



**ETHEKWINI MUNICIPALITY**  
**Occupational Health & Safety Unit**

**BASELINE RISK ASSESSMENT**

Document Title	Baseline Risk Assessment
Client	EThekwini Municipality – Human settlements
Project	Construction of 96 new Units at KwaMashu Community Residential Units (Blocks A and B)
Contract Number	1H-23577
Internal reference	BRA09/11/2023
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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 – 23577
- (b) Occupational Health & Safety Act and its Regulation

## 6. LOCALITY PLAN

Hostel - Kwamashu A



## **SCOPE OF WORK**

Temporary works

Existing services

Demolition

Public safety

Blockwork and Plaster

Site establishment

Concrete works

Painting

Roof work

Installation of geysers

Excavation work

Use of hand-tools and electrical tools

Corona virus

Construction vehicle and mobile plants

Site security

Working in a fall risk position

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

<b>Exposure (E) How frequently does the hazardous event occur</b>		<b>Risk level</b>
Continuously .....		10
Frequently (daily) .....		6
Occasionally (weekly) .....		3
Unusually (monthly) .....		2
Rarely (few a year) .....		1

  

<b>Probability (P) The probability of a loss when the hazardous event does occur</b>		<b>Risk level</b>
Frequent (happens often) .....		10
Probable (quite possible) .....		6
Occasional (unusual, but possible) .....		3
Remotely possible (has happened somewhere) .....		1
Improbable (practically impossible) .....		0.5

  

<b>Severity (S) Consequences of the hazardous event</b>		<b>Risk level</b>
<b>Catastrophic</b> many fatalities; or interruption of longer than 2 weeks; or asset or environmental damage (or both) exceeding R100m .....		100
<b>Disaster</b> (few fatalities; or interruption between one and 2 weeks; or asset or environmental damage (or both) exceeding R10m) .....		40
<b>Very serious</b> (one fatality; or interruption of 6 days; or asset or environmental damage (or both) exceeding R100,000 .....		7
<b>Important</b> (temporary disability; or interruption between 6 and 24 hours; or damage exceeding R10,000 .....		3
<b>Noticeable</b> (first aid needed; or interruption of less than 6 hours; damage exceeding R1000) .....		1

  

<b>Risk classification (Risk score = E x P x S)</b>		
<b>Risk score</b>	<b>Risk level</b>	
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		
<b>1</b>	<b>Existing services</b>							
		<ul style="list-style-type: none"> <li>Improper disconnection and connection; Unforeseen existing services; Electrocutation</li> </ul>	<ul style="list-style-type: none"> <li>Distraction of services in the area; community unrest; Burns; death;</li> </ul>	3	6	7	126	3
<b>2</b>	<b>Demolition</b>							
	<ul style="list-style-type: none"> <li>Mechanical and manual demolition</li> </ul>	<ul style="list-style-type: none"> <li>Collapsing of structures; Noise; Dust; Flying objects; Machinery running out of control; Manual handling of tools</li> </ul>	<ul style="list-style-type: none"> <li>Injury to body; Noise induced-hearing loss; Respiratory disease; Damage to eyes; Damage to nearby properties; Injury to hands</li> </ul>	6	6	3	108	3
<b>3</b>	<b>Public safety</b>							

		<ul style="list-style-type: none"> <li>Public exposure to construction activities; community unrest; fighting over resources</li> </ul>	<ul style="list-style-type: none"> <li>Injury to body; work stoppage; Legal claims</li> </ul>	6	6	3	108	3
<b>4</b>	<b>Blockwork and Plaster</b>							
		<ul style="list-style-type: none"> <li>Unsafe working at height platforms; Unsafe hand tools; Contact with mortar; Flying objects</li> </ul>	<ul style="list-style-type: none"> <li>Fall risk; broken bone; dislocation; Injury to hands; Skin dermatitis; Damage to eyes</li> </ul>	6	6	3	108	3
<b>5</b>	<b>Site establishment</b>							
	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>Incompetent construction mobile plant operator. Manual Handling of equipment and materials. Uneven surfaces. Driving on dangerous and undulating</li> </ul>	<ul style="list-style-type: none"> <li>Body injuries/ Accidents. Destruction of services. Burns/ death</li> </ul>	2	6	7	84	3

<b>6</b>	<b>Concrete works</b>								
		<ul style="list-style-type: none"> <li>Concrete spillage; Concrete contact with body.</li> </ul>	<ul style="list-style-type: none"> <li>Soil contamination; Skin problems</li> </ul>	3	3	3	27	2	
<b>7</b>	<b>Painting</b>								
		<ul style="list-style-type: none"> <li>Body contact with paint; Paint inhalation; Falling from elevated positions</li> </ul>	<ul style="list-style-type: none"> <li>Skin irritation/ disease; Respiratory disease; Death, disablement</li> </ul>	6	7	3	126	3	
<b>8</b>	<b>Roof work</b>								
		<ul style="list-style-type: none"> <li>Working on fall risk position; Unsafe roof access; Untrained roof erectors; No/ poor roof work planning; Collapsing of the roof; Falling objects</li> </ul>	<ul style="list-style-type: none"> <li>Falling from; Falling into; broken borne; death; disablement; Head injuries</li> </ul>	6	6	7	252	4	

<b>9</b>	<b>Installation of geysers</b>							
		<ul style="list-style-type: none"> <li>Manual lifting of heavy objects; Elevated positions</li> </ul>	<ul style="list-style-type: none"> <li>Injury to spinal cord; Muscle pain; Falling of lifted objects; Pinch by object</li> </ul>	3	6	3	54	2

<b>10</b>	<b>Excavation work</b>							
	<ul style="list-style-type: none"> <li>Manual and mechanical excavation</li> </ul>	<ul style="list-style-type: none"> <li>Unsafe hand tools; Unsafe construction mobile plants; Uneven surface/ ground condition; Incompetent construction mobile plant operator; Oil leak; Unforeseen underground services</li> </ul>	<ul style="list-style-type: none"> <li>Broken borne; dislocation; Accidents; injuries to hands; Falling into excavation; Ground contamination</li> </ul>	3	6	3	54	2

<b>11</b>	<b>Use of hand-tools and electrical tools</b>							
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	<ul style="list-style-type: none"> <li>• Conducting activities using hand-tools and electrical tools</li> </ul>	<ul style="list-style-type: none"> <li>• Unsafe hand-tools/ electrical tools. Possible of pinch</li> </ul>	<ul style="list-style-type: none"> <li>• Injury to hands</li> </ul>	6	3	1	18	1
<b>12</b>	<b>Corona virus</b>							
	<ul style="list-style-type: none"> <li>• Transportation of employees</li> <li>• Use of site facilities and hand-tools</li> <li>• Preforming construction work</li> <li>• Meeting/ toolbox talks</li> </ul>	<ul style="list-style-type: none"> <li>• Non-compliance with COVID19 Codes of practice; Sharing of facilities and hand tools; Failure to use disinfectants; Virus contaminated vehicle, facilities and tool; Being in an enclosed place</li> </ul>	<ul style="list-style-type: none"> <li>• Employees could be infected with COVID19 virus, severe illness or death; Could be prosecuted or fined</li> </ul>	6	3	3	54	2
<b>13</b>	<b>Construction mobile plants and vehicles</b>							

	<ul style="list-style-type: none"> <li>Use of construction vehicles and mobile plants and equipment</li> </ul>	<ul style="list-style-type: none"> <li>Unsafe construction plants and equipment. Incompetent drivers or operators. Oil leaks</li> </ul>	<ul style="list-style-type: none"> <li>Accidents; injury to employees and public; death; disablement; damage to property. Environmental contamination</li> </ul>	6	6	7	252	4
<b>14</b>	<b>Site security</b>							
		<ul style="list-style-type: none"> <li>Unguarded site camp; Inadequate security provision; No safe access control</li> </ul>	<ul style="list-style-type: none"> <li>Loss of material and equipment/ financial risks/ theft/ unlawful invasion or damage new of houses</li> </ul>	6	6	3	108	3
<b>15</b>	<b>Working in a fall risk positions</b>							
		<ul style="list-style-type: none"> <li>Falling into; Falling from; Medical unfit; Untrained person</li> </ul>	<ul style="list-style-type: none"> <li>Broken borne/ disablement/ death</li> </ul>	6	6	7	252	4

# RISK PROFILE:

## Construction of 96 new Units at KwaMashu Community Residential Units (Blocks A and B)

