
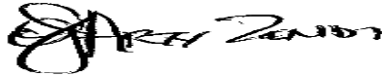




ETHEKWINI MUNICIPALITY Occupational Health & Safety Unit

BASELINE RISK ASSESSMENT

Document Title	Baseline Risk Assessment
Client	EThekwin Municipality – Human settlements
Project	Construction of 208 top structures units by two contractors at Lamontville Northwest Housing Project (ward 69) – 104 units per contractor
Contract Number	1H-48404
Internal reference	BRA47/09/2021
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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 – 48404
- (b) Occupational Health & Safety Act and its Regulation

6. LOCALITY PLAN

Nil

SCOPE OF WORK

Demolition

Asbestos

Blockwork

Site establishment

Site clearing

Roof work

Construction vehicle and mobile plants

Working in a fall risk position

Electrical work

Excavation work

Plumbing works

Corona virus

Site security

Working in township/ public safety

Use of hand-tools and electrical tools

Relocation of beneficiaries

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							
	<ul style="list-style-type: none">Mechanical and manual demolition	<ul style="list-style-type: none">Collapsing of structures; Noise; Dust; Flying objects; Machinery running out of control; Manual handling of tools	<ul style="list-style-type: none">Injury to body; Noise induced-hearing loss; Respiratory disease; Damage to eyes; Damage to nearby properties; Injury to hands	6	6	3	108	3
2	Asbestos							
	<ul style="list-style-type: none">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	6	6	7	252	4
3	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
4	Site establishment							
	<ul style="list-style-type: none"> 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. Electrocutation. Incorrect/ poor connection of temporary 	<ul style="list-style-type: none"> Body injuries/ Accidents. Destruction of services. Burns/ death 	2	6	3	36	2

		services						
5	Site clearing							
	<ul style="list-style-type: none"> Clearing of the site using construction mobile plant and hand tools 	<ul style="list-style-type: none"> Incompetent driver/ operator; Unsafe construction mobile plant/ hand tools; Petrol and oil spillages; Existing services; Noise 	<ul style="list-style-type: none"> Accident; property damage; machinery running out of control; Injury to body; Environmental contamination; Noise induced hearing loss 	3	6	7	126	3
6	Roof work							
	<ul style="list-style-type: none"> Construction of roof 	<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
7	Electrical work							

	<ul style="list-style-type: none"> Electrical installation 	<ul style="list-style-type: none"> Incompetent personnel. Unsafe hand-tools/ electrical tools. Unsafe ladder. Electrocuting 	<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
8	Excavation work							
	<ul style="list-style-type: none"> Manual and mechanical excavation 	<ul style="list-style-type: none"> Unsafe hand tools; Unsafe construction mobile plants; Uneven surface/ ground condition; Incompetent construction mobile plant operator; Oil leak; Unforeseen underground services 	<ul style="list-style-type: none"> Broken borne; dislocation; Accidents; injuries to hands; Falling into excavation; Ground contamination 	3	3	3	27	2
9	Plumbing works							
		<ul style="list-style-type: none"> Unsafe hand tools. Falling into excavation. Unprotected 	<ul style="list-style-type: none"> Injury to hands. Broken borne/ dislocation. Fall risks 	3	3	3	27	2

		excavations						
10	Use of hand-tools and electrical tools							
	<ul style="list-style-type: none"> Conducting activities using hand-tools and electrical tools 	<ul style="list-style-type: none"> Unsafe hand-tools/ electrical tools. Possible of pinch 	<ul style="list-style-type: none"> Injury to hands 	6	3	1	18	1
11	Corona virus							
	<ul style="list-style-type: none"> Transportation of employees. Use of site facilities and hand-tools. Performing construction work. Employee screening. Meeting/ toolbox talks 	<ul style="list-style-type: none"> Overloaded construction/ public vehicles. Noncompliance with transport use guidelines. Sharing of facilities and hand tools. Failure to use/ provide disinfectants. Virus contaminated facilities and tool. Noncompliance with stipulated workplace guidelines. 	<ul style="list-style-type: none"> Employees or public could be infected with COVID19 virus/ Contracting COVID19 virus or death/ COVID19 could spread. Could be arrested or fined 	6	6	7	252	4

		Being in an enclosed place. Lack of protective gear. Failure to apply distancing						
12	Construction mobile plants and vehicles							
	<ul style="list-style-type: none"> Use of construction vehicles and mobile plants and equipment 	<ul style="list-style-type: none"> Unsafe construction plants and equipment. Incompetent drivers or operators. Oil leaks 	<ul style="list-style-type: none"> Accidents; injury to employees and public; death; disablement; damage to property. Environmental contamination 	6	6	7	252	4
13	Site security							
		<ul style="list-style-type: none"> Unguarded site camp; Inadequate security provision; No safe access control 	<ul style="list-style-type: none"> Loss of material and equipment/ financial risks/ theft/ unlawful invasion or damage new of houses 	6	6	3	108	3
14	Working in a fall risk positions							
		<ul style="list-style-type: none"> Falling into; Falling from; Medical unfit; Untrained person 	<ul style="list-style-type: none"> Broken borne/ disablement/ death 	6	6	7	252	4

15	Working in a township/ Public safety							
		<ul style="list-style-type: none"> Public exposure to construction activities; community unrest; fighting over resources 	<ul style="list-style-type: none"> Injury to body; work stoppage; Legal claims 	6	6	3	108	3
16	Relocation of beneficiaries							
		<ul style="list-style-type: none"> Loss/ damage to personal belongings; occupants unwilling to move out; fighting over units choices 	<ul style="list-style-type: none"> Financial loss; legal claims; injuries to body 	6	6	3	108	3

RISK PROFILE:

Construction of 208 top structures units by two contractors at Lamontville Northwest Housing Project 1H-48404

