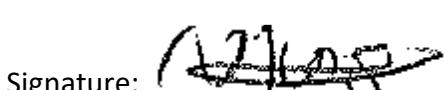




ETHEKWINI MUNICIPALITY
Occupational Health & Safety Unit

BASELINE RISK ASSESSMENT

Document Title	Baseline Risk Assessment
Client	eThekwinini Municipality – Human settlements
Project	Provision of engineering services and 127 top-structures with VIPs for low cost housing project in Etafuleni Phase 3, ward 3
Contract Number	1H-32065
Internal reference	BRA21/12/2025
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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.
- (b) An analysis and evaluation of the risk and hazards identified based on a documented method,
- (c) A documented plan and applicable safe work procedures to mitigate, reduce or control the risks and hazards that have been identified;
- (d) A monitoring plan; and
- (e) A review plan

5. REFERENCES

- (a) Tender document number 1H-32069
- (b) Occupational Health & Safety Act and its Regulations

6. LOCALITY PLAN

Nil

SCOPE OF WORK

Site establishment

Site clearing

Electrical installations

Hand tools and electrical tools

Construction vehicles and mobile plants

Public safety

Elevated positions and scaffolding

Excavations

Concrete works

Blockwork

Roof work

Plumbing work

Construction of gravel road (Grading)

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 (quiet 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: IDENTIFYING EXISTING & POTENTIAL RISKS

	Activity	Hazard	Risk	Risk Evaluation			Risk Score	Risk level
				E	P	S		
1	Site establishment							
	Manual and mechanical clearing of the land. Off-loading and positioning of containers by mobile crane. Fencing. Installation of temporary water supply, electricity, ablution facilities	<ul style="list-style-type: none"> • Incompetent construction mobile plant operator. Manual Handling of equipment and materials. Uneven surfaces. Driving on dangerous and undulating terrain. Reckless driving. Electrocution. Incorrect/ poor connection of temporary services • Body injuries/ Accidents. Destruction of services. Burns/ death 		2	6	3	36	2
2	Site clearing							
	Clearing of the site using construction mobile plant and hand tools	<ul style="list-style-type: none"> • Incompetent driver/ operator; Unsafe • Accident; property damage; machinery running out of control; Injury to body; 		3	6	7	126	3

		construction mobile plant/ hand tools; Petrol and oil spillages; Existing services; Noise	Environmental contamination; Noise induced hearing loss						
3	Electrical installations								
		<ul style="list-style-type: none"> • Incompetent personnel. Unsafe hand-tools/ electrical tools. Unsafe ladder. Electrocution 	<ul style="list-style-type: none"> • Improper installation of electricity/ non-compliance with safety standards. Injury to hands. Burns; electric shock 	3	3	7	63	2	
4	Hand tools and electrical tools								
		<ul style="list-style-type: none"> • Unsafe tools; Untrained or unauthorized operator; 	<ul style="list-style-type: none"> • Injury to body; damage of tools 	6	3	1	18	1	
5	Construction mobile plant and vehicles								
		<ul style="list-style-type: none"> • Untrained operator or driver; noise; dust; vibration; other vehicles 	<ul style="list-style-type: none"> • Collision with other vehicles; damage to property; noise induced hearing loss; body pain; death; disablement ect. 	6	6	7	252	4	
6	Public safety								

		<ul style="list-style-type: none"> • Public exposure to construction activities; fighting over resources 	<ul style="list-style-type: none"> • Injury to body; work stoppage; Legal claims 	6	6	7	252	4	
7	Elevated positions and scaffolding	<ul style="list-style-type: none"> • Falling from; falling into; Unsafe scaffolding; Untrained erectors 	<ul style="list-style-type: none"> • Death; Broken bone; Disablement 	6	6	7	252	4	
8	Excavations and VIPs	<ul style="list-style-type: none"> • Manual and mechanical excavation of trenches using construction mobile plants and hand tools 	<ul style="list-style-type: none"> • Unsafe machinery/ hand tools/ Unprotected trenches/ People exposure to excavations; Unsafe access 	<ul style="list-style-type: none"> • Broken bone/ dislocation/ Accidents/ injuries to hands/ Falling into excavation/ claims and prosecutions 	6	6	3	108	3
9	Concrete works		<ul style="list-style-type: none"> • Concrete spillage/ Concrete contact with body 	<ul style="list-style-type: none"> • Soil contamination/ Skin problems 	3	3	3	27	2
10	Blockwork								

		<ul style="list-style-type: none"> Unsafe working at height platforms; Unsafe hand tools; Contact with mortar 	<ul style="list-style-type: none"> Fall risk; broken bone; dislocation; Injury to hands; Skin dermatitis 	6	6	3	108	3
11	Roof work							
		<ul style="list-style-type: none"> Working on fall risk position; Unsafe roof access; Untrained roof erectors; No/ poor roof work planning; Collapsing of the roof; Falling objects 	<ul style="list-style-type: none"> Falling from; Falling into; broken borne; death; disablement; Head injuries 	6	6	7	252	4
12	Plumbing	<ul style="list-style-type: none"> Unsafe construction mobile plant; Incompetent driver; Open excavation; Oncoming traffic; Incorrect connection of water 	<ul style="list-style-type: none"> Serious body injuries; Accident; Machinery running out of control; Falling into excavation; Broken bone and fracture; Employees can be knocked by moving traffic. Destruction of water services. 	6	3	7	126	3

14	Construction of gravel (Grading)	<ul style="list-style-type: none"> Unsafe mobile plant; Incompetent operator or reckless driving; Medical unfit drivers; Uneven terrain; Dusk; Diesel leak Machinery failure; Machinery running out of control; Serious body injuries; Damage to property or existing services; Machinery can capsize; Respiratory illness; Ground contamination 	6	3	7	126	3
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RISK PROFILE:

Provision of engineering services and 127 top-structures with VIPs for low cost housing project in Etafuleni Phase 3, ward 3

