

Project		TENDER NO. RFP079/2023 APPOINTMENT OF CONTRACTORS FOR REPAIRS & RENOVATIONS TO CLUSTER TWO (EKUPHILENI PS & DLOKO HS) UNDER UMLAZI DISTRICT IN KWAZULU NATAL DEPARTMENT OF EDUCATION		Evaluator Name Thulani Bukhosini		BASELINE RISK ASSESSMENT-ANNEXURE- B										S34-BRA-0001-00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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PROBABILITY INDEX	5	Almost certain to inevitable	SEVERITY INDEX INJURY/DISEASE (I)	5	Fatal	SEVERITY INDEX PRODUCTION (P)	5	No production	SEVERITY INDEX ENVIRONMENT (E)	5	Permanent effects	SEVERITY INDEX COST (C)	5	> R500 000	FREQUENCY INDEX	5	Hazard permanently present	PROBABILITY VALUE X SEVERITY VALUE X FREQUENCY VALUE /125 = TOTAL SCORE (%)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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	3	Improbable		3	14 Days with complete recovery		3	Loss of 1 week of production		3	Med - 6 months to 1 year		3	R10 000 - R99 999		3	Hazard arises every month																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
	2	Less than even chance		2	Medical attention 14 Days with complete recovery		2	Loss of 1 day's production		2	Short term - 1 day to 6 months		2	R1 000 - R9 999		2	Hazard arises every year																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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9	Water reticulation	1. Incompliant supervisor 2. Trench can collapse 3. Man machine interaction, 4. Water with pressure, 5. Damage to existing services during excavations.	<div> <div>1. Health & safety (I)</div> <div>2. Cost (C)</div> <div>3. Productivity (P)</div> <div>4. Environment (E)</div> </div> <div> <div>4</div> <div>2</div> <div>3</div> <div>2</div> </div> <div> <div>1</div> <div>5</div> <div>1</div> <div>5</div> </div> <div> <div>125</div> <div>5</div> <div>125</div> <div>5</div> </div> <div> <div>5</div> <div>5</div> <div>5</div> <div>5</div> </div> <div> <div>100</div> <div>40%</div> <div>60%</div> <div>40%</div> </div>	Mandatory or as per requirement	1. Principal contractor must appoint competent supervisor for supervision of construction work. 2. Appointed Excavation supervisor must monitor the excavation and keep records of excavation register. 3. Employees must keep safe distance from moving machinery and wear appropriate PPE, Safety vest. 4. Supervisors must develop Safe work procedure for valve installation and maintenance. 5. Principal contractor must refer to construction drawing and wayleave prior to commencement of excavation.	Principal Contractor
10	Storm water and Sewer Repairs	1. Incompliant supervisor 2. Trench can collapse 3. Man machine interaction, 4. Working in confined space 5. Damage to existing services during excavations 6.	<div> <div>1. Health & safety (I)</div> <div>2. Cost (C)</div> <div>3. Productivity (P)</div> <div>4. Environment (E)</div> </div> <div> <div>5</div> <div>5</div> <div>5</div> <div>1</div> </div> <div> <div>1</div> <div>5</div> <div>1</div> <div>5</div> </div> <div> <div>125</div> <div>5</div> <div>125</div> <div>5</div> </div> <div> <div>5</div> <div>5</div> <div>125</div> <div>25</div> </div> <div> <div>100%</div> <div>100%</div> <div>100%</div> <div>20%</div> </div>	Mandatory or as per requirement	1. Principal contractor must appoint competent supervisor for supervision of construction work. 2. Appointed Excavation supervisor must monitor the excavation and keep records of excavation register. 3. Employees must keep safe distance from moving machinery and wear appropriate PPE, Safety vest. 4. Conduct gas test prior to entering confined space, Safe work procedure and rescue plan must be in place. 5. Principal contractor must refer to construction drawing and wayleave prior to commencement of excavation.	Principal Contractor
11	Use of portable electrical tools and hand tools	1. Unsafe, sub-standard and/or defective equipment used Untrained employees using portable electrical tools	<div> <div>1. Health & safety (I)</div> <div>2. Cost (C)</div> <div>3. Productivity (P)</div> <div>4. Environment (E)</div> </div> <div> <div>3</div> <div>3</div> <div>3</div> <div>3</div> </div> <div> <div>1</div> <div>5</div> <div>1</div> <div>5</div> </div> <div> <div>125</div> <div>5</div> <div>125</div> <div>5</div> </div> <div> <div>75</div> <div>60%</div> <div>75</div> <div>60%</div> </div>	Mandatory or as per requirement	1. All portable electrical equipment to be logged on a register and monthly inspections to be conducted. 2. Pre use checklists to be implemented, conducted and maintained 3. Employees to be trained on use of portable electrical tools	Principal Contractor
12	Electrical work	1. Incompliant person doing electrical work, 2. Electricity and fire	<div> <div>1. Health & safety (I)</div> <div>2. Cost (C)</div> <div>3. Productivity (P)</div> <div>4. Environment (E)</div> </div> <div> <div>3</div> <div>2</div> <div>4</div> <div>1</div> </div> <div> <div>1</div> <div>5</div> <div>1</div> <div>5</div> </div> <div> <div>125</div> <div>5</div> <div>125</div> <div>5</div> </div> <div> <div>75</div> <div>60%</div> <div>50</div> <div>25</div> </div>	Mandatory or as per requirement	1. Only competent person is allowed to do electrical work on site. 2. Only competent Contractor is allowed to do electrical work. 3. Legally appointed Fire fighter, fire extinguisher and first Aider must be in place for in case of emergency.	Principal Contractor
13	Loading and Offloading	1. Improper loading and unloading 2. Incompetent operators deployed	<div> <div>1. Health & safety (I)</div> <div>2. Cost (C)</div> <div>3. Productivity (P)</div> <div>4. Environment (E)</div> </div> <div> <div>3</div> <div>3</div> <div>2</div> <div>2</div> </div> <div> <div>1</div> <div>5</div> <div>1</div> <div>5</div> </div> <div> <div>125</div> <div>5</div> <div>125</div> <div>5</div> </div> <div> <div>75</div> <div>60%</div> <div>50</div> <div>40%</div> </div>	Mandatory or as per requirement	1. Pre-use inspections to be conducted on truck mounted crane 2. Truck mounted crane operator to be licensed and appointed in writing 3. Truck mounted crane to be accommodated with a valid load test certificate, crane hook certificate 4. Full maintenance record of crane to be available 5. Ensure 3 point contact when climbing on and off the truck. 6. Ensure loads are stable when loading and offloading. 8. All material/equipment that is sling to be lifted must be checked before lifting takes place and locked down in register.	Principal Contractor
14	Use of chemicals	1. Improper storage of chemicals, transportation and handling	<div> <div>1. Health & safety (I)</div> <div>2. Cost (C)</div> <div>3. Productivity (P)</div> <div>4. Environment (E)</div> </div> <div> <div>2</div> <div>2</div> <div>2</div> <div>3</div> </div> <div> <div>1</div> <div>5</div> <div>1</div> <div>5</div> </div> <div> <div>125</div> <div>5</div> <div>125</div> <div>5</div> </div> <div> <div>50</div> <div>40%</div> <div>50</div> <div>60%</div> </div>	Mandatory or as per requirement	1. HCS to be properly stored in a cool locked store room 2. HCS to be safely transported to the work place and no HCS to be stored in a work place, only quantity used. 3. Employees handling hazardous chemical substance to be trained. Possible preventive measures to be put in place in order to prevent harm to employees. PPE to be used when necessary.	Principal Contractor
15	Laying storm water pipes	1. Incompliant person supervising excavation work 2. Trench can collapse 3. Storm water pipes can fall into employees 4. Insects and snakes	<div> <div>1. Health & safety (I)</div> <div>2. Cost (C)</div> <div>3. Productivity (P)</div> <div>4. Environment (E)</div> </div> <div> <div>2</div> <div>2</div> <div>2</div> <div>1</div> </div> <div> <div>1</div> <div>5</div> <div>1</div> <div>5</div> </div> <div> <div>125</div> <div>5</div> <div>125</div> <div>5</div> </div> <div> <div>50</div> <div>40%</div> <div>50</div> <div>25</div> </div>	Mandatory or as per requirement	1. Excavation work must be supervised by legally appointed excavation supervisor. 2. Excavation supervisor must inspect excavation and keep records. 3. Supervisor must develop safe method of laying storm water pipes. 4. Employees must report to supervisors if they see insects or animals. Competent personnel must be called to site so that they can handle the situation.	Principal Contractor
16	Replacement of roof coverings	1. Overhead cables 2. Incompliant Supervisor 3. Poor planing of works	<div> <div>1. Health & safety (I)</div> <div>2. Cost (C)</div> <div>3. Productivity (P)</div> <div>4. Environment (E)</div> </div> <div> <div>4</div> <div>4</div> <div>4</div> <div>4</div> </div> <div> <div>1</div> <div>5</div> <div>1</div> <div>5</div> </div> <div> <div>125</div> <div>5</div> <div>125</div> <div>5</div> </div> <div> <div>100</div> <div>80%</div> <div>100</div> <div>80%</div> </div>	Mandatory or as per requirement	1. Principal contractor must conduct Risk assessment and safe work procedure prior to commencement of work. 2. Principal Contractor must appoint competent Supervisor for construction work. 3. Competent supervisor must demarcate/barricade. 4. All employees working on site must be familiar with fall protection plan.	Principal Contractor
17	Working on Heights	1. Personal Injury 2. Fatality	<div> <div>1. Health & safety (I)</div> <div>2. Cost (C)</div> <div>3. Productivity (P)</div> <div>4. Environment (E)</div> </div> <div> <div>5</div> <div>4</div> <div>4</div> <div>2</div> </div> <div> <div>5</div> <div>1</div> <div>1</div> <div>5</div> </div> <div> <div>20</div> <div>5</div> <div>125</div> <div>5</div> </div> <div> <div>500</div> <div>100</div> <div>80%</div> <div>40%</div> </div>	Mandatory or as per requirement	1. Designate a competent person to be responsible for the preparation of a fall protection plan. 2. Ensure that the Fall protection plan and Risk assessment is implemented, amended and maintained. 3. Take steps to ensure continued adherence to the fall protection plan. 4. The fall protection plan must include but not limited: A Risk assessment of all work carried out from a fall risk position, procedures and methods used to address all the risks identified. 5. Appointed 16 (2) to ensure that employees comply with Construction regulations 10 Fall protection.	Principal Contractor
18	Vehicles not isolated when left unattended.	1. Exposed to pilferage 2. Unlicensed drivers operating machinery	<div> <div>1. Health & safety (I)</div> <div>2. Cost (C)</div> <div>3. Productivity (P)</div> <div>4. Environment (E)</div> </div> <div> <div>3</div> <div>3</div> <div>3</div> <div>3</div> </div> <div> <div>1</div> <div>5</div> <div>1</div> <div>5</div> </div> <div> <div>125</div> <div>5</div> <div>125</div> <div>5</div> </div> <div> <div>75</div> <div>60%</div> <div>75</div> <div>60%</div> </div>	Mandatory or as per requirement	1. Ensure vehicles are isolated when not in operation	Principal Contractor
19	Moving vehicles on public road during construction	1. Injury to people 2. Damage to equipment	<div> <div>1. Health & safety (I)</div> <div>2. Cost (C)</div> <div>3. Productivity (P)</div> <div>4. Environment (E)</div> </div> <div> <div>3</div> <div>3</div> <div>3</div> <div>2</div> </div> <div> <div>1</div> <div>5</div> <div>1</div> <div>5</div> </div> <div> <div>125</div> <div>5</div> <div>125</div> <div>5</div> </div> <div> <div>75</div> <div>60%</div> <div>75</div> <div>40%</div> </div>	Mandatory or as per requirement	1. Keep safe distance from moving machinery. 2. Wear reflective vests 3. Don't cross or leave work area without permission 4. Draft, implement and maintain a proper traffic management plan.	Principal Contractor

19	Pedestrian access to site	1. Unsafe pedestrian access (Walkway) 2. Personal injury	<div> <div>1. Health & safety (I)</div> <div>2. Cost (C)</div> <div>3. Productivity (P)</div> <div>4. Environment (E)</div> </div> <div> <div>4</div> <div>4</div> <div>4</div> <div>1</div> </div> <div> <div>1</div> <div>1</div> <div>1</div> <div>1</div> </div> <div> <div>5</div> <div>5</div> <div>5</div> <div>5</div> </div> <div> <div>125</div> <div>125</div> <div>125</div> <div>125</div> </div> <div> <div>5</div> <div>5</div> <div>5</div> <div>5</div> </div> <div> <div>100</div> <div>100</div> <div>100</div> <div>25</div> </div> <div> <div>80%</div> <div>80%</div> <div>80%</div> <div>20%</div> </div>	Mandatory or as per requirement	1. Safe demarcated walkway to be conducted. 2. Walkway to be barricaded with snow netting. 3. Pedestrian crossings to be conducted and utilized	Principal Contractor
20	Emergency Preparedness (Fire Fighting equipment insufficient)	1. Injury to people 2. Property and equipment damage	<div> <div>1. Health & safety (I)</div> <div>2. Cost (C)</div> <div>3. Productivity (P)</div> <div>4. Environment (E)</div> </div> <div> <div>2</div> <div>2</div> <div>2</div> <div>2</div> </div> <div> <div>1</div> <div>1</div> <div>1</div> <div>2</div> </div> <div> <div>5</div> <div>5</div> <div>5</div> <div>1</div> </div> <div> <div>125</div> <div>125</div> <div>125</div> <div>125</div> </div> <div> <div>5</div> <div>4</div> <div>2</div> <div>1</div> </div> <div> <div>50</div> <div>40</div> <div>12</div> <div>2</div> </div> <div> <div>40%</div> <div>32%</div> <div>10%</div> <div>2%</div> </div>	Mandatory or as per requirement	1. Fire fighting equipment must be in place accordance to survey conducted during site establishment. 2. Identification and signage must be clear and visible. 3. All relevant equipment to be inspected and on register.	Principal Contractor
21	Site security and public protection	1. Public gaining access to the construction site.	<div> <div>1. Health & safety (I)</div> <div>2. Cost (C)</div> <div>3. Productivity (P)</div> <div>4. Environment (E)</div> </div> <div> <div>4</div> <div>4</div> <div>4</div> <div>2</div> </div> <div> <div>1</div> <div>1</div> <div>1</div> <div>2</div> </div> <div> <div>5</div> <div>5</div> <div>5</div> <div>5</div> </div> <div> <div>125</div> <div>125</div> <div>125</div> <div>125</div> </div> <div> <div>5</div> <div>5</div> <div>5</div> <div>5</div> </div> <div> <div>100</div> <div>80%</div> <div>100</div> <div>50</div> </div> <div> <div>80%</div> <div>80%</div> <div>80%</div> <div>40%</div> </div>	Mandatory or as per requirement	1. Principal contractor to ensure the project is secure at all times. Access control to be maintained and no unauthorised entry to be permitted to the project. 2. When there are no activities on site and no personnel conducting works. The Project has to be left in a safe manner that the public cant gain access and that all hazards are attended to prior vacating the site.	Principal Contractor
22	Ablution facilities	1. 1. Use of untidy facilities putting employees at risk of contracting various infections and sicknesses	<div> <div>1. Health & safety (I)</div> <div>2. Cost (C)</div> <div>3. Productivity (P)</div> <div>4. Environment (E)</div> </div> <div> <div>2</div> <div>1</div> <div>1</div> <div>2</div> </div> <div> <div>1</div> <div>1</div> <div>1</div> <div>2</div> </div> <div> <div>5</div> <div>5</div> <div>5</div> <div>2</div> </div> <div> <div>125</div> <div>125</div> <div>125</div> <div>125</div> </div> <div> <div>4</div> <div>4</div> <div>4</div> <div>3</div> </div> <div> <div>40</div> <div>12</div> <div>12</div> <div>24</div> </div> <div> <div>32%</div> <div>10%</div> <div>10%</div> <div>19%</div> </div>	Mandatory or as per requirement	1. Adequate, clean and ablution facilities to be provided by employer.	Principal Contractor
23	Remove existing asbestos roof covering and replace with new roof sheeting, barge flashing and ridge capping and fascia boards	1. Damage to existing services and structures.	<div> <div>1. Health & safety (I)</div> <div>2. Cost (C)</div> <div>3. Productivity (P)</div> <div>4. Environment (E)</div> </div> <div> <div>5</div> <div>5</div> <div>5</div> <div>5</div> </div> <div> <div>1</div> <div>1</div> <div>1</div> <div>5</div> </div> <div> <div>5</div> <div>5</div> <div>5</div> <div>5</div> </div> <div> <div>125</div> <div>125</div> <div>125</div> <div>125</div> </div> <div> <div>3</div> <div>3</div> <div>3</div> <div>3</div> </div> <div> <div>75</div> <div>75</div> <div>75</div> <div>75</div> </div> <div> <div>60%</div> <div>60%</div> <div>60%</div> <div>60%</div> </div>	Mandatory or as per requirement	1. Comply to ASBESTOS ABATEMENT REGULATIONS, 2020. 2. Consult with the Client and ensure that approved inspection authorities for asbestos work (AIA) is appointed to render the services. 3. An approved inspection authority involved in type 2 or type 3 asbestos work must must render services as per Duties of approved inspection authorities for asbestos work 13. The Asbestos registreed contractor must comply to asbests abateent regulations.	Principal Contractor
24	Emergency Preparedness (Fire Fighting equipment insufficient)	1. Injury to people 2. Property and equipment damage	<div> <div>1. Health & safety (I)</div> <div>2. Cost (C)</div> <div>3. Productivity (P)</div> <div>4. Environment (E)</div> </div> <div> <div>2</div> <div>2</div> <div>2</div> <div>2</div> </div> <div> <div>1</div> <div>1</div> <div>1</div> <div>2</div> </div> <div> <div>5</div> <div>5</div> <div>5</div> <div>1</div> </div> <div> <div>125</div> <div>125</div> <div>125</div> <div>125</div> </div> <div> <div>5</div> <div>4</div> <div>3</div> <div>1</div> </div> <div> <div>50</div> <div>40</div> <div>12</div> <div>2</div> </div> <div> <div>40%</div> <div>32%</div> <div>10%</div> <div>2%</div> </div>	Mandatory or as per requirement	1. Fire fighting equipment must be in place accordance to survey conducted during site establishment. 2. Identification and signage must be clear and visible. 3. Emergency response plan must be prepad and communicated to all employees.	Principal Contractor
25	Demolish and Reconstruct existing building block(s)	1. Falling objects. 2. Use of construction equipment 3. Use of eletrical powered tools	<div> <div>1. Health & safety (I)</div> <div>2. Cost (C)</div> <div>3. Productivity (P)</div> <div>4. Environment (E)</div> </div> <div> <div>3</div> <div>3</div> <div>3</div> <div>3</div> </div> <div> <div>1</div> <div>1</div> <div>1</div> <div>3</div> </div> <div> <div>5</div> <div>5</div> <div>5</div> <div>5</div> </div> <div> <div>125</div> <div>125</div> <div>125</div> <div>125</div> </div> <div> <div>5</div> <div>5</div> <div>5</div> <div>5</div> </div> <div> <div>75</div> <div>75</div> <div>75</div> <div>75</div> </div> <div> <div>60%</div> <div>60%</div> <div>60%</div> <div>60%</div> </div>	Mandatory or as per requirement	1. Appoint demolishing supervisor. 2. Safety officer and supervisor must preapre dertails methos stament and risk assesment ad communicate to employees. 3. Demarcate and barricade around construction area. Issue PPE to all employees and place madatary signs.	Principal Contractor
26	Concrete Mixing and Pouring (Manually and Mixer)	1. Concrete spillages 2. Use of hand tools 3. Oil spillages 4. Dust generation 5. incompetent operators 6. Miscommunication between operator and flagman 7. Mixer operating near excavation	<div> <div>1. Health & safety (I)</div> <div>2. Cost (C)</div> <div>3. Productivity (P)</div> <div>4. Environment (E)</div> </div> <div> <div>3</div> <div>3</div> <div>2</div> <div>2</div> </div> <div> <div>1</div> <div>1</div> <div>2</div> <div>5</div> </div> <div> <div>5</div> <div>5</div> <div>5</div> <div>5</div> </div> <div> <div>125</div> <div>125</div> <div>125</div> <div>125</div> </div> <div> <div>5</div> <div>5</div> <div>5</div> <div>5</div> </div> <div> <div>75</div> <div>75</div> <div>50</div> <div>125</div> </div> <div> <div>60%</div> <div>60%</div> <div>40%</div> <div>100%</div> </div>	Mandatory or as per requirement	1. concrete mixers to be regularly serviced in order to prevent breakdown leading to oil spillages. Spot checks to be done prior each shift. 2. All hand tools to be inspected by a competent person. 3. When concrete is being poured, concrete spillages to be prevented and plastic sheet to be placed on the ground when spillages cannot be prevented. 4. Concrete washout area to be created where concrete run off will be discharged. 5. A flagman must be well trained in order for him to be able to provide proper signals thus preventing employees being hit by a mixer. 6. Operators to be well trained and no unauthorized employees must operate the mixer. 7. Dust mask must be provided to employees handling cement as a last resource when dust cannot be controlled. 8. Concrete mixer must keep a distance from excavations, when pouring into excavation flagman have to be more vigilant and a regular toolbox talks must be held. 9. Task specify risk assessment for all activities must be developed and communicated.	Principal Contractor