

## REQUEST FOR INFORMATION

<b>RFI NUMBER:</b>	JW RFI 12/12/2025	<b>CLOSING DATE:</b>	22 DECEMBER 2025
<b>DESCRIPTION:</b>	ACQUISITION OF WATER DISTRIBUTION SYSTEM ANALYSIS AND DESIGN SOFTWARE; SEWER SYSTEM ANALYSIS AND DESIGN SOFTWARE; PIPE REPLACEMENT PRIORITISATION SOFTWARE AND WATER CONSUMPTION AND DEMAND ALLOCATION ANALYSIS SOFTWARE LICENSES		
<b>ISSUE DATE</b>			
<b>Submit via eTender portal:</b>	<a href="https://www.etenders.gov.za/Home/opportunities?id=1">https://www.etenders.gov.za/Home/opportunities?id=1</a>		

ENQUIRIES MAY BE DIRECTED TO:			
Bidding procedure enquiries <u>must</u> be sent to		Technical enquiries must be directed to	
<b>CONTACT PERSON</b>	Maria Chirindze	<b>CONTACT PERSON</b>	Moloko Ramalebana
<b>TELEPHONE NUMBER</b>	011 688 6610	<b>TELEPHONE NUMBER</b>	011 688 6544
<b>E-MAIL ADDRESS</b> (Submissions must be made to this address)	<a href="mailto:maria.chirindze@jwater.co.za">maria.chirindze@jwater.co.za</a>	<b>E-MAIL ADDRESS</b>	<a href="mailto:moloko.ramalebana@jwater.co.za">moloko.ramalebana@jwater.co.za</a>

SUPPLIER INFORMATION			
<b>NAME OF BIDDER</b>			
<b>STREET ADDRESS</b>			
<b>TELEPHONE NUMBER</b>	<b>CODE</b>		<b>NUMBER</b>
<b>CELLPHONE NUMBER</b>			
<b>E-MAIL ADDRESS</b>			
<b>VAT REGISTRATION NUMBER</b>			
<b>CENTRAL SUPPLIER DATABASE No:</b>	MAAA		
<b>MANUFACUTER OR THIRD PARTY (If Applicable)</b>			
<b>Submitted a brochure containing information about the Software. (YES/NO)</b>			

## 1. PURPOSE OF THE RFI

The contract intends to continue with the use of specialist Integrated Master Planning Software solutions for water and sanitation infrastructure through related software licenses (the right to use software, obtained through an initial once-off purchase followed by annual license fee payments; or software as-a-service leased on annual basis). It also needs to include related professional services of training and possible ad-hoc enhancement developments (through an hourly or event-based unit rate) as well as system support, system maintenance and the receipt of all vendor version upgrades (normally through software maintenance agreements or SMA's paid for annually).

Services include software maintenance via a Software Maintenance Agreement (SMA), purchase and/or rental of additional licenses, training and ad-hoc software support on an hourly rate or per event basis

## 2. BACKGROUND

The Infrastructure Planning Section of Johannesburg Water (JW) currently utilises GLS Software—comprising the Water Distribution System Analysis and Optimisation, Sewer System Analysis and Design, Water Consumption and Demand Allocation Analysis, and Pipe Replacement Prioritisation modules—to update and maintain JW's infrastructure datasets. These datasets enable strategic infrastructure planning, hydraulic modelling of water and sewer systems, water demand management, and the prioritisation of pipe replacement programmes. Collectively, these functions support the following organisational objectives:

- Compilation and prioritisation of JW's annual capital programme.
- Technical investigation and planning of the City's water and sewer networks to ensure operational effectiveness.
- Identification of new infrastructure requirements and assessment of the adequacy of existing infrastructure assets.

### 3.REQUIREMENTS

- Water Distribution System Analysis and Design Software service and maintenance agreement (SMA) update. Modules Analysis, Time Simulation and GIS: 50 000 pipes x 7 installations
- Sewer Distribution System Analysis and Design Software service and maintenance agreement (SMA) update. Modules Analysis, Planning and GIS: 50 000 pipes x7 installations.
- Water Consumption and Demand Allocation Analysis Software service and maintenance agreement (SMA) update. 1000 000 parcels.x5 installations.
- Water/ Sewer Pipe Replacement Prioritisation service and maintenance agreement (SMA) update.2 installation.

The Integrated Master Planning software needs to align with the data analysis process flow, with specialised modules dealing with each of the sequential analysis steps as well as different infrastructure categories.

The software needs to essentially be GIS-based or equivalent, have full intra-operability and operate on the same data structures and files as the existing solution.

They must share a common look-and-feel and similar process as far as possible with CAD/GIS, Water, Sewer and Pipe Replacement solutions, to ease in learning and use of complex processes.

The licences must be floating, meaning installable on more than one computer with the number of concurrent users limited as specified.

Below are the specification for supply of the software licenses and all related support, updates and Training

- Tenderers who qualify as Authorized Dealers/ Channel Partners can provide a letter from the Original Equipment Manufacturer (OEM) on their letter head confirming the Service Provider to be an authorized dealer/ channel partner.
- If Original Equipment Manufacturer (OEM), provide letter on your letter head indicating you are the OEM.

### Sewer Distribution System Analysis and Design Software

Items 1 below list the software specialised module required, with listing features:

ITEM NO	DESCRIPTION	LICENSE QUANTITY
1	<p><b>Sewer (Gravity network) Hydraulic modelling and conceptual planning module</b></p> <p>The software must be able to do the time-series flow analysis and planning design of at least 50,000 modelled gravity sewer pipes and rising mains.</p> <p>It should use the theory of contributor hydrographs for analysis and time-lag routing in order to determine the spare capacities in sewer systems, taking cognisance of the land use water demand vs sewage discharge relationship, infiltration and leakage. It uses either the Annual Average Daily Demand (AADD) or Unit hydrograph peak inflow method.</p> <p>Must be able to cater for the range of infrastructure features namely pumps, gravity pipes, siphons, valves, chambers, surcharge ponds, diversion structures or manholes.</p> <p>For Analysis and design modules it must utilise the <i>Contributor Hydrograph Theory</i> hydraulic network engine, making use of pipe invert levels where these are known or pipe slopes where they are not. Invert levels must not be required for all manholes. It must be possible for part of sewer system where invert levels are available, to be analysed <i>using a built-in EPASWMM analyses engine</i>. Must be able to directly read or easily convert (without loss of any data elements) the equivalent SEWSAN data files of specialist Software currently in use (.SLZ file format).</p> <p>Secondary model elements such as air valves, bulk meters, shutoff valves, meters, non-return valves or scour valves must be modelled as GIS points with relative position fixed on links.</p> <p>Must be able to directly read or easily convert (without loss of any data elements) the equivalent data files of specialist SEWSAN Software's currently in use in the department. This includes the .SLZ model data format.</p>	X 6

	<p>Elements of the model such as gravity pipes, rising mains, manholes, pumps, diversion structures, etc must be accessible in customisable spreadsheet type tables that synchronised with the GIS through clicking or selection operations. The number of records in the table is not limited. Queries, filterers and a built-in end-user programming language that operate on the table, must be embedded in the tables.</p> <p>The module must be directly integrated in its own CAD and GIS platform (no external platform) and able to handle more than 1 million records of GIS data fast and efficiently without noticeable delay on a modern Intel i7 or better processor. Must expose functions of the CAD &amp; GIS engine to the hydraulic module, such as Spatial Correlation or Export model to CAD or GIS. Must support automated topological error identification and correction (e.g. duplicate lines, misclosures, duplicate nodes, etc).</p> <p>GIS datasets in the GIS environment must be compatible with ESRI™ Shapefiles and ESRI™ Geodatabase file, as well as supporting the loading of detailed CAD background drawings compatible with the AutoCAD™ DWG and DXF 2018 or later format. Models, GIS and CAD should work with the various South African old and new survey coordinate projection systems such as Cape Lo29 and WGS29. Models, GIS and CAD background must support each having different projections.</p> <p>In terms of data processing, the transition from CAD to GIS to Model must be seamless and support the workflow of most engineering-related projects. Capturing of new pipes can be from CAD, GIS or directly into model</p> <p>In terms of data integration, this module must support the loading of large Digital Terrain Model (DTM) point files (100 million points and generate 20m contours on 32GB computer) for building a 3D mesh for rendering contours or interpolating elevations of model elements such as manhole levels. Support loading the Albion .ldmesh DTM file format is required.</p> <p>It must be able to accurately underlay geo-located aerial photography images in major industry-standard formats including JPG, TIFF, BMP.</p> <p>It must support the geo-referenced underlaying of Google Maps™ Street maps and satellite imagery, and Mapbox and ESRI tile services to trace against or inform vector layers above. It must be possible to open a Google Street View™ image at the current geo-coordinates.</p> <p>Even if the package uses its own proprietary files format, full compatibility must be guaranteed via import/export of abovementioned GIS, CAD or DTM file formats.</p>	
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	<p>Master planning functions must include the ability to generate a prioritised list of development items and project from the model with costs calculated using South African unit cost tables for construction and replacement of network infrastructure. GIS-based maps must be generated with the items and projects highlighted.</p> <p>The software must support modern languages for programmatic extension by the end-user, in particular the Python programming language.</p>	
<b>2</b>	<p><b>Architecture</b></p> <p><b>CAD/GIS functions</b></p> <p>Module above should run on the Windows™ 11 Professional or later, or Windows Server™ 2019 or later platform for standalone desktop environment or as server thick client accessible via Remote Desktop Protocol (RDP). The modules needs to be able to make use of the same AutoCAD™-compatible CAD files, ESRI™-compatible GIS files, and SQLite™ databases. PostgreSQL server database connectivity must also be supported.</p> <p>In addition, a user-friendly SQL query builder able to operate on multiple layers and databases, building relational database views, that allows the system user to perform any further queries on the data that may be required is required. Data integration with several SQL database format should be guaranteed. Must be able to export database files in the Shapefile and SQLite™ or SpatialLite™ format to a query tool for spatial rendering.</p>	<b>N/A</b>
<b>3</b>	<p><b>Functionality to Export to IMQS8 (Information Management Query Software)</b></p> <p>The IMQS Water Infrastructure Module is a web-based, viewing tool that is used for Planning and operations management of the CoJ's Hydraulic System. The module integrates with specialist hydraulic software packages and curates information to offer a geographically linked, infrastructure-lifecycle focused representation of a municipality's water/sewer reticulation network.</p> <p>The functionality within the module must allow to export data/information from the Sewer hydraulic modelling Software into IMQS8 via SQLite™ files.</p> <p>The information that is exported into IMQS8 from the Sewer Hydraulic modelling Software includes:</p> <ul style="list-style-type: none"> <li>a). Hydraulic Information i.e. pipe diameters, flow rates in pipes, velocities for rising mains, relative and absolute spare capacities, etc.</li> <li>b) Asset Information i.e. pipe diameters, material age, performance, replacement value etc.</li> </ul>	<b>X 1</b>

	c) Master planning information (future diameters, future velocities, etc.	
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## Water Distribution System Analysis and Design Software

Details of the software module listed below

ITEM NO	DESCRIPTION	LICENSE QUANTITY
1	<p><b>Water (Pressure network) Hydraulic modelling and conceptual planning module</b></p> <p>The software must be able to do the steady-state and extended period hydraulic pressured water pipe flow analysis of at least 50,000 modelled pipes, and the cost optimal design of water distribution or other pressure network systems, including optimisation of pipe sizes for planning. The extended period hydraulic pipe flow analysis must include water quality analysis and source tracing.</p> <p>Must support the EPANET™ version 2.2 or later hydraulic network model engine for the analyses of extended period time simulation including water quality analyses. Pressure-Driven Analysis must also be supported in addition to Demand Driven Analysis. Must be able to perform Optimisation analyses with an exhaustive enumeration algorithm that runs on top of EPANET. Model data must be exchangeable using the EPANET.INP file formats.</p> <p>Must be able to cater for the range of infrastructure features namely pipes, pumps, valves, demand nodes, junction nodes, reservoirs, tanks or dams.</p> <p>Secondary model elements such as shut-off valves, hydrants, air valves and scour valves must be modelled as GIS points with relative position fixed on links.</p> <p>Must be able to directly read or easily convert (without loss of any data elements) the equivalent data files of specialist WADISO Software's currently in use in the department. This includes the .WLZ model data format.</p> <p>Elements of the model such as pipes, valves, tanks, nodes, etc must be accessible in customisable spreadsheet type tables that synchronised with the GIS through clicking or selection operations. The number of records in the table is not limited. Queries, filters and a built-in end-user programming language that operate on the table, must be embedded in the tables.</p>	x 6

	<p>The module must be directly integrated in its own CAD and GIS platform (no external platform) and able to handle more than 1 million records of GIS data fast and efficiently without noticeable delay on a modern Intel i7 or better processor. Must expose functions of the CAD &amp; GIS engine to the hydraulic module, such as Spatial Correlation or Export model to CAD or GIS. Must support automated topological error identification and correction (e.g. duplicate lines, misclosures, duplicate nodes, etc).</p> <p>GIS datasets in the GIS environment must be compatible with ESRI™ Shapefiles and ESRI™ Geodatabase file, as well as supporting the loading of detailed CAD background drawings compatible with the AutoCAD™ DWG and DXF 2018 or later format. Models, GIS and CAD should work with the various South African old and new survey coordinate projection systems such as Cape Lo29 and WGS29. Models, GIS and CAD background must support each having different projections.</p> <p>In terms of data processing, the transition from CAD to GIS to Model must be seamless and support the workflow of most engineering-related projects. Capturing of new pipes can be from CAD, GIS or directly into model.</p> <p>In terms of data integration, this module must support the loading of large Digital Terrain Model (DTM) point files (100 million points and generate 20m contours on 32GB computer) for building a 3D mesh for rendering contours or interpolating elevations of model elements such as manhole levels. Support loading the Albion .ldmesh DTM file format is required.</p> <p>It must be able to accurately underlay geo-located aerial photography images in major industry-standard formats including JPG, TIFF, BMP.</p> <p>It must support the geo-referenced underlaying of Google Maps™ Street maps and satellite imagery, and Mapbox and ESRI tile services to trace against or inform vector layers above. It must be possible to open a Google Street View™ image at the current geo-coordinates.</p> <p>Even if the package uses its own proprietary files format, full compatibility must be guaranteed via import/export of abovementioned GIS, CAD or DTM file formats.</p> <p>Master planning functions must include the ability to generate a prioritised list of development items and project from the model with costs calculated using South African unit cost tables for construction and replacement of network infrastructure. GIS-based maps must be generated with the items and projects highlighted.</p> <p>The software must support modern languages for programmatic extension by the end-user, in particular the Python programming language.</p>	
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2	<p><b>Architecture requirements</b></p> <p>Module above should run on the Windows™ 11 Professional or later, or Windows Server™ 2019 or later platform for standalone desktop environment or as server thick client accessible via Remote Desktop Protocol (RDP). The modules needs to be able to make use of the same AutoCAD™-compatible CAD files, ESRI™-compatible GIS files, and SQLite™ databases. PostgreSQL server database connectivity must also be supported.</p> <p>In addition, a user-friendly SQL query builder able to operate on multiple layers and databases, building relational database views, that allows the system user to perform any further queries on the data that may be required is required. Data integration with several SQL database format should be guaranteed. Must be able to export database files in the Shapefile and SQLite™ or SpatialLite™ format to a query tool for spatial rendering.</p>	N/A
3	<p><b>Functionality to Export to IMQS8 (Information Management Query Software)</b></p> <p>The IMQS Water Infrastructure Module is a web-based, viewing tool that is used for Planning and operations management of the CoJ's Hydraulic System. The module integrates with specialist hydraulic software packages and curates information to offer a geographically linked, infrastructure-lifecycle focused representation of a municipality's water/sewer reticulation network.</p> <p>The functionality within the module must allow to export data/information from the Water hydraulic modelling Software into IMQS8 via SQLite™ files.</p> <p>The information that is exported into IMQS8 from the Water Hydraulic modelling Software includes:</p> <ul style="list-style-type: none"> <li>a). Hydraulic Information i.e. pipe diameters, velocities in pipes, flow rates in pipes, pressures at nodes, etc.</li> <li>b) Asset Information i.e. pipe diameters, material age, performance, replacement value etc.</li> <li>c) Master planning information (future diameters, future velocities, etc.)</li> </ul>	X 1

## Water Consumption and Demand Allocation Analysis Software

Items below list the software specialised modules required, with listing features:

Details of the software module listed below

ITEM NO	DESCRIPTION	LICENSE QUANTITY
1	<p><b>Water consumption analysis and demand allocation package</b></p> <p>To perform statistical analyses of very large SAP™ or other municipal billing databases (a minimum of 1,000,000 records must be supported) from the city base data and meter readings associated with properties of different land uses and customer accounts and convert it to location-specific/ suburb unit water demands per stand. To automatically assign demand to nodes on the water pressure network or proportionally to manholes in the sewer reticulation system, to enable subsequent hydraulic analysis and derivation of management information, as in:</p> <ul style="list-style-type: none"> <li>• Water Demand Management Initiatives.</li> <li>• Water Audits;</li> <li>• Water balance Calculations;</li> <li>• Calculation of Water Tariffs;</li> <li>• Water Consumptions Profiles for User Defined Categories (e.g. Land Use);</li> <li>• Population of water and sewer models' databases in order to design pressure- and gravity systems Master Plan items;</li> <li>• Identification of Faulty Meter Readings, reading history per meter.</li> </ul> <p>Must be able to undertake statistical analysis of water and electricity meter readings or prepaid purchases and data from utility billing systems, to populate infrastructure models (electricity, sanitation, water), perform water and energy balances, graphically show water consumption by individual properties (including properties with multiple meters) or spatial groupings of properties, and assist in identifying revenue enhancement opportunities.</p> <p>Must have been developed in order to import most Southern African rates and billing systems including SAP™ and be customisable to deal with new data structures to import files from these or other new systems. Water/Energy balances should also be produced for the total system and for each discrete area as may be required.</p>	X 2

	<p>Must be able to directly read or easily convert (without loss of any data elements) the equivalent SWIFT data files of GLS Software currently in use. This includes the .SWLZ and .SWFTLT model data formats.</p> <p>Elements of the model such as stands, meters, accounts, bulk meters, unit water demands, etc, must be accessible in customisable spreadsheet type tables that synchronised with the GIS through clicking or selection operations. The number of records in the table is not limited. Queries, filterers and a built-in end-user programming language that operate on the table, must be embedded in the tables.</p> <p>The module must be directly integrated in its own CAD and GIS platform (no external platform) and able to handle more than 1 million records of GIS data fast and efficiently without noticeable delay on a modern Intel i7 or better processor. Must expose functions of the CAD &amp; GIS engine to the hydraulic module, such as Spatial Correlation or Export model to CAD or GIS.</p> <p>GIS datasets in the GIS environment must be compatible with ESRI™ Shapefiles and ESRI™ Geodatabase file, as well as supporting the loading of detailed CAD background drawings compatible with the AutoCAD™ DWG and DXF 2018 or later format. Models, GIS and CAD should work with the various South African old and new survey coordinate projection systems such as Cape Lo29 and WGS29. Models, GIS and CAD background must support each having different projections.</p> <p>It must be able to accurately underlay geo-located aerial photography images in major industry-standard formats including JPG, TIFF, BMP.</p> <p>It must support the geo-referenced underlaying of Google Maps™ Street maps and satellite imagery, and Mapbox and ESRI tile services to trace against or inform vector layers above. It must be possible to open a Google Street View™ image at the current geo-coordinates.</p> <p>Even if the package uses its own proprietary files format, full compatibility must be guaranteed via import/export of abovementioned GIS, CAD or DTM file formats.</p> <p>The software must support modern languages for programmatic extension by the end-user, in particular the Python programming language.</p>	
<b>2</b>	<p><b>Architecture</b></p> <p>Module above should run on the Windows™ 11 Professional or later, or Windows Server™ 2019 or later platform for standalone desktop environment</p>	<b>N/A</b>

	<p>or as server thick client accessible via Remote Desktop Protocol (RDP). The modules needs to be able to make use of the same AutoCAD™-compatible CAD files, ESRI™-compatible GIS files, and SQLite™ databases. PostgreSQL server database connectivity must also be supported.</p> <p>In addition, a user-friendly SQL query builder able to operate on multiple layers and databases, building relational database views, that allows the system user to perform any further queries on the data that may be required is required. Data integration with several SQL database format should be guaranteed. Must be able to export database files in the Shapefile and SQLite™ or SpatialLite™ format to a query tool for spatial rendering</p>	
<b>3</b>	<p><b>Functionality to Export to IMQS8 (Information Management Query Software)</b></p> <p>The IMQS Water Infrastructure Module is a web-based, viewing tool that is used for Planning and operations management of the CoJ's Hydraulic System. The module integrates with specialist hydraulic software packages and curates information to offer a geographically linked, infrastructure-lifecycle focused representation of a municipality's water/sewer reticulation network.</p> <p>The functionality within the module must allow to export data/information from the Water Demand modelling Software into IMQS8 via SQLite™ files.</p> <p>The information that is exported into IMQS8 from the Water Demand modelling Software includes:</p> <p>a) Water demand management information (i.e. land use, zoning, AADD's, unit demands, etc)</p>	<b>X 2</b>

### Pipe Replace Prioritisation Software

Items below list the software specialised modules required, with listing features:

Details of the software module listed below

ITEM NO	DESCRIPTION	CURRENT QUANTITY	LICENSE
<b>1</b>	<p>Pipe Replacement Prioritisation (Water &amp; Sewer Pipes)</p> <p>Infrastructure refurbishment programs should be designed to be integrated with the dynamic master planning process. With extensive GIS-based information available and hydraulic pipe information as part of the dynamic master planning process, the Pipe Replacement Prioritization methodology is specifically suited for South African conditions taking cognisance of the</p>	<b>x 2</b>	

	<p>available information and reliability thereof. At least 50,000 modelled water or sewer pipes must be supported.</p> <p>The risk associated with replacing infrastructure can be quantified in monetary terms. Using fundamentally independent factors to assess the pipe replacement potential (PRP) for any one modelled pipe in the water distribution model by combining two critical factors, Likelihood of Failure (LF) &amp; Consequence of Failure (CF).</p> <p>The contributing variables are summated using different weights (<math>Q_i</math>) to give total LF and CF factors. The total Pipe Replacement Potential (PRP) is then calculated for each pipe as the product of these factors which is then ranked for all pipes in the model to give the PRP%.</p> <p>In addition, the actual replacement cost for every pipe is calculated. The pipes with high <i>PRP</i> or <i>PRP</i>% can then be visualized graphically. The pipes can be aggregated in various ways to provide the weighted average, maximum or minimum PRP for various collections, such as per suburb or reservoir zone.</p> <p>The software integrates data from the water demand, water and sewer hydraulic models.</p> <p>Must be able to directly read or easily convert (without loss of any data elements) the equivalent data files of specialist PRP Software currently in use in the department. This includes the PRP .INI files and .SQLite database files.</p> <p>Elements of the model such as pipes, unit costs, LF/CF Tables, etc must be accessible in customisable spreadsheet type tables that synchronised with the GIS through clicking or selection operations. The number of records in the table is not limited. Queries, filterers and a built-in end-user programming language that operate on the table, must be embedded in the tables.</p> <p>The module must be directly integrated in its own CAD and GIS platform (no external platform) and able to handle more than 1 million records of GIS data fast and efficiently without noticeable delay on a modern Intel i7 or better processor. Must expose functions of the CAD &amp; GIS engine to the hydraulic module, such as Spatial Correlation or Export model to CAD or GIS. Must support automated topological error identification and correction (e.g. duplicate lines, misclosures, duplicate nodes, etc).</p> <p>GIS datasets in the GIS environment must be compatible with ESRI™ Shapefiles and ESRI™ Geodatabase file, as well as supporting the loading of detailed CAD background drawings compatible with the AutoCAD™ DWG and DXF 2018 or</p>	
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	<p>later format. Models, GIS and CAD should work with the various South African old and new survey coordinate projection systems such as Cape Lo29 and WGS29. Models, GIS and CAD background must support each having different projections.</p> <p>It must be able to accurately underlay geo-located aerial photography images in major industry-standard formats including JPG, TIFF, BMP.</p> <p>It must support the geo-referenced underlaying of Google Maps™ Street maps and satellite imagery, and Mapbox and ESRI tile services to trace against or inform vector layers above. It must be possible to open a Google Street View™ image at the current geo-coordinates.</p> <p>Even if the package uses its own proprietary files format, full compatibility must be guaranteed via import/export of abovementioned GIS, CAD or DTM file formats.</p> <p>The software must support modern languages for programmatic extension by the end-user, in particular the Python programming language.</p>	
<b>2</b>	<p><b>Architecture common to all modules</b></p> <p>Module above should run on the Windows™ 11 Professional or later, or Windows Server™ 2019 or later platform for standalone desktop environment or as server thick client accessible via Remote Desktop Protocol (RDP). The modules needs to be able to make use of the same AutoCAD™-compatible CAD files, ESRI™-compatible GIS files, and SQLite™ databases. PostgreSQL server database connectivity must also be supported.</p> <p>In addition, a user-friendly SQL query builder able to operate on multiple layers and databases, building relational database views, that allows the system user to perform any further queries on the data that may be required is required. Data integration with several SQL database format should be guaranteed. Must be able to export database files in the Shapefile and SQLite™ or SpatialLite™ format to a query tool for spatial rendering.</p>	<b>N/A</b>

## SUPPORT SERVICES

For all 4 Software there is a requirement of support services the Definition of which is listed below:

ITEM NO	DESCRIPTION	RESPONSE: ABILITY TO PERFORM
1	<p><b>Training</b></p> <p>Ad-hoc classroom software training in each module to different levels of proficiency such as:</p> <ul style="list-style-type: none"> <li>(a) Basic/ Introductory/ Theory</li> <li>(b) Standard / Comprehensive</li> <li>(c) Advanced features</li> </ul> <p>Training will be called for as the need is identified by the client. Allow for 3 locations for training: at the supplier's local venue, at the client's venue or online.</p>	<p><b>Training:</b></p> <p>R/event/day (a) at supplier's local venue; (b) at client's venue</p> <p>R/person/day (a) at supplier's local venue; (b) at client's venue; (c) online</p>
2	<p><b>Software Maintenance agreement (SMA)</b></p> <p>Software maintenance and support is required during normal office hours. These services are covered in an annual licensing fee,</p> <ul style="list-style-type: none"> <li>(a) Telephonic software support</li> <li>(b) On-site (client site) resolution of software problems within office hours if needed</li> <li>(c) Online support</li> <li>(d) Access to all software version upgrades or updates at no charge.</li> </ul> <p><b>Submit a draft Software Maintenance Agreement covering the above.</b></p>	<p><b>SMA:</b></p> <p>R/user license/annum</p>
3	<p><b>Professional Services Charge-out rates</b></p> <p>The supplier must have access to professionals with the skills required for this software and its support, such as:</p> <ul style="list-style-type: none"> <li>(a) Master Planning/ Hydraulic Engineers and Technicians</li> <li>(b) Business Analysts and Software developers</li> <li>(c) GIS Analysts and Technicians</li> </ul> <p>CVs of typical candidates must be provided.</p>	<p><b>Resource charge-out rates:</b></p> <p>R/hour</p>

	<p>Available resources the supplier requires are being listed and are charged in hourly rate.</p> <p><b>The supplier's submission must be accompanied by a reference letter detailing experience of where the software has been supplied for a period of not less than 12 months in the last 5 years.</b></p> <p><b>The reference letter must contain contact details of the referees.</b></p>	
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### Price Schedule

#### SCHEDULE A1: PLANNING NETWORKS MODELLING SOFTWARE TWENTY-SIX (26) SINGLE-USER LICENCES RENEWALS

No	Item	Unit	Quantity Year 1	Rate Yearly License Renewal Year 1 (Rands)	Amount License Renewal Year 1 (Rands)	Total for 1 Year
1	Pipe Replacement Prioritisation Licence and SMA	No	2			
2	Sewer System Analysis and DesignSoftware Licences and SMA	No	6			
3	Water Demand Management Licences and SMA	No	2			
4	Water Distribution System Analysis and Optimisation Software	No	6			



## Schedule B: TRAINING

No	Item	Unit	Quantity Year 1	Rate Training Year 1 (Rands)	Amount Training Year 1 (Rands)
1	Pipe Replacement Prioritisation Training	No	6		
2	Sewer System Analysis and DesignSoftware	No	6		
3	Water Demand Management	No	6		
4	Sewer System Analysis and DesignSoftware	No	6		

**Prices Firm / Non-Firm?** \_\_\_\_\_

Suppliers to complete the below according to their company details.

INFORMATION FOR SPECIFIC GOALS ANALYSIS	
<b>BUSINESS OWNED BY 51% OR MORE -BLACK PEOPLE</b>	
1. Percentage (%) of Black Ownership)	
2. Is Black Ownership 51% or more? (Yes or No)	
<b>BUSINESS OWNED BY 51% OR MORE – BLACK YOUTH</b>	
1. Percentage (%) of Ownership by Black Youth	
2. Is the percentage of Black Youth Ownership 51 % or more? (Yes or No)	
<b>BUSINESS OWNED BY 51% OR MORE-WOMEN</b>	
1. Percentage (%) of Ownership by People who are Women	
2. Is the percentage of People who are Women 51 % or more? (Yes or No)	
<b>BUSINESSES LOCATED WITHIN THE BOUNDARIES OF A REGION IN COJ, COJ MUNICIPALITY OR IN GAUTENG PROVINCE</b>	
1. Is your business located in the Gauteng Province? (Yes or No)	
2. Is your business located in the COJ Municipality? (Yes or No)	
3. Is your business located within the region of the COJ? (Yes or No)	
<b>BUSINESS OWNED BY 51% OR MORE - BLACK PEOPLE WHO ARE MILITARY VETERANS</b>	
1. Percentage (%) of Ownership by Black People Who Are Military Veterans	
2. Is the percentage of Ownership by Black People Who Are Military Veterans 51% or more? (Yes or No)	
<b>BUSINESS OWNED BY 51% OR MORE-BLACK PEOPLE WITH DISABILITIES</b>	
1. Percentage (%) of Ownership by Black People With Disabilities	
2. Is the percentage of Ownership by Black People with Disabilities 51% or more? (Yes or No)	
<b>SMME (AN EME OR QSE) OWNED BY 51% OR MORE - BLACK PEOPLE</b>	
1. What is the Enterprise Type? EME – turnover is less than R10m QSE – Turnover between R10m and R50m Generic – Turnover is R50M of more	
<b>JOINT VENTURE (JV), CONSORTIUM OR EQUIVALENT</b>	
1. What is the percentage (%) of ownership for each party?	
<b>SUBCONTRACTING WITH COMPANIES AT LEAST 51% OWNED BY HISTORICALLY DISADVANTAGED INDIVIDUAL (HDI) GROUPS MENTIONED ABOVE</b>	

1. What is the percentage (%) that will be sub-contracted to companies that are at least 51% owned by Historically Disadvantaged Individual (HDI) groups mentioned above?	
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INFORMATION PRICE BREAKDOWN			
DESCRIPTION	BREAKDOWN IN PERCENTAGE	APPLICABLE INDEX	IMPACTED BY ROE (YES/NO)
Raw materials			
Direct Labour			
Direct Overheads			
Transport			
Indirect Labour			
Indirect Overheads			
Total	100%		

provide the following information (if Applicable)

TYPICAL PRICE ADJUSTMENT FORMULA INCLUDING INTERVALS

SUBMITTED DOCUMENTATION IN SUPPORT OF A REQUEST FOR A PRICE ADJUSTMENT

SOURCE OF RAW MATERIAL	
DESCRIPTION	COUNTRY OF ORIGIN
Raw materials	

ASSOCIATED RISKS	
RISK CATEGORY	RISK MITIGATION
<b>Economic:</b>	
Security of Supply	
Supply and Demand	
Rate of Exchange	
<b>Operational:</b>	
Capacity	
Logistics	