



ETHEKWINI MUNICIPALITY Occupational Health & Safety Unit

BASELINE RISK ASSESSMENT

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| Document Title | Baseline Risk Assessment |
| Client | eThekwini municipality – Human settlements |
| Project | Construction of 200 top-structure units Zwelibomvu Vumazonke Rural Housing Project within ward 100 |
| Contract Number | 28115 |
| Internal reference | BRA12/12/2023 |
| Compiled by (Safety officer) | Name and surname: Siya Nkosi Signature:  Date: 18/12/2023 |
| Reviewed by (Manager: Safety & Risk) | Name and surname: Arty Zondi Signature:  Date: 18/12/2023 |
| Contractor acceptance | Name and surname: _____ Designation: _____ Signature: _____ |

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-28115
- (b) Occupational Health & Safety Act and its Regulations
- (c) COVID19 Codes of Practice

6. LOCALITY PLAN

Nil

SCOPE OF WORK

Clear and grab

Cutting platforms and slab

Plumbing

Public safety

Blockwork

Site establishment

Roof work

Electrical work

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

| 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 | Clear and grab | | | | | | | |
| | <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 |
| 2 | Cutting platforms and slab | | | | | | | |
| | <ul style="list-style-type: none"> Cutting platforms using construction mobile plants Construction of slabs | <ul style="list-style-type: none"> Unsafe construction mobile plants; Incompetent operators; Unsafe access to site | <ul style="list-style-type: none"> Damage to nearby structures; Injury to body; Damage to construction mobile plants | 6 | 3 | 7 | 126 | 3 |
| 3 | Plumbing | | | | | | | |
| | | <ul style="list-style-type: none"> Manual handling of | <ul style="list-style-type: none"> Injury to hands | 6 | 3 | 1 | 18 | 1 |

| | | | | | | | | | |
|---|---|--|---|---|---|---|-----|---|--|
| | | tools; Unsafe tools | | | | | | | |
| 4 | 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 | |
| 5 | 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 | |
| 6 | 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 | <ul style="list-style-type: none"> Incompetent construction mobile plant operator. Manual Handling of equipment and materials. Uneven surfaces. | <ul style="list-style-type: none"> Body injuries/ Accidents. Destruction of services. Burns/ death | 2 | 6 | 3 | 36 | 2 | |

| | | | | | | | | | |
|----------|--|---|---|---|---|---|-----|---|--|
| | supply, electricity, ablution facilities | Driving on dangerous and undulating terrain. Reckless driving. Electrocution. Incorrect/poor connection of temporary services | | | | | | | |
| 7 | 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 | |
| 8 | Electrical work | | | | | | | | |

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|-----------|---|---|--|---|---|---|----|---|
| | <ul style="list-style-type: none"> Electrical installation | <ul style="list-style-type: none"> Incompetent personnel. Unsafe hand-tools/ electrical tools. Unsafe ladder. Electrocutation | <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 |
| 9 | 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 |
| 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 • Meeting/ toolbox talks | <ul style="list-style-type: none"> • 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 • Not using protective gear | <ul style="list-style-type: none"> • Employees could be infected with COVID19 virus, severe illness or death • Could be prosecuted or fined | 6 | 3 | 7 | 126 | 3 |
| 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 | <ul style="list-style-type: none"> • Accidents; injury to employees and public; death; disablement; damage to | 6 | 6 | 7 | 252 | 4 |

| | | | | | | | | | |
|-----------|---|--|---|---|---|---|-----|---|--|
| | | operators. Oil leaks | property. Environmental contamination | | | | | | |
| 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 | |

RISK PROFILE:

Construction of 200 top-structure units at Zwelibomvu Vumazonke Rural Housing Project within ward 100 1H-26870

