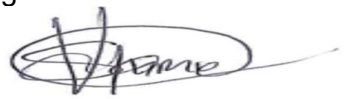
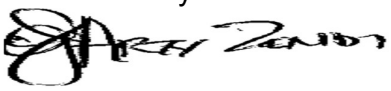
ETHEKWINI MUNICIPALITY
Occupational Health & Safety Unit

Site Specific Health and Safety Specification in terms of 2014 Construction Regulations 5.1(b)

Document Title	Baseline Risk Assessment
Client	eThekwini Municipality- Road Provision
Project Name	**Upgrade of Thokoza road from gravel to asphalt in ward 103, KwaSondela area outer west phase 1**
Contract Number	3R-33144
Date	10/04/2026
Internal Reference no.	BRA 522/04/2026
Compiled by (Safety officer)	Name and surname: Siziwe Chiliza Signature: 
Reviewed by (Manager: Safety& Risk)	Name and surname: Arty Zondi Signature: 

The work entails the supply of all materials, labour and plant necessary for the upgrading of THOKOZA ROAD within the Outer West area in Ward 103. The approximate total length of the road is 1355m.

TABLE OF CONTENTS (refer to Baseline Risk Assessment attached)

1 PROJECT TITLE

The work entails the supply of all materials, labour and plant necessary for the upgrading of THOKOZA ROAD within the Outer West area in Ward 103. The approximate total length of the road is 1355m.

3 EXECUTIVE SUMMARIES

The Occupational Health and Safety Act of 1993, and its relevant regulations require Employers to conduct a Baseline Risk Assessment prior to the work being performed.

This assessment and observations were made at the above site under the conditions which prevailed on the date of the assessment. Detailed conclusions are given in the relevant sections of this report**.**

4 SCOPE OF WORK

The works consist of the following:

Site Clearance
General clearance of the area of works

Earthworks and layerworks
Cut to fill, cut to spoil and importing of suitable fill material
Road formation
Layerworks consisting of
150mm G7
150mm G5
150mm G2

Drainage
Stormwater pipes
Construction of manholes, inlets and headwalls

Asphalt Roadwork
Construction of 5.5m wide, 40mm thick SA-S14 Asphalt Road

Concrete Roadwork
Concrete driveway slabs
Construction of V-drains

Protection Works
Construction of retaining structures: Gabion boxes and Geolock or similar approved retaining wall
Guardrails

Services
Proving of service

5 BASELINE RISK ASSESSMENT

a) **INTRODUCTION:** In accordance with the Occupational Health and Safety Act, (Act 85 of 1993) the Legislator places specific requirements on an Employer. One of these is prescribed in Section 8(i) of the Act where it requires the Employer to ascertain the risks and dangers which may occur within the workplace or section of the workplace and then goes on to establish working procedures or practices.

b) **PURPOSE: This** is conducted to create a benchmark of the potential risks that apply to the whole project or business operation.

c) **SCOPE:** This assessment could be approached on a site, regional or national level, concerning any facet of the business operation or process or activity.

d) **ABREVIATIONS, ACRONYMS AND DEFINITIONS**

ABREVIATION, ACRONYMN OR DEFINITION	**MEANING**
Risk	Uncertain future events that can influence the achievement of the company's objective. Chance of loss
Exposure	Is a condition or practice which involves the employee being subjected to the Hazard or Danger while being **normally unprotected**
Likelihood or Probability	(inevitable to almost impossible) the **Frequency** of the exposure (constant to rarely) being one of the parameters
Consequence or Severity	This could be either having a financial, injury and or illness outcome
Risk Ranking	There are three stages namely: **IDETIFYING the RISK: -** in terms of the hazard, threats **EVALUATING: -** the hazard, threats and or exposures identified to establish the potential magnitude of the RISK involved **VALUE JUDGEMENT or APPRAISING: -** the acceptability and potential impact as well as the magnitude of the hazards, exposure and evaluating the outcome on the business, operations and or the health and safety of people and processes

ABREVIATION, ACRONYMN OR DEFINITION	MEANING
Risk Rating	**Equals = Severity + Frequency + Exposure**
Baseline Risk Assessment	This is conducted to create a benchmark of the potential risks that apply to the whole project or business operation.
Issue based	This is normally focused at operational activities, processes, systems and functions and focuses on identifying the risks within a certain task, process or activity
Continuous Risk Assessment	The processes, systems and activities monitored on an ongoing basis
Hazard	A chemical, physical, social or political condition that has potential of causing damage or any kind of harm to people, property the environment or business continuity.
OHS Act	Occupational Health and Safety Act, Act 85 of 1993
Task based Risk Assessment	The appointed Contractor develops a Risk Assessment based on the Clients Baseline and project specific activities
Severity / Consequence	The degree of harm, the potential severity of injuries or ill health and or the number of people potentially affected
Exposure	Chance that a person or persons will be harmed during the exposure period
Frequency	A measure of the rate of occurrence of an event expressed as the number of occurrences in a given time

ABREVIATION, ACRONYMN OR DEFINITION	MEANING
Frequency	A measure of the rate of occurrence of an event expressed as the number of occurrences in a given time
Intolerable Risk	Risk is intolerable and cannot be justified on any grounds
Significant Risk	Risk in which benefit outweighs cost
Moderate Risk	Risk is if cost of reduction would exceed improvement
Tolerable Risk	A Risk that has been reduced to a level that can be endured by the organization having regard to its legal obligations and its own Safety and Health Policy
Residual Risk	The risk that remains after taking into account the effect of the existing controls that have been applied
Average Daily Traffic ADT)	The average daily traffic count is used as a method to determine how many vehicles travel on a road on a given day
Bollard	Rigid posts that can be arranged in a line to close a road or path to vehicles above a certain width
Flag person	The workers who carry these signs provide traffic control in the construction zone.
Median	A median is a barrier, constructed of concrete, asphalt or landscaping that separates two directions of traffic
New Jersey Barrier	A jersey barrier is a concrete barrier that acts as a traffic control device to separate traffic flow
PPE	Personal protective equipment e.g. gloves, hard hat boots etc.

Shoulder	Reserved area by the verge of a road, generally it is kept clear of all traffic
Sub - Base	Is the layer between the top and the selected layers and the bottom
Base	Is the layer immediately below the surfacing and has to meet stringent requirements regarding material quantities and compaction

ABREVIATION, ACRONYMN OR DEFINITION	MEANING
Cut	Consist of all excavations from the existing ground line to the roadbed and includes the side (table) drains
Fill	Consist of imported material above the roadbed
Side drain	Run parallel to the road
Culvert	Conveys water safely from the upper side of the road to the lower side

6.1 RISK ASSESSMENT METHODOLOGY

All Risk identified during Risk Identification has to be assessed for significance in terms of probability of the Risk event to occur and the impact of the event.
Ranking of the Risk can be based on a simple scale ranging from:

- Very likely to almost certainly
- Actual numerical probabilities can be used
- Risk that are ranking High receives highest priority

The approach and process:

a) Identify the risk / hazards associated with the work activities
b) Assess the risk in terms of severity, likelihood of occurring and controllability
c) Evaluate the risks / hazards
d) Determine the level of control
e) Implement controls
f) Monitor the effectiveness of controls

6.2 RISK ESTIMATION AND EVALUATION

RISK CLASSIFICATION USING A RISK SCORE TECHNIQUE

Exposure (E) How frequently does the hazardous event occur
Risk classification

Continuously ……	10
Frequently (daily) ……	6
Occasionally (weekly) ……	3
Unusually (monthly) ……	2
Rarely (few a year) ……	1

Probability (P) The probability of a loss when the hazardous event does occur
Risk classification

Frequent (happens often) ……	10
Probable (quite possible) ……	6
Occasional (unusual, but possible) …..……	3
Remotely possible (has happened somewhere) ….……	1
Improbable (practically impossible) ……	0.5

Severity (S) Consequences of the hazardous event
Risk classification

Catastrophic many fatalities; or interruption of longer than 2 weeks; or asset or environmental damage (or both) exceeding R100m… 100

Disaster (few fatalities; or interruption between one and 2 weeks; or asset or environmental damage (or both) exceeding R10m) … 40

Very serious (one fatality; or interruption of 6 days; or asset or environmental damage (or both) exceeding R100,000…….…… 7

Important (temporary disability; or interruption between 6 and 24 hours; or damage exceeding R10,000 …… 3

Noticeable (first aid needed; or interruption of less than 6 hours; damage exceeding R1000) …… 1

Risk classification (Risk score = E x P x S)

Risk score	**Risk classification**
Over 400---------5	Very high risk – discontinue operation or activity
200 to 400 ------ 4	High risk – immediate correction needed
70 to 200------- 3	Substantial risk – correction needed
20 to 70--------- 2	Possible risk – attention needed
Under 20 -------- 1	Risk accepted

5	
4	
3	
2	
1	

ETHEKWINI MUNICIPALITY
Occupational Health & Safety Unit

CONTRACT NUMBER : 3R – 33144

BASELINE RISK ASSESSMENT WORKSHEET: IDENTIFYING EXISTING & POTENTIAL RISKS

WORK PROCESS CATEGORY: ACCESS TO THE SITE

RISK REF	ACTIVITY	POTENTIAL HAZARD	RISK	RISK EVALUATION			RISK SCORE ExPxS	RISK LEVEL	RISK RANK	CONTROL MEASURE
				E	P	S				
1	Accessing the site using construction vehicles	Transportation of staff to and from the site	Construction vehicles could crash into other vehicles / buildings resulting in damage to equipment or employees being injured	6	6	7	252	High	4	The Construction Manager must develop a Driving Policy which incorporates the use of cell phones whilst driving and adherence to speed limits. The Contract Manager must ensure all construction

										vehicles and staff comply to CR23
2	Delivering of equipment to the site	Pedestrian /children using public road	Vehicles/trucks could crash into pedestrians walking along the roadside resulting in critical injuries or fatalities	6	6	7	252	High Risk	4	Construction Manager to ensure the truck is deemed roadworthy. Ensure the Environmental Management Plan is adhered to and the vehicle is equipped with a spill control kit.

3		Oil or petrol spill	Oil and petrol spill could cause ground contamination	6	6	1	36	Possible Risk	2	Construction Manager to ensure the truck is deemed roadworthy. Ensure the Environmental Management Plan is adhered to and the vehicle is equipped with a spill control kit.

RISK REF	ACTIVITY	POTENTIAL HAZARD	RISK	RISK EVALUATION			RISK SCORE ExPxS	RISK LEVEL	RISK RANK	CONTROL MEASURE
	WORK PROCESS CATEGORY: **SITE ESTABLISHMENT**									
				E	P	S				
2	Ablutions for male / females	Inadequate Welfare Facilities Inadequate or insufficient Toilet Facilities	Inadequate or insufficient Ablution Facilities may result in employees using areas not designated for the use thereof Unhygienic condition	6	6	3	108	Substant ial Risk	3	CR 28 1 per30 NBR prescribe chemical toilets for construction site. Sufficient showers and changing facilities for both male and female

3	Sheltered eating facilities	Unsafe positioning of ablution and sheltered eating areas	Unsafe positioning of ablutions and sheltered eating areas may result in vehicles veering of the road and into the facilities and resulting in critical injuries	6	6	7	252	High	4	Refuse bins with lids provided. Facilities clean and hygienic

	Clearing of the site area	Snakes	The presence of the snakes may result in snake bites causing fatalities							Snake awareness training developed

4	Maintenance workshop Secure / safe storage of materials / plant and equipment	Incorrect stacking of parts and spares could cause tripping hazards	Slips, trips and falls	6	6	3	108	Substantial Risk	3	Adequately ventilated ignition free Emergency shower / eye wash provided

6	Site clearing using Earthmoving equipment/ machinery	Protected vegetation	Damage to protected vegetation could result in damage to the ecosystem	6	6	3	108	Substantial Risk	3	The Construction Manager must ensure that protected vegetation is clearly demarcated and the Environmental Plan is adhered to
	Site induction	Injuries to person not familiar to site	Property damage Sustainable injuries	6	6	3	54	Substantial Risk	3	Construction Manager to ensure all on site is inducted

7	The storage /usage of flammable liquid/gasses and combustible materials	The incorrect storage of flammable liquids/gasses and combustible materials	The incorrect storage could lead to Environmental spillages							The Construction Manager must ensure that they adhere to the Client H&S Specification with regards to combustible substances.
8	Vehicle leaving / entering the site	Traffic disruption, injury to people	Damage to property	6	6	3	108	Substantial Risk	3	Competent operators/ drivers, use of flag person
9	Unsafe stacking and storage practices	Collapse of stored materials	Collapse of stored materials may result in injury of personnel	6	6	3	108	Substantial Risk	3	The Construction Manager must ensure that they adhere to stacking and storage principles as contained in the

										General Safety Regulations
10	Installation of Temporary Electrical Installations	Exposed Electrical Cables/ Wires	Contact with exposed electrical cables may result in electrocution	6	6	7	252	High	4	CoC, appointments, registers, competent person
11	Housekeeping	Slips, trips and falls	Tripping and falling on superfluous materials can cause cuts on hands, injury to feet	6	6	3	108	Substantial Risk	3	The Construction Manager must ensure that waste is removed periodically, and work areas kept clean at all times

11	Fencing	Access to unauthorized persons	Injury to persons	6	6	3	108	Substantial Risk	3	Construction manager to put system of control in place. No unauthorized entry signs to be posted and access controlled
12	Essential emergency equipment Firefighting equipment First Aid Boxes Drinking water	Not having the essential services on hand	Health / loss of property through fire	6	6	3	108	Substantial Risk	3	Construction manager to ensure these requirements are on site from the day site is established

BASELINE RISK ASSESSMENT WORKSHEET: IDENTIFYING EXISTING & POTENTIAL RISKS

WORK PROCESS CATEGORY: TRAFFIC ACCOMODATION

RISK REF	ACTIVITY	POTENTIAL HAZARD	RISK	RISK EVALUATION			RISK SCORE ExPxS	RISK LEVEL	RISK RANK	CONTROL MEASURE
				E	P	S				
13	Setting up of temporary road works signage	Placing of incorrect signage at locations	Misinformation may cause drivers to become unable to discern what to do resulting in accidents and irate members of the public	6	6	3	108	Substantial Risk	3	The Construction Manager must ensure that a suitable site specific Traffic Management Plan is developed and implemented, and a competent Traffic Safety Officer is appointed for the duration of the contract. All temporary road traffic signage must comply with the SARTSM

14		Handling and placement of signage without wearing the correct PPE	Handling of signage without gloves, reflective vests and safety	3	3	1	9	Risk Accepted d	1	The Construction Manager must ensure that a task specific risk assessment for PPE
			boots may result in injuries							control is implemented
15	Public vehicular and pedestrian traffic travelling on the public road during construction work	Workers injured by passing traffic	Collision of public vehicles and workers	10	6	7	420	Very High	5	The Construction Manager must ensure that a competent Traffic Safety Officer is appointed and a site specific Traffic Management Plan is implemented

16		Limited or no advanced warning area may result in accidents	Collision of public vehicles and workers	6	6	7	252	High	4	The Traffic Safety Officer must ensure that temporary road works signage is laid out as per the SARTSM and approved Traffic Management Plan

WORK PROCESS CATEGORY: MATERIALS DELIVERY TO THE SITE

RISK REF	ACTIVITY	POTENTIAL HAZARD	RISK	RISK EVALUATION			RISK SCORE ExPxS	RISK LEVEL	RISK RANK	CONTROL MEASURE
				E	P	S				
17		incompetent Operators	The use of incompetent operators may result in accidents	6	6	7	252	High	4	The Construction Manager must verify that the Operators are deemed competent to operate the Tippers and are medically fit
18		Reversing into public vehicles or property	Reversing into vehicles and property resulting in damages	6	6	3	108	Substant Risk	3	The Contract Manager must ensure that each driver is accompanied by a competent banks man and designated safe areas for offloading demarcated

BASELINE RISK ASSESSMENT WORKSHEET: IDENTIFYING EXISTING & POTENTIAL RISKS

19		Uneven ground, soft soil,	Damage to plant and equipment as well as crushing injuries or fatalities	6	6	7	252	High	4	The Construction Manager must ensure that each driver is accompanied by a competent banks man when working in high risk areas
20	Cement / concrete dust	Inhalation. Contact with skin , eyes	Severe irritation, burns, long term damage	6	6	3	108	Substant Risk	3	Wash immediately if coming into contact

21	Loading / off loading the truck	Incorrect slings being used	Property damage and serious injury or fatality	6	6	7	252	High	4	Rigging to be done by a trained and competent rigger and the task to be supervised by the supervisor
22	Aggregate / sand and other materials delivered	Uneven ground, soft soil,	Damage to plant and equipment	6	6	3	108	Substantial Risk	3	The Construction Manager must assess steep gradients on foot before plant is moved onto the site to determine if the area is safe
23	Manual handling Ergonomics	Incorrect posture	Back strain Skeletal damage	3	6	3	54	Possible Risk	2	Employees to be trained in the correct lifting technique

24	Mechanical handling	Employee being struck	Serious injury	3	6	3	198	Substantial Risk	3	Constant supervision
25	Lifting / lowering operation	Employee being struck by the load	Serious injury Fatality	10	6	7	420	Very High	5	Rigging to be done by a trained and competent rigger and the task to be supervised by the supervisor

BASELINE RISK ASSESSMENT WORKSHEET: IDENTIFYING EXISTING & POTENTIAL RISKS

WORK PROCESS CATEGORY: **EXCAVATION**

RISK REF	ACTIVITY	POTENTIAL HAZARD	RISK	RISK EVALUATION			RISK SCORE ExPxS	RISK LEVEL	RISK RANK	CONTROL MEASURE
				E	P	S				
26	Transporting of material to and from the site	Defective tipper trucks, excavators and front-end loaders	The use of defective plant /equipment may result in accidents	6	6	3	108	Substantial Risk	3	The Contraction Manager must verify that all Tipper trucks utilized on site has a recent service inspection register in place and is signed off by the relevant Technical Manager

27	Manual excavation	Open Excavation >1.5m	Excavations > 1.5m caving in may result in multiple fatalities	6	6	7	252	High	4	Daily check of the excavation by the appointed excavation supervisor and recorded in a register
28		Unauthorized entry	Unauthorized access to site may result in critical injury to people	6	6	7	252	High	4	Daily check of the excavation by the appointed excavation supervisor and recorded in a register
29		The use of Hand tools (picks, spades)	An employee using a pick could strike the employee in front/rear resulting in injury	6	6	7	252	High	4	The Construction Manager must ensure that a SWP is developed implemented and that all employees are instructed in the content of the site specific risk assessment
30				6	6	7	252	High	4	Proper PPE to be issued

31		Working in natural elements, sun, rain, glare & wind	Prolonged exposure to extreme high temperatures may result in heat stroke							
		Fast moving vehicles	Passing traffic could crash into employees working in an existing excavation	6	6	7	252	High	4	The Construction Manager must ensure that a SWP is developed implemented and that all employees are instructed in the content of the site specific risk assessment

32		Poor Ergonomics	Poor Ergonomics may result in muscular skeletal injuries	3	6	3	54	Possible Risk	2	The Construction Manager must ensure that a SWP is developed implemented and that all employees are instructed in the content of the site specific risk assessment
33	Mechanical Excavation	The use of Defective Plant	The use of defective plant	6	6	3	108	Sustantial Risk	3	The Construction Manager must verify that all plant utilized
			may result in accidents							on site has a recent service inspection register in place and signed off by the relevant technical manager

34		untrained operator	The use of an untrained operator may result in accidents	6	6	**7**	252	High	4	The Construction Manager must verify that the Operator is deemed competent to operate that specific plant and is medically fit The Safety Officer must take cognizance of the requirements of the Driven Machinery Regulations 2015
35		Public / Contractor interface	Public accessing the work area could result in injuries	6	6	**3**	108	Sustanti Risk	3	The Construction Supervisor must ensure all work are adequately barricaded / cordoned off to prevent member of the public from entering

BASELINE RISK ASSESSMENT WORKSHEET: IDENTIFYING EXISTING & POTENTIAL RISKS

WORK PROCESS CATEGORY: **EARTHWORKS**

RISK REF	ACTIVITY	POTENTIAL HAZARD	RISK	RISK EVALUATION			RISK SCORE ExPxS	RISK LEVEL	RISK RANK	CONTROL MEASURE
				E	P	S				
36	Layer works and Asphalt layer	Traffic accidents on site when transporting materials. Reversing of trucks and mobile plant Dust inhalation High temperature of product	Damage to property Respiratory failure Burns	6	6	**3**	108	Substantial Risk	3	Speed limit to be adhered to Enforced reverse alarms to be fitted Application of dust masks

37	Backfilling	Suitable access and egress in and out of excavations deeper than 1 meter not provided. Collapse of excavation during backfilling operations	Injury to persons Injury to persons Fatality	6	6	**7**	252	High	4	Competent excavation supervisor to ensure that access is provided, employees informed of requirements Only authorized

DRIVING / OPERATING OF CONSTRUCTION VEHICLES AND MOBILE PLANT

RISK REF	ACTIVITY	POTENTIAL HAZARD	RISK	RISK EVALUATION			RISK SCORE ExPxS	RISK LEVEL	RISK RANK	CONTROL MEASURE
				E	P	S				
37	Excavator	Unauthorized opr incompetent person operating the machine	Injury to persons, damage to property	6	6	**7**	252	High	4	Only competent operator to be appointed
38	Bomag roller	Unauthorized opr incompetent person operating the machine	Injury to persons, damage to property	6	6	**7**	252	High	4	Only competent operator to be appointed
39	Plate compactor	Operator working with plate compactor not trained, running over workers feet	Foot injury and bruises	6	6	**7**	252	High	4	Only competent operator to be appointed

40	Front end loader	Unauthorized operator incompetent person operating the machine	Injury to persons, damage to property	6	6	**7**	252	High	4	
41	Concrete breaker (Jack hammer)	Noise	Noise Induced hearing Loss	6	6	**3**	108	Substantial Risk	3	Employee to make use of SABS approved hearing protection, supervisor to ensure that the correct P.P.E is used. Task to be supervised by a competent supervisor

WORKPLACE ENVIRONMENT , HEALTH AND HYGIENE

RISK REF	ACTIVITY	POTENTIAL HAZARD	RISK	RISK EVALUATION			RISK SCORE ExPxS	RISK LEVEL	RISK RANK	CONTROL MEASURE
				E	P	S				
42	Working in close proximity to moving machinery Exposure to noise	Noise	Noise Induced hearing Loss	6	6	**3**	108	Substantial Risk	3	Employee to make use of SABS approved hearing protection, supervisor to ensure that the correct P.P.E is used. Task to be supervised by a competent supervisor

43	Exposure to vibration	Vibration	White finger	6	6	**3**	108	Substantial Risk	3	Supervisor to rotate employees and allow for frequent breaks
44	Protection against dehydration and heat exhaustion	Dehydration/collapse	Health consequences to workers	6	6	**3**	108	Substantial Risk	3	Measures in place to prevent heat exhaustion in heat stress problem areas
45	Wet / cold condition	Affecting ability to work safely	Injury to workers	6	6	**3**	108	Substantial Risk	3	Provide rain wear / wellingtons where necessary Provide protection against the cold

46	Hazardous chemical substances	Contact with skin/ eyes Inhalation or indigestion	Skin irritation, burns or infections Could cause loss in eyesight	6	6	**3**	108	Substantial Risk	3	All substances identified and list available. MSD's Substances stored safely
47	Dust	Inhalation / respiratory problems	Respiratory failure	6	6	**3**	108	Substantial Risk	3	Application of dust masks

PUBLIC SAFETY

RISK REF	ACTIVITY	POTENTIAL HAZARD	RISK	RISK EVALUATION			RISK SCORE ExPxS	RISK LEVEL	RISK RANK	CONTROL MEASURE
				E	P	S				
48	Public exposed to the nature of the construction activities	Emission of HCS, dust and noise	Health risk impact	6	6	**3**	108	Substantial Risk	3	Communication with neighboring businesses is critical. Health risk must be communicated to all employees Dust, noise generated out of the construction work must be managed

BASELINE RISK ASSESSMENT WORKSHEET: IDENTIFYING EXISTING & POTENTIAL RISKS

WORK PROCESS CATEGORY: **PUBLIC SAFETY, SECURITY MEASURES AND EMERGENCY PREPARENESS**

RISK REF	ACTIVITY	POTENTIAL HAZARD	RISK	RISK EVALUATION			RISK SCORE ExPxS	RISK LEVEL	RISK RANK	CONTROL MEASURE
				E	P	S				
49	Notices and signs	Appropriate signage not displayed	Person /s not aware of the danger Injury / serious injury	6	6	**7**	252	High	4	No unauthorized Entry General warning signs
50	Emergency Preparedness	No Emergency Plan in place	Person/s unprepared to respond to the emergency at hand	6	6	**3**	108	Substant ial Risk	3	Emergency contact numbers displayed with designated person
51	Emergency Drill & Evacuation	No training No implementation Planning done	Person/s unprepared to respond to the emergency at hand	6	6	**3**	108	Substant Risk	3	Adequate number of employees trained in the use of fire equipment

52	Development and implementation of an Emergency Management Plan	Failure to have a basic site-specific Emergency Management Plan	Failure to have a basic, site specific Emergency Management Plan may result in injury and damage to property	6	6	**3**	108	Substant Risk	3	The Construction Manager must ensure that a site specific Emergency Management Plan is developed for implementation
53		Workers not trained in the Emergency Plan	Workers not trained in the Emergency Plan may result in their inability to respond to Emergencies	6	6	**3**	108	Substantial Risk	3	The Construction Manager must ensure that those workers are adequately and regularly trained to respond to Emergencies.

54		Insufficient or no Emergency equipment or personnel	Insufficient or no Emergency equipment or personnel on site may result in Emergencies being critical	6	6	**7**	252	High	4	The Construction Manager must ensure that a suitable number of employees are appointed to the Emergency Team and that First Aid boxes, First Aiders, Fire Team members and any other equipment as identified during the risk assessment process is on site.

WORK PROCESS CATEGORY: **COMMUNITY MANAGEMENT**

RISK REF	ACTIVITY	POTENTIAL HAZARD	RISK	RISK EVALUATION			RISK SCORE ExPxS	RISK LEVEL	RISK RANK	CONTROL MEASURE
				E	P	S				
55	Poor liaison with the CLO	Failure to adequately monitor and manage the multi faced social issues	Failure to manage social issues could result in violent protests and	6	6	**3**	108	Substantial Risk	3	The Construction Manager must ensure that a Community Liaison Officer (CLO) and project steering
			injury to employees							Committee is appointed to manage social issues

56		Roads blocked off due to community protest	Construction trucks and vehicles could crash into barricades resulting in damage to equipment or severe injuries	6	6	**7**	252	High	4	The Contraction Manager must ensure that close communication is kept with the local authorities and the appointed Community Liaison Officer to ensure that all personnel accessing the site are timeously alerted.

WORK PROCESS CATEGORY: **SUB – CONTRACTOR MANAGEMENT**

RISK REF	ACTIVITY	POTENTIAL HAZARD	RISK	RISK EVALUATION			RISK SCORE ExPxS	RISK LEVEL	RISK RANK	CONTROL MEASURE
				E	P	S				
57	No proper management control	Failure to adequately assess Sub Contractors S.H.E Management System before work commences and at regular intervals	Failure to manage Sub Contractors may result in injury and	6	6	**3**	108	Substant ial Risk	3	The Safety Officer must ensure that the appointed Sub Contractors S.H.E system is audited monthly and on site
			noncompliance to Legislation							activities supervised or monitored

58	Inadequate supervision	Inadequate Supervision may result in a high level of employee unsafe behavior	Injury / property damage	6	6	**3**	108	Substant ial Risk	3	The Construction Manager must ensure that Sub Contractors have adequate competent Supervision on site at all times
59	Utilizing incompetent Sub-Contractors	Utilizing incompetent Sub Contractors may result in accidents		6	6	**7**	252	High	4	The Construction Manager must be reasonably satisfied that the Sub Contractors intended to be appointed have the necessary competencies and resources to carry out the work safely

60	Utilizing incompetent Sub-Contractors	Utilizing incompetent Sub Contractors may result in damage to the Environment		6	6	**7**	252	High	4	The Construction Manager must be reasonably satisfied that the Sub Contractors intended to be appointed have the necessary competencies and resources to carry out the work safely

WORK PROCESS CATEGORY: **CONSTRUCTION ACTIVITIES**

RISK REF	ACTIVITY	POTENTIAL HAZARD	RISK	RISK EVALUATION			RISK SCORE ExPxS	RISK LEVEL	RISK RANK	CONTROL MEASURE
				E	P	S				
61	Brickwork at manholes	Repetitive strain injuries	Poor ergonomics may result in muscular skeletal injuries	6	6	3	108	Substantial Risk	3	The Construction Manager must ensure that a SWP is developed implemented and that all employees are instructed in the content of this SWP.

62	Mixing mortar	Repetitive strain injuries	Loading / unloading material	3	6	3	54	Possible Risk	2	The Construction Manager must ensure that a SWP is developed implemented about safe lifting and loading procedures.
63	Clean, grout and seal joints	Pressure equipment dislodge from source	Injury to persons	6	6	**7**	252	High		

64	Removal of asphalt inter layer using conventional method	Poor Ergonomics	Poor Ergonomics may result in muscular skeletal injuries	3	6	**3**	54	Possible Risk	2	The Construction Manager must ensure that workers are trained in the risk of ergonomically injuries and methods to mitigate the risks
65	Clear and grub pavement areas	Poor Ergonomics	Poor Ergonomics may result in muscular skeletal injuries	3	6	**3**	54	Possible Risk	2	The construction Manager must ensure that workers are trained in the risk of ergonomically

										injuries and methods to mitigate the risks
66	Placing of, plastic pipes for underground services	Operating of TLB or Excavator in close proximity to workers and public vehicles	Critical injuries caused by TLB/ Excavator striking workers or TLB rolling over	6	6	**7**	252	High Risk	4	The Construction Manager must ensure that the TLB/ Excavator Operator utilize a banks man
67		Using TLB for lifting pipes or other material	Critical injuries caused by the TLB or Excavator striking workers or rolling over	6	6	**7**	252	High Risk	4	The Construction Manager must ensure that the TLB/ Excavator has been modified or designed to be used as lifting equipment and the load test certificates provided.

68		Incorrect use of defective hand tools	The incorrect and or defective hand tools could result in non-disabling/ first aid case i.e. the hand or eyes	6	6	**3**	108	Substant ial Risk	3	The Construction Supervisors must ensure that all hand tools are inspected monthly and recorded in an applicable register with all defective hand tools removed from the site
69		Incorrect use of defective electrical tools	The incorrect and or defective hand tools could result in non-disabling/ first aid case i.e. the hand or eyes	6	6	**3**	108	Substant ial Risk	3	The Construction Supervisors must ensure that all portable electrical tools are inspected monthly and recorded in an applicable register with all defective equipment removed from the site

70	Construction of drains	Poor Ergonomics	Poor Ergonomics may result in muscular	3	6	**3**	54	Possible Risk	2	The Construction Manager must ensure that workers are
			skeletal injuries							trained in the risk of ergonomically injuries and methods to mitigate the risks

BASELINE RISK ASSESSMENT WORKSHEET: IDENTIFYING EXISTING & POTENTIAL RISKS

WORK PROCESS CATEGORY: **CONSTRUCTION ACTIVITIES**

RISK REF	ACTIVITY	POTENTIAL HAZARD	RISK	RISK EVALUATION			RISK SCORE ExPxS	RISK LEVEL	RISK RANK	CONTROL MEASURE
				E	P	S				
71	Pouring Ready Mix concrete	Concrete truck tipping over	Concrete truck tipping over could result in serious injury to the operator and workers close by	6	6	**7**	252	High	4	The Construction Manager must ensure that safe access to the pouring platform is created before the truck arrives on the site

73	Excavation of trenches	Excavation collapse	Plant striking operatives Public falling into it	6	6	**7**	252	High	4	Suitable protection to be installed around the excavation
74	Use of hand tools	Defective tools	Injury to person	6	6	**7**	252	High	4	Visual check before tool is used. Tool to be stored if not in use
75	Waste removal	Falling materials grab striking persons/ property	Injury to persons /damage to property	6	6	**7**	252	High	4	Only use grab or excavator, when operator has clear view of surroundings. No person allowed within the working range of the grab or excavator

BASELINE RISK ASSESSMENT WORKSHEET: IDENTIFYING EXISTING & POTENTIAL RISKS

WORK PROCESS CATEGORY: **CONSTRUCTION ACTIVITIES**

RISK REF	ACTIVITY	POTENTIAL HAZARD	RISK	RISK EVALUATION			RISK SCORE ExPxS	RISK LEVEL	RISK RANK	CONTROL MEASURE
				E	P	S				
76	Relocation of water Sewer and Electrical cables	Disruption of essential services	Community effected	6	6	3	108	Substantial Risk	3	Notification of supply service being disrupted to be communicated well in advance

BASELINE RISK ASSESSMENT WORKSHEET: IDENTIFYING EXISTING & POTENTIAL RISKS

WORK PROCESS CATEGORY: CONSTRUCTION ACTIVITIES

RISK REF	ACTIVITY	POTENTIAL HAZARD	RISK	RISK EVALUATION			RISK SCORE ExPxS	RISK LEVEL	RISK RANK	CONTROL MEASURE
				E	P	S				
78	Kerb inlet	Work zone not demarcated	Persons/s struck by vehicle	6	6	7	252	High	4	Traffic Management Plan to be fully implemented
79	Cut off drains	Work zone not demarcated	Persons/s struck by vehicle	6	6	7	252	High	4	Traffic Management Plan to be fully implemented

80	Inlet and outlet structures	Work zone not demarcated	Persons/s struck by vehicle	6	6	7	252	High	4	Traffic Management Plan to be fully implemented
81	Applying tack	Contamination	Eye injury	6	6	**7**	252	High	4	Close supervision at all times
82	Disposal of waste	Contamination	illness	6	6	**7**	252	High	4	Close supervision at all times
83	Working with hot asphalt	Heat stress / Burns	Injury to persons	6	6	**7**	252	High	4	Close supervision at all times
84	Cleaning tools with solvent	Use of chemical substance	Injury to persons	6	6	**7**	252	High	4	Close supervision at all times

WORK PROCESS CATEGORY: **ROAD PATCHING**

RISK REF	ACTIVITY	POTENTIAL HAZARD	RISK	RISK EVALUATION			RISK SCORE ExPxS	RISK LEVEL	RISK RANK	CONTROL MEASURE
				E	P	S				
85	Use of jackhammer to open patch	Crushing and pinching Slip, trip, falls in loose material	Incompetent employee working the jackhammer can cause injury to body parts	6	6	3	108	Substantial Risk	3	Employees using the jackhammer need to be trained by competent person
86	Filling of the road patch with cold mix or approved mix	Manual handling Back injury	Poor work performance. Back sprains and strains	6	6	7	252	High	4	Handling of asphalt bags need to be done by two employees. Training must be done to employees concerning manual handling

87	Compaction with small ride on roller	vibration	Operator losing control and hitting employees	6	6	7	252	High	4	All employees need to be trained not to stand close to moving plant. They need to stand 20m cleared of the work zone

8 REFERENCE

REFERENCE DOCUMENT
Occupational Health and Safety Act, Act 85 of 1993
Environmental Act
Construction Regulations 2014

120 1500 1200 700 1 in 50


TW336


TR104


TD4