

A	B	C	D	E	F	G	H	I			
1	1	1	 <p>Johannesburg Water</p>	<p>PAGE NO.</p>	<p>CLOSING DATE AND TIME</p>	<p>23-Mar-26 16:00</p>	<p>Date of Issue</p>	<p>6-Mar-26</p>			
2	2	INITIATOR							QUOTATION DATE	VALIDITY	60 DAYS
3	3	INITIATING DEPARTMENT							COLLECTIVE NO.		
4	4	QUOTATION REFERENCE									
5	5	QUOTATION REQUESTED FROM									
6	6										
7	7										
8	8										
9	9										
10	10										
11	11	RFQJW6NS26-Supply and Install Unit 4 High Mast Lights Repairs									
12	12	RFQJW6NS26-Supply and Install Unit 4 High Mast Lights Repairs									
13	13	QUOTATION REQUESTED FROM									
14	14										
15	15										
16	16										
17	17										
18	18										
19	19										
20	20										
21	21	Unit 4 High Mast Lights Repairs									
22	22										
23	1	Supply and install 412W LED light fittings on 25m high mast lights Model BEKA Omnitab1E MD 412WATT C6356 SATG (6 x fittings per mast for 9 HM)	each	54							
24	2	Repair high mast lights DB supply and install components	sum	2							
25		65A 5KA 3P Main CB x1									
26		25A 5KA 1P E/L x1									
27		20A 5KA 1P SSO x1									
28		20A 5KA 1P lights x3									
29		16A Switched Socket Outlet x1									
30		16A 5 pin Industrial plug and socket x1									
31		din rail narrow skt									
32		earth bar x1									
33		neutral bar x1									
34		6mm screw terminal x 4									
35		4mm GP red, White, Blue, Black and green/yellow									
36	3	Supply and install 25A 5KA 2P E/L x1 CBI semite type mounted	each	7							
37	4	Supply and install 70mm x 1c Anti-theft cable	m	20							
38	5	Supply and install 70mm Females	each	9							
39	6	Supply and install 70mm lugs	each	9							
40	7	Supply and deliver 25A photocell	each	7							
41	8	110T mobile crane (including establishment, crew and de-establishment)	day	1							
42	9	Test and Commissioning including all documentation	sum	1							
43	10	Compliance with OHS requirements (safety fee)	sum	1							
44		NB: Evaluation criteria is attached, all required documents to be submitted with the RFQ response									
45		NB: Site briefing is compulsory at Northern Works on stated date and time									
46		NB: Valid registration as ODB grade 2 EP required									
47											
48		SPECIFIC GOALS									
49		Locality/businesses located in a region within the boundaries of the COU municipality or in the charging province.									
50		20									
51											
52											
53		CONTACT PERSON: Phakamane Dube @ 062 528 5085									
54		NB: All supplier responding to RFQs should use their own company letterhead not JMW RFQ									
55		QUOTATION REF AS ABOVE. RFQ JMW Unit 4 High Mast Lights Repairs									
56		NB: All suppliers should provide their company name and address on their quotation.									
57		NB: A copy of valid lease agreement or municipal account (not older than 3 months) should be submitted with a quote									
58		NB: MBD forms attached should be completed and submitted with the quote									
59		NB: All Quotes should be on PDF (MS WORD, MS EXCEL, PICTURES ARE NOT ALLOWED)									
60		NB: Copy of valid BRBEE CERTIFICATE or SWORN AFFIDAVIT to be submitted with the quote									
61		PLEASE NOTE THAT SUBMISSIONS MUST BE MADE ON THE E-TENDER PORTAL (https://www.etenders.gov.za).									
62		NO EMAIL SUBMISSIONS WILL BE ACCEPTED.									
63		SUPPLIER DETAILS									
64		OFFICIAL STAMP									
65		AUTHORISED BY:									
66		SIGNATURE:									
67		DATE:									
68											

QUOTATIONS WILL BE EVALUATED ON THE 80% POINT SCORING SYSTEM. 80 POINTS WILL BE ALLOCATED TO PRICE AND THE REMAINING 20 POINTS WILL BE ALLOCATED FOR SPECIFIC GOALS AS PER PFEPA 2022

ALL SUPPLIERS RESPONDING TO QUOTATIONS SHOULD BE REGISTERED ON CENTRAL SUPPLIER DATABASE (CSD)

JMW SCM Contact Person : Nompumezo Sobheka

Telephone Number : 011 688 1656

1. QUOTATIONS RECEIVED AFTER CLOSE OF BUSINESS ON THE CLOSING DATE WILL NOT BE ACCEPTED.
2. QUOTATIONS WITHOUT BRAND NAMES WHERE REQUIRED WILL NOT BE ACCEPTED
3. PRICES QUOTED MUST BE AS PER THE UNIT INDICATED AND BE EXCLUDED OF VAT
4. ACCEPTANCE OF A QUOTATION WILL BE SUBJECT TO JOHANNESBURG WATER'S SUPPLY CHAIN POLICY
5. TOTAL QUOTATION VALUE TO INCLUDE VAT WHERE APPLICABLE

RFQ Evaluation Criteria

NO.	MANDATORY CRITERIA	YES/NO
1.	Compulsory briefing session was attended	
2.	The contractor submitted proof of valid registration/letter certificate with minimum CIDB grading of 2 EP. The certificate/letter must be submitted together with the RFQ.	
3.	Contractor submitted proof of two completed project whereby the scope of work was installation or maintenance or repair of High Mast/Area Lighting (completion certificate or reference letter signed by the client: with working contact details of the client, email and telephone numbers)	



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1. SCOPE OF WORK

Unit 4 high mast lights repair

2. PURPOSE

The aim of the SHE specification is to ensure that any contractor which is appointed by Johannesburg Water to conduct any work complies with the SHE requirements of the SHE specification and any other legislative requirement applicable to the contract scope.

3. APPLICABILITY

This document is applicable to all contractors and suppliers conducting contractual activities for and on behalf of Johannesburg Water.

4. APPOINTMENTS

The contractor and its appointed sub-contractor must make the relevant legislative and non-statutory appointments, which must be maintained valid for the entire contract duration.

All appointees shall be suitably trained and found to be competent for the responsibilities there are assigned for.

Copies of all relevant appointments and the relevant competence certificates must be kept in the relevant SHE file.

5. INSURANCE

The contractor and all its appointed sub-contractor(s) shall be registered with an appropriate compensation commissioner and have a valid letter of good standing from commissioner. The contractor is responsible for ensuring the Letter of Good Standing is valid for the entire duration of the project/contract. A copy of the letter of Good Standing must be kept in the SHE file.

6. COSTING FOR SHE REQUIREMENTS

The contractor is responsible for ensuring that SHE costing is taken into consideration for the entire project/contract as this will ensure they comply with the SHE legislative requirements

7. INDUCTION

An initial induction shall be done with key personnel to familiarize them with the requirements on site and for compiling the SHE file.

Once labourers are appointed JW will conduct an induction on SHE requirements, and the contractor is also required to conduct their company specific induction



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8. SUBMISSION OF SAFETY FILE

- Once appointed the contractor can submit their safety file for approval.
- Approval will be granted when the critical items have been sufficiently addressed.

9. RISK ASSESSMENT

- Every Contractor who has been appointed contractually to conduct work for Johannesburg water shall do compile a baseline risk assessment prior to starting with work, subject to the approval of the Client.
- Thereafter the task based risk assessments will be done daily with every task being done.

10. SAFE WORKING PROCEDURES / METHOD STATEMENTS

The following statements / safe working procedures must be compiled:

- Incident investigation, emergency plan, waste management plan, PPE procedure, hand tool procedure, hazardous chemical substance procedure.

11. WORKING IN ELEVATED POSITIONS

- JW shall not require or permit any person to work in an elevated position, and no person shall work in an elevated position, unless such work is performed safely from a ladder or scaffolding, or from a position where such person has been made as safe as if he were working from scaffolding.

12. WORKING ON A CRANE

- The user/ JW contractor shall cause every chain or rope that forms part of the load path of a lifting machine or hand-powered lifting device to have the factor of safety prescribed by the standard to which that machine was manufactured: such prescribed factor of safety, chains, steel-wire ropes and fiber ropes shall have a factor of safety of at least four, five and 10, respectively, with regard to the safe working load of that machine.
- The user shall ensure that every power-driven lifting machine is fitted with a brake or other device capable of holding the safe working load should:
 - (a) the power supply or lifting effort fail;
 - (b) the load attachment point of the power-driven lifting machine reach its highest and lowest safe position;
 - (c) or the load condition be greater than the rated load condition of that machine.



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- The user shall cause every hook or any other load-attaching device that forms part of the load path of a lifting machine or hand-powered lifting device to be so designed or proportioned that accidental disconnection of the load under working conditions cannot take place.
- The user shall cause the entire installation and all working parts of every lifting machine or hand-powered lifting device, as well as ancillary lifting equipment used with the machine or device, excluding lifting tackle, to be subjected to a thorough examination and a performance test, as prescribed by the standard to which the lifting machine was manufactured, by a lifting machinery inspector of a lifting machinery entity, which shall determine the serviceability of the structures, ropes, machinery and safety devices before they are put into use and every time they are dismantled and re-erected, and thereafter at intervals not exceeding 12 months: provided that, in the absence of a manufacturing standard or a standard incorporated under section 44(1) of the Act, the whole installation of the lifting machine shall be tested with 110% of the safe working load applied over the complete lifting range of such machine

13. WELDING, FLAME, CUTTING, SOLDERING AND SIMILAR OPERATIONS

- JW shall not require or permit welding or flame cutting operations to be undertaken, unless the contractor operating the equipment has been fully instructed in the safe operation and use of such equipment and in the hazards which may arise from its use and effective protection is provided and used for the eyes and respiratory system and, where necessary, for the face, hands, feet, legs, body and clothing of persons performing such operations, as well as against heat, incandescent or flying particles or dangerous radiation;
- The Contractor must ensure that the workplace is effectively partitioned off where practicable and where not practicable all other persons exposed to the hazards are warned and provided with suitable protective equipment

14. ELECTRICAL CONTRACTOR & RESPONSIBILITIES

- No person may do electrical installation work as an electrical contractor unless that person has been registered as an electrical contractor in terms of the Regulation.
- The principal contractor who does electrical installation work as an electrical contractor shall register annually in the form of Annexure 3 with the chief inspector or a person appointed by the chief inspector. An application for registration shall be accompanied by a prescribed fee.
- An electrical contractor shall be responsible for the safety, safe use and maintenance of the electrical installation he or she uses or leases.



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15.CERTIFICATE OF COMPLIANCE

- A registered person may issue a certificate of compliance accompanied by the required test report only after having satisfied himself or herself by means of an inspection and test that a new electrical installation complies with the provisions of regulation 5(1) and was carried out under his or her general control; or an electrical installation which existed prior to the publication of the current edition of the health and safety standard incorporated into these Regulations in terms of regulation 5(1), complies with the general safety principles of such standard; or the existing part of the electrical installation complies with the general safety principles of such standard and is reasonably safe, and the extensions or alterations effected comply with the provisions of regulation 5(1) and were carried out under his or her general control.
- Any person who undertakes to do electrical installation work shall ensure that a valid certificate of compliance is issued for that work and no person may amend a certificate of compliance.

16. MEDICAL SCREENING REQUIREMENTS

- The contractor shall ensure that a medical surveillance programme is implemented for all employees.
- The medical examination shall be conducted in line with the employee job profile/job description.
- A valid medical fitness certificate must be submitted together with the SHE File for approval for all employees who will be doing work for Johannesburg Water.
- Any employee(s) who are declared conditionally fit must be provided with employment which does not aggravate their medical condition as to endanger themselves or other employees.
- The following tests shall be done:
 - Audiograms.
 - A cardio-respiratory examination
 - Lung function tests.
 - Eye/ sight tests.
 - A general physical examination.
 - A review of previous medical history.
 - Blood pressure tests
 - Glucose tests
 - Vaccinations (Hepatitis A & Typhoid)



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17. TOOLBOX TALKS

- The contractor shall ensure they conduct toolbox talks with their employees on a weekly basis and records of these must be kept in the SHE file.
- The objective of toolbox talks should be to communicate relevant site information to assist in improvement of occupational health and safety performance.
- Employees must acknowledge the receipt of toolbox talks and this record must also be kept in the SHE file.

18. PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Contractor must issue their employees SABS approved PPE. A copy of the PPE issue register signed by the employee issued with the PPE must be kept in the SHE file.
- Contractor supervisor are required to conduct continuous inspections of the PPE issued to their employees to ensure that they are still in good condition to be used by the employee or they still comply with manufacture requirements.
- The contractor is responsible for ensuring that employees are trained on the safe use of the PPE issued to them, how to maintain it and the limitations of the PPE.
- NO SHORTS OR DRESSES WILL BE ALLOWED ON SITE

19. WORKPLACE SIGNAGE

- Appropriate symbolic signage must be displayed where it is required by legislation.
- Appropriate warning, mandatory and information signs must be placed where required.
- All signs must comply to SANS/SABS requirements.
- Contractors shall use mandatory and prescribed symbolic safety signs at their lay down and site areas.

20. INCIDENT REPORTING AND INVESTIGATION

- All incidents shall be reported to the Client before the end of the shift or within 24hrs of occurrence.
- Section 24 incidents shall be reported to DOL using the prescribed format.
- The contractor shall develop an incident management procedure and communicate with all employees.



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21. NOTIFICATION OF CONSTRUCTION WORK

- The contractor shall notify the DOL in the prescribed format of the intended work prior to work.

22. COMPLIANCE MONITORING

- Weekly inspections and monthly audits will be conducted on site.

23. PROJECT COMPLETION

- Upon completion of the project the SHE file shall be returned to the Client for retention and close out.



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Project details

Project Scope : Unit 4 high mast lights repairs
Depot / Site / Department: Northernworks
Estimated duration: TBC

Documents required

Letter of Good Standing	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
SHE plan	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Risk Assessment	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Safe working Procedures	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Notification of Construction work	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Inspection registers	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>

Items required before starting

Medicals	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Vaccinations	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
PPE (boots, hard hats, overall)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Induction	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Approval from OHS	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>

APPOINTMENTS AND COMPETENCIES

<u>Construction Supervisor</u>						
Appointment	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
CV (and/ certificates)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<u>Safety Officer</u>						
Appointment	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
CV (and/ certificates)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>

NB* Other appointments will be based on the number of employees on site as required by law.



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RETURNABLE ANNEXURE A: ACKNOWLEDGEMENT OF SHE SPECIFICATION & ANNEXURES

CONTRACTOR:	
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I, the undersigned, hereby acknowledge that I have obtained copies of the following listed documentation and confirm that I fully understand the contents thereof and the consequences of non-compliance. The Contractor furthermore reiterates its commitment to compliance of the requirements contained within the following provided documentation:

- Johannesburg Water SOC Ltd, Safety, Health & Environmental (SHE) Specification, Annexure 1: Baseline risk assessment conducted for or on behalf of Johannesburg Water SOC Ltd;

Signed at on this Day of 20.....

CONTRACT MANAGER			
NAME	DESIGNATION	DATE	SIGNATURE
CONTRACT SUPERVISOR			
NAME	DESIGNATION	DATE	SIGNATURE
WITNESS (1)			
NAME	DESIGNATION	DATE	SIGNATURE
WITNESS (2)			
NAME	DESIGNATION	DATE	SIGNATURE



Johannesburg Water

HEALTH, SAFETY & ENVIRONMENTAL (SHE) SPECIFICATION: BASELINE RISK ASSESSMENT

PROJECT NUMBER:	RFQ
PROJECT LOCATION:	Northern works
PROJECT DESCR:	Unit 4 High Mast Lights Repairs

POSSIBLE RISKS FOR THIS PROJECT

Task	Hazard	Risk	Consequence	Rating	Controls
Compliance with applicable legislation for safety, health and environment	<ul style="list-style-type: none"> ✓ Contractor processes and/or procedures not developed according to legislation requirements. 	<ul style="list-style-type: none"> ✓ Not complying with applicable legislation and client SHE specifications. 	<ul style="list-style-type: none"> ✓ Litigation, multiple injuries and death. ✓ Work stoppages 	H	<ul style="list-style-type: none"> ✓ Planning, design and implementation to comply with legislative requirements, especially for Health, Safety and Environment together with Quality. ✓ Appointment of a qualified person to assist with the development of legislative guided processes and procedures.
Conducting SHE Induction training	<ul style="list-style-type: none"> ✓ Employees, contractors, suppliers, and visitors not aware of applicable legislation for the project and policies. 	<ul style="list-style-type: none"> ✓ Non-compliance to legislation. 	<ul style="list-style-type: none"> ✓ Work stoppages ✓ Multiple injuries 	M	<ul style="list-style-type: none"> ✓ Every new employee or visitor must be inducted before entering company premises or starting work. ✓ All employees absent from work or on leave for a period of 14days must be inducted. ✓ Inducted visitors must at all times be accompanied when walking around company premises.
Arranging Medical surveillance or examination	<ul style="list-style-type: none"> ✓ Employees not medically fit for work appointed for. 	<ul style="list-style-type: none"> ✓ Non-compliance to statutory requirements. ✓ Exposure to unidentified 	<ul style="list-style-type: none"> ✓ Work stoppages. 	L	<ul style="list-style-type: none"> ✓ Medical examination or assessments must be conducted prior to start of work and annually by an

	<ul style="list-style-type: none"> ✓ No proof of medical fitness certificate. ✓ Employees not Vaccinated 	contagious diseases carriers.	<ul style="list-style-type: none"> ✓ Incidents resulting to injuries 		<p>Occupational Medical Practitioner.</p> <ul style="list-style-type: none"> ✓ Every person must be declared medically fit for the type of work they performing and copies of employees' medical certificates to be kept on site. ✓ Employees must be vaccinated prior to work on site
Gate access to site premises - by people	<ul style="list-style-type: none"> ✓ Walking on the vehicle's driveways ✓ Lack of observation ✓ Intoxicated pedestrian employee or visitor entering security gate ✓ Employees, visitors or contractors entering with firearm ✓ Unauthorized entry 	<ul style="list-style-type: none"> ✓ Personal injuries due to vehicles driving over people. ✓ Personal fight due to arrogant intoxicated people. ✓ Theft due to unauthorized entry. 	<ul style="list-style-type: none"> ✓ Personal fight due to arrogant intoxicated people. ✓ Work stoppages resulting in delay to production ✓ Theft due to unauthorized entry. 	L	<ul style="list-style-type: none"> ✓ Only Authorised entry on JW premises ✓ Zero alcohol tolerance ✓ All Employees, contractors, suppliers and visitors to walk only on designated walkways in and around site/client premises.
Obtain necessary JW documentation and JW approvals	<ul style="list-style-type: none"> ✓ Working without authorization from JW 	<ul style="list-style-type: none"> ✓ JW removing Contractor from site 	<ul style="list-style-type: none"> Delay in production 	L	<ul style="list-style-type: none"> ✓ No work is allowed to start without the necessary documentation and approvals in place. ✓ Occupational notices must be available on site kept on site in the Health and Safety File

<p>Working on site</p>	<ul style="list-style-type: none"> ✓ Working during peak hours 	<ul style="list-style-type: none"> ✓ Employees and vehicles moving around the vicinity 	<ul style="list-style-type: none"> ✓ Serious injuries ✓ Vehicle damages 	<p>M</p>	<ul style="list-style-type: none"> ✓ Access to the work area must be restricted/monitored ✓ Designated pedestrian routes must put in place to restrict unauthorized access ✓ Work must be planned for quieter times of the day when reduced/restricted pedestrian access is required to the area ✓ Safe working area must be cordoned off around the area and signage must be used as appropriate ✓ High visibility clothing worn by Site Supervisor if working on traffic route.
<p>Transportation of material</p>	<ul style="list-style-type: none"> ✓ Unsafe road conditions ✓ Un-road worthy vehicles ✓ Equipment and material not safely secured ✓ Incompetent drivers ✓ Driving under the influence of alcohol ✓ Inclement weather ✓ Speeding 	<ul style="list-style-type: none"> ✓ Over-turning vehicles ✓ Vehicle collisions 	<ul style="list-style-type: none"> ✓ Injuries ✓ Property damages ✓ Third party liability 	<p>M</p>	<ul style="list-style-type: none"> ✓ Adherence to the speed limit ✓ Only competent/authorized drivers should operate the vehicle. ✓ Inspection of vehicles ✓ Equipment and material to be properly secured ✓ Alcohol testing to be done ✓ The road to be paved to prevent accidents ✓ Traffic control to be implemented to avoid collisions

Offloading of Material	<ul style="list-style-type: none"> ✓ Slippery road ✓ Faulty lifting machinery & equipment ✓ Suspended load ✓ Poor housekeeping 	<ul style="list-style-type: none"> ✓ Malfunctioning ✓ Objects falling on employees ✓ Obstructed walkways by materials 	<ul style="list-style-type: none"> ✓ Injuries 	<ul style="list-style-type: none"> ✓ Inspect lifting equipment prior to use. ✓ Ensure the safe working load prior to use ✓ Train the employees in manual lifting ✓ Ensure proper housekeeping ✓ The correct PPE must be worn ✓ Designate the stacking areas and put signs ✓ Stacking and storage inspector must be appointed and in charge
Electrical Installations	<ul style="list-style-type: none"> ✓ Electricity ✓ Incompetent personnel ✓ Wrong tools ✓ Damaged cables 	<ul style="list-style-type: none"> ✓ Contact with live electricity ✓ Incompetent person connecting electricity ✓ Electric shocks 	<ul style="list-style-type: none"> ✓ Electrocuted on ✓ Serious injuries 	<ul style="list-style-type: none"> ✓ Follow lock out procedure ✓ Ensure that equipment are earthed to an approved earthing point ✓ Ensure a zero potential test is performed for electricity is isolated ✓ Inspect all tools ✓ Use correct tools for the job
Entry and exit	<ul style="list-style-type: none"> ✓ No access control 	<ul style="list-style-type: none"> ✓ Unauthorized entry into the construction site 	<ul style="list-style-type: none"> ✓ Injuries ✓ Theft of tools and material 	<ul style="list-style-type: none"> ✓ Appoint a full time, registered security guard on site
Stacking and Storage	<ul style="list-style-type: none"> ✓ Unsafe stacks of materials or pallets 	<ul style="list-style-type: none"> ✓ Falling of pallets and material on employees 	<ul style="list-style-type: none"> ✓ Injuries ✓ Property damage 	<ul style="list-style-type: none"> ✓ Supervision of all stacking of materials on site ✓ Materials of same base and heights stacked together ✓ Barricade the stacking area

						<ul style="list-style-type: none"> ✓ Unsafe stacks to be removed immediately ✓ Never stack materials during knocking off time or late at night ✓ Use task specific PPE
Working in confined spaces	<ul style="list-style-type: none"> ✓ Confined space 	<ul style="list-style-type: none"> ✓ No procedure ✓ Inappropriate entry and exit 	<ul style="list-style-type: none"> ✓ Fatality ✓ Serious injuries 	E		<ul style="list-style-type: none"> ✓ Develop a confined space entry procedure including rescue. ✓ Ensure that there is a suitable entry and exit point ✓ Provide employees with safety harnesses
Working at Heights	<ul style="list-style-type: none"> ✓ Heights ✓ Unfit employees ✓ Using hand tools ✓ Unsecured tools and equipment 	<ul style="list-style-type: none"> ✓ Falls ✓ Unfit for the job ✓ Damaged hand tools ✓ Falling onto Employees 	<ul style="list-style-type: none"> ✓ Injuries 	M		<ul style="list-style-type: none"> ✓ Employees to use proper PPE including safety harnesses when working at heights. ✓ Inspect all tools prior to use. ✓ Provide training for using safety harnesses correctly. ✓ Employees working at heights must be certified fit to work. ✓ Hand tools must be attached to lanyards when working at heights. ✓ Use tool bags
Installation of equipment	<ul style="list-style-type: none"> ✓ Manual handling 	<ul style="list-style-type: none"> ✓ Poor ergonomics ✓ Hands stuck between equipment 	<ul style="list-style-type: none"> ✓ Back sprains ✓ Pinch point injuries 	L		<ul style="list-style-type: none"> ✓ Two employees to carry heavy equipment ✓ Use the correct lifting techniques ✓ Train employees on the correct lifting techniques ✓ Use hand gloves
	<ul style="list-style-type: none"> ✓ Use of hand tools 	<ul style="list-style-type: none"> ✓ Usage of the wrong tool for the task 	<ul style="list-style-type: none"> ✓ Injuries to person ✓ Cuts 	L		<ul style="list-style-type: none"> ✓ Damaged tools ✓ All tools are visually inspected before use.

		<ul style="list-style-type: none"> ✓ Using damaged tools ✓ Lack of skill 	<ul style="list-style-type: none"> ✓ Loss of services ✓ Damage to property 		<ul style="list-style-type: none"> ✓ Specific equipment/tools are only used by competent users
Cutting and Drilling	<ul style="list-style-type: none"> ✓ Drilling ✓ Drill pit ✓ Drill sharp metal fibres ✓ High Noise Levels ✓ Cutting Grinder/Disc 	<ul style="list-style-type: none"> ✓ Vibration ✓ Cutting edges ✓ Eye penetration ✓ Finger cuts ✓ Expose to high noise level area ✓ Uncontrolled Disc ✓ Electrical equipment failure ✓ Sharp window edges 	<ul style="list-style-type: none"> ✓ Damaged hearing ✓ Carpal tunnel syndrome ✓ Cuts/ injuries ✓ Eye irritation / Blindness ✓ Minor cuts resulting into injury ✓ Injuries to persons operating ✓ Eye injuries 	M	<ul style="list-style-type: none"> ✓ Use hearing protection when exposed to excessive noise levels (greater than 85 dB over an 8-hour work period) ✓ Assess noise level with sound level meter if possibility exists that level may exceed 85Db ✓ Rotate drilling tasks to minimize worker exposure to equipment vibration ✓ Use right size of a drill to drill different layers of the ground ✓ Assess manual guide carefully to ensure correct usage of portable electrical devices.
Cabling	<ul style="list-style-type: none"> ✓ Live Electric Cable 	<ul style="list-style-type: none"> ✓ Electric Shock 	<ul style="list-style-type: none"> ✓ Serious Injuries 	H	<ul style="list-style-type: none"> ✓ Ensure that electricity supply is switched off during installation ✓ Implement lockout procedures
	<ul style="list-style-type: none"> ✓ Inadequate wiring ✓ Cutting 	<ul style="list-style-type: none"> ✓ Electric fault ✓ Fire ✓ Eye penetration 	<ul style="list-style-type: none"> ✓ Serious Injuries ✓ Eye injuries/blindness 	M	<ul style="list-style-type: none"> ✓ Only competent persons to do the electrical work ✓ Safety goggles shall be worn by employees when cutting steel
	<ul style="list-style-type: none"> ✓ Unit activation ✓ Live Yard 	<ul style="list-style-type: none"> ✓ Struck by equipment ✓ Electrocutation ✓ Injury ✓ Working 	<ul style="list-style-type: none"> ✓ Injuries ✓ Injury or death 	M	<ul style="list-style-type: none"> ✓ Lock out/ Tag out
				E	<ul style="list-style-type: none"> ✓ Obtain a permit ✓ Follow cardinal rules ✓ Strict supervision

		<ul style="list-style-type: none"> ✓ unauthorized Mis-communication between employees 		<ul style="list-style-type: none"> ✓ Fire extinguisher must always be on site ✓ Obtain a permit and follow all procedures listed ✓ Strict supervision ✓ Competent technician operation ✓ Issue test certificate for every testing and inspection done 	
	<ul style="list-style-type: none"> ✓ Electrical connection ✓ Extension cords 	<ul style="list-style-type: none"> ✓ Explosion ✓ Faulty cord failure 	<ul style="list-style-type: none"> ✓ Injuries / damage to employees and equipment ✓ fire 	<ul style="list-style-type: none"> ✓ Emergency stop button must always be serviceable ✓ Fire extinguishers must always be kept on site 	L
	<ul style="list-style-type: none"> ✓ Electrical equipment ✓ Portable electrical appliances 	<ul style="list-style-type: none"> ✓ Use of faulty electrical equipment; ✓ Faulty equipment could also start a fire 	<ul style="list-style-type: none"> ✓ All workers could suffer potentially fatal shocks or burns. ✓ Electric shock/ burns injuries 	<ul style="list-style-type: none"> ✓ All tools to be checked and tagged before bringing onto site; ✓ Portable electrical appliances examined and where necessary, tested by a competent person within the recommended time limit; ✓ Defective appliances and leads are removed from use and kept secured until they can be repaired or removed from the site; ✓ Electric tools and installations to be in good condition; ✓ Inspect electric tools before use; ✓ Do not use electric tools in wet /damp conditions; 	H

			<ul style="list-style-type: none"> ✓ Testing ✓ Inspection 	<ul style="list-style-type: none"> ✓ Electrocution ✓ Injury /Damage to equipment ✓ Chocking ✓ Electrocution Injury ✓ Working unauthorized ✓ Miss-communication between employees 	<ul style="list-style-type: none"> ✓ Fatalities ✓ Property damages 			<ul style="list-style-type: none"> ✓ Use personal protective equipment such as insulated gloves.
Commission & Testing						E		<ul style="list-style-type: none"> ✓ Authorized person with C.O.C must do all the installation ✓ Emergency stop button must always be serviceable ✓ Ensure communication between employees ✓ Technical Skills ✓ Fire extinguisher must always be on site ✓ Implement lockout procedure ✓ Strict supervision ✓ Competent technician operation ✓ Issue test certificate for every testing and inspection done
Electricity			<ul style="list-style-type: none"> ✓ Voltage 	<ul style="list-style-type: none"> ✓ Contact with live electricity 	<ul style="list-style-type: none"> ✓ Electrocuti on 			<ul style="list-style-type: none"> ✓ Ensure that power is switched off when servicing the generator ✓ The frame of the generator and any external conducting parts should have proper grounding / earthing wiring. ✓ Do not touch with wet hands
			<ul style="list-style-type: none"> ✓ Poor lighting 	<ul style="list-style-type: none"> ✓ Trip and Falls 	<ul style="list-style-type: none"> ✓ Injuries 	M		<ul style="list-style-type: none"> ✓ Ensure that there is sufficient lighting where work is conducted
			<ul style="list-style-type: none"> ✓ Noise 	<ul style="list-style-type: none"> ✓ Exposure to excessive noise 	<ul style="list-style-type: none"> ✓ Noise induced hearing loss 	M		<ul style="list-style-type: none"> ✓ Provide employees with hearing protection

	<ul style="list-style-type: none"> ✓ Revolving machinery / conveyer belt 	<ul style="list-style-type: none"> ✓ Hands getting caught in revolving machinery 	<ul style="list-style-type: none"> ✓ Serious Injuries 	H	<ul style="list-style-type: none"> ✓ Ensure that guards are in place
	<ul style="list-style-type: none"> ✓ Sludge 	<ul style="list-style-type: none"> ✓ Contact with sludge 	<ul style="list-style-type: none"> ✓ Communicable diseases 	M	<ul style="list-style-type: none"> ✓ Ensure that all employees are vaccinated. ✓ Provide employees with proper PPE ✓ Train employees in personal hygiene
Mechanical Works Lifting practices	<ul style="list-style-type: none"> ✓ Crane Operation 	<ul style="list-style-type: none"> ✓ No SWL displayed ✓ Incompetent operator ✓ Employees standing around ✓ Unfavorable weather conditions 	<ul style="list-style-type: none"> ✓ Serious injuries ✓ Property damages 	M	<ul style="list-style-type: none"> ✓ Load testing of lifting equipment ✓ Inspection of lifting tackle and equipment prior to use ✓ Display SWL ✓ Only competent people to operate the lifting equipment ✓ Access control to the lifting area ✓ Do not use during unfavorable weather conditions
Using the Scaffolding	<ul style="list-style-type: none"> ✓ Manual handling 	<ul style="list-style-type: none"> ✓ Lifting of heavy Objects 	<ul style="list-style-type: none"> ✓ Back pains 	M	<ul style="list-style-type: none"> ✓ Follow proper lifting techniques
Personal Protective Clothing – Operation specific.	<ul style="list-style-type: none"> ✓ Operational noise. ✓ Handling or touching hot material. ✓ Sharp edges from steel. ✓ Falling objects. ✓ Slippery surfaces. ✓ Loose clothing. 	<ul style="list-style-type: none"> ✓ Noise induced hearing loss. ✓ Burns on hands. ✓ Cuts and bruises. ✓ Lacerations. ✓ Foot injuries. 	<ul style="list-style-type: none"> ✓ Injuries ✓ Property damages 	H	<ul style="list-style-type: none"> ✓ Ear plugs or Earmuffs. ✓ Leather gloves. ✓ Safety shoes. ✓ Overall. ✓ Safety spectacles

<p>Erection and dismantling the scaffolding</p>	<ul style="list-style-type: none"> ✓ Untrained persons may cause injury to him and others. ✓ Property damage may occur. ✓ Off balance load. ✓ Incorrect load lift sequence. ✓ Load may fall, roll or swing. ✓ Sharp edges. ✓ Poor communication and loss of concentration. 	<ul style="list-style-type: none"> ✓ Cuts and bruises. ✓ Injury to person. ✓ Property damage or damage to transport vehicle. ✓ Fatality. 	<p>Injuries</p>	<p>E</p>	<ul style="list-style-type: none"> ✓ Only licensed and trained persons to erect and dismantle the scaffolding ✓ Do work in a safe and effective manner. ✓ Concentrate on job at hand. ✓ Ensure personnel in a safe position. ✓ Daily checks – completion of checklists.
	<ul style="list-style-type: none"> ✓ Untightening the bolts with the spanner 	<ul style="list-style-type: none"> ✓ Cutting ✓ Hand injuries 	<ul style="list-style-type: none"> ✓ Hand injuries/strain/sprain back muscles 	<p>M</p>	<ul style="list-style-type: none"> ✓ Hand tools to be inspected before use
	<ul style="list-style-type: none"> ✓ Lifting activities (chain blocks/slings) 	<ul style="list-style-type: none"> ✓ Fingers pinched and old slings 	<ul style="list-style-type: none"> ✓ Fatality ✓ Loss time injuries ✓ Property damages 	<p>E</p>	<ul style="list-style-type: none"> ✓ Overhead to be used or forklift to be used to lift heavy objects
	<ul style="list-style-type: none"> ✓ Manual lifting of objects/materials 	<ul style="list-style-type: none"> ✓ Back pain ✓ Muscles strains 	<ul style="list-style-type: none"> ✓ Pains ✓ Muscular disorder ✓ Back ache 	<p>M</p>	<ul style="list-style-type: none"> ✓ Proper lifting tool to be inspected before use ✓ Employees must be trained on the lifting of objects/material ✓ only competent personnel to erect and dismantle the scaffolding
	<ul style="list-style-type: none"> ✓ erection and dismantling of scaffolding 	<ul style="list-style-type: none"> ✓ crashing of the scaffolding 	<ul style="list-style-type: none"> ✓ injuries ✓ property damage ✓ fatality 	<p>E</p>	

					<ul style="list-style-type: none"> ✓ "SAFE TO USE" tag must be in place at all the time ✓ Supervision must be in place at all time 	
	<ul style="list-style-type: none"> ✓ Manual handling 	<ul style="list-style-type: none"> ✓ Lifting of heavy Objects 	<ul style="list-style-type: none"> ✓ Back pains 	M	<ul style="list-style-type: none"> ✓ Follow proper lifting techniques 	
Weather conditions	<ul style="list-style-type: none"> ✓ Weather conditions; high winds, heavy rain, hot weather etc 	<ul style="list-style-type: none"> ✓ Eye strains 	<ul style="list-style-type: none"> ✓ Fall injuries, sun burn, heat exhaustion 	M	<ul style="list-style-type: none"> ✓ Employees assesses the weather conditions before undertaking external work and does not undertake the task if conditions unsuitable ✓ Employees wears clothing appropriate to the weather conditions ✓ Employees wears clothing to cover skin and wears sunscreen in hot sunshine ✓ Employees keeps well hydrated and takes regular breaks in hot weather. 	
Height	<ul style="list-style-type: none"> ✓ Working at height 	<ul style="list-style-type: none"> ✓ Falling of objects, debris 	<ul style="list-style-type: none"> ✓ Fracture ✓ Fatality ✓ Head injuries/concussion 	E	<ul style="list-style-type: none"> ✓ pre job brief must be conducted before the commencement of the work ✓ full time supervision on site ✓ hardhat must be provided ✓ safety arrest must be provided to the employees ✓ A safe working area is cordoned off around the work at height 	

					<ul style="list-style-type: none"> ✓ equipment and signage is used as appropriate ✓ A belt holster or belt hooks are used for carrying tools up/down ladder ✓ Any person footing the ladder is advised to wear head protection. ✓ Employees are advised to bag any debris into small quantities and lower it slowly to the ground.
Cutting using the Grinder	✓ Grinder	✓ Untrained staff	✓ Injuries ✓ Property damage	H	<ul style="list-style-type: none"> ✓ Only the right competent personnel to operate the grinder.
	✓ Use of Electricity	✓ Improper maintenance	✓ Shock/ Burns	M	<ul style="list-style-type: none"> ✓ Always switch off electricity before working
	✓ Use of faulty electric cables	✓ Fire ignition	✓ Burns/ damages	M	<ul style="list-style-type: none"> ✓ Visual inspection of cable before use
	✓ Electrical safety	<ul style="list-style-type: none"> ✓ Electrical shock or burns ✓ Damaged portable electrical appliances, cables, plugs 	<ul style="list-style-type: none"> ✓ Injuries ✓ Properties damage 	M	<ul style="list-style-type: none"> ✓ All portable electrical equipment should be tested for electrical safety at correct interval ✓ Electrical cables and plugs should be regularly visually inspected by the user for damage
	✓ Cutting and welding of the Steels	✓ Burns	✓ injuries	M	<ul style="list-style-type: none"> ✓ Care with torch and PPE ✓ All the steel cut must be placed in a barricaded space
	✓ Incompetent employees	✓ Wrong connections	✓ Burning of equipment	L	<ul style="list-style-type: none"> ✓ Use only competent employees

Drill	<ul style="list-style-type: none"> ✓ Incompetent personnel 	<ul style="list-style-type: none"> ✓ Incorrect operation 	<ul style="list-style-type: none"> ✓ Injuries ✓ Property damages 	M	<ul style="list-style-type: none"> ✓ 	<ul style="list-style-type: none"> Temperature must always be kept within a comfortable range.
Ladder	<ul style="list-style-type: none"> ✓ Working environment ✓ Use of Ladder 	<ul style="list-style-type: none"> ✓ May feel too hot/cold 	<ul style="list-style-type: none"> ✓ Fatigue ✓ Discomfort 	M	<ul style="list-style-type: none"> ✓ 	<ul style="list-style-type: none"> Temperature must always be kept within a comfortable range.
Climbing down on ladder or structure	<ul style="list-style-type: none"> ✓ Working at heights 	<ul style="list-style-type: none"> ✓ Fall from ladder 	<ul style="list-style-type: none"> ✓ Injuries 	M	<ul style="list-style-type: none"> ✓ 	<ul style="list-style-type: none"> SOP when using ladder must always be adhered to
	<ul style="list-style-type: none"> ✓ Working at heights 	<ul style="list-style-type: none"> ✓ Falling onto / Falling objects ✓ Mechanical failure of step ladder bolts ✓ Loosing footing and falling to ground ✓ Smooth angle iron surfaces that can be slippery 	<ul style="list-style-type: none"> ✓ Employees falling from heights which may result in fatality ✓ Personal injuries from elevated equipment 	M	<ul style="list-style-type: none"> ✓ ✓ 	<ul style="list-style-type: none"> Admin: provide training for personnel working at heights Developing a safe working procedures and inspections should be conducted on regular basis
	<ul style="list-style-type: none"> ✓ Dust 	<ul style="list-style-type: none"> ✓ Inhaling of dust 	<ul style="list-style-type: none"> ✓ Ill health 	L	<ul style="list-style-type: none"> ✓ 	<ul style="list-style-type: none"> Dust mask must always be used
	<ul style="list-style-type: none"> ✓ Incompetent employees 	<ul style="list-style-type: none"> ✓ Wrong connections 	<ul style="list-style-type: none"> ✓ Damages 	M	<ul style="list-style-type: none"> ✓ 	<ul style="list-style-type: none"> Always use competent personnel
	<ul style="list-style-type: none"> ✓ Poor house keeping 	<ul style="list-style-type: none"> ✓ Slip/ Trip/ Fall 	<ul style="list-style-type: none"> ✓ Injuries 	L	<ul style="list-style-type: none"> ✓ 	<ul style="list-style-type: none"> Good housekeeping must always be maintained
	<ul style="list-style-type: none"> ✓ Existing services 	<ul style="list-style-type: none"> ✓ Damage to existing services 	<ul style="list-style-type: none"> ✓ Damage 	L	<ul style="list-style-type: none"> ✓ 	<ul style="list-style-type: none"> Always check existing services before
Compactor	<ul style="list-style-type: none"> ✓ The use of compactor to compact the ground 	<ul style="list-style-type: none"> ✓ Incompetent personnel ✓ Incorrect way of operating the machine 	<ul style="list-style-type: none"> ✓ Injuries ✓ Property damages 	M	<ul style="list-style-type: none"> ✓ ✓ 	<ul style="list-style-type: none"> Employees must be trained to operate the compactor Supervision must be in place at all times
Grinder	<ul style="list-style-type: none"> ✓ The use of Grinder 	<ul style="list-style-type: none"> ✓ Suspended loads ✓ Open flames 	<ul style="list-style-type: none"> ✓ Injuries 	H	<ul style="list-style-type: none"> ✓ 	<ul style="list-style-type: none"> Employees should be provided with the right PPE to protect

			✓ Small chips on the floor			<ul style="list-style-type: none"> ✓ themselves from cutting themselves. ✓ Area must be cleared after a task. ✓ Only the right competent personnel to operate the grinder. 	
Clean site and remove Rubble	✓ Waste Disposal	✓ Injuries or property damaged	✓ Injuries	H	<ul style="list-style-type: none"> ✓ A proper waste disposal system should be in place ✓ Waste should be removed daily and placed in the correct waste disposal system 		
	✓ Poor house keeping	✓ Trip and fall	✓ Injuries	H	<ul style="list-style-type: none"> ✓ Good housekeeping to be maintained 		
General activities in and around site	✓ Protection of public	✓ Injury to member of public from site works	✓ Injuries	M	<ul style="list-style-type: none"> ✓ Barriers and signage to be in place. 		

RISK ASSESSMENT MATRIX

Likelihood	Consequences					
	Insignificant (minor problem easily handled by normal day to day processes	Minor (Some disruption possible e.g., damage equal to R150k	Moderate (significant time / resources required. E.g., damage equal to R500k	Major (Operations severely damaged. E.g., damages equal to R1m	Catastrophic (business survival is at risk. Damage equal to R5m – 10m	
Almost certain (90% chance)	High	High	Extreme	Extreme	Extreme	
Likely (between 50-90%)	Moderate	High	High	Extreme	Extreme	
Moderate (between 10-50%)	Low	Moderate	High	Extreme	Extreme	
Unlikely (between 3-10%)	Low	Low	Moderate	High	Extreme	
Rare (<3%)	Low	Low	Moderate	High	High	