable the City's verification and assessment, including the following:
1. Commercial risk ratings;
 2. Whether the bidder honours commitments with suppliers and/or customers;
 3. Trade references;
 4. Company statutory information;

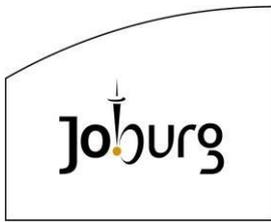
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5. Bidder's current address;
 6. Tax information;
 7. Bidder certification by international or local standard setting bodies and/or verification agencies;
 8. Shareholding (shares and/or financial instruments held in and/or by the bidder);
 9. Whether the bidder has relevant capacity (resources, infrastructure etc.) to execute the contract;
 10. Annual Financial Statements, or information included therein;
 11. Property interests of the bidder and principals;
 12. Judgements, and default listings of the bidder and principals, as well as debt review of principals;
 13. Business rescue, liquidation of bidder and sequestration of principals;
 14. Principals, including their shareholdings and/or business interests in the bidder and other entities as well as current interests.
- 1.18. The City may source the information directly from the sources, or make use of agents to source the information on its behalf.
- 1.19. **Consent form in terms of section 11 of the Protection of Personal Information Act, 2013 ("POPIA")**
- 1.19.1. In order for the City to consider the bidders response, it will be necessary for the City to process certain personal information which the bidder may share with the City for the bid submission, including personal information – which may include special personal information ("personal information"). Personal information will be processed by the City for the purposes of assessing the bidder's submission in relation to the bid. The City may also share the bidder's personal information with third parties to carry out verification and background checks, where necessary. In this regard, the

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bidder acknowledges that the City’s authorized verification agent/s and service provider/s will access the personal information.

1.19.2. By ticking yes, and signing below, the bidder agrees and voluntarily consents to the City processing the bidder’s personal information for the purpose of evaluating its submission, including to confirm and verify any information provided in the submission and the bidder gives the City permission to do so. The bidder agrees that the personal information may be disclosed by the City to third parties. The bidder understands that it is free to withdraw its consent on written notice to the City, however if consent is not given or is withdrawn, the City may be unable to process the bid submission.

Please tick one:

Yes

No

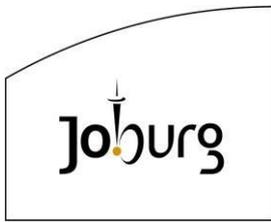
Signature

Date

Capacity

Name of Bidder

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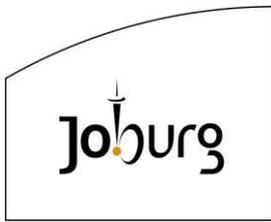
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2 CONDITIONS OF BID

- 2.1. No bid will be accepted from persons in the service of the state as defined in the Municipal Finance Management Act and Regulations.
- 2.2. The bid terms and conditions remain binding to the bidder throughout the contracting period.
- 2.3. A consideration of this bid is subject to governing legislation, including those relating to B-BBEE, the City's development goals, Preferential Procurement Policy Framework Act 5 of 2000 and its Regulations as amended.
- 2.4. That the tender may not necessarily be awarded to the bidder scoring the highest points.
- 2.5. The bidder is prohibited from participating in any form of price manipulation or bid rigging including those in MBD 9. If found, the bidder will be disqualified, or award be terminated.
- 2.6. Negotiations will only be conducted with selected bidder/s where necessary.
- 2.7. An award may be made to more than one bidder.
- 2.8. If considered necessary, the municipality reserves the right to visit the bidder's place of business and/or its customers.
- 2.9. The specifications are the copyright of the municipality.
- 2.10. The municipality reserves the right to cancel the requests for bids at any time or stage before the award or not to accept any bid.
- 2.11. Should it be found that the bidder has not been truthful and/or dishonest, then municipality shall cancel the award and negotiate with the next acceptable bidder.
- 2.12. All bids will be treated as confidential to the extent that the Municipality is required by law to publish or make information in the bid available to a third party.
- 2.13. Any dispute arising out of or relating to the bid must first be referred to the Accounting Officer for resolution.

2.14. Remedies

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- (1) If an organ of state is of the view that a tenderer submitted false information regarding a specific goal, the City of Johannesburg will —
- (a) inform the tenderer accordingly; and
 - (b) give the tenderer an opportunity to make representations within 14 days as to why the tender may not be disqualified or, if the tender has already been awarded to the tenderer, the contract should not be terminated in whole or in part.
- (2) After considering the representations referred to in subparagraph (2.14) (b), the City of Johannesburg may, if it concludes that such information is false—
- (a) disqualify the tenderer or terminate the contract in whole or in part; and
 - (b) if applicable, claim damages from the tenderer.

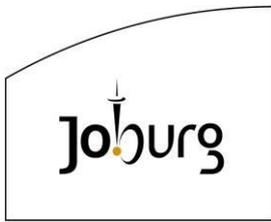
2.15. The tender may be divisible and be awarded to more than one bidder.

2.16. The City reserves the right to award the bid in full, partially or not at all.

3. TERMS AND CONDITIONS FOR BIDDING [Part B – Tax Compliance Requirements]

- 3.1. Bidders must ensure compliance with their tax obligations.
- 3.2. Bidders are required to submit their unique personal identification number (PIN) issued by the South Africa Revenue Services (SARS) to enable the organ of state to view the taxpayer's profile and tax status.
- 3.3. Application for the tax compliance certificate (TCC) or pin may also be made via e-filing. In order to use this provision, taxpayers will need to register with SARS as e-filers through the website www.sars.gov.za.
- 3.4. Foreign suppliers must complete the pre-award questionnaire in 3.7 below.
- 3.5. Bidders may also submit a printed TCC certificate together with the bid. In bids where consortia / joint ventures / sub-contractors are involved, each party must submit a separate TCC certificate / PIN and CSD number.

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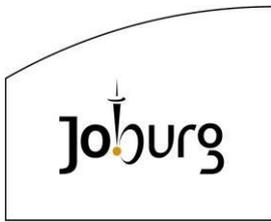


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- 3.6. Where no TCC is available but the bidder is registered on the central supplier database (CSD), a CSD number must be provided.
- 3.7. **If the answer is “no” to all of the below, then it is not a requirement to register for a tax compliance status system pin code from SARS and if not register as per 3.3 above.**

Question	Yes	No
Is the entity a resident of the republic of South Africa (RSA)?		
Does the entity have a branch in the RSA?		
Does the entity have a permanent establishment in the RSA?		
Does the entity have any source of income in the RSA?		
Is the entity liable in the RSA for any form of taxation?		

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4. TAX MATTERS

It is a condition of the bid that the taxes of the successful bidder must be in order as at the date of award, or that satisfactory arrangements have been made with SARS to meet the bidder's tax obligations as at the date of award. The annexure must be read in conjunction with the important notice.

- 4.1. The bidder must submit the tax compliance status PIN / CSD in order to enable the verification of the tax status of the bidder.
- 4.2. The bidder, upon being called to, must submit a valid Tax Clearance Certificate issued by any SARS branch office in order to determine tax compliance. The Tax Clearance Certificate Requirements are also applicable to foreign bidders / individuals who wish to submit bids.
- 4.3. The tax affairs of the bidder, as at the date of award, must be tax compliant.
- 4.4. Provided that the bid has Consortia / Joint Ventures / Sub-contractors involved, the conditions in 4.2 and 4.3 above equally apply to each member of the Consortia / Joint Ventures / Sub-contractor.

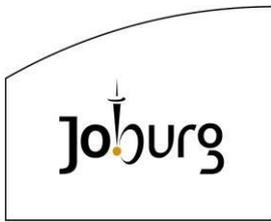
Signature

Date

Capacity

Name of Bidder

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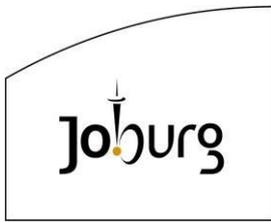
5. GENERAL TERMS AND CONDITIONS OF THE CONTRACT

- a) In this document words in the singular also refer to the plural and *vice versa* and words in the masculine also mean in the feminine and neuter.
- b) The General Conditions of Contract (GCC) will form part of all bid documents and may not be amended.
- c) Special Conditions of Contract (SCC) relevant to a specific bid, should be compiled separately for every bid (if applicable) and will supplement the GCC. Whenever there is a conflict, the provisions in the SCC shall prevail.
- d) Wherever the following words appear, they will have interchangeable meaning: "purchaser" refers to the "municipality" and "supplier" refers to the "bidder".

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.

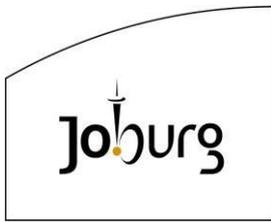
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- 1.5 "Countervailing duties" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.
- 1.6 "Country of origin" means the place where the goods were mined, grown or produced 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 markets 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.

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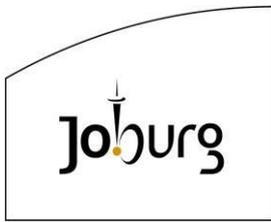
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- 1.16 “Imported content” means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of 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 ancillary 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

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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. Invitations to bid are, in addition to the purchaser's website and/or newspapers, are 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.

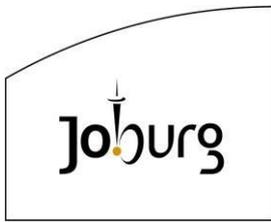
4. Standards

- 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 so far as may be necessary for purposes of such performance.

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- 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.

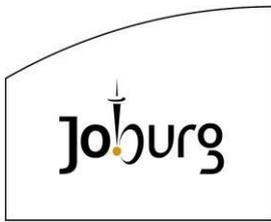
6. Patent rights

- 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 30 (thirty) 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

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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 30 (thirty) 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 analysis

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 purchaser or an organization acting on behalf of the purchaser.

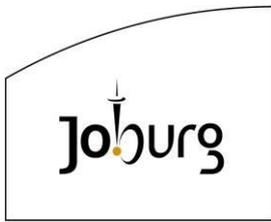
8.3. If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the 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.

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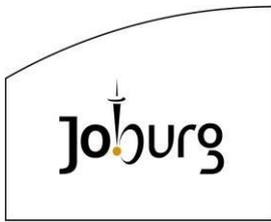
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- 8.7. Any contract supplies may on or after delivery be inspected, tested or analyzed and may be rejected if found not to comply with the requirements of the contract. Such rejected supplies shall be held at the cost and risk of the supplier who shall, 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 final 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.

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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.

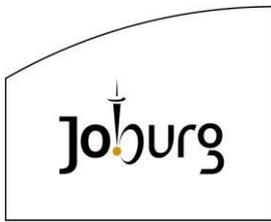
12. Transportation

- 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 of 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 of time agreed by the parties, provided that this service

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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 supplier 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

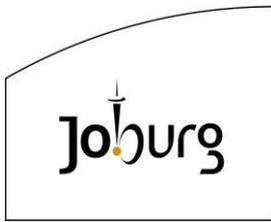
14.1. As specified in SCC, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:

- (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.

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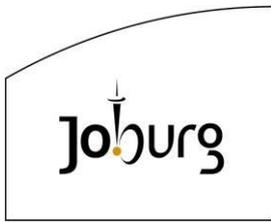
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- 15.2. The supplier further warrants that all goods supplied under this contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications) or from any 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.
- 15.3. This warranty shall remain valid for 12 (twelve) 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 18 (eighteen) 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.
- 15.4. The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.
- 15.5. 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.
- 15.6. 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 30 (thirty) days after submission of an invoice or claim by the supplier.
- 16.4. Payment will be made in Rand unless otherwise stipulated in SCC.

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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

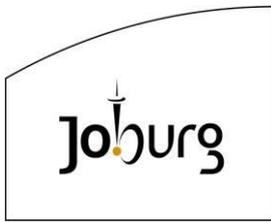
20.1. The supplier shall notify the purchaser in writing of all subcontracts awarded under this contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.

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

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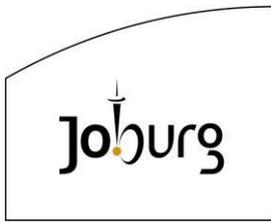
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- of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s).
- 21.3. As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation 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.
- 21.4. 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.
- 21.5. 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.
- 21.6. 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.
- 21.7. 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

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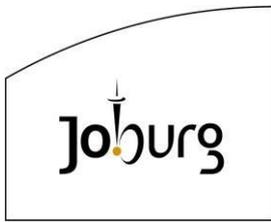
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unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

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 of 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; 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 (ten) 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 14 (fourteen) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated 14 (fourteen) days the purchaser may regard the intended penalty as not objected against and may impose it on the supplier.

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- 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 5 (five) 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.

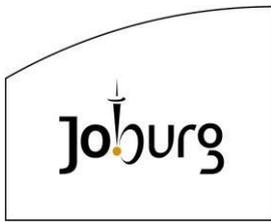
These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.

- 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 5 (five) years and not more than 10 (ten) 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

Initial



PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

import, the State is not liable for any amount so required or imposed, or for the amount of any such increase.

- 24.2. 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.

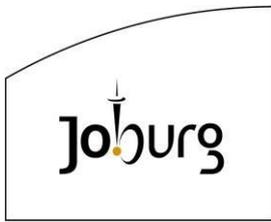
25. Force Majeure

- 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 a *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.

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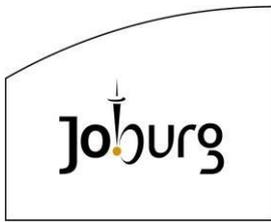
PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

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 30 (thirty) 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.
- 27.6. Except in cases of criminal negligence or willful 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.

28. Governing language

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28.1. 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.

29. Applicable law

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

30. Notices

30.1. 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.

30.2. 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.

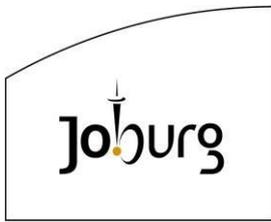
31. Taxes and duties

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

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

31.3. No contract shall be awarded to any bidder whose tax matters are not in order. A tax clearance certificate must be submitted and if a copy, such must be certified as the true copy of the original. Revenue Services.

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32. National Industrial Participation (NIP) Programme

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

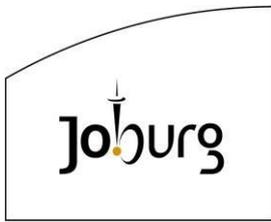
33. Prohibition of Restrictive practices

33.1. 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).

33.2. 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.

33.3. 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.

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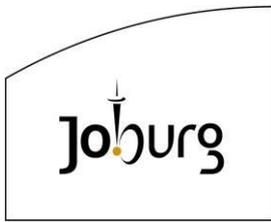


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SECTION 1

1.1	CONDITIONS OF AWARD Notwithstanding the suppliers' proposal being recommended for award, an award shall not be made to a supplier whose:
1.1.1	Tax matters are not in order, as confirmed in terms of the National Treasury's Centralized Supplier Database (CSD) and/or SARS.
1.1.2	Municipal Rates and Taxes of the bidder and that of its Directors is in arrears for more than 3 (three) months and there are no arrangements made with the relevant Municipality.
1.1.3	Directors and Principal members are in the Service of the State as defined in Regulation 1, of the Municipal Supply Chain Management Regulations.
1.1.4	Name of the bidder or that of its directors appear on the National Treasury's database of Restricted Suppliers.

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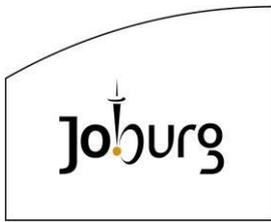


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SECTION 2

TERMS OF REFERENCE
PLEASE REFER TO APPENDIX "A"
AT THE BACK OF THE DOCUMENT.

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FORM OF BID

NB. ERROR/S OR ALTERATION/S MADE MUST BE SCRATCHED AND SIGNED NEXT TO THE ERROR OR ALTERATION BY THE SAME PERSON WHO SIGNS THE BID DOCUMENT. THEREFORE, NO TIPEX IS ALLOWED. IN ADDITION, ERROR/S OR ALTERATION/S MADE RELATING TO PRICE MUST BE ACCOMPANIED BY A LETTER [IN THE BIDDER'S LETTERHEAD] POINTING OUT THE ERROR ALTERATION MADE AND ACKNOWLEDGING THAT IT IS THE DELEGATED SIGNATORY AND WAS SIGNED BY THE BIDDER FOR REASONS OF CORRECTING THE ERROR.

IN THE EVENT THAT THE BIDDER FAILS TO FULLY COMPLETE THIS FORM OF BID OR TO PROVIDE THE INFORMATION REQUESTED, OR TO SIGN THE BID AT THE APPROPRIATE SPACES PROVIDED OR NEXT TO ERRORS, THE BID WILL BE REJECTED AS NON-RESPONSIVE.

BIDDERS TO FILL IN THE FOLLOWING TABLE

ITEM	DESCRIPTION	TOTAL AMOUNT EXCLUDING VAT.	TOTAL AMOUNT INCLUDING VAT.
1.	PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.	R	R

Prices include Value Added Tax

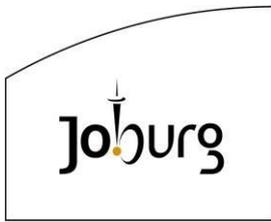
Rate of Value Added Tax Ø _____ %

Ø To be inserted by the Proposer

Name of Proposer (in full): _____

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PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

PROPOSAL PRICE ADJUSTMENT

Is this a firm price proposal? _____

The answer to the above question must either be YES/NO

NB: If neither Yes or No is inserted the Bid price will be taken to be firm and no adjustment will be allowed, notwithstanding anything to the contrary elsewhere contained.

If the answer to the above question is **NO**, Proposers are to provide a detailed Annexure specifying components and percentages of the pricing elements that will fluctuate. An indication should be given of the escalation across the Bid period stipulating base rates that the Bid is premised upon and changes in the subsequent year. Failure to provide details in this regard will invalidate your claim for a Bid price adjustment.

Name of bidder (in full) : _____

Company Registration Number : _____

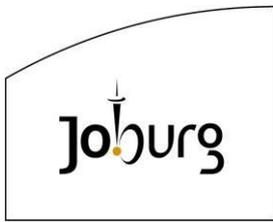
VAT Registration Number : _____

Business address : _____

Postal address : _____

Telephone number : _____

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BID NO: COJ/DEVP001/25-26

PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

E-mail address : _____

Name of person authorized to sign this Bid : _____

(BLOCK LETTERS)

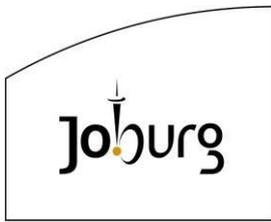
Signature of person authorized to sign this Bid _____

Date : _____ 2026.

As witness : _____

NB: THE RESOLUTION AUTHORIZING THE ABOVE-MENTIONED PERSON TO SIGN ALL RELEVANT DOCUMENTS MUST BE ATTACHED.

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PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

SECTION 3

MBD 3.2

PRICE ADJUSTMENTS

A NON-FIRM PRICES SUBJECT TO ESCALATION

NAME OF BIDDER:	BID NUMBER: COJ/DEVP001/25-26
CLOSING TIME: 10:30AM	CLOSING DATE: 02 MARCH 2026

OFFER TO BE VALID FOR 12 (TWELVE) MONTHS FROM THE CLOSING DATE OF BID

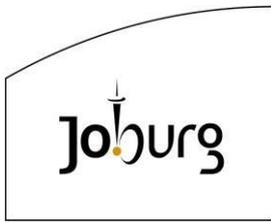
1. IN CASES OF PERIOD CONTRACTS, NON-FIRM PRICES WILL BE ADJUSTED (LOADED) WITH THE ASSESSED CONTRACT PRICE ADJUSTMENTS IMPLICIT IN NON-FIRM PRICES WHEN CALCULATING THE COMPARATIVE PRICES
2. IN THIS CATEGORY PRICE ESCALATIONS WILL ONLY BE CONSIDERED IN TERMS OF THE FOLLOWING FORMULA:

$$Pa = (1 - \frac{V}{V}) Pt \left(D1 \frac{R1t}{R1o} + D2 \frac{R2t}{R2o} + D3 \frac{R3t}{R3o} + D4 \frac{R4t}{R4o} \right) + VPt$$

Where:

- Pa = The new escalated price to be calculated.
- (1-V) Pt = 85% of the original bid price. **Note that Pt must always be the original bid price and not an escalated price.**
- D1, D2.. = Each factor of the bid price eg. labour, transport, clothing, footwear, etc. The total of the various factors D1,D2...etc. must add up to 100%.
- R1t, R2t..... = Index figure obtained from new index (depends on the number of factors used).

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R1o, R2o = Index figure at time of bidding.
 VPt = 15% of the original bid price. This portion of the bid price remains firm i.e. it is not subject to any price escalations.

3. The following index/indices must be used to calculate your bid price:

Index..... Dated..... Index..... Dated..... Index..... Dated.....

Index..... Dated..... Index..... Dated..... Index..... Dated.....

4. FURNISH A BREAKDOWN OF YOUR PRICE IN TERMS OF ABOVE-MENTIONED FORMULA. THE TOTAL OF THE VARIOUS FACTORS MUST ADD UP TO 100%.

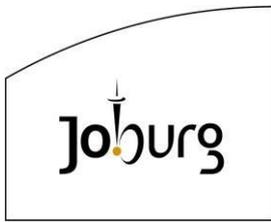
<i>FACTOR (D1, D2 etc. eg. Labour, transport etc.)</i>	<i>PERCENTAGE OF BID PRICE</i>

PRICES SUBJECT TO RATE OF EXCHANGE VARIATIONS

1. Please furnish full particulars of your financial institution, state the currencies used in the conversion of the prices of the items to South African currency, which portion of the price is subject to rate of exchange variations and the amounts remitted abroad.

<i>PARTICULARS OF FINANCIAL INSTITUTION</i>	<i>ITEM NO</i>	<i>PRICE</i>	<i>CURRENCY</i>	<i>RATE</i>	<i>PORTION OF PRICE SUBJECT TO ROE</i>	<i>AMOUNT IN FOREIGN CURRENCY REMITTED ABROAD</i>
				ZAR=		
				ZAR=		
				ZAR=		
				ZAR=		
				ZAR=		

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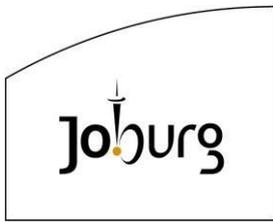
PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

				ZAR=		
--	--	--	--	------	--	--

2. Adjustments for rate of exchange variations during the contract period will be calculated by using the average monthly exchange rates as issued by your commercial bank for the periods indicated hereunder: (Proof from bank required)

AVERAGE MONTHLY EXCHANGE RATES FOR THE PERIOD:	DATE DOCUMENTATION MUST BE SUBMITTED TO THIS OFFICE	DATE FROM WHICH NEW CALCULATED PRICES WILL BECOME EFFECTIVE	DATE UNTIL WHICH NEW CALCULATED PRICE WILL BE EFFECTIVE

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MBD 3.3

PRICING SCHEDULE (Professional Services)

NAME OF BIDDER:.....BID NUMBER: COJ/DEVP001/25-26

CLOSING TIME: 10:30AM

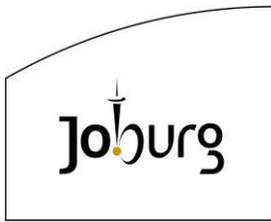
CLOSING DATE: 02 MARCH 2026

OFFER TO BE VALID FOR 12 (TWELVE) MONTHS FROM THE CLOSING DATE OF BID.

1. The accompanying information must be used for the formulation of proposals.
2. Bidders are required to indicate a ceiling price based on the total estimated time for completion of all phases and including all expenses inclusive of all applicable taxes for the project. R.....
3. PERSONS WHO WILL BE INVOLVED IN THE PROJECT AND RATES APPLICABLE (CERTIFIED INVOICES MUST BE RENDERED IN TERMS HEREOF)

4. PERSON AND POSITION	HOURLY RATE	DAILY RATE
-----	R-----	-----

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5. PHASES ACCORDING TO WHICH THE PROJECT WILL BE COMPLETED, COST PER PHASE AND MAN-DAYS TO BE SPENT

-----	R-----	----- days

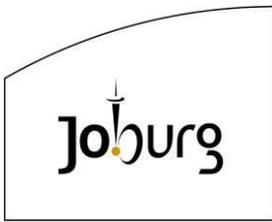
5.1 Travel expenses (specify, for example rate/km and total km, class of air travel, etc.). Only actual costs are recoverable. Proof of the expenses incurred must accompany certified invoices.

DESCRIPTION OF EXPENSE TO BE INCURRED	RATE	QUANTITY	AMOUNT
-----	R.....
-----	R.....
-----	R.....
-----	R.....

**“all applicable taxes” includes value-added taxes, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

5.2 Other expenses, for example accommodation (specify, e.g. Three star hotel, bed and breakfast, telephone cost, reproduction cost, etc.). On basis of these particulars, certified invoices will be checked for correctness. Proof of the expenses must accompany invoices.

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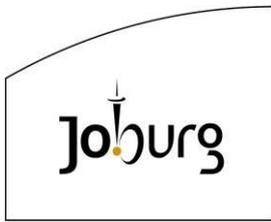
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DESCRIPTION OF EXPENSE TO BE INCURRED	RATE/QUANTITY	AMOUNT
-----	R.....

TOTAL:.....

- 6. Period required for commencement with project after acceptance of bid.....
- 7. Estimated man-days for completion of project
- 8. Are the rates quoted firm for the full period of contract?
.....*YES/ NO.
- 9. If not firm for the full period, provide details of the basis on which adjustments will be applied for, for example consumer price index

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MBD 4

DECLARATION OF INTEREST

1. No bid will be accepted from persons in the service of the state¹.
2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority.
3. **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

3.1. Full Name of bidder or his or her representative:

3.2. Identity Number:

3.3. Position occupied in the Company (director, trustee, shareholder²):

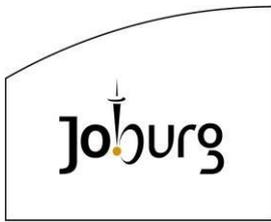
¹ **MSCM Regulations:** "in the service of the state" means to be –

- (a) a member of –
 - (i) any municipal council;
 - (ii) any provincial legislature; or
 - (iii) the national Assembly or the national Council of provinces;

- ² (b) a member of the board of directors of any municipal entity;
- (c) an official of any municipality or municipal entity;
- (d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);
- (e) a member of the accounting authority of any national or provincial public entity; or
- (f) An employee of Parliament or a provincial legislature.

² **Shareholder**" means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.

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3.4. Company Registration Number:

3.5. Tax Reference Number:

3.6. VAT Registration Number:

3.7. The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.

3.8. Are you presently in the service of the state? **YES / NO**

3.8.1 If yes, furnish particulars.....
.....

3.9. Have you been in the service of the state for the past twelve months? **YES / NO**

3.9.1 If yes, furnish particulars.....

3.10. Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid? **YES / NO**

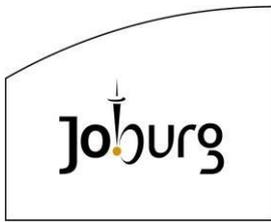
3.10.1 If yes, furnish particulars.....

3.11. Are you, aware of any relationship (family, friend, other) between any other bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid? **YES / NO**

3.11.1 If yes, furnish particulars.....

3.12. Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? **YES/NO**

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3.12.1 If yes, furnish particulars.....

3.13. Are any spouse, child or parent of the company’s directors, trustees, managers, Principle Shareholders or stakeholders in service of the state? **YES/NO**

3.13.1 If yes, furnish particulars.....

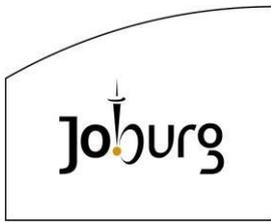
3.14. Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract? **YES / NO**

3.14.1 If yes, furnish particulars:

4. Full details of directors / trustees / members / shareholders.

Full Name	Identity Number	State Employee Number

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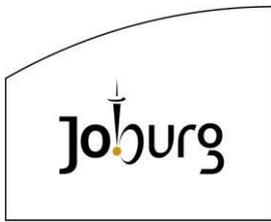
Signature

Date

Capacity

Name of Bidder

Initial



PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

DECLARATION OF INTEREST

In order to give effect to the declaration of interest [MBD 4], the following questionnaire must be completed. The bidder is required to respond by yes or no to the declarations and furnish information in the format provided in the event that the response is YES. By appending signature at the end, the bidder confirms the declarations to be true and correct. The declaration must be read in conjunction with the important notice.

1. Have you been in the service of the state for the past twelve months?

YES / NO

2. Are any of the bidder's directors, trustees, managers, principle shareholders or stakeholders in service of the state?

YES / NO

3. Is any spouse, child or parent of the bidder's directors, trustees, managers, major shareholder/s or stakeholder/s in service of the state?

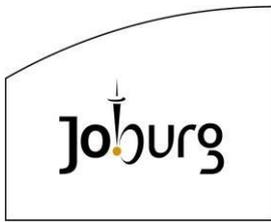
YES / NO

4. Do you or any of the director/s, trustee/s, manager/s, major shareholder/s, or stakeholder/s of the bidder have any interest in any other related companies or business whether or not they are bidding for this contract?

YES / NO

5. If yes in any or all of the above, furnish particular in the format below.

Initial



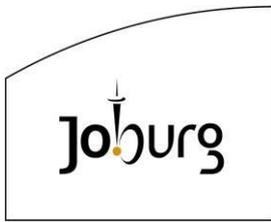
PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

	<i>Full Name</i>	<i>Identity number</i>	<i>State employee number</i>	<i>Status [currently or past employed]</i>	<i>Relationship to bidder</i>
1.					
2.					
3.					
4.					

6. To ensure compliance with question 3.14 on MBD 4 form, bidders are required to disclose information regarding all companies in which any director(s), trustee(s), manager(s), major shareholder(s), or stakeholder(s) of the bidder hold an interest. This includes interests in any related companies or businesses, regardless of whether those entities are participating in this bidding process or not.

ITEM	COMPANY NAME	COMPANY REGISTRATION NUMBER
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		

Initial



PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		

* Bidders are advised that, in instances where the space provided is insufficient to list all relevant companies, a separate list detailing all companies must be attached to the submission.

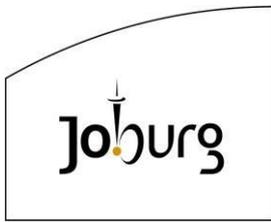
Signature

Date

Capacity

Name of Bidder

Initial



PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

MBD 6.1

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

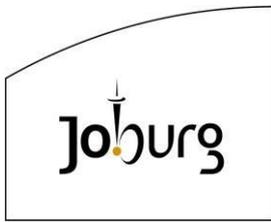
This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

**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
- 1.2 The applicable preference point system for this tender is the 80/20 preference point system.
- 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 The maximum points for this tender are allocated as follows:

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PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

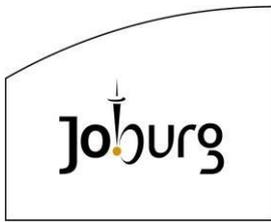
	POINTS
PRICE	80
SPECIFIC GOALS	20
Total points for Price and SPECIFIC GOALS	100

- 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 in regard to 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.

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PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

6.1. POINTS AWARDED FOR PRICE

6.1.1. THE 80/20 PREFERENCE POINT SYSTEMS

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

80/20

$$P_s = 80 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right)$$

Where

P_s = Points scored for price of tender under consideration

P_t = Price of tender under consideration

P_{min} = Price of lowest acceptable tender

6.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

6.2.1. POINTS AWARDED FOR PRICE

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

$$P_s = 80 \left(1 + \frac{80/20 (P_t - P_{max})}{P_{max}} \right)$$

Where

P_s = Points scored for price of tender under consideration

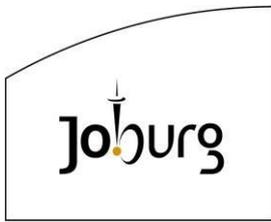
P_t = Price of tender under consideration

P_{max} = Price of highest acceptable tender

7. POINTS AWARDED FOR SPECIFIC GOALS

7.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement

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PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

7.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

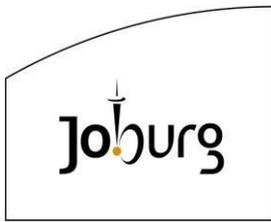
- (a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or
- (b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

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

The specific goals allocated points in terms of this tender	Means of verification	Number of points allocated (80/20 system)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Business owned by 51% or more - Black People	CSD, valid B-BBEE certificate / affidavit sworn under oath, ID copy of owner/s of the business and shareholder's certificate.	5	

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PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

Business owned by 51% or more - Women	CSD, ID copy of owner/s of the business and shareholder's certificate.	5	
SMMEs (An EME or QSE)	CSD and B-BBEE certificate / affidavit sworn under oath.	5	
Subcontracting to business owned by designated groups (up to 30%)	Draft subcontracting agreement to the designated groups, and valid B-BBEE certificate / sworn affidavit of the subcontracted business.	5	

DECLARATION WITH REGARD TO COMPANY/FIRM

7.3. Name of company / firm

7.4. Company registration number:

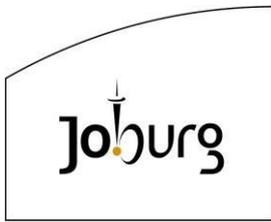
7.5. TYPE OF COMPANY/ FIRM

- 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]

7.6. 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,

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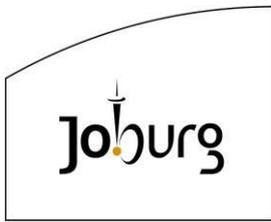


PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

qualifies the company / firm for the preference(s) shown and I acknowledge that:

- a) The information furnished is true and correct;
- b) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- c) In the event of a contract being awarded as a result 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;
- d) 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 –
 - (a) disqualify the person from the tendering process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result 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.

Initial



PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

.....
SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME:

DATE:

ADDRESS:

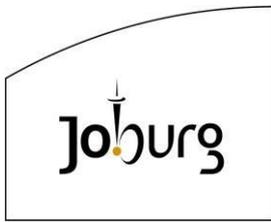
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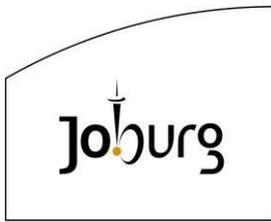
MBD 8

DECLARATION OF BIDDER’S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1 This Municipal Bidding Document must form part of all bids invited.
- 2 It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3 The bid of any bidder may be rejected if that bidder, or any of its directors have:
 - a. abused the municipality’s / municipal entity’s supply chain management system or committed any improper conduct in relation to such system;
 - b. been convicted for fraud or corruption during the past five years;
 - c. willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
 - d. Been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).
- 4 **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

Item	Question	Yes	No
4.1	Is the bidder or any of its directors listed on the National Treasury’s database as a company or person prohibited from doing business with the public sector? (Companies or persons who are listed on this database were informed in writing of this restriction by the National Treasury after the <i>audi alteram partem</i> rule was applied).	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.1.1	If so, furnish particulars:		

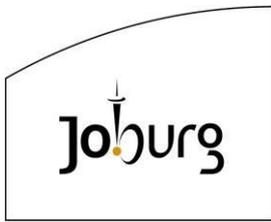
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PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

4.2	<p>Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?</p> <p>(To access this Register enter the National Treasury’s website, www.treasury.gov.za, click on the icon “Register for Tender Defaulters” or submit your written request for a hard copy of the Register to facsimile number (012) 3265445).</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>
4.2.1	<p>If so, furnish particulars:</p>		
4.3	<p>Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>
4.3.1	<p>If so, furnish particulars:</p>		
4.4	<p>Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>
4.4.1	<p>If so, furnish particulars:</p>		

Initial



PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

4.5	Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.5.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME)..... CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM TRUE AND CORRECT.

I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

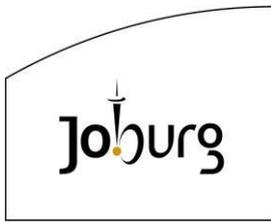
Signature

Date

Capacity

Name of Bidder

Initial



PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

MBD 9

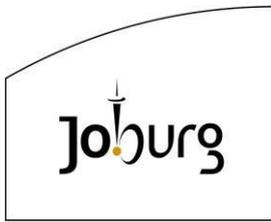
CERTIFICATE OF INDEPENDENT BID DETERMINATION

1. This Municipal Bidding Document (MBD) must form part of all bids³ invited.
2. Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).⁴ Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
3. Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
 - a. take all reasonable steps to prevent such abuse;
 - b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
4. This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.

³ Includes price quotations, advertised competitive bids, limited bids and BIDs.

⁴ Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

Initial



PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

- 5. In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

In response to the invitation for the bid made by:

(Name of Municipality / Municipal Entity)

Do hereby make the following statements that I certify to be true and complete in every respect:

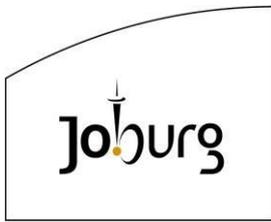
I certify, on behalf of: _____ that:

(Name of Bidder)

CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1. I have read and I understand the contents of this Certificate;
- 2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
- 3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
- 4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;

Initial

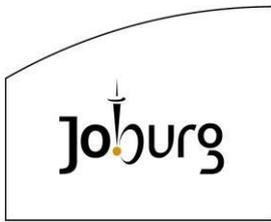


PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

5. For the purposes of this Certificate and the accompanying bid, I understand that the word “competitor” shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
- (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) Provides the same goods and services as the bidder and/or is in the same line of business as the bidder.
6. 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 consortium⁵ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
- (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) Bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications

⁵ 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.

Initial



PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

and conditions or delivery particulars of the products or services to which this bid invitation relates.

9. 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.
10. 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.

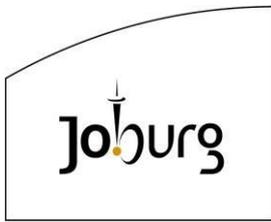
Signature

Date

Capacity

Name of Bidder

Initial



PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

DECLARATION ON STATE OF MUNICIPAL ACCOUNTS

- A Any bid may be rejected if:
- Any municipal rates and taxes or municipal service charges owed by the bidder and any of the directors to the municipality or a municipal entity, or to any other municipality or municipal entity, are in arrears for more than 3 (three) months.
 - In the case of International companies having South African Agencies and that business premises are leased, proof of lease agreements and / or monthly rental statements must be submitted.
 - The above will also be applicable for directors of the bidder/s who are leasing residential premises. Where the directors of the bidder/s reside outside the country, this requirement is not applicable.

B Bid Information

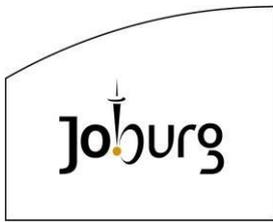
i. Name of bidder
.....

ii. Registration Number
.....

iii. Municipality where business is situated
.....

iv. Municipal account number for rates
.....

Initial



PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

- v. Municipal account number for water and electricity
.....
- vi. Names of all directors, their ID numbers and municipal account number.
 - a.
 - b.
 - c.
 - d.
 - e.

C Documents to be attached.

- i. A copy of municipal account mentioned in B (iv) & (v) (Not older than 3 (three) months)
- ii. A copy of municipal accounts of all directors mentioned in B (vi) (Not older than 3 (three) months)
- iii. Proof of directors

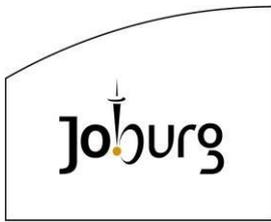
I/We declare that the abovementioned information is true and correct and that the following documents are attached to this form:

.....
.....
.....

Signature

Date

Initial



PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

SUBMISSION OF PROOF OF MUNICIPAL ACCOUNTS OR LEASE AGREEMENTS

1. Municipal Accounts / Rates / Taxes:

1.2. A Bidder is required to provide municipal accounts for the firm and for each director / shareholder / partner to prove that the bidder or any of its directors / shareholders / partners is not in arrears with their municipal account for more than 3 (three) months, or that the necessary arrangements have been made with the Municipality.

1.3. If the bidder or any of its directors / shareholders / partners is unable to provide municipal accounts for the firm and/or for each director / shareholder / partner as is required, then the bidder is to provide an affidavit, which is signed before a commissioner of oaths, which outlines the facts which make it not to be able to accede to the request for municipal accounts.

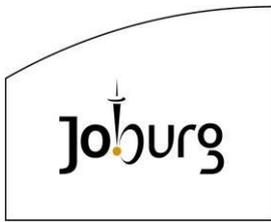
1.1. Further to the affidavit, the bidder is to provide a confirmation letter from the relevant municipality confirming the following: -

1.1.1. The name(s) of the owner(s) of the account(s)

1.1.2. The relevant account(s) number(s); and

1.1.3. That the municipal accounts above, are not in arrears for more than 3 (three) months; or

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PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

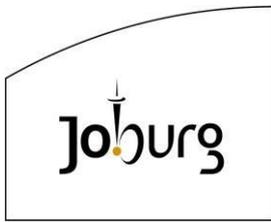
1.1.4. that an acceptable arrangement has been concluded and exists.

1.1.4.1. Lease Agreement:

- 1.1. If the bidder does not own the property from where it carries on business, or if any or any of director / shareholder / partner does not own a property in the Republic, the bidder is required to provide a copy of the Lease Agreement for the premises where it carries on business or where the director / shareholder / partner resides.
- 1.2. If the bidder is unable to provide a copy of the Lease Agreement as is required, then the bidder is to provide an affidavit, which is signed before a commissioner of oaths which outlines the facts which make it not to be able to produce and provide lease agreement in respect of the property it carries on business or in which its director / shareholder / partner resides.



Initial



PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

SECTION 4

Technical data, omissions, variations

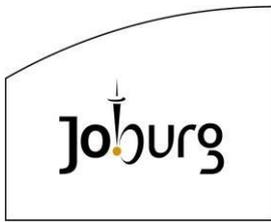
1. Bank Details

Name of Bankers: _____
Address of Bankers: _____
Branch of Bank: _____
Bank Account Number: _____

2. Details of Similar Work Recently Carried Out

DESCRIPTION OF WORK	COMPLETION DATE	CLIENT NAME AND CONTACT DETAILS	VALUE (R)

Initial



PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

3. **Qualifications by Bidder**

Should the bidder desire to make any departures from or modifications to the General Conditions of Contract, Specification, Drawings, or in any other way to qualify this bid, he must set out his BIDs clearly hereunder, or alternatively state them in a covering letter attached to this bid and referred to hereunder, failing which the bid will be deemed to be unqualified.

If no departures or modifications are desired, the schedule hereunder is to be marked NIL and signed by the bidder.

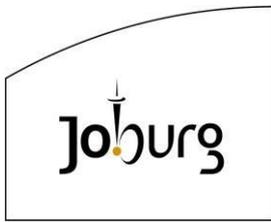
PAGE	CLAUSE OR ITEM

4. **Work to be done by others**

Full details must be provided here of any work required from the Council or others to provide complete execution of the work to the satisfaction of the Council.

DESCRIPTION OF WORK	TO BE EXECUTED BY

Initial



PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

5 Sub-Contractors

Full details must be provided here of any work regarding sub-contractors which may be used for installation, maintenance, repair, supply of accessories and supply of parts.

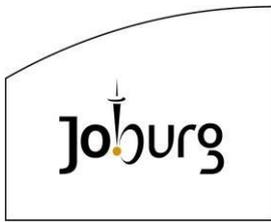
DESCRIPTION OR WORK/EQUIPMENT	TO BE EXECUTED

6 Plant, Transport and Staff Available

Bidders must list all equipment available for use on the contract, and must fully describe the equipment and/or plant and must further state whether owned or leased.

DESCRIPTION OF EQUIPMENT/PLANT	QUANTITY	OWNED/LEASED

Initial



PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

7 Omissions and Variations from the Council's Specification

Bids will be held to be entirely in accordance with the Council's specification except in the respects stated hereunder and the goods and/or services will be subject to rejection if it is found on delivery that they do not/it does not comply with the Council's specification on additional points which have not been approved in writing:

If the bid is in accordance with the Council's specification in all respects, the bidder must state so here:

8. Indemnity Clause

I/We the undersigned, do hereby indemnify and hold harmless the Council in respect of all loss, cost, damage or injury that may be caused to any premises or to any person or animal by reason of the performance of this contract.

I/We, further indemnify the Council in respect of all legal and other expenses that may be incurred by the Council in examining, resisting or settling any damage, injury or loss that may in any way be occasioned by work necessary in terms of the contract.

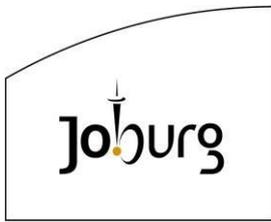
Signature

Date

Capacity

Name of Bidder

Initial



PROVISION OF COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM, CONTOURS, OBLIQUE IMAGERY AND SATELLITE IMAGERY FOR THE CITY OF JOHANNESBURG FOR A PERIOD OF THREE (3) YEARS.

APPENDIX A

Initial

TERMS OF **REFERENCE**

Provision of colour digital Orthophotos, LiDAR, DEM, Contours, Oblique Imagery and Satellite Imagery for the City of Johannesburg for a period of three (3) years

Provision of colour digital Orthophotos, LiDAR, DEM, contours, oblique Imagery and satellite imagery for the City of Johannesburg for a period of three (3) years

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Provision of colour digital Orthophotos, LiDAR, DEM, contours, oblique Imagery and satellite imagery for the City of Johannesburg for a period of three (3) years

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Provision of colour digital Orthophotos, LiDAR, DEM, contours, oblique Imagery and satellite imagery for the City of Johannesburg for a period of three (3) years

1 LIST OF ABBREVIATIONS / ACRONYMS

ASCII

ASCII, abbreviated from American Standard Code for Information Interchange, is a character encoding standard for electronic communication. ASCII codes represent text in computers, telecommunications equipment, and other devices.

Contour

An imaginary line passing through points of equal reduced levels. A contour line may also be defined “as the intersection of a level surface with the surface of the earth”. Thus, contour lines on a plan illustrates the topography of the area.

Coordinate system

In geometry, a coordinate system is a system which uses one or more numbers, or coordinates, to uniquely determine the position of the points or other geometric elements on a manifold such as Euclidean space.

CGIS

Refers to Corporate Geo-Informatics, Directorate within Development Planning responsible for this tender.

City

Refers to City of Johannesburg.

COJ

Refers to City of Johannesburg.

Database

A database is an organized collection of data. A relational database, more restrictively, is a collection of schemas, tables, queries, reports, views, and other elements.

Datum (Geodetic)

A geodetic datum or geodetic system is a coordinate system, and a set of reference points, used to locate places on the Earth.

DEM

A digital elevation model (DEM) is a 3D CG representation of a terrain's surface – commonly of a planet (e.g. Earth), moon, or asteroid – created from a terrain's elevation data.

Dxf

AutoCAD DXF is a CAD data file format developed by Autodesk for enabling data interoperability between AutoCAD and other programs.

ECW

ECW is a proprietary wavelet compression image format optimized for aerial and satellite imagery.

Flt

A file extension for a floating-point raster file.

Geo-reference

Geo-referencing means to associate something with locations in physical space. The term is commonly used in the geographic information systems field to describe the process of associating a physical map or raster image of a map with spatial locations.

Provision of colour digital Orthophotos, LiDAR, DEM, contours, oblique Imagery and satellite imagery for the City of Johannesburg for a period of three (3) years

GeoTIFF

GeoTIFF is a public domain metadata standard which allows geo-referencing information to be embedded within a TIFF file. The potential additional information includes map projection, coordinate systems, ellipsoids, datums, and everything else necessary to establish the exact spatial reference for the file.

GPS

Global Positioning System.

HD

High Definition.

LIDAR

Light Detection and Ranging: A remote sensing method that uses light in the form of a pulsed laser to measure ranges (variable distances) to the Earth.

MBD

Municipal Bidding documents.

Metadata

Data that provides information about other data", but not the content of the data.

MSE

Mean squared error.

NAS device

Network-attached storage (NAS): A file-level computer data storage server connected to a computer network providing data access to a heterogeneous group of clients. NAS is specialized for serving files either by its hardware, software, or configuration.

Oblique image

Aerial photography that is captured at approximately a 45-degree angle with the ground. The angle which is inherent to oblique imagery allows viewers to see and measure not only the top of objects but the sides as well.

Ortho rectification

Ortho rectification is the process of removing the effects of image perspective (tilt) and relief (terrain) effects for the purpose of creating a planimetrically correct image. The resultant orthorectified image has a constant scale wherein features are represented in their 'true' positions.

Orthophoto

An aerial photograph or image geometrically corrected ("ortho-rectified") such that the scale is uniform. The photo has the same lack of distortion as a map.

Polygon

A polygon is a plane figure that is bounded by a finite chain of straight-line segments closing in a loop to form a closed polygonal chain or circuit.

Projection

A datum is a point of reference. A projection uses the datum as a point of reference, it's location on Earth. In GIS, there are two types of "coordinate systems": Geographic Coordinate System (latitude and longitude) and Projected Coordinate System (X and Y).

Radiometric image

Provision of colour digital Orthophotos, LiDAR, DEM, contours, oblique Imagery and satellite imagery for the City of Johannesburg for a period of three (3) years

Radiometric Resolution. While the arrangement of pixels describes the spatial structure of an image, the radiometric characteristics describe the actual information content in an image.

Satellite image

Satellite images are images of Earth collected by imaging satellites operated by governments and businesses around the world.

SAGC

South African Geomatics Council [previously known as South African Council for Professional and Technical Surveyors - PLATO]. All qualified Professional Surveyors, Technologist Surveyors, Technician Surveyors and GISc Practitioners must be registered with the South African Geomatics Council (SAGC). Professional, Technologist and Technician Surveyors in training can also register with SAGC.

SANAS

South African National Accreditation System.

Shapefile

A popular geospatial vector data format for geographic information system software. It is developed and regulated by Esri as an open specification for data interoperability among Esri and other GIS software products.

Vector

A representation of the world using points, lines, and polygons. Vector models are useful for storing data that has discrete boundaries, such as country borders, land parcels, and streets.

Vignetting

A reduction of an image's brightness or saturation toward the periphery compared to the image center.

Provision of colour digital Orthophotos, LiDAR, DEM, contours, oblique Imagery and satellite imagery for the City of Johannesburg for a period of three (3) years

2 BACKGROUND

Since 1997 the aerial photographs for the City of Johannesburg have been updated every 3 years by Corporate Geo-Informatics (CGIS). All eight aerial sets have been used extensively in the Geographical Information System (GIS) environment by various departments and Municipal Entities (MEs).

Significant land use changes, developments and new informal settlements have taken place since 2023. An updated aerial photography dataset reflecting these changes are required for 2026. The new aerial photographs will add value to the corporate database, increasing client satisfaction and CGIS marketability. By using the latest available imagery to assist in future planning of the City.

The new orthophotos will add value to the corporate database, increasing client satisfaction and CGIS marketability. In addition, the oblique imagery has proved critical to the Valuations department in assisting with queries and compiling the existing GV Roll. By using the latest available imagery to assist in future planning of the City, it also supports the City of Johannesburg's vision to become a world class African city.

3 OBJECTIVE

To create a comprehensive, accurate, and versatile set of geospatial data [digital orthophotos, LiDAR, DEM, contours, oblique, and satellite imagery] for detailed mapping, analysis, and visualization. The data will allow precise measurements, 3D modelling, and resource management by combining the realistic views of imagery with precise elevation and location information.

4 SCOPE OF WORK

- 4.1 ITEM 1: COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM AND CONTOURS (Year 1 only)**
- 4.2 ITEM 2: OBLIQUE IMAGERY (Year 1 only)**
- 4.3 ITEM 3: 15CM HIGH-DEFINITION [HD] SINGLE SATELLITE IMAGE COVERING THE COJ JURISDICTION AREA (Year 3 only)**

5 DELIVERABLES & DETAILED TECHNICAL SPECIFICATIONS

- 5.1 ITEM 1: COLOUR DIGITAL ORTHOPHOTOS, LIDAR, DEM AND CONTOURS (Year 1 only)**
 - 5.1.1** 15cm pixel resolution colour digital orthophotos and LiDAR as listed in **Annexure A** (technical data sheet).
 - 5.1.2** 1m- and 10m DEM.
 - 5.1.3** The various contour intervals 25cm (derived), 0.5m, 1m and 2m.
 - 5.1.4** Project flight plan(s), project plans and communication plans to be submitted with the bid.
 - 5.1.5** Monthly progress reports.

Provision of colour digital Orthophotos, LiDAR, DEM, contours, oblique Imagery and satellite imagery for the City of Johannesburg for a period of three (3) years

- 5.1.6** Monthly meetings.
- 5.1.7** Once flying commences the service provider to send daily email communications to Corporate Geo-Informatics (CGIS) regarding the flying and no flying days.
- 5.1.8** Non-adherence to the completion date due to unsuitable flying weather will be managed / negotiated by the service provider and CGIS.
- 5.1.9** The orthophotos must be split into 3km-by-3km tiles with the tile layout's origin (Tile e.g. AA101) in the top left corner has a coordinate of $y = +130\ 000$ $x = +2\ 865\ 000$, and extends to Tile e.g. AK124, with a bottom right corner coordinate of $y = +75\ 000$ $x = +2\ 937\ 000$. A shape file of the existing tile layout (2023) will be supplied.
- 5.1.10** Each tile must be created with no overlap and be seamless.
- 5.1.11** The orthophotos must be supplied on external hard drives for QA purposes and on a Network Attached Storage (NAS) device for the final deliverables, which will become property of COJ.
- 5.1.12** The orthophotos must be supplied in three formats:
 - 5.1.12.1** A single seamless uncompressed mosaicked, orthorectified and colour balanced image,
 - 5.1.12.2** Individual Geotiff files corresponding to the specified tile layout and
 - 5.1.12.3** ECW files corresponding to the specified tile layout using a compression ratio that does not compromise the Geotiff image quality.
- 5.1.13** A viable alternate to ECW files may be considered on condition that the images are accessible by our third-party clients. A compatible freeware viewer must be supplied.
- 5.1.14** The 1m and 10m DEM must be supplied in the following formats, single continuous layer to be supplied and per individual tiles:
 - 5.1.14.1** ASCII,
 - 5.1.14.2** Existing GIS Grid format (a grid is a raster data storage format native to existing GIS),
 - 5.1.14.3** Geotiff and
 - 5.1.14.4** Flt.
- 5.1.15** Raw camera imagery data, as well as pre-processed, 8-bit Colour (RGB) or higher is required (please specify suggested improvement if any on this requirement).
- 5.1.16** Camera coordinates (GPS aided) and orientations for each image are additional info that will be useful to COJ.
- 5.1.17** Each image to be time stamped and date stamped. The image grid to be supplied in dxf, shape file and ascii formats.

Provision of colour digital Orthophotos, LiDAR, DEM, contours, oblique Imagery and satellite imagery for the City of Johannesburg for a period of three (3) years

- 5.1.18** Contours of 0.25m (derived), 0.5m, 1m and 2m intervals must be supplied in DXF and shapefile format per individual tile and as a single continuous layer, per contour interval.
- 5.1.19** LiDAR ground and non-ground points to be supplied in ascii format and raw LiDAR data (un-thinned) in LAS format version 1.4 or higher.
- 5.1.20** A new polygon vector spatial layer to be generated showing changes in DEM to illustrate development changes between 2023 and 2026.
- 5.1.21** Delivery of imagery and aerial products including the transfer of these products from the service provider to COJ is at the bidder's cost.
- 5.1.22** True orthophotos to be captured at 90% forward overlap and 60% sideward overlap, colour digital orthophoto imagery at 15cm pixel resolution true orthophotos for the CBDs namely Johannesburg CBD, Randburg CBD, Roodepoort CBD, Sandton CBD, Midrand CBD, Rosebank CBD and Soweto CBD (Jabulani and Baralink). Additional frames included in CBD's to minimise building lean.
- 5.1.23** Detailed Aerial Survey Technical Report.

5.2 ITEM 2: OBLIQUE IMAGERY (Year 1 only)

- 5.2.1** Geo-referenced oblique images for the City of Johannesburg area that are accurately geo-referenced to the 15cm pixel resolution colour orthophotos and compatible with the existing GIS suite of products currently in use at CoJ. Refer to **Annexure B**.
- 5.2.2** Oblique images of the buildings must be viewable from the four cardinal directions [north, south, east and west].
- 5.2.3** Have functionality for measuring:
 - 5.2.3.1** The height of buildings,
 - 5.2.3.2** The area of buildings in m² and
 - 5.2.3.3** Distances.
- 5.2.4** Central storage and delivery system that allows all the images captured to be stored in a central repository and quickly queried at the click of a mouse to find all images that point to a region of interest.
- 5.2.5** The oblique images must be captured at an angle of between 45-50 degrees from the horizontal with the sun angle greater than 30 degrees from the horizon.
- 5.2.6** The System should be able to incorporate existing oblique imagery.
- 5.2.7** RAW camera imagery data for Oblique imagery to be supplied to COJ, refer to Annexure B for specifications.

Provision of colour digital Orthophotos, LiDAR, DEM, contours, oblique Imagery and satellite imagery for the City of Johannesburg for a period of three (3) years

- 5.2.8** The Oblique imagery must be fully compatible and integratable with the current CoJ GIS environment (GeoLIS HTML5 online map viewer, Image Server and Web Portal).
- 5.2.9** The oblique imagery must be available for all City related projects and as such no limitations on licenses or usage must be imposed for clients within and outside the organization and public use.
- 5.3 ITEM 3: 15CM HIGH-DEFINITION [HD] SINGLE SATELLITE IMAGE COVERING THE COJ JURISDICTION AREA (Year 3 only)**
 - 5.3.1** 15cm High-Definition [HD] single satellite image covering the CoJ jurisdiction area.
 - 5.3.2** Metadata to be included.
 - 5.3.3** True colour, ortho-rectified imagery to be included in the single image (to eliminate building lean in CBDs).
 - 5.3.4** Satellite image to be published on the CoJ Intranet [Jozinet] online map viewer and CoJ Extranet [eServices] online map viewer.
- 5.4** High specification laptop with Windows 11 operating system to access, analyse, manipulate and convert large imagery datasets. Laptop to remain the property of the COJ.
- 5.5** One set of framed wall maps for the Corporate Geo-Informatics foyer showing the 15cm pixel resolution colour orthophotos.

6 GEOGRAPHICAL EXTENT

The area to be flown is approximately 1955 km², which covers the entire City of Johannesburg, and the Johannesburg Driefontein wastewater treatment works (y = +116 414, x = +2 878 718 Lat - 26.02028 Long 27.8445999) which falls outside the city boundary. A shape file showing boundary of COJ, and Johannesburg Driefontein wastewater treatment works will be supplied by CGIS. The orthophotos, 1m- and 10m DEM, contours, LiDAR ground- and non-ground points and Oblique Imagery to extend 1km outside the City boundary and include a 1km radius surrounding the Johannesburg Driefontein wastewater treatment works. Satellite imagery to cover the City of Johannesburg jurisdiction area.

7 COORDINATE SYSTEM

- 7.1** The orthophotos must be referenced to the following coordinate system:
 - 7.1.1** Datum: WGS84 (Hartebeeshoek94)
 - 7.1.2** Projection: Gauss Conformal, 29° E central meridian (Lo 29).
- 7.2** The unit of measurement must be metres (m).

Provision of colour digital Orthophotos, LiDAR, DEM, contours, oblique Imagery and satellite imagery for the City of Johannesburg for a period of three (3) years

8 SPATIAL CORRECTION METHODS AND ACCURACY

- 8.1** Ensure the highest possible positional accuracy, geometric and radiometric image quality is maintained, list methods used to achieve this. This may include, if feasible, the use of an airborne digital sensor.
- 8.2** List maximum deviation from nadir in your submission.
- 8.3** The digital imagery must be ortho-corrected using precise differential rectification, multiple ground control points and DEM. No image warping/rubber sheeting will be permitted.
- 8.4** CGIS will supply DEM points which were generated in 2023. Any changes in DEM points must be generated with a Lo29 coordinate and height above mean sea level and contain break-lines where changes in slope occur.
 - 8.4.1** A new 1m- and 10m DEM to be generated.
 - 8.4.2** A new polygon vector spatial layer to be generated showing changes in development between 2023 and 2026.
- 8.5** Methods must be proposed that reduce vertical distortion (the so-called leaning buildings) especially prevalent in the central business districts with tall buildings, 90% forward overlap and 60% sideward overlap.
- 8.6** A distortion free digital photogrammetric camera must be used and a camera calibration certificate not older than 12 months must be supplied with the bid documents.

9 IMAGE QUALITY

- 9.1** Flying should only be undertaken on days with excellent atmospheric conditions to ensure the digital imagery is clear, sharp, and free from cloud, errors, smoke and excessive ground shadows. The quality of the supplied images will be verified. Should the image quality be compromised by cloud, errors, smoke and/or excessive ground shadows, the relevant images will have to be re-flown at the bidder's own cost. The responsibility is on the bidder to provide a good quality product. Manual checking of all images at scale of 1:500 by the bidder prior to supply to City of Johannesburg. The integrity of data must not be compromised. The colour must be consistent across the City of Johannesburg area with an absence of banding caused by vignetting. The appearance of the image must be a realistic representation of the true colour on the ground.
- 9.2** All available techniques must be described in the technical report and used to produce a colour balanced image. The technical report must include the following: Equipment used, project extent, primary control beacons, calculated control beacons, transformations, topographical model, check points and accuracies.

10 GROUND CONTROL

The number of ground control points required must be specified, supplied and must link to the South African National Trigonometric beacon network.

The digital imagery must be captured to result in ortho-rectified images with an average Ground Sample Distance (GSD) of 0.5m.

Provision of colour digital Orthophotos, LiDAR, DEM, contours, oblique Imagery and satellite imagery for the City of Johannesburg for a period of three (3) years

The average GSD at nadir (astronomical term for the point directly below the observer, or more precisely, the point with an inclination of -90°), over the project area must not vary by more than 10% from mean terrain datum.

11 JOINT VENTURE PARTNERSHIPS

In line with the SMME policy it is encouraged that the Service Provider has partnership(s) with other related companies to encourage the transfer of skills.

12 COPYRIGHT

12.1 The contractor/consultant, in terms of the copyright Act 1978:

12.1.1 Transfer, assign and make over to the Council any copyright in the 'work' to be produced which may come to vest in the consultant, his partners, employees or any other person who may participate in the production of the 'work' (as described).

12.1.2 Waive any 'moral right' as contemplated in the Act in and to the said 'work'.

12.2 Therefore, all digital information becomes the property of the City of Johannesburg and no copies other than those required for delivery or for the completion of the bid, shall in any way be made available without written consent of the City of Johannesburg, CGIS.

12.3 However, should budgetary constraints be encountered, the Council will in addition consider bids on partnerships and cost sharing submitted with the bid.

13 TIMESCALE / DELIVERY DATES

13.1 The Central Airspace Management Unit (CAMU) approved project flight plan must be submitted to Corporate Geo-Informatics within 7 days of appointment letter.

13.2 Subject to favourable weather conditions, the initial flying must commence by May 2026 and completed by no later than 1st week in August 2026. First draft set of imagery to be provided by July 2026. Any areas that may have to be re-flown due to obscured images etc. must be flown as soon as the error/problem is discovered as part of the bid.

13.3 Delivery dates as per project plan for each of the project phases must be specified in the bid.

13.4 Delivery dates should include regular mandatory service intervals certified by the Central Aviation Authority (CAA). A backup aircraft must be available during these service periods.

13.5 **The final product must be thoroughly checked by the Service Provider, any errors (positional or image quality) corrected, and the final completed data set delivered by the final delivery date.**

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14 PENALTIES FOR FAILURE TO MEET DELIVERY DEADLINES

An error type list will be compiled in conjunction with the successfully appointed service provider. The error type list will be used by CGIS during the imagery validation process.

It is the responsibility of the service provider to ensure that there are less than two hundred errors (as per agreed upon error type category list) in the first full draft orthophoto tile set supplied to COJ. A penalty of 2% of the total project value per full orthophoto tile set will be imposed, should the above-mentioned requirement not be met. This penalty also applies to any subsequent full sets supplied containing new errors, exceeding the above limitation. The above penalty can be imposed more than once and on each full set delivery.

Failure to meet any of the delivery dates for each of the phases as specified in the bid will result in a 2% reduction in payment per week.

15 PREVIOUS DIGITAL ORTHOPHOTO EXPERIENCE

15.1 Bidders are required to provide evidence that they have successfully and timeously completed similar contracts. A statement should be submitted with the submitted bid detailing: the name and contact details of the authority for whom work was completed, nature of the work, value of the work, project timespan, and completion date.

15.2 A portable storage device with samples of similar digital colour orthophotos, LIDAR data (ground and non-ground points) and digital samples of colour oblique imagery and 15cm HD Satellite imagery of a South African CBD must be supplied with the submission of your bid documents:

15.2.1 One (1) colour digital example of 15cm pixel resolution aerial orthophotos, preferably of a South African CBD with tall buildings.

15.2.2 One (1) digital example each of LiDAR data (ground and non-ground points, minimum of ten (10) points per square metre).

15.2.3 One (1) colour digital example 15cm pixel resolution oblique imagery of a South African CBD.

15.2.4 One (1) colour digital example of 15cm High-Definition [HD] satellite imagery of a South African CBD.

16 PRICING SCHEDULE

The supplied tender submission **MUST** take the form of all three items below:

16.1 ITEM 1: Colour digital orthophotos, LiDAR, DEM and contours [Year 1 only]

16.2 ITEM 2: Oblique imagery for the City of Johannesburg [Year 1 only]

16.3 ITEM 3: 15cm High-Definition (HD) single satellite image covering the CoJ jurisdiction area [Year 3 only]

Provision of colour digital Orthophotos, LiDAR, DEM, contours, oblique Imagery and satellite imagery for the City of Johannesburg for a period of three (3) years

Please complete the pricing and delivery date tables below:

16.1.1 ITEM 1 Pricing: 15cm pixel resolution colour digital orthophotos, LiDAR, DEM and Contours [Year 1 only]

Table 1

Colour digital orthophotos, LiDAR, DEM and Contour [Year 1 only]	Price
Flying aerial photography & processing	
GPS ground control	
Aerial triangulation	
Ortho rectification, edge matching and colour balancing	
Flying LiDAR & processing	
1m DEM generation	
10m DEM generation	
0.25m (derived) contours generation	
0.5m contours generation	
1m contours generation	
2m contours generation	
SUB TOTAL (VAT excl)	
VAT @ 15%	
TOTAL (VAT incl)	

16.1.2 ITEM 1 Delivery Dates: 15cm pixel resolution colour digital orthophotos, LiDAR, DEM and Contours [Year 1 only]

Table 2

Colour digital orthophotos, LiDAR, DEM and Contour [Year 1 only]	Delivery Date
Project and flight plans	
Flying	
Ground control	
First supply of orthophotos as individual tiles for inspection	
First supply of orthophotos as single image	
Final supply of orthophotos as individual tiles (after correction)	
Supply of LiDAR	
Supply of 1m DEM	
Supply of 10m DEM	
Supply of 0.25m (derived) contours	
Supply of 0.5m contours	
Supply of 1m contours	
Supply of 2m contours	
Final supply of single image	

Provision of colour digital Orthophotos, LiDAR, DEM, contours, oblique Imagery and satellite imagery for the City of Johannesburg for a period of three (3) years

16.2.1 ITEM 2 Pricing: Oblique imagery for City of Johannesburg [Year 1 only]

Table 3

Oblique Imagery	Price
COJ area, (1644 km ² + 1km buffer outside City boundary)	
SUB TOTAL (VAT excl]	
VAT @ 15%	
TOTAL (VAT incl)	

16.2.2 ITEM 2 Delivery Date: Oblique imagery for City of Johannesburg [Year 1 only]

Table 4

Oblique Imagery	Date
Supply of oblique imagery for the COJ area, (1644 km ² + 1km buffer outside City boundary)	

16.3.1 ITEM 3 Pricing: 15cm High-Definition [HD] satellite imagery for the City of Johannesburg [Year 3 only]

Table 5

15cm High-Definition [HD] satellite imagery, metadata included. True colour, ortho-rectified imagery to be included in the single image (to eliminate building lean in CBDs).	Price
Note: Single satellite image covering the CoJ jurisdiction area to be published on the CoJ Intranet [Jozinet] online map viewer and CoJ Extranet [eServices] online map viewer.	
SUB TOTAL (VAT excl]	
VAT @ 15%	
TOTAL (VAT incl)	

Table 6

Grand Total Price [To be transferred to the form of bid]	Price
Item 1: Supply of 15cm pixel resolution colour digital orthophotos, LiDAR, DEM and Contours [Year 1 only]	
Item 2: Supply of oblique imagery for the COJ area, (1644 km ² + 1km buffer outside City boundary) [Year 1 only]	
Item 3: 15cm High-Definition [HD] satellite imagery for the City of Johannesburg [Year 3 only]	
GRAND SUB TOTAL (VAT excl]	
GRAND TOTAL (VAT incl)	

Provision of colour digital Orthophotos, LiDAR, DEM, contours, oblique Imagery and satellite imagery for the City of Johannesburg for a period of three (3) years

17 EVALUATION CRITERIA

Proposals will be evaluated in terms of the Preferential Procurement Policy Framework Act using the 80:20 points systems of the revised Preferential Procurement Regulations (PPRs) 2022.

Proposals will initially be evaluated in terms of **Functionality** and then in respect of **the Preferential Procurement Policy Framework Act** using the 80:20 points system. Only bidders who score **70 points** and more on **Functionality** will be able to proceed to be further evaluated in terms of the **price competitiveness**.

Further evaluation will be based on verification and allocation of preferential points guidelines.

Bids will be evaluated on **PRICE** and **PREFERENTIAL GOALS**. The 80:20 preference points system shall apply wherein 80 points will be allocated for price and 20 points for goals set out in table 7 below.

17.1 FUNCTIONALITY

Only bidders who score more than **70 points** on **Functionality** in total [Table 7] will be able to proceed to be further evaluated in terms of the **preferential procurement goals** [Table 8].

The bidder must demonstrate that the project team leader and team members have the necessary required qualifications and experience as per Table 7 [Staff Skills and Capacity] below.

Table 7 (see next page)

FUNCTIONALITY CRITERIA		
Criteria	Guidelines	Total Points
Infrastructure	<p><u>Equipment</u></p> <p>a) Aerial survey aircraft (owned or leased) 5 points</p> <p>b) Orthophoto camera [owned or leased] 5 points</p> <p>c) Oblique imagery camera [owned or leased] 5 points</p> <p>d) Two or more desktop workstations capable of processing large imagery datasets 3 points</p> <p>e) Large format colour plotter 2 points</p>	20
	<p><u>Technology</u></p> <p>a) Aerial imagery desktop author software for orthophoto rectification, triangulation, edge matching and colour balancing 4 points</p> <p>b) Oblique imagery desktop author software for oblique imagery processing and image warehouse publication 4 points</p> <p>c) 15cm HD satellite imagery 2 points</p>	10
Staff Skills and Capacity	<p>Company profile with CV's and qualifications of the entire team to be submitted as part of the evidence.</p> <p><u>Professional Land Surveyor</u></p>	10

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FUNCTIONALITY CRITERIA		
Criteria	Guidelines	Total Points
	<p>[<i>minimum 5 years' experience in Aerial survey and ground survey</i>] 10 points</p> <hr/> <p>Company profile with CV's and qualifications of the entire team to be submitted as part of the evidence.</p> <p><u>Team experience in:</u></p> <ul style="list-style-type: none"> a) Aerial photography and processing 4 points b) Project Management 3 points c) GPS ground control 2 points d) Orthophoto rectification 2 points e) Aerial triangulation 2 points f) Edge matching 2 points g) Colour balancing 2 points h) Oblique imagery and processing 4 points i) LiDAR Survey 3 points j) Contour generation 2 points k) DEM generation 2 points l) Remote sensing 2 points 	30
Track Record	<p>Detailed project plan: Gantt chart containing project deliverables, milestones (start and end dates), dependencies 9 points</p>	9
	<p><u>Related work successfully done – Item 1</u> [<i>i.e. number of related projects successfully completed</i>].</p> <ul style="list-style-type: none"> a) 0 projects 0 points b) 1 project 2 points c) 2 projects 4 points d) 3 projects and more 5 points 	15
	<p><u>Related work successfully done – Item 2</u> [<i>i.e. number of related projects successfully completed</i>].</p> <ul style="list-style-type: none"> a) 0 project 0 points b) 1 project 2 points c) 2 projects 4 points d) 3 projects and more 5 points 	
<p><u>Related work successfully done – Item 3</u> [<i>i.e. number of related projects successfully completed</i>].</p> <ul style="list-style-type: none"> a) 0 projects 0 points b) 1 project 2 points c) 2 projects 4 points d) 3 projects and more 5 points 		

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FUNCTIONALITY CRITERIA		
Criteria	Guidelines	Total Points
	<p><u>Digital data portfolio examples</u></p> <p>a) LiDAR ground points (minimum 10 points per m²) 1 point</p> <p>b) LiDAR non-ground points (minimum 10 points per m²) 1 point</p> <p>c) One colour digital 15cm pixel resolution orthophoto imagery 1 point</p> <p>d) One colour digital 15cm oblique imagery 1 point</p> <p>e) One colour digital 15cm HD satellite imagery 2 points</p>	6
Total Points		100

17.2 PREFERENTIAL PROCUREMENT

Only bidders that are responsive in **Stage 1** evaluation will be evaluated in **Stage 2**.

Bidders will be evaluated for the items that they are bidding for at this stage in terms of the 80:20 preference points system: 80 Points for price and 20 points in accordance with the City's preferential goals, as follows:

Table 8

Specific Goal 1: HDI	Means of Verification	Points - 80/20
Business owned by 51% or more - Black People	CSD, valid B-BBEE certificate / affidavit sworn under oath, ID copy of owner/s of the business and shareholder's certificate.	5
Business owned by 51% or more - Women	CSD, ID copy of owner/s of the business and shareholder's certificate.	5
Specific Goal 2: Promotion of local economy	Means of Verification	Points - 80/20
SMMEs (An EME or QSE)	CSD and B-BBEE certificate / affidavit sworn under oath.	5
Subcontracting to business owned by designated groups (up to 30%)	Draft subcontracting agreement to the designated groups, and valid B-BBEE certificate / sworn affidavit of the subcontracted business.	5

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Maximum Points [Stage 2]	20
Price [Stage 1]	80
TOTAL [Stage 1 & 2]	100

18 **RETURNABLE DOCUMENTS**

Bidders are required to submit the following with their proposal:

- 18.1 Proof of Company registration (CK).
- 18.2 Valid one-time pin (OTP) for tender issued by South African Revenue Services (SARS).
- 18.3 Valid B-BBEE accreditation certificate or certified copy issued by verification agencies accredited by SANAS; sworn affidavit issued by SAPS or Commissioner of Oath.
- 18.4 Certified ID copies of all directors.
- 18.5 Recent Municipal rates and taxes for company and all directors not in arrears for more than 90 days or affidavit or lease agreement not older than three (3) months signed by the landlord and tenant/the service provider **(if in arrears must provide proof of acknowledgement to pay the account with the relevant Municipal Revenue Department)**.
- 18.6 Fully completed and signed City of Johannesburg pricing schedule.
- 18.7 Fully completed and signed form of bid.
- 18.8 Fully completed and signed declaration for state of municipal account.
- 18.9 Fully completed and signed ALL MBD forms.
- 18.10 The latest audited or independently reviewed financial statements for the last three (3) years.
- 18.11 Proof of registration on the National Treasury Central Supplier Database (CSD) or copy of CSD report or M-AAA number.
- 18.12 Submit all required accreditation documents as required by the South African Geomatics Council – SAGC.
- 18.13 Total cost breakdown according to the phases / activities of the project inclusive of VAT.
- 18.14 List of similar projects / contracts and letters with contactable references on a company letter head awarded the contract.
- 18.15 Project plan covering scope of work, deliverables and milestones.
- 18.16 Company profile with CV's and qualifications of the entire team allocated.
- 18.17 Camera calibration certificate, not older than 12 months.

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- 18.18** Valid Air operating certificate issued by South African Civil Aviation Authority.
- 18.19** Proof (documentation) of aircraft to be used and backup aircraft.
- 18.20** Flight plans.
- 18.21** Skills transfer to select and download the single 15cm HD satellite imagery as / when requested from the satellite imagery portal.
- 18.22** Communication plan and resolving aerial capture errors (error mitigation).
- 18.23** Proof of industry related experience and formal qualifications or equivalent of a Professional Land Surveyor and other related disciplines of your project team that will be working on this project (CVs).
- 18.24** Project team to include professional land surveyor with minimum 5 years' experience in aerial survey and ground survey.
- 18.25** Proof of experience in number of years (≥ 3 years):
 - 18.25.1** in Aerial photography and processing.
 - 18.25.2** in GPS ground control.
 - 18.25.3** in Ortho rectification.
 - 18.25.4** in Aerial triangulation.
 - 18.25.5** in Edge matching.
 - 18.25.6** in Colour balancing.
 - 18.25.7** in Remote Sensing.
 - 18.25.8** in LIDAR Survey.
 - 18.25.9** in DEM generation.
 - 18.25.10** in Processing of Oblique Imagery.
 - 18.25.11** in Project management.
 - 18.25.12** successful related projects and length of project on company letterhead.
 - 18.25.13** allocated project budgets.
 - 18.25.14** contactable references.
- 18.26** One (1) digital example each of LiDAR data (ground and non-ground points, minimum of 10 points per square metre).
- 18.27** One (1) colour digital example of 15cm pixel resolution aerial orthophotos, preferably of a South African CBD with tall buildings.

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- 18.28** One (1) colour digital example of 15cm oblique imagery preferably of a South African CBD.
- 18.29** One (1) colour digital example of 15cm HD satellite image.
- 18.30** Submission to include one completed original Tender document as well as one copy.
- 18.31 Joint Venture agreements, where applicable.**
- 18.31.1** Valid signed agreement letter / sworn affidavit between the main contractor and Joint Venture issued by SAPS or Commissioner of Oath.
- 18.31.2** Valid and verified B-BBEE certificate (in case of Joint Venture (JV) Companies are required to submit consolidated joint certificates verified by SANAS for this project.
- 18.31.3** Valid one-time pin (OTP) for tender issued by South African Revenue Services (SARS). Each JV member should submit own OTP.
- 18.31.4** Recent Municipal rates and taxes for company and all directors not in arrears for more than 90 days or affidavit or lease agreement not older than three (3) months signed by the landlord and tenant/the service provider **(if in arrears must provide proof of acknowledgement to pay the account with the relevant Municipal Revenue Department)**.
- 18.31.5** Proof of registration on the National Treasury Central Supplier Database (CSD) or copy of CSD report or M-AAA number.

19 DISQUALIFYING CRITERIA

Failure to provide the below documents, will invalidate the bid offer and it will be considered non-responsive:

- 19.1** Failure to complete the **City of Johannesburg's pricing schedule in full**.
- 19.2** Failure to complete and sign the form of bid.
- 19.3** Failure to attend the virtual compulsory briefing session on MS Teams. The date and time of the compulsory briefing session will be provided in the bid document and tender advert.
- 19.4** Failure to attach a letter on a company letterhead confirming errors or alterations made in the CoJ pricing schedule.
- 19.5** Failure to supply proof of SAGC registered professionals such as surveyors.
- 19.6** Failure to supply camera calibration certificate, not older than 12 months.
- 19.7** Failure to supply valid air operating certificate issued by South African Civil Aviation Authority.
- 19.8** Failure to supply proof (documentation) of aircraft to be used and backup aircraft.

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- 19.9** Failure to supply digital examples of imagery and LiDAR as requested. Refer to point 15.2.1, 15.2.2, 15.2.3 and 15.2.4.

20 CONDITIONS OF AWARD

Notwithstanding the supplier`s proposal being recommended for award; an award shall not be made to a supplier if:

- 20.1** Tax matters are not in order, as confirmed in terms of the National Treasury`s Centralised Supplier Database (CSD) and the SARS.
- 20.2** Municipal Rates and Taxes of the bidder and that of its directors are in arrears for more than 90 days and there are no arrangements made with the relevant Municipality.
- 20.3** Director and Principal members are in the Service of the State as defined in Regulation 1, of the Municipality Supply Chain Management Regulations.
- 20.4** Name of the bidder or that of its directors appears on the National Treasury`s database of Restricted Suppliers.

21 AWARD

City of Johannesburg encourages joint venture [JV] partnerships to ensure that all items are quoted for.

22 FURTHER ENQUIRIES

Interested bidders must attend the compulsory virtual briefing session. The date and time of the compulsory briefing session will be provided in the bid document and tender advert. Interested bidders must send an email to Mr. Etienne Erasmus at etiennee@joburg.org.za requesting the virtual meeting link. Meeting link requests will be accepted until one hour before the commencement of the virtual meeting.

23 APPROVALS



Etienne Erasmus
Deputy Director: System Administration & Development
Corporate Geo-Informatics (CGIS)

26 January 2026

Date



Eric Raboshakga
Executive Director
Development Planning

27 January 2026

Date

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ANNEXURE A

24 TECHNICAL DATA SHEET

The technical data sheet must be completed in full detail and should be attached to the submitted bid as a separate comprehensive report.

24.1 ORTHOPHOTOS

The digital orthophotos must fulfil the specifications with a minimum spatial accuracy of 0.5 (mse): Ground (pixel) resolution: 0.15 metres.

24.1.1 Camera type.

24.1.2 Camera lens.

24.1.3 Copy of camera calibration certificate not older than 12 months must be supplied with the bid documents, air service licence (with licence number) and CAA operating certificate.

24.1.4 Flight altitude/photo scale.

24.1.5 Forward overlap 90% for true orthophotos.

24.1.6 Sideward overlap 60% for true orthophotos.

24.1.7 Overlap % between strips.

24.1.8 Sufficient tie strips must be flown to adequately support the latest aerial triangulation methods.

24.1.9 Imagery must be captured with an average of not less than 60% forward overlap and an average of not less than 25% sideward overlap unless otherwise specified.

24.1.10 Number of ground control points required.

24.1.11 Scanning resolution (in microns or dpi).

24.1.12 Aerial triangulation method and software.

24.1.13 Detailed description of method of ortho rectification.

24.1.14 Horizontal positional accuracy (m).

24.1.15 Details of methods used to remove vertical distortion (building lean).

24.1.16 Size of the imagery (both compressed and uncompressed).

24.1.17 Starting dates and time required for completion of:

24.1.17.1 GPS Ground control.

24.1.17.2 Aerial photography and processing.

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24.1.17.3 Scanning (if required).

24.1.17.4 Aerial Δ & DEM generation.

24.1.17.5 Rectification, edge matching and colour balancing.

24.1.17.6 Contour generation.

24.1.17.7 Delivery date for first set of imagery to be checked by the service provider.

24.1.17.8 Final delivery date (after correction of any positional/image errors).

24.2 TRUE ORTHOPHOTOS FOR CBD's

24.2.1 True orthophotos to be captured at 90% forward overlap and 60% sideward overlap.

24.2.2 15cm True colour digital orthophoto imagery for the CBDs namely Johannesburg CBD, Randburg CBD, Roodepoort CBD, Sandton CBD, Midrand CBD, Rosebank CBD and Soweto CBD (Baralink and Jabulani). Additional frames included in CBD's to minimise building lean.

24.3 DEM

A 1m- and 10m DEM (generated from the DTM) must be supplied in ASCII and existing GIS Grid format (a grid is a raster data storage format native to existing GIS software), Geotiff and Flt formats. Contours of 0.25m (derived), 0.5m, 1m and 2m contour intervals must also be supplied.

24.3.1 1m and 10m.

24.3.2 Horizontal positional accuracy.

24.3.3 Sampling grid.

24.3.4 Vertical accuracy of DEM (m).

24.3.5 Detailed description of method used to create DEM.

24.3.6 Vertical accuracy of contours.

24.3.7 Starting dates and time required for completion of DEM.

24.3.8 Starting dates and time required for completion of contours.

24.4 LiDAR

24.4.1 Specify spacing and number of points per square metre. Minimum ten points per square metre.

Provision of colour digital Orthophotos, LiDAR, DEM, contours, oblique Imagery and satellite imagery for the City of Johannesburg for a period of three (3) years

24.5 OBLIQUE IMAGERY

- 24.5.1** Geo-referenced 15cm pixel resolution oblique images for the City of Johannesburg area that are accurately geo-referenced to the pixel resolution option chosen and compatible to the existing GIS suite of products, refer to **Annexure B** for specifications.
- 24.5.2** Oblique images of the buildings must be viewable from the four cardinal directions [north, south, east and west].
- 24.5.3** To have functionality for measuring:
 - 24.5.3.1** To measure the height of buildings.
 - 24.5.3.2** To measure area, in square metres of building.
 - 24.5.3.3** To measure distances.
- 24.5.4** Central storage and delivery system that allows all of the images captured to be stored in a central repository and quickly queried at the click of a mouse to find all images that point to a region of interest.

24.6 SATELLITE IMAGERY

- 24.6.1** 15cm High-Definition [HD] single satellite image covering the CoJ jurisdiction area.
- 24.6.2** Metadata to be included.
- 24.6.3** True colour, ortho-rectified image strips and mosaics available for offline use.

24.7 MINIMUM REQUIREMENTS OF ANY, ONE TEAM MEMBER

- 24.7.1** Formal Qualification as a Professional Land Surveyor.
- 24.7.2** 5 years' experience as a Professional Land Surveyor in aerial survey and ground survey.
- 24.7.3** 3 years' experience in aerial photography and processing.
- 24.7.4** 3 years' experience in GPS ground control.
- 24.7.5** 3 years' experience in Orthophoto rectification.
- 24.7.6** 3 years' experience in aerial triangulation.
- 24.7.7** 3 years' experience in edge matching.
- 24.7.8** 3 years' experience in colour balancing.
- 24.7.9** 3 years' experience in remote sensing.

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24.7.10 3 years' experience in LiDAR survey.

24.7.11 3 years' experience in DEM generation.

24.7.12 3 years' experience in Oblique imagery and processing.

24.7.13 3 years' experience in hosting online satellite imagery.

24.7.14 3 years' experience in Project management.

24.8 MINIMUM SUCCESSFUL PROJECTS COMPLETED WITHIN THE COMPANY

24.8.1 One (1) related aerial project [Item 1] successfully completed for a South African Metro and/or

24.8.2 One (1) 1 related oblique imagery project [Item 2] successfully completed for a South African Metro and/or

24.8.3 One (1) 1 related satellite project [Item 3] successfully completed for a South African Metro.

ANNEXURE B

25 CAPTURING OF OBLIQUE IMAGERY SPECIFICATIONS

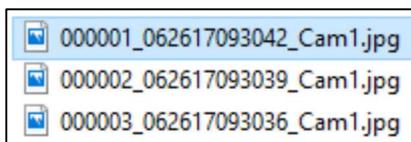
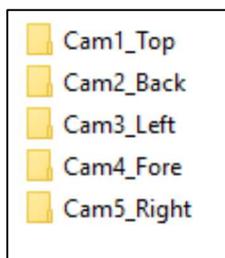
25.1 INTRODUCTION:

This document serves the purpose of explaining the data requirements needed for the current solution of the Portal Oblique Viewer Widget. All data specification mentioned in this document are strictly needed for the processing of the Oblique Imagery. The data can be summarized into five categories:

- 25.1.1 Images.
- 25.1.2 Interior Orientation of each Camera.
- 25.1.3 Exterior Orientation of each Image.
- 25.1.4 DTM (Digital Terrain Model).
- 25.1.5 Seamlines for Nadir View.

25.2 IMAGES:

The Image folder structure is based off a five-camera rig. Namely **Cam1_Top**, **Cam2_Back**, **Cam3_Left**, **Cam4_Fore** and **Cam5_Right**.



25.3 INTERIOR ORIENTATION OF EACH CAMERA:

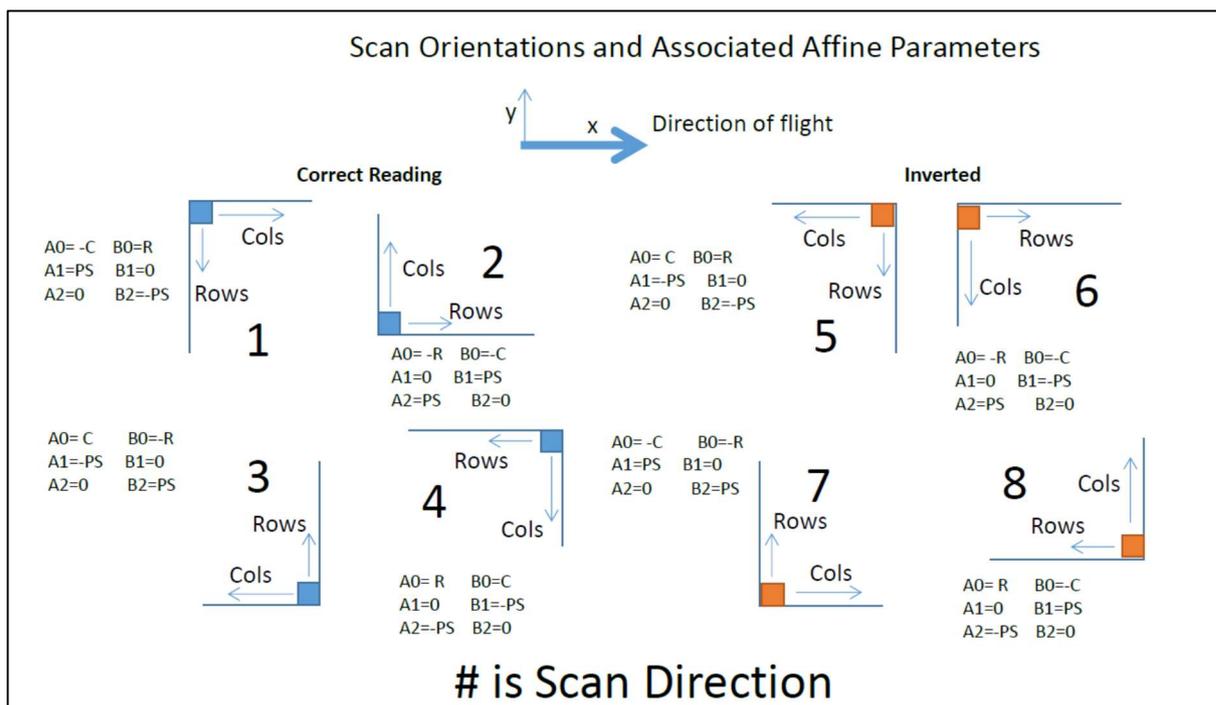
A spreadsheet depicting the **CameraID**, **Pixel size**, **Image Width**, **Image Height**, **Focal length**, **Principal Point X**, **Principal Point Y** and **Rotation** of each camera is needed. The **k1**, **k2** and **k3 Korady coefficients** of lens distortion should be included. Example of supplied data:

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CameraID	Pixel size (mm)	Image Width	Image Height	Focal length (mm)	PPX	PPY	k1	k2	k3	Rot
CAM1	0.0049	7360	4912	51.54351403	0.08489358	-0.241183814	2.23E-05	-6.71E-09	-5.56E-12	180
CAM2	0.0049	7360	4912	84.70646258	0.0616269	-0.003944971	-1.57E-05	1.67E-08	5.63E-12	180
CAM3	0.0049	7360	4912	84.9689621	0.05400666	-0.045506832	-1.82E-05	3.41E-08	-2.07E-11	180
CAM4	0.0049	7360	4912	84.72336683	0.20310636	-0.250972068	1.66E-05	2.33E-08	-4.45E-12	180
CAM5	0.0049	7360	4912	84.86475874	0.00023008	0.204910169	-1.53E-05	1.77E-08	4.92E-12	180

- 25.3.1** Pixel size is measured in microns (mm is acceptable, can be converted).
- 25.3.2** Image Width is in Pixels.
- 25.3.3** Image Height is in Pixels.
- 25.3.4** Focal Length is measured in microns (mm is acceptable, can be converted).
- 25.3.5** Principal Point X is measured in microns (mm is acceptable, can be converted).
- 25.3.6** Principal Point Y is measured in microns (mm is acceptable, can be converted).
- 25.3.7** Rotation is measured Degrees.

The Camera table has a few parameters that differ depending on the **Scan Orientation**. See Image below:



PS = Pixelsize/Scanresolution (microns)
 $C = (((cols/2)-0.5) * PS)$
 $R = (((rows/2)-0.5) * PS)$

Scan Orientation 1 is the preferred setup. The service provider needs to inform which orientation was used in the Camera setup.

25.4 EXTERIOR ORIENTATION OF EACH IMAGE:

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A spreadsheet depicting the **Name**, **PerspectiveX**, **PerspectiveY**, **PerspectiveZ**, **Omega**, **Phi** and **Kappa** of each image is needed. Example of supplied data.

004974_062317105304_CAM1	-12811.48128	-3181823.214	2315.268645	-0.243992	0.492596	-21.223083
004975_062317105307_CAM1	-12733.63407	-3181624.99	2316.928536	-0.266438	0.267185	-21.542076
004976_062317105311_CAM1	-12656.29299	-3181427.583	2323.522517	-0.435235	0.412447	-21.289951
004977_062317105315_CAM1	-12579.26383	-3181230.003	2325.033651	-0.369768	0.489013	-21.457224

25.4.1 Perspectives should be measured in metres (m).

25.4.2 Omega (Heading) should be measured in degrees.

25.4.3 Phi (Pitch) should be measured in degrees.

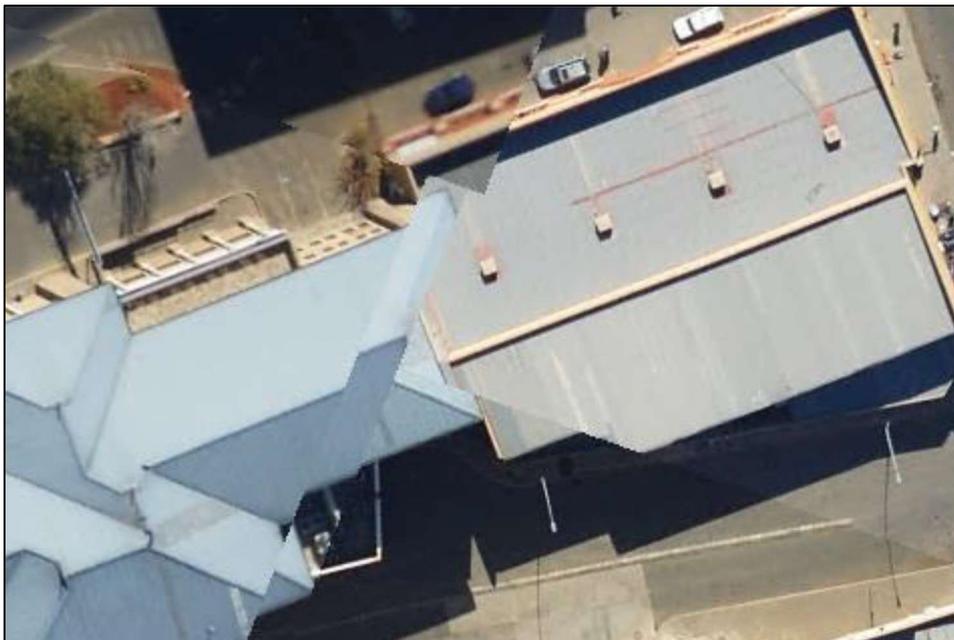
25.4.4 Kappa (Roll) should be measured in degrees.

25.5 DIGITAL TERRAIN MODEL (DTM):

A **Digital Terrain Model (DTM)** is a required data source from the service provider. This is used in the **Orthorectification** of the Imagery when building the **Mosaic Dataset**. The **DTM's** is also responsible for the measuring of heights on the Oblique Imagery once loaded into the Oblique Viewer.

25.6 SEAMLINES:

The **seamlines** serve no purpose for the viewing the Oblique Images. However, they are important for the viewing of the **Nadir** view (i.e. Top Camera). They are needed to correct the **edge matching** of the Nadir view in the Oblique Viewer. See image below.



It is important to note that if the service provider supplies **Orthophotos**, then accurate Nadir measurements can be conducted using them as a Layer in the Web application. However, you

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can't have two sets of Image layers in the Oblique Viewer Widget (i.e. Oblique Image Layer and Orthophoto Layer).
