

BASELINE RISK ASSESSMENT

RISK ASSESSMENT TITLE / TASK	BASELINE RISK ASSESSMENT		
PROJECT NAME		START DATE	TO BE DETERMINED
RISK ASSESSMENT REFERENCE NO		END DATE	TO BE DETERMINED
REVISION STATUS		REVISION DATE	TO BE DETERMINED
BRIEF DESCRIPTION OF WORK/ACTIVITY			

REQUIRED AND EXISTING CONTROL MEASURES	Available		Adequate		REMARKS
	Yes	No	Yes	No	
Scope of Work (logical steps on how the task will be performed)					
Procedures: (WI / SOP / Vendor Spec)					
Training, Induction, Competency Certificates, Specific Training / Other Instructions					Induction Training is to be given before any work may commence
Special permits required (specify)					Construction Work Permit, Notification of Asbestos Work
Equipment / Tool Registers / Others (specify)					COVID19 Prevention Controls
Other					

PROBABILITY LEGEND				CONSEQUENCE / INJURY / LOSS			RANKING						
5	Has happened			5	Fatality or permanent disability or > R 5,000,000			5	4	3	2	1	
4	Quite possible to happen (Happen during last year)			4	Major Injury or > R 1,000,000 < R 5,000,000		5	25	20	15	10	5	
3	Could Happen (No record of recent occurrence)			3	Average Lost time Injury or > R 500,000 < R 1,000,000		4	20	16	12	8	4	
2	Not likely to happen			2	Minor Injury or < R 500,000		3	15	12	9	6	3	
1	Very Unlikely			1	Medical Treatment only or Less or No Financial loss		2	10	8	6	4	2	
HIGH RISK = 15-25		MEDIUM RISK = 7-14		LOW RISK = 1-6		PROB: Probability	CON: Consequence	1	5	4	3	2	1

BASIC PPE REQUIRED FOR TASK	HARD HAT	OVERALL	EAR PROTECTION	DUST MUSK
	SAFETY GLASSES	SAFETY FOOTWEAR	GLOVES	SAFETY VEST
ADDITIONAL REFERENCES TO TASK	METHOD STATEMENT	MSDS	PLANNED TASK OBSERVATION	SAFE WORK PROCEDURE
	WORK INSTRUCTION	-	-	-

Sr. No	Activity	Task	Potential Hazards	Risks	Current Risk			Suggested Control Measures
	List activity steps	List task steps	Potential dangers that could cause harm. List the potential hazards	Potential Risks Due to Hazard	Li ke li h o o d	Se ve ri t y	Risk Ra te	
1.	Site Identification & Establishment	Project Mobilization of Personnel Project Mobilization of Plant and Equipment Setting up Camp & Storage Facilities Installation of Temporary Services Clearing and Grubbing	Incompetent personnel appointed Workers not informed of hazards and risks associated with tasks Workers exposed to unknown/unidentified hazards Poor/unsafe offloading practices Operators under the influence of Alcohol or other substances while transporting machinery and equipment to the site establishment area Pedestrians / public passing by Theft of material, equipment, and machinery Abnormal load Containers placed on uneven surfaces Using defective/incorrect equipment to offload containers Sub-standard housekeeping The incompetent person conducting the installation Incorrect location/layout plan Poor visibility Collision Excessive Dust Underground Services	Project interruption Legal liability claims Financial loss Serious injuries or Fatalities due to unknown hazards Load falling on employees Accident causing property damage Pedestrians / public hit by plant and machinery Project interruption Accident Property damage Load falling on employees Incidents/accidents Electrocution Occupational Illness	3	3	9	Legal appointment letters are to be signed before the commencement of work. Competencies to be verified. Occupational medicals to be in place before the commencement of work Site-specific Induction training is to be conducted on all personnel before commencing work. Appointed Risk Assessor to have a HIRA certificate (Hazard Identification and Risk Assessment). Task-specific risk assessments are to be carried out. Ensure all responsible persons on Site submit a CV. Employees are to be trained in the content of the risk assessments. Attendance registers to be in place Method statement / safe operating procedure to be in place for offloading plant and equipment. To be communicated to employees. Employees to stand clear of offloading operations Company substance abuse/alcohol policy to be available and implemented by communicating the policy to all employees.

								<p>Camp area to be fenced off to prevent unauthorized entry.</p> <p>Unauthorized and general warning signs are to be displayed.</p> <p>Project program to be compiled to prevent machinery and equipment to be left unattended.</p> <p>Security to be implemented.</p> <p>Special arrangements are to be made for abnormal loads.</p> <p>Abnormal load signage is to be displayed on trucks if applicable.</p> <p>Valid driver's license of driver.</p> <p>Containers/offices are to be placed on a level surface.</p> <p>Lifting equipment to be load tested.</p> <p>Load test certificates are to be available.</p> <p>Lifting equipment is to be placed on the register and inspected every month.</p> <p>Employees are to stand clear of lifting operations and no employees are allowed underneath suspended loads.</p> <p>High standards of housekeeping are to be maintained.</p> <p>The stacking and storage supervisor is to be appointed in writing.</p> <p>Monthly inspections are to be conducted on stacking and storing on site</p> <p>Competent/registered electrician to conduct temporary electrical installations.</p> <p>Electrical COC to be issued and kept on the H&S file</p> <p>Temporary electrical installations are to be done at the exact location</p>
--	--	--	--	--	--	--	--	---

								provided after consultation with the client Pre-start inspections to be conducted Windscreens to be kept clean Occupational medicals to be conducted to ensure the operator has good eyesight Speed limit to be adhered to Occupational medical to be available Proper supervision Workers are to stand clear from moving machinery when clearing and grubbing take place Water Truck to be used to spray working areas to suppress dust
2.	Excavation Work	Excavate by hand Excavate by Machinery Backfilling	Underground Services Employees standing too close to machinery Incompetent/unfit operator Operating next to the excavation edge / placing excavated material next to the excavation	Financial Loss Project Interruption Bumping/hitting an employee with a bucket of the machine causing serious injury Accident causing fatality The collapse of trench/excavation (sides caving in)	4	4	16	Identify underground services Location of underground services to be communicated to all relevant personnel Excavation work is to take place only as per the approved permit/instruction Employees to stand clear of machinery in operation Operators are to undergo occupational medical surveillance. Occupational Medical Certificate to be available on H&S file Operator competency to be available Identify underground services Excavated material is to be placed away from the excavation edge Operator to be competent
3.	Working near services	Offloading material from a truck near overhead power lines	Striking overhead electrical cables Overhead power lines knocked over Damaging power lines	Electrocution Legal Liability Claims Property damage	4	4	16	The contractor is to refer to design drawings indicating underground power lines and to plan accordingly. Prestart checklist

								Operator authorized, competent, and medically fit Machinery may not exceed the height of overhead power lines Supervision Banksman/Spotter checking plant height
4.	Lifting & Lowering Operation	Mobile Cranes / Truck- mounted crane Chains / Slings	Mobile Cranes / Truck- mounted crane Chains / Slings	Incorrect slinging Defective Crane Incompetent operator / not medically fit to operate Exceeding the maximum load capacity Defective equipment used causing falling objects Objects not correctly hooked	4	4	16	Crane / Truck-mounted crane operator to be competent in the operation of the specific machine. Employees to stand clear of lifting operations Crane to be load tested. Pre-start inspection is to be conducted daily before the shift. Employees are to stand clear of lifting operations and no employees are allowed underneath lifted loads. Operators (and all other employees) are to be sent for Occupational medical surveillance. Medical certificates and Annexure 3 are to be placed on the H&S file. Crane to be load tested. Maximum Load Capacity to be displayed on Crane. Outriggers of crane to be placed to keep crane steady. Crane spec to be available for reference purposes. Lifting equipment to be load tested. Load test certificates are to be available. Lifting equipment is to be placed on the register and inspected every month. Employees are to stand clear of lifting operations and no employees are allowed underneath lifted loads.

5.	Scaffold work	Scaffold Erection Working on scaffolding inside of pump station Disassemble scaffolding	Incorrect erection of scaffolding Falling from heights Scaffold collapsing Falling tools and equipment	The collapse of the scaffold causing serious injury or fatality Serious injury/fatality Head injury	4	4	16	<p>Scaffolding is to be erected by a competent scaffold erector, appointed in writing</p> <p>Scaffolding is to be inspected by a competent person, appointed in writing. Inspections are to be done daily and recorded in writing</p> <p>Employees are to be issued with specific safety harnesses for the specified work</p> <p>Safety harnesses are to be worn by employees whilst working on scaffolding and to be hooked to scaffold / anchor points.</p> <p>Safety harnesses to be in good condition, on the register, and inspected regularly</p> <p>Scaffolding is to be erected by a competent scaffold erector, appointed in writing</p> <p>Scaffolding is to be inspected by a competent person, appointed in writing. Inspections are to be done daily and recorded in writing</p> <p>Scaffold to be anchored/erected in such a way as to prevent collapse.</p> <p>Tools and equipment may not be placed on the edge of platform boards.</p> <p>Lifting and lowering of tools must be done properly in a bucket with a rope and no tools may be thrown from heights.</p> <p>Scaffolding to be disassembled under proper supervision (construction work supervisor/scaffold supervisor)</p> <p>To be disassembled from top to bottom</p>
----	---------------	---	---	---	---	---	----	--

								Employees are to wear safety harnesses while conducting this activity
6.	Working at heights	Edge Work Openings	Falling off edges Falling into openings	Major injuries (fractures), etc. Fatality	4	4	16	Edge protection is to be in place. Employees working near edges to wear safety lanyards to prevent them from falling over the edge All openings are to be covered. Employees working near openings to wear safety lanyards to prevent them from falling into openings
7.	Hazardous Chemical Agents	Handling Storage	Incorrect handling Exposed to HCA Not trained to work with HCA Incorrect storage of HCA Fire hazard	Skin irritation Occupational Illness or Disease Production time loss Explosion	4	3	12	MSDSs to be available MSDS's to be communicated to all employees handling HCA Task-specific training HCA inspections PPE HCA compatibility chart to be available and implemented HCA is to be stored following the compatibility chart
8.	Stacking & Storage	Stacking and storage of material and equipment	Sub-standard stacking and storing practices	Collapsing of stacked/stored material causing serious injuries	4	3	12	The stacking and storage supervisor is to be appointed in writing. Monthly inspections are to be conducted on stacking and storing on site

9.	Hot works	Gas Welding & Cutting Electrical Welding & Cutting	Incorrect storage of gas cylinders Hot surfaces Fire hazard No flashback arrestor Incompetent person operating welding machine Not wearing a welding helmet Exposed electrical wiring	The sudden release of pressurized gas Burns Explosion Incident / Accident Sparks in face / Arc eyes Electrocution	4	4	16	Gas cylinders are to be stored following requirements. To be stored in a designated area. Gas cylinders to be chained. Task-specific training to be conducted on employees conducting hot works. Competent First aider and box to be readily available on site. Employees are to wear the relevant PPE, e.g. welding helmet, apron, welding gloves, etc. Designated smoking area to be established. No smoking near hot work activities. Gas cylinders are to be secured at all times. Gas welding equipment to be following requirements. Flashback arrestors to be fitted to gas welding and cutting equipment Task-specific training to be conducted. Competency to be available and person to be appointed in writing Welding helmets are to be issued to persons conducting welding. Employees conducting welding, are to wear the relevant PPE, e.g. welding helmet, apron, welding gloves, etc. Monthly inspections are to be conducted on the electrical arc welding machine and deviations are to be recorded and reported.
10.	Electrical Works	Installation of Electrical Cables Connecting electricity to existing systems Commissioning of Electrical System	Exposure to live electricity The incompetent person conducting electrical installations Using electrical equipment in wet areas or outside in wet conditions Overloaded power-points	Sparks in face / Arc eyes Electrocution Fire risk	4	4	16	Electrical source to be isolated when conducting installation work Competent and registered electrician to conduct the electrical installation work Occupational medical to be available

			Trailing cables from static equipment and whilst using portable electrical equipment Faulty cables				Electrical source to be isolated when conducting installation work Competent and registered electrician to conduct the electrical installation work Occupational medical to be available used in wet areas or wet conditions Task-specific training Competent and registered electrician to conduct the electrical installation work Fire equipment to be readily available
11.	Concrete Works	Steel Fixing Ready-Mix On-Site Mixing Using Concrete Pump	Tripping hazards Using unsafe hand tools Unauthorized personnel pouring concrete Concrete truck running over personnel, equipment, or material Concrete truck running over personnel, equipment, or material Exposed moving parts Excessive concrete dust Concrete pump hitting workers Working with cement Handling bricks Working at height Falling objects (bricks, tools, etc.) Exposed to live electricity while installing plugs, light fittings, etc. Working at heights while installing gutters and downpipes Falling objectless	Dermatitis Hand injuries Fatalities Property damage Project interruption Loss of limb Occupational Illness or Disease	3	4	12 Electrical source to be isolated when conducting installation work Competent and registered electrician to conduct the electrical installation work Occupational medical to be available Electrical equipment may not be used in wet areas or wet conditions Task-specific training

12.	Building Works	<p>Brick Work & Plastering</p> <p>Electrical Work</p> <p>Plumbing Works</p> <p>Roof Works</p> <p>Interior & Finishing Work</p> <p>Glass Work</p>	<p>Working with cement</p> <p>Handling bricks</p> <p>Working at height</p> <p>Falling objects (bricks, tools, etc.)</p> <p>Exposed to live electricity while installing plugs, light fittings, etc.</p> <p>Working at heights while installing gutters and downpipes</p> <p>Falling objects</p> <p>Substandard housekeeping</p> <p>Exposure to open flames</p> <p>Tripping over obstacles and objects</p> <p>Manual handling of material</p> <p>Manual lifting of material while working at heights</p> <p>Employees conducting work under overhead work</p> <p>Scaffolding use to access the roof work poorly erected</p> <p>Using unsafe hand tools</p> <p>Manual handling of glass</p> <p>Using unsafe hand tools</p>	<p>Employees falling from heights causing serious injuries or fatality</p> <p>Electrocution</p> <p>Head injuries</p> <p>Falling objects causing head injuries / bodily injuries</p> <p>Fall from heights/fatality</p> <p>Injuries (cuts/lacerations)</p>	4	4	16	<p>High standards of stacking and storage to be maintained on site</p> <p>Task-specific training for employees involved with steel fixing</p> <p>Monthly register checklist on hand tools to be conducted. Deviations to be reported</p> <p>Only authorized personnel pour concrete</p> <p>The occupational medical certificate of the operator is to be available</p> <p>First aid to be on-site at all times</p> <p>Workers to always wear correct PPE</p> <p>Workers working with vibration equipment must ensure they have a firm footing</p> <p>Concrete truck driver to ensure that the handbrake is secured to prevent the truck from running out of control.</p> <p>Task Specific Training</p> <p>All moving parts of the concrete mixer are to be guarded</p> <p>Correct PPE to be worn by employees operating concrete mixer</p> <p>Workers to always stand clear from pump movements</p> <p>Safety gloves to be worn by employees working with cement</p> <p>Safety gloves are to be worn by employees handling bricks</p> <p>Employees conducting brickwork at heights to follow the correct procedures.</p> <p>Scaffolding to be erected following SANS 10085</p> <p>Safety harnesses to be worn when working at heights</p>
-----	----------------	--	--	--	---	---	----	---

13.	Roof Work	Removal of existing roof coverings and installation of new roof coverings	<p>Tripping over obstacles and objects</p> <p>Manual handling of material</p> <p>Manual lifting of material while</p> <p>Employees conducting work under overhead work</p> <p>Scaffolding use to access the roof work poorly erected</p> <p>Working at heights</p>	<p>Injuries</p> <p>Employees falling from heights causing serious injuries or fatality</p> <p>Falling objects causing head injuries / bodily injuries</p> <p>Fall from heights/fatality</p>	4	4	16	<p>High standards of housekeeping to be maintained</p> <p>Stacking and storing inspections are to be conducted every month</p> <p>Task-specific training to be provided to employees.</p> <p>Ergonomic risks to be taken into account</p> <p>Employees conducting roof work follow the correct procedures.</p> <p>Scaffolding to be erected following SANS 10085</p> <p>Safety harnesses to be worn when working at heights</p> <p>Overhead work to be barricaded</p> <p>Signage to be displayed</p> <p>Head protection to be worn by employees where falling objects pose a hazard</p> <p>Competent Scaffold Erector and Inspector to be appointed in writing</p> <p>Roof work/scaffold work to be supervised</p> <p>All employees working at heights are to be declared fit for work at heights.</p> <p>Safety harnesses are to be worn when working at heights.</p> <p>Anchor points to be installed and retractable lifelines and/or similar devices to be used when conducting roof works</p>
14.	Glasswork and Windows	Replacing windows, etc. Glass Work	<p>Manual handling of glass</p> <p>Using unsafe hand tools</p>	<p>Injuries (cuts/lacerations)</p> <p>Injuries</p>	3	4	12	<p>Task-specific training to be provided to employees.</p> <p>Ergonomically risks to be taken into account</p> <p>Hand tools and equipment are to be inspected every month and deviations are to be recorded and reported</p>

15.	Water Reticulation Works	Installation of Pipes Commissioning of Water Reticulation System	Installation of Pipes Commissioning of Water Reticulation System	Health risk Injuries Employees tripping over obstacles causing injuries Project interruption	3	3	9	Confined space entry permit to be issued to individuals before working in confined spaces Occupational medical to be of personnel be available Task-specific training Correct equipment to be used for specific tasks Proper supervision Equipment to be inspected every month and deviations to be recorded and reported High standards of housekeeping to be maintained Competent person to conduct/supervise plumbing work
16.	Construction of Pump Station	Concrete works Steel fixing Installation and connection of pipes at the pump station Commissioning of System / Testing of pipes	Exposed moving parts Excessive concrete dust Concrete pump hitting workers Incorrect handling of reinforcement material Working without proper personal protective equipment Confined space Misuse of equipment Faulty equipment Sub-standard housekeeping Leakage could result in pipes bursting High pressure 10 – 20 ba	Loss of limb Occupational Illness or Disease Injuries Hand injuries Health risk Employees tripping over obstacles causing injuries Injuries Project interruption	3	4	12	All moving parts of the concrete mixer are to be guarded Correct PPE to be worn by employees operating concrete mixer Only authorized personnel to pour concrete Workers to always stand clear from pump movements Correct manual lifting techniques to be communicated to employees Monthly inspections on PPE to be done Correct PPE to be issued to workers Confined space entry permit to be issued to individuals before working in confined spaces Occupational medical to be of personnel be available Task-specific training Correct equipment to be used for specific tasks Proper supervision

								Equipment is to be inspected every month and deviations are to be recorded and reported High standards of housekeeping to be maintained Competent person to conduct/supervise plumbing work
17.	Transmittable Diseases (e.g., COVID-19)	Coming into contact with other workers. Normal working activities on site	Workers exposed to Health Hazards namely Diseases / Bacteria / Viruses (e.g. COVID-19)	Serious illnesses due to Health hazards. Contracting disease	3	3	9	Revise Health and Safety Management Plan to include planning around COVID-19 and following measures and Regulations set out by Government Compile and implement a Risk Assessment and Safe Operating Procedure following measures and Regulations set out by Government Toolbox talks / other gatherings/meetings to be held in small groups Emergency Response and Prevention Plan to be developed and implemented Employees to be trained in the content of the risk assessments revised H&S Plan, COVID-19 Risk Assessment Other informal training/communication about COVID-19 Implementation and adherence to the latest issued Directive Social Distancing to be implemented. Employees to keep a fair distance of 1.5 to 2 meters from co-workers Contractor to implement a self-screening tool utilizing a questionnaire. This must be kept on record for all employees. This must be done before employees

								/ visitors/ contractors entering the site It is recommended that a daily infrared temperature test is conducted on all employees
18.	Asbestos Work	<p>The asbestos area must be cleaned and must be demarcated as an asbestos area</p> <p>Removal of material containing asbestos</p> <p>Double bagging of material</p> <p>Placing material in waste disposal skips</p> <p>Transport asbestos skip to an approved asbestos disposal site</p>	<p>Asbestos fiber release</p> <p>Employees exposed to asbestos could accumulate occupational illnesses and diseases</p> <p>Employees not wearing the correct personal protective equipment</p> <p>Not placing asbestos material in designated areas / skip</p> <p>Damaged asbestos bags can cause people from the site to be exposed to asbestos and cause a health hazard</p> <p>Improper handling leads to damaged asbestos bags</p> <p>Accident causing the release of asbestos fibers due to breakage</p> <p>Damaged asbestos bags can cause people from the community to be exposed to asbestos and cause a health hazard</p>	<p>Occupational illness and disease (asbestosis)</p> <p>Legal liability claims</p> <p>Exposure to asbestos fibers leads to an Occupational illness and disease (asbestosis)</p> <p>No control over asbestos material leading to incorrect disposal and legal liability claims</p>	4	5	20	<p>Barricading accesses to the asbestos area.</p> <p>Asbestos area to be cleared and to be safe for access.</p> <p>Asbestos areas are to be demarcated with mandatory asbestos signage.</p> <p>Clearance inspections and certificates are to be issued before handing over a section.</p> <p>Asbestos signage to be displayed</p> <p>All employees are to wear the mandatory asbestos PPE in the Asbestos work area</p> <p>Asbestos-containing material is to be placed in a designated area.</p> <p>Inventory list to be compiled and updated regularly</p> <p>Proper and constant supervision</p> <p>Training to staff</p> <p>Ensure asbestos PPE is being worn by workers at all times. FFP2 respirators are mandatory.</p> <p>Asbestos panels are to be lowered to the ground by ropes and intact.</p> <p>Monitor wind speeds and stop work when the wind is above 30km/h.</p> <p>Line asbestos skips with 250-micron plastic sheeting and cover panels when completed with the task.</p> <p>Plastic bags must be sealed and must be identified as asbestos with asbestos labels</p> <p>The asbestos skip must be closed and locked when vacated.</p>

								Ensure asbestos PPE is being worn by workers at all times. FFP2 respirators are mandatory. Driver to be trained in hazardous spill procedures. The asbestos skip must be identified as an asbestos waste disposal vessel with appropriate asbestos signage displayed. Asbestos disposal certificate to be issued.
19.	Site Demobilization	Disconnect Services Loading of material, equipment, and offices Loading of Machinery on Trucks Transporting of equipment, machinery, and tools	Incompetent person disconnecting temporary electrical distribution boards Employees standing underneath lifting operations Improper loading of plant and machinery Vehicle not roadworthy	Property damage Electrocution Load falling on employees Plant/machinery falling off trucks causing property damage Accident	3	3	9	Competent/registered electrician to conduct the disconnection of temporary electrical installations. Lifting equipment to be load tested. Load test certificates are to be available. Lifting equipment is to be placed on the register and inspected every month. Employees are to stand clear of lifting operations and no employees are allowed underneath suspended loads. Operators to be competent. All construction vehicles to be roadworthy Verification of roadworthiness is to be done before entering the site