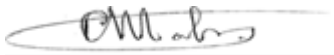
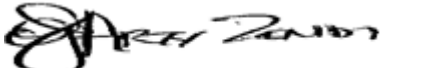




SITE BASED BASELINE RISK ASSESSMENT

Construction Regulations 5.1(a)

Document Title	Baseline Risk Assessment
Department	Technical Services.
Client	EThekweni Municipality-Engineering Services Directorate: Roads and stormwater maintenance Department.
Project	Maintenance of EThekweni owned rail siding as and when required in Isipingo area for 36 months
Contract Number	1M-36474
Revision	00
Date	11 May 2026
Internal Reference no.	BRA 55/05/2026-RSWM
Compiled by (Safety officer)	Name and surname: Phumlani Mabaso Signature:  Date: 25/06/2026
Reviewed by (Manager: Safety& Risk)	Name and surname: Arty Zondi Signature:  Date: 25/06/2026
Received by Principal contractor	Name:
	Signature:

BASELINE RISK ASSESSMENT

1.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.

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

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

4.REVIEW AND MONITORING PLAN

The risk assessment form part of the health and safety plan to be applied on the site and must include the following:

- (a) The identification of the risk and hazards to which persons may be exposed to.
- (b) An analysis and evaluation of the risk and hazards identified based on a documented method.

5. REFERENCES

- (a) Tender document number 1M-36474
- (b) Occupational Health & Safety Act and its Regulation

PLEASE NOTE THAT THIS IS A BASELINE RISK ASSESSMENT AND NOT A DETAILED RISK ASSESSMENT OF ALL ANTICIPATED ACTIVITIES ON SITE.

SCOPE OF WORK

List of activities to be undertaken and the following activities were assessed:

- (a) Access to the site
- (b) Material delivery to the site
- (c) Performing duties adjacent to electrified lines.
- (d) Performing duties adjacent to signal equipment.
- (b) Removing contaminated ballast, installation of new ballast and boxing up ballast.
- (c) Welding.
- (d) Fitting of moulds.
- (e) Cutting grass.
- (f) Controlling weeds.
- (g) Rail greasing.
- (h) Track clearing (cutting trees, trimming branches).
- (i) Drain maintenance.
- (k) Track gauge maintenance.

1. RISK ESTIMATION AND EVALUATION RISK CLASSIFICATION USING A RISK SCORE TECHNIQUE

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

BASELINE RISK ASSESSMENT
WORKSHEET

	Activity	Hazard	Risk	Risk Evaluation			Risk Score	Risk level
				E	P	S		
1	Access to the site.							
	•Traveling to and from site in a vehicle.	• Safety belts not worn when traveling in, or operating a vehicle. • Vehicle not equipped with safety belts for all passengers. • Over speeding of vehicles. • Driving on public roads.	• Injuries caused when in vehicle accident. • Fatalities when in vehicle • accident Risk of personnel being injured by over speeding vehicles. • Involved in accident.	6	6	7	252	4
2	Material delivery to the site.							
	• Loading and offloading of equipment manually.	• Employee being struck by the load.	• Back strain • Skeletal • damage Head, • hand, and foot injuries. • Serious injury • Fatality	3	6	7	126	3
3	Performing duties adjacent to electrified lines.							

	Working adjacent to rail powerline.	Electrocution due to contact with live electricity.	Severe burns or fatality	6	6	7	252	4
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4	Performing duties adjacent to signal equipment.							
	Working adjacent to signal equipment.	Disruption of signaling system and performance.	Signal failure which may lead to accidents.	10	6	3	180	3
5	Removing contaminated ballast, installation of new ballast and boxing up ballast.							
	Replacement of ballast.	- Slipping, tripping and falling. - Dust accumulation.	- Hand, body and feet injury. - Respiratory problems.	10	6	3	180	3
6	Welding.							
	Welding work during repairs.	- Falling rails - Welding sparks. - Lack of supervision/Incompetent supervisor.	- Feet injuries. - Workers may sustain burning wounds. - Injuries	10	6	3	180	3
7	Fitting of moulds							

	• Replacement of rail moulds.	• Workers can pinch hands in clamps. • Defective hand tools	• Hand injuries.	3	6	3	54	2
8	Cutting grass.							
	• Cutting of grass and raking.	• Injury due to a flying object. • Unguarded blade. • Defective machine.	• Multiple body injury. • Damage to passing train.	3	6	7	126	3
9	Controlling weeds.							
	• Weeding next to the rail reserve and tracks.	• Employees using bare hands when removing weeds. • Bending.	• Hand injuries. • Backache.	3	6	7	126	3
10	Rail greasing.							
	• Application of grease.	• Bending • Lubricant in contact with hands.	• Backache • Skin irritation.	3	6	7	126	3
11	Track clearing (cutting trees, trimming branches).							

	Cutting back branches overhanging rail reserve and removing.	- Employees being hit by tree branches. - Trip and fall	Severe body injuries.	3	6	3	54	2
12	Drain maintenance.							
	Maintaining drainage within the rail reserve.	- Manual lifting. - Defective hand tools.	- Backache. - Personal injuries. - Hand injuries.	3	6	3	54	2
13	Track gauge maintenance.							
	Checking and rectifying gauge of track.	- Faulty hand tools. - Bending	- Hand injuries. - Backache.	3	6	3	54	2