

ETHEKWINI MUNICIPALITY Occupational Health & Safety Unit

BASELINE RISK ASSESSMENT

Document Title	Baseline Risk Assessment
Client	EThekwini Municipality – Human settlements Unit
Project	Construction of 905 top-structure units by 5 contractors at Welbedatcht West Rectification Housing Project – 181 units per contractor
Contract Number	1H-32016
Internal reference	BRA01/07/2025
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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 32016
- (b) Occupational Health & Safety Act and its Regulation

6. LOCALITY PLAN



SCOPE OF WORK

Asbestos work

Demolition
Public safety
Blockwork
Site establishment
Site clearing
Roof work
Excavation work
Use of hand-tools and electrical tools
Temporary works
Construction vehicle and mobile plants
Site security
Working in a fall risk position
Existing services

1. RISK ESTIMATION AND EVALUATION

RISK CLASSIFICATION USING A RISK SCORE TECHNIQUE

requent (happens often)	Exposure (E) How frequently does the hazardous event occur	Risk level
requently (daily)	Continuously	10
incasionally (weekly)		
inusually (monthly)	1 , 1 , 1 , 1 , 1	
arely (few a year) 1 Irobability (P) The probability of a loss when the hazardous event does occur Risk level		
requent (happens often)	Rarely (few a year)	
requent (happens often)		
robable (quiet possible) 6 ccasional (unusual, but possible) 6 ccasional (unusual, but possible) 1 mprobable (practically impossible) 1 mprobable (practically impossible) 0.5 reverity (S) Consequences of the hazardous event Risk level retarastrophic many fatalities; or interruption of longer than 2 weeks; r asset or environmental damage (or both) exceeding R100m 100 reversity (S) Risk level reversity (S) Consequences of the hazardous event Risk level reversity (S) Consequences of the ha	Probability (P) The probability of a loss when the hazardous event doe	es occur Risk level
robable (quiet possible) 6 ccasional (unusual, but possible) 6 ccasional (unusual, but possible) 1 mprobable (practically impossible) 1 mprobable (practically impossible) 0.5 reverity (S) Consequences of the hazardous event Risk level retarastrophic many fatalities; or interruption of longer than 2 weeks; r asset or environmental damage (or both) exceeding R100m 100 reversity (S) Risk level reversity (S) Consequences of the hazardous event Risk level reversity (S) Consequences of the ha	Frequent (happens often)	10
cacasional (unusual, but possible)	1 (11)	
emotely possible (has happened somewhere)		
reverity (S) Consequences of the hazardous event Risk level Ratastrophic many fatalities; or interruption of longer than 2 weeks; r asset or environmental damage (or both) exceeding R100m		
Actatastrophic many fatalities; or interruption of longer than 2 weeks; rasset or environmental damage (or both) exceeding R100m	mprobable (practically impossible)	0.5
r asset or environmental damage (or both) exceeding R100m	Severity (S) Consequences of the hazardous event	Risk level
A pisaster (few fatalities; or interruption between one and 2 weeks; or asset or environmental damage (or both) exceeding R10m)	Catastrophic many fatalities; or interruption of longer than 2 weeks;	100
rasset or environmental damage (or both) exceeding R10m)	or asset of environmental damage (or both) exceeding (1200)	100
mportant (temporary disability; or interruption between and 24 hours; or damage exceeding R10,000	Disaster (few fatalities; or interruption between one and 2 weeks; or asset or environmental damage (or both) exceeding R10m)	40
mportant (temporary disability; or interruption between and 24 hours; or damage exceeding R10,000	Very serious (one fatality; or interruption of 6 days; or asset or	_
and 24 hours; or damage exceeding R10,000	environmental damage (or both) exceeding R100,000	/
Assignment of the second secon	Important (temporary disability; or interruption between 5 and 24 hours; or damage exceeding R10,000	3
Risk classification (Risk score = E x P x S) Risk level Very high risk - discontinue operation or activity High risk - immediate correction needed Substantial risk - correction needed Possible risk - attention needed	Noticeable (first aid needed; or interruption of less than 6 hours;	1
Risk level Very high risk – discontinue operation or activity 10 to 400 4 10 to 200 3 10 to 70 2 Risk level Very high risk – discontinue operation or activity High risk – immediate correction needed Substantial risk – correction needed Possible risk – attention needed		
Very high risk – discontinue operation or activity 00 to 400 4 0 to 200 3 0 to 70 2 Very high risk – discontinue operation or activity High risk – immediate correction needed Substantial risk – correction needed Possible risk – attention needed	Risk classification (Risk score = E x P x S)	
00 to 400 4 0 to 200 3 Substantial risk – correction needed 0 to 70 2 Possible risk – attention needed	Risk score Risk level	
00 to 400 4 High risk – immediate correction needed 0 to 200 3 Substantial risk – correction needed 0 to 70 2 Possible risk – attention needed	Over 4005 Very high risk –	discontinue operation or activity
0 to 200 3 Substantial risk – correction needed 0 to 70 2 Possible risk – attention needed		
Inder 20 1 Risk accepted	and the state of t	<u> </u>
	Jnder 20 1 Risk accepted	

BASELINE RISK ASSESSMENT WORKSHEET: IDENTIFYING EXISTING & POTENTIAL RISKS

	Activity H	Hazard	Risk	_	Risk		Risk Score	Risk
				E	aluati P	on S		level
1	Asbestos work	<u> </u>		_				
	Removal; Handling; Storage and Disposal	• Fragile roof; Working in fall risk position; Unsafe ladder; Inhalation of asbestos dust; Public exposure to asbestos dust; Illegal dumping of asbestos sheets	• Fall risks; Death; Broken borne; Disablement; Lung disease; Lawsuits; Environmental damage; Legal fines	6	6	7	252	4
2	Demolition			I				
	Mechanical and manual demolition	 Dust; noise; uncontrolled collapsing of structure; flying objects; No pre- planning; untrained operator 	Respiratory disease; injury to body; death;	2	6	7	84	3
3	Public safety							

	No alexande	 Public exposure to construction activities; community unrest; fighting over resources 	 Injury to body; work stoppage; Legal claims 	6	6	3	108	3
4	Blockwork	 Unsafe working at height platforms; Unsafe hand tools; Contact with mortar 	 Fall risk; broken bone; dislocation; Injury to hands; Skin dermatitis 	6	3	7	126	3
5	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	 Incompetent construction mobile plant operator. Manual Handling of equipment and materials. Uneven surfaces. Driving on dangerous and undulating 	Body injuries/ Accidents. Destruction of services. Burns/ death	2	6	3	36	2

6	Site clearing Clearing of the site using construction mobile plant and hand tools	terrain. Reckless driving. Electrocution. Incorrect/ poor connection of temporary services Incompetent driver/ operator; Unsafe construction mobile plant/ hand tools; Petrol and oil spillages; Existing services; Noise	Accident; property damage; machinery running out of control; Injury to body; Environmental contamination; Noise induced hearing loss	3	6	7	126	3
7	Roof work			1	1		1	
	Construction of roof	 Working on fall risk position; Unsafe roof access; Untrained roof erectors; No/ 	 Falling from; Falling into; broken borne; death; disablement; Head injuries 	6	6	7	252	4

8	Excavation work • Manual and mechanical excavation	poor roof work planning; Collapsing of the roof; Falling objects • Unsafe hand tools; Unsafe construction mobile plants; Uneven surface/ ground condition; Incompetent construction mobile plant operator; Oil leak; Unforeseen underground services • Unsafe hand tools; Unsafe dislocation; Accidents; injuries to hands; Falling into excavation; Ground contamination • Broken borne; 3 3 3 27 2
9	Use of hand-tools and elec	
-	 Conducting activities using hand-tools and electrical tools 	Unsafe hand- tools/ electrical tools. Possible of pinch Unsafe hand- Injury to hands 6 3 1 18 1 1 1
10	Temporary works	
		 Collapsing of temporary structure; Incompetent temporary Incompetent temporary Death; temporary or permanent disable; incorrect temporary

11	Construction mobile plants	supervision; Noncompliance with engineers drawing/ instruction; Unsafe temporary works and vehicles	erection of temporary works; Injuries to body					
	Use of construction vehicles and mobile plants and equipment	Unsafe construction plants and equipment. Incompetent drivers or operators. Oil leaks	 Accidents; injury to employees and public; death; disablement; damage to property. Environmental contamination 	6	6	7	252	4
12	Site security	 Unguarded site camp; Inadequate security provision; No safe access control 	 Loss of material and equipment/ financial risks/ theft/ unlawful invasion or damage new of houses 	6	3	3	54	2
13	Working in a fall risk positio		Broken borne/ disablement/ death	6	6	7	252	4

14	Existing services							
		Damage to existing services; Improper connection/ disconnection	 Destruction/ loss of services in the area. 	3	3	3	27	2

RISK PROFILE:

Construction of 905 top-structure units by 5 contractors at Welbedatcht West Rectification Housing Project

