



ETHEKWINI MUNICIPALITY Occupational Health & Safety Unit

BASELINE RISK ASSESSMENT

Document Title	Baseline Risk Assessment
Client	EThekwini Municipality – Human settlements Unit
Project	Construction of new 192 units at Klaarwater Community Residential Units CRU (ward 17)
Contract Number	1H-27861
Internal reference	BRA20/03/2024
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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-27861
- (b) Occupational Health & Safety Act and its Regulations

6. LOCALITY PLAN

Hostel - Klaarwater



SCOPE OF WORK

Asbestos work

Demolition work

Electrical installations

Existing services

Hand tools and electrical tools

Construction vehicles and mobile plants

Corona virus

Public safety

Elevated positions

Excavations

Concrete works

Blockwork

Roof work

Temporary works

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: IDENTIFYING EXISTING & POTENTIAL RISKS

	Activity	Hazard	Risk	Risk Evaluation			Risk Score	Risk level
				E	P	S		
1	Demolition work							
	Mechanical and manual demolition	<ul style="list-style-type: none"> Dust; noise; uncontrolled collapsing of structure; flying objects; No pre-planning; untrained operator 	<ul style="list-style-type: none"> Respiratory disease; injury to body; death 	2	6	7	84	3
2	Asbestos work							
	Removal; Handling; Storage and Disposal	<ul style="list-style-type: none"> Fragile roof; Working in fall risk position; Unsafe ladder; Inhalation of asbestos dust; Public exposure to asbestos dust; Illegal dumping of asbestos sheets 	<ul style="list-style-type: none"> Fall risks; Death; Broken borne; Disablement; Lung disease; Lawsuits; Environmental damage; Legal fines 	2	6	7	84	3
3	Electrical installations							
		<ul style="list-style-type: none"> Incompetent personnel. Unsafe hand-tools/ 	<ul style="list-style-type: none"> Improper installation of electricity/ non-compliance with 	3	3	7	63	2

		electrical tools. Unsafe ladder. Electrocutation	safety standards. Injury to hands. Burns; electric shock						
4	Existing services								
	<ul style="list-style-type: none"> Water; electricity; Paving/ tar 	<ul style="list-style-type: none"> Damage to existing services; Improper connection/ disconnection 	<ul style="list-style-type: none"> Destruction/ loss of services in the area. 	6	3	1	18	1	
5	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	
6	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	
7	Corona virus								
	<ul style="list-style-type: none"> Transportation of employees Use of site facilities and hand-tools 	<ul style="list-style-type: none"> Non-compliance with COVID19 Codes of 	<ul style="list-style-type: none"> Employees could be infected with COVID19 virus, severe illness or death 	6	3	7	126	3	

	<ul style="list-style-type: none"> • Performing construction work • Meeting/ toolbox talks 	<ul style="list-style-type: none"> • Sharing of facilities and hand tools • Failure to use disinfectants • Virus contaminated vehicle, facilities and tool • Being in an enclosed place • Not using protective gear • Failure to apply distancing 	<ul style="list-style-type: none"> • Could be prosecuted or fined 						
8	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	
9	Elevated positions								

		<ul style="list-style-type: none"> Falling from; falling into 	<ul style="list-style-type: none"> Death; Broken bone; Disablement 	6	6	7	252	4
10	Excavations							
	<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"> Collapsing of trenches. Unsafe access to trench Unsafe machinery/ hand tools Unprotected trenches People exposure to excavations Engulfment 	<ul style="list-style-type: none"> Death/ buried/ trauma/ panic attack Broken bone/ dislocation/ Accidents/ injuries to hands, Falling into excavation Death/ broken bones 	6	6	7	252	4
11	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
12	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

13	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
14	Temporary works							
		<ul style="list-style-type: none"> Collapsing of temporary structure; Incompetent temporary supervision; Noncompliance with engineers drawing/ instruction; Unsafe temporary works 	<ul style="list-style-type: none"> Death; temporary or permanent disable; incorrect erection of temporary works; Injuries to body 	3	6	7	126	3

RISK PROFILE:

CONSTRUCTION OF NEW 192 UNITS AT KLAARWATER COMMUNITY RESIDENTIAL UNITS 1H-27861

