| THENJIWE SUPPLIES & REPAIRS | | |
|-----------------------------|--------------|----------------------|
| Reference Number | TSR/PLAN/002 | |
| Implementation Date | 03.12.2018 | |
| Revision / Amendment Number | 0 | FALL PROTECTION PLAN |
| Revision / Amendment Date | 03.12.2018 | |



| a har an | Position / Name | Signature | Date |
|--|-------------------|-----------|---------|
| Compiled By | MSHEQ | | 4/12/18 |
| Approved By | Martin du Plessis | Court | 4/12/18 |

| THENJIWE SUPPLIES & REPAIRS | | | |
|-----------------------------|--------------|----------------------|--|
| Reference Number | TSR/PLAN/002 | | |
| Implementation Date | 03.12.2018 | FALL PROTECTION PLAN | |
| Revision / Amendment Number | 0 | | |
| Revision / Amendment Date | 03.12.2018 | | |

Table of Contents

| 1. | PURPOSE | | | | |
|------|--|----|--|--|--|
| 2. | SCOPE | | | | |
| 3. | RESPONSIBILITIES & IMPLEMENTATION | | | | |
| 4. | ABBREVIATIONS | | | | |
| 5. | DEFINITIONS | | | | |
| 6. | GENERAL | 6 | | | |
| 7. | PLAN | 6 | | | |
| | 7.1 The basic Fall Protection requirements are: | 6 | | | |
| | 7.2 Factors That Can Cause a fall | 7 | | | |
| | 7.3 Use of Fall Protection Equipment | 7 | | | |
| | 7.4 MAINTENANCE OF FALL PROTECTION EQUIPMENT | 8 | | | |
| | 7.5 STORAGE OF FALL PROTECTION EQUIPMENT | 8 | | | |
| | 7.6 INSPECTION OF EQUIPMENT | 8 | | | |
| | 7.7 TRAINING REQUIREMENTS | | | | |
| | 7.8 SIGNAGE | | | | |
| | 7.9 Emergencies and Rescue Plan | | | | |
| | 7.9.1 Rescue Procedure | 10 | | | |
| | 7.9.2 The Supervisor or Lead Person will obtain all rescue equipment and take methe Rescuer. | • | | | |
| | 7.9.3 Post Rescue | | | | |
| | 7.10 Identification of Potential Risk | | | | |
| | 7.11 Planned Job Observations | | | | |
| | 7.13 SUPERVISION | | | | |
| | 7.14 STOP WORK | | | | |
| | 7.15 ENFORCEMENT | | | | |
| | 7.16 Employees Fitness to Work at Elevated Positions | | | | |
| 8. | RECORDS | 12 | | | |
| 9. | REFERENCE | 13 | | | |
| 10. | SUPPORTING DOCUMENTS | 13 | | | |
| 11. | APPENDICES | 13 | | | |
| Ι. | GENERAL RULES | | | | |
| II. | HOW TO USE A SAFETY HARNESS | | | | |
| III. | RESCUE PROCEDURE | | | | |
| IV. | QUIZ | | | | |
| | | | | | |

| Reference Number | TSR/PLAN/002 |
|-----------------------------|--------------|
| Implementation Date | 03.12.2018 |
| Revision / Amendment Number | 0 |
| Revision / Amendment Date | 03.12.2018 |

1. PURPOSE

To ensure that all THENJIWE SUPPLIES & REPAIRS employees and contractors take cognizance of the hazards relating to work performed at height with the potential of fall and applies control measures to prevent them from falling.

2. SCOPE

This plan covers the proper usage, maintenance, inspection training and signage required for working at height, i.e.1.8 meters or above 2 meters. This fall protection plan is applicable to all THENJIWE SUPPLIES & REPAIRS employees, subcontractors and/or any other person who will be at close proximity where THENJIWE SUPPLIES & REPAIRS activities involve working at heights.

3. **RESPONSIBILITIES & IMPLEMENTATION**

Responsibility for the Implementation of Fall Protection Plan THENJIWE SUPPLIES & REPAIRS management

Responsibility of enforcement compliance to this Fall Protection Plan Project Manager. Construction Manager. Supervisors. Assistant Supervisors (If applicable for projects) SHEQ Manager. Safety Officers. SHE Representatives. All employees. Contractors/Sub-contractors.

NB: This Fall Protection Plan will be implemented in all areas of responsibility. All external contractors working on any of THENJIWE SUPPLIES & REPAIRS projects will be required to follow the guidelines set forth in this Fall Protection Plan. Contractors in the pre-job meeting will be informed of these requirements as well as the on-site project specific rules that apply in conjunction with this Fall Protection Plan.

4. ABBREVIATIONS

Not applicable.

5. **DEFINITIONS**

<u>Anchorage / Anchor Point</u> - A secure point of attachment for lifelines, lanyards, or deceleration devices. An anchor point must be capable of supporting at least 2300 kg's (1700KG if engineered/certified by a qualified person) per person and must be independent of any anchorage being used to support or suspend platforms.

<u>Authorized Person</u> – A person approved or assigned by THENJIWE SUPPLIES & REPAIRS to perform a specific type of duty at a specific location.

Buckle - Any device for holding the full body harness closed around the employee's body.

<u>Competent Person</u> – A person capable of identifying existing and predictable hazards in the surroundings or working conditions, which are hazardous or dangerous to employees. A person who has the authorization takes prompt corrective action to eliminate such hazards.

| THENJIWE SUPPLIES & REPAIRS | | |
|-----------------------------|--------------|----------------------|
| Reference Number | TSR/PLAN/002 | |
| Implementation Date | 03.12.2018 | FALL PROTECTION PLAN |
| Revision / Amendment Number | 0 | |
| Revision / Amendment Date | 03.12.2018 | |

Connector - A device that is used to couple (connect) parts of the personal fall arrest system and positioning device systems together. It may be an independent component of the system, such as a carbineer, or it may be an integral component of the system (such as a buckle or D-ring sewn into a full body harness, or a snap hook spliced or sewn to a lanyard or retractable lifeline).

<u>Contractor</u> - means an employer, as defined in section 1 of the Act, who performs construction work and includes principal contractors.

Dangerous Equipment - Equipment (such as pickling or galvanizing tanks, degreasing units, machinery, electrical equipment, and other units) that, as a result of form or function, may be hazardous to employees who fall onto or into such equipment.

Deceleration Device - Any mechanism, such as a rope grab, rip-stitch lanyard, specially woven lanyard, tearing or deforming lanyard, automatic self-retracting lifelines, etc., that serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy imposed on an employee during fall arrest.

Deceleration Distance - The additional vertical distance a falling employee travels, excluding the lifeline - elongation and free fall distance, before stopping, from the point at which the deceleration device begins to operate. It is measured as the distance between the locations of an employee's full body harness attachment point (D-ring) at the moment of activation (at the onset of fall arrest forces) of the deceleration device during a fall, and the location of that attachment point after the employee comes to a full stop.

<u>Elevated position</u> - Means any work position above ground level exceeding 2 meters where the risk of an employee falling from one level to another exists or any other position on ground level where the risk of an employee falling down into any excavation or trench exists.

Failure - Load refusal, breakage, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.

Fall Prevention Equipment- means equipment used to prevent persons from falling from an elevated position, including personal equipment, body harness, body belts, lanyards, lifelines or physical equipment, guardrails, screens, barricades, anchorages or similar equipment.

Fall Arrest Equipment- means equipment used to arrest the person in a fall from an elevated position, including personal equipment, body harness, lanyards, deceleration devices, lifelines or similar equipment, but excludes body belts.

Fall Protection Plan (FPP) - means a documented plan, of all risks relating to working from an elevated position, considering the nature of work undertaken, and setting out the procedures and methods to be applied in order to eliminate the risk.

<u>Free-fall</u> - The act of falling before a personal fall protection system begins to apply force to arrest the fall.

Free-fall Distance - The vertical displacement of the fall protection attachment point on the employee's full body harness between onset of the fall and just before the system begins to apply force to arrest the fall. This distance excludes deceleration distance, and lifeline/lanyard elongation, but includes any deceleration device slide distance or self-retracting lifeline/lanyard extension before they operate and fall arrest forces occur.

Full Body Harness – Straps/Webbing that may be secured about the employee in a manner that will distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders with means for attaching it to other components of a personal fall arrest system.

Guardrail System - A barrier erected to prevent employees from falling to lower levels.

| Reference Number | TSR/PLAN/002 |
|-----------------------------|--------------|
| Implementation Date | 03.12.2018 |
| Revision / Amendment Number | 0 |
| Revision / Amendment Date | 03.12.2018 |

<u>Hazard Identification</u>- means the identification and documenting of existing or expected hazards to the health and safety of persons, which are normally associated with the type of construction work being executed or to be executed.

Hole - A gap or void 50mm or more in its least dimension in a floor, roof, or other walking/working surface.

Lanyard - A flexible line of wire rope or nylon strap that generally has a connector at each end for connecting a full body harness to a deceleration device, lifeline, or anchorage.

Leading Edge - The edge of a floor, roof, or form work for a floor or other walking/working surface, (such as a deck) that changes location as additional floor, roof, decking, or form work section, are placed, formed or constructed. A leading edge is considered to be an "unprotected side arid edge" during periods when it is not actively and continuously under construction.

Lifeline - A component consisting of a flexible line for connection to an anchorage at one end to hang vertically (vertical lifeline), or for connection to anchorages at both ends to stretch horizontally (horizontal lifeline), and that serves as a means for connecting other components of a personal fall protection system to the anchorage.

Lower Levels - Those areas or surfaces to which an employee can fall. Such areas or surfaces include, but are not limited to, ground levels, floors, platforms, ramps, runways, excavations, pits, tanks, material, water, equipment, structures, or portions, thereof.

<u>Opening</u> - A gap or void 760mm or more high and 450mm or more wide, in a wall or partition, through which employees can fall to a lower level.

Personal Fall Protection System - A system used to arrest an employee in a fall from a working level. It consists of anchorage, connectors, a full body harness, and a shock absorbing lanyard and may include a deceleration device, lifeline, or suitable combinations of these.

Positioning Device System - A body belt or body harness system rigged to allow an employee to be supported on an elevated vertical surface, such as a wall, and work with both hands free while leaning. These systems must prevent fall potential of greater than 914 mm and be supported with a secured personal fall protection system.

<u>**Primary Fall Prevention</u>** - Elimination of fall exposures through use of guardrail systems, aerial lifts, scaffolds or alternate work methods such as pre assembly at ground level.</u>

<u>Qualified Person</u> – An individual, who by possession of a recognized degree, certificate, or professional standing who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve problems relating to the work.

<u>Rope Grab</u> - A deceleration device that travels on a lifeline and automatically, by friction, engages the lifeline and locks so as to arrest the fall of an employee. A rope grab usually employs the principle of inertial locking cam/level locking, or both.

<u>**Risk Assessment-**</u> means a programme to determine any risk associated with any hazard for any activity, in order to identify the steps needed to be taken to remove, reduce or control such hazard.

<u>Secondary Fall Protection</u> - Utilization of fall arrest equipment as a backup to primary fall prevention systems or in the absence of primary fall prevention systems.

<u>Self-Retracting Lifeline/Lanyard</u> - A deceleration device containing drum wound line that can be slowly extracted from or retracted onto the drum under slight tension during normal employee movement, and that, after onset of a fall, automatically locks the drum and arrests the fall.

Snap hook - A connector comprised of a hook-shaped member with a normally closed keeper, or

| THENJIWE SUPPLIES & REPAIRS | | | |
|-----------------------------|--------------|----------------------|--|
| Reference Number | TSR/PLAN/002 | | |
| Implementation Date | 03.12.2018 | FALL PROTECTION PLAN | |
| Revision / Amendment Number | 0 | | |
| Revision / Amendment Date | 03.12.2018 | | |

similar arrangement, that may be opened to permit the hook to receive an object and, when released, automatically closes to retain the object. The locking type with a self-closing keeper that remains closed and locked until unlocked and pressed open for connection is the only authorized snap hook. Non locking snap hooks are expressly forbidden for fall prevention/protection purposes.

<u>Steep Slope Roof</u>: A roof having a slope greater than 4 in 12 (vertical to horizontal). A roof with a slope greater than 19.5 degrees.

<u>Toeboard</u>: A low protective barrier that will prevent the fall of materials and equipment to lower levels, usually 4 inches or greater in height.

<u>Training System</u> – Electronic/document filing data base utilized for storage of all training records.

<u>Unprotected Sides and Edges</u> - Any side or edge (except entrances to points of access) of a walking/working surface, e.g., floor, ramp, or runway where there is no wall or guardrail system at least 990mm high.

6. GENERAL

Not applicable.

7. PLAN

7.1 The basic Fall Protection requirements are:

Workers must be protected from fall hazards when they are on unguarded surface more than 2 meters above a lower level or at any height above dangerous equipment.

Workers performing duties on a skeleton steel structure must be protected by a fall arrest system connected to a securely anchored lanyard or lifeline when the fall distance is greater than 1.8 meters. (Each anchor must be able to support at least 2300 kg per attached worker.

All employees who are engaged in work in elevated positions shall be informed and trained in the content of the FPP and shall sign that they will adhere to the requirements of the FPP that have been explained to them.

All work in elevated positions must be properly planned and risk assessments shall be available with the Supervisor on site.

All workers at elevated positions shall be checked for competency to carry out the work.

No work at elevated positions shall be conducted during inclement weather or weather conditions that remain a hazard to Health and Safety.

Prominent warning notices shall be placed and all covers to openings will be adequate to withstand the load it is to carry. Warning notices will be placed if applicable over these covers.

Areas below where work at elevations is being conducted shall be properly barricaded to prevent entry or adequately sign posted to indicate overhead danger.

Platforms used during this process shall be suitable and sufficient to support a person's weight.

Suitable and sufficient guard-rails or barriers and toe boards to prevent fall of persons, material and or equipment shall be installed.

Fall prevention and fall arrest equipment shall comply with the requirements of Occupational Health and Safety Act and international standards.

THENJIWE SUPPLIES & REPAIRS

| Reference Number | TSR/PLAN/002 |
|-----------------------------|--------------|
| Implementation Date | 03.12.2018 |
| Revision / Amendment Number | 0 |
| Revision / Amendment Date | 03.12.2018 |

FALL PROTECTION PLAN

Ensure this equipment is fit for purpose and is secure to the structure and supports any worker at heights.

7.2 Factors That Can Cause a fall

A worker may fall from, through or into an object or area when:

- There is a sudden acceleration or deceleration.
- Moving from one surface to another.
- The surface is not capable of supporting a load.
- Opening or holes are not identified or protected.
- Open edges are not protected.
- Levels change.
- Handgrip is lost.
- Surfaces are slippery (e.g. surface are wet or covered with dust).
- Footwear is unsuitable.
- Equipment, tools, rubbish are causing obstruction in work areas.
- Clothing is caught.
- Surfaces move.
- Lighting is insufficient.
- Weather conditions are bad (e.g. heavy rain or wind is present).
- Struck by a moving or falling object.
- Fall arrest systems and devices are not provided or are used incorrectly.
- Other factors may have a detrimental effect on a person's behaviour or performance (e.g. exposure to electricity) which may increase the risk of fall.

7.3 Use of Fall Protection Equipment

The selection of most appropriate fall protection equipment is important. The wrong type of equipment in a hazardous situation could be disastrous. In addition, safety harness must fit properly.

Fall Protection Equipment is classified into two categories:

"<u>Fall Prevention Equipment</u>" – means equipment used to prevent persons from falling from an elevated position, including personal equipment, body harness, lanyards, deceleration devices, lifelines or physical equipment, anchorage points. Every effort of improving the workplace and preventing a person from falling should be assessed.

"<u>Fall Arrest Equipment</u>" – means Equipment used to arrest the person in a fall from an elevated position, including personal equipment, body harness, lanyards, deceleration devices, lifelines or similar equipment, but excludes body belts. Training on the correct and proper use of the equipment but be recorded.

Body belts may never be used as a fall arrest device due to the harm it causes to an individual upon falling. It may be used only to prevent the person from falling. Full body harness must be used and must meet the requirements of the SABS.

The fall protection must be of:

- Suitable and sufficient strength for the purpose of which it is being used.
- Securely attached to the structure with sufficient anchorage.

Areas for use should include:

• Structural beams 15,25cm or greater in depth to support one or more persons.

Areas not to be used for anchorage:

| THENJIWE SUPPLIES & REPAIRS | | | |
|-----------------------------|--------------|----------------------|--|
| Reference Number | TSR/PLAN/002 | FALL PROTECTION PLAN | |
| Implementation Date | 03.12.2018 | | |
| Revision / Amendment Number | 0 | | |
| Revision / Amendment Date | 03.12.2018 | | |

• Any electrical cables, conduit, instrument, equipment.

7.4 Maintenance of Fall Protection Equipment

Like most other equipment, Fall Protection Equipment is exposed to harsh, rough use and conditions. In order for the equipment to function as designed for, it must be maintained.

A competent person must be designated in writing, responsible to carry out daily pre-use inspections and monthly inspection of which the results shall be recorded in the Fall Protection Equipment register which shall be kept to ensure that control can be established.

Each harness and lanyard must have a label with a unique number, and manufacturing date and the SABS standard identification.

Maintenance shall include cleaning; therefore, there will be no repairing of fall arrest equipment.

Damaged fall arrest equipment will be withdrawn from service immediately, quarantined immediately and destroyed.

7.5 Storage of Fall Protection Equipment

- a) Never store the personal fall arrest equipment in the bottom of a toolbox, on the ground, or outdoors exposed to the elements (i.e., sun, rain, snow, etc.).
- b) Hang equipment in a cool, dry location in a manner that retains its shape.
- c) Always follow manufacturer recommendations for inspections.
- d) Clean with a mild, nonabrasive soap and hang to dry.
- e) Never force dry or use strong detergents in cleaning.
- f) Never store equipment near excessive heat, chemicals, moisture, or sunlight.
- g) Never store in an area with exposures to fumes or corrosive elements.
- h) Avoid dirt or other types of build-up on equipment.
- i) Never use this equipment for any purpose other than personal fall arrest.
- j) Once exposed to a fall, remove equipment from service and site immediately.

7.6 Inspection of Equipment

- a) Closely examine all of the nylon webbing to ensure there are no burn marks, which could weaken the material.
- b) Verify if there are no torn, frayed or broken fibres, pulled stitches or frayed edges anywhere on the harness.
- c) Examine the D-ring for excessive wear, pits, deterioration, or cracks.
- d) Verify that buckles are not deformed, cracked, and operate correctly.
- e) Check to see that each grommet (if present) is secure and not deformed from abuse or a fall.
- f) The harness should never have additional punched holes.

| THENJIWE SUPPLIES & REPAIRS | | | | |
|-------------------------------|--------------------------------------|--|--|--|
| Reference Number TSR/PLAN/002 | | | | |
| Implementation | Date | 03.12.2018 | _ | |
| Revision / Amendment Number | | 0 | FALL PROTECTION PLAN | |
| Revision / Ame | ndment Date | 03.12.2018 | | |
| g) | All rivets should | d be tight and not de | formed. | |
| h) | Check tongue/s | straps for excessive | wear from repeated buckling. | |
| i) | Storage will co | nsist of hanging in ar | n enclosed cabinet, to protect from damage. | |
| j) | A full body harr fall exposure of | | orbing lanyard system shall be worn and secured where there is a | |
| k) | | | ent structure and no fall potential is created by the work or by the harnesses are not required. | |
| I) | | | te scaffold where no fall potential is created by the work or the arnesses shall be worn but tie off is not required. | |
| m) | | integrity of the equipological structures of the structure of the structur | pment being used and success of the Fall Prevention/Protection tly adhered to: | |
| n) | Only full body h | arnesses/shock abs | orbing lanyard systems must be used on any project. | |
| o) | Personal safety | / harnesses/lanyard | systems are strictly forbidden. | |
| p) | Lanyards must | be of the shock abs | orbing type when used for fall protection. | |
| q) | | ng lanyards shall c naterial transport. | only be used for fall protection and are never to be used for | |
| r) | The shock abs between the sh | | I be secured to the D-ring located on the back of the harness | |
| s) | The shock abso | orbing or deceleratio | n device shall be secured adjacent to the harness D-ring. | |
| t) | D-rings located devices. | d at the waist may | only be used for positioning or with rail-type ladder climbing | |
| u) | D-rings located climbing device | | harness shall only be used for attachment to rail mounted ladder | |
| v) | | impact load of 230 | ing lanyards shall be attached to an anchorage point capable of 0 Kg or twice the potential impact load of the engineered fall | |
| w) | Full body harr distance to 1.5 | | absorbing lanyards shall be secured to limit potential free-fall | |
| x) | | | orbing lanyards shall be of the double action/locking type design. shall not be used for fall protection. | |
| у) | | ng a full body harn her deterioration pric | ess and shock absorbing lanyards shall inspect them for wear, or to each use. | |
| z) | | | k absorbing lanyards shall be inspected at least monthly by a and subsequently color coded or tagged to indicate a current | |
| aa) | | oody harnesses and immediately remove | l shock absorbing lanyards shall be tagged "DEFECTIVE - DO ed from service. | |

| THENJIWE SUPPLIES & REPAIRS | | | |
|-----------------------------|--------------|----------------------|--|
| Reference Number | TSR/PLAN/002 | | |
| Implementation Date | 03.12.2018 | FALL PROTECTION PLAN | |
| Revision / Amendment Number | 0 | FALL PROTECTION PLAN | |
| Revision / Amendment Date | 03.12.2018 | | |

bb) Full body harnesses and shock absorbing lanyards subjected to impact loading shall be immediately removed from service and shall not be used again for employee protection until inspected and determined by a Competent Person to be undamaged and suitable for reuse.

Training Requirements 7.7

All personnel performing work at elevated positions shall meet the following requirements:

- Must be trained in the use, inspection, and maintenance of the Fall Arrest System.
- Must demonstrate competency in initial training.
- Must undergo refresher training as required by changes in the workplace and/or equipment, or as other events indicate that refresher training may be required.
- Must be physical and psychologically fit and have proof thereof.
- The training of personnel for work at heights shall be carried out by an accredited professional training service provider. Training will include the following:
 - Climbing using a safety harness and double lanyard system.
 - Climbing using the Latch way system.
 - Inspection and maintenance of fall arrest systems.
 - Training shall be re-enforced each day during tool box talks.

7.8 Signage

It is mandatory that signage be used to indicate a fall hazard as well as the use of Fall Protection Equipment and also to indicate that overhead work is in progress.

Applicable signage must be used on the sites at all times (Guideline will also be extrapolated from client specific requirements)

Notices and signs will be displayed to indicate warning for working at heights. Other signs and notices will be displayed to inform workers and other personnel of the dangers associated with the activity as well as restricting bystanders/visitors to interfere with the activity.

7.9 **Emergencies and Rescue Plan**

The Fall Protection Plan is designed to minimize worker's exposure to fall hazards and to reduce their risk of injury if they do fall.

To ensure all hazards, control measures, and rescue information is communicated to each employee, all project teams will conduct a Pre-Job Risk Assessment that includes the following:

- Rescue method and equipment to be used; •
- Location of rescue equipment and first aid kits; •
- Directions and map to site; and
- All emergency and contact numbers.

Prior to work, the project team members to engage in working at heights will hold a Toolbox Talk to discuss the information listed above in addition to job hazards and scope of work.

7.9.1 Rescue Procedure

In the event of a fall incident, regardless of the medical condition of the employee, the Supervisor or Foreman will direct an employee to call emergency personnel and give them adequate information to prepare for the situation they will encounter upon arrival.

THENJIWE SUPPLIES & REPAIRS

| Reference Number | TSR/PLAN/002 |
|-----------------------------|--------------|
| Implementation Date | 03.12.2018 |
| Revision / Amendment Number | 0 |
| Revision / Amendment Date | 03.12.2018 |

FALL PROTECTION PLAN

In the event a working at height employee is unable to remove himself from the elevated platform or any form of height structure the following procedure will be put into action to insure the employee receives adequate and timely response.

7.9.2 The Supervisor or Lead Person will obtain all rescue equipment and take measures to get it to the Rescuer.

The Rescuer will rig a controlled descent (load) line above the injured employee as close as possible to the injured employee.

A vertical lifeline will be secured to a separate anchorage point next to the descent line.

The Rescuer will attach a rope grab from their back D-ring to the vertical lifeline.

The Rescuer will connect his/her descending device to the load line and descend into position to connect to the injured climber.

After utilizing the breaking device, the Rescuer will attach a carabineer to the injured employee's back D-ring.

This Carabineer will then be attached to the controlled descent device (not to the rescuer's harness).

The Rescuer will remove the injured employee from his fall arrest or suspension device and lower the employee safely to the ground.

First Aid should be administered to the injured employee by a trained First Aider until the local Emergency Medical Team arrives.

7.9.3 Post Rescue

THENJIWE SUPPLIES & REPAIRS management team must be notified of the incident immediately for their intervention.

The site and all equipment will be secured until a proper accident investigation can be performed.

7.10 Identification of Potential Risk

The Potential Risk should be clearly identified with the required impact/consequence, risk result and recommendations clearly documented and explained to the persons who will be doing the required job.

Employees must sign the Risk Assessment form for understanding and acknowledgement of the risks involved.

A copy of risk assessment will be available on site. No work will commence without a daily risk assessment being conducted by the supervisor and his/her team. Workers will be informed and trained on risk associated with working at elevation positions.

7.11 Planned Job Observations

Employees must sign the required Planned Job Observation form for their understanding and acknowledgement.

The Fall Protection Plan will be evaluated periodically to determine its effectiveness. Planned job observations should be done at least on a monthly basis by management, Safety Officers and SHE Representatives.

7.12 Method Statements / Safe Work Procedures

| l | | |
|---|-----------------------------|--------------|
| | Reference Number | TSR/PLAN/002 |
| | Implementation Date | 03.12.2018 |
| | Revision / Amendment Number | 0 |
| | Revision / Amendment Date | 03.12.2018 |
| | | |

Method statements and Safe Working Procedures shall be prepared subject to the level of risk and as defined in the risk assessment process. Safe Work Procedures must be explained and signed by employees for understanding and acknowledgement.

All workers engaged in elevated work will be trained to:

- Identify hazards associated with the work.
- Be conversant with the precautionary measures, which should be taken and observed with respect to those hazards.
- Be conversant with the elements of this fall protection plan.
- Utilize personal protective equipment, fall arrest equipment and fall prevention equipment.
- Be able to rescue other fellow workers working at elevated positions.
- An accredited training service provider will train all workers performing elevated work. Proof of certification for each employee must be on site at all times. All training will be documented.

7.13 Supervision

Competent Supervisors will be appointed to supervise elevated work.

These Supervisors will ensure that a Risk Assessment is conducted before commencement of elevated work. They will ensure that precautionary measures are taken and implemented and will enforce compliance with the requirements of the Fall Protection Plan.

Failure to comply with fall protection requirements will result in disciplinary action for the violator.

7.14 Stop Work

Any work situation that poses danger to the health and safety of workers, visitors and public will be stopped.

The work stoppage will include any work at elevations that is not in accordance with this Fall Protection Plan.

7.15 Enforcement

Worker compliance with the requirements of this Fall Protection Plan is mandatory.

Anyone violating requirements of this Fall Protection Plan will be subject to disciplinary actions, and documentation of any violations will be kept in the worker's personnel file.

7.16 Employees Fitness to Work at Elevated Positions

Ensure that a person to work in elevated position is physically and psychologically fit. Obtain a Medical Fitness Certificate from an Occupational Medical Practitioner. Frequency of medical fitness examination: at least once a year.

The work at height or elevated platform to be sober and/or not under the influence of substances at all times.

8. RECORDS

Safety Harness Checklist Toolbox Talks Working at Heights Risk Assessment SHE Rep Inspections Audit Reports Medical Fitness Certificate

Page 12 of 17

| THENJIWE SUPPLIES & REPAIRS |
|-----------------------------|
|-----------------------------|

| Reference Number | TSR/PLAN/002 |
|-----------------------------|--------------|
| Implementation Date | 03.12.2018 |
| Revision / Amendment Number | 0 |
| Revision / Amendment Date | 03.12.2018 |

9. REFERENCE

Occupational Health and Safety Act, 1993 (Act No. 85 of 1993). Construction Regulation, 2014 National and international best practice for conducting work where the risk of falls from one level to another exists.

10. SUPPORTING DOCUMENTS

Not applicable.

11. APPENDICES

- General Rules
- How to use a safety harness
- Rescue Procedure
- Fall Protection Quiz

I. GENERAL RULES

All employees required to work at heights > 1.8 meters will be required to be certified physically and psychologically fit by an Occupational Health Practitioner/Nurse.

A Man-Job Specification will be supplied.

Proof of these certificates will be filed in the site SHE-file.

All employees will be issued with double lanyard harnesses and lanyards to tie on to structures. They will sign for these as part of the standard PPE issue register.

All employees will be trained in the correct use of and maintenance of safety harnesses. Proof of training will be kept in the site SHE-file.

Each harness will be registered as per its unique harness and lanyard serial numbers on the standard harness checklist and checked monthly for defects as listed.

Defective harnesses will be removed and destroyed and noted as destroyed in the register.

All work done on elevated positions must be done as if done on a ladder or scaffold platform.

Standard safety warning notices and/or signs must be placed in conspicuous positions at openings where persons may fall through.

Employees will be informed of the identification of sturdy positions where to tie their harnesses to.

No debris will be allowed to accumulate on a platform or working area. This overloads the structure and causes injury to employees working in the same area.

Where attachment positions are not available or are unpractical, a strong enough life line will be installed for lanyards to be connected to.

Supervision will ensure that fixing positions for lanyards are safe and strong to carry the weight of all employees tied to that position.

Supervision will furthermore ensure that no employee will be injured by the fixing position or equipment if he should fall.

Elevated platforms such as scaffolding and suspended scaffolding will be erected by competent persons only. Only safe to use platforms may be used.

Unsafe platforms must be reported to supervision immediately and all employees must be evacuated from these areas until declared safe to use.

All employees will be secured to the suspended platform or the structure at all times by means of their harness lanyard/s.

Employees may only access platforms by means of the dedicated routes and access provided.

THENJIWE SUPPLIES & REPAIRS

| Reference Number | TSR/PLAN/002 |
|-----------------------------|--------------|
| Implementation Date | 03.12.2018 |
| Revision / Amendment Number | 0 |
| Revision / Amendment Date | 03 12 2018 |

FALL PROTECTION PLAN

Access heights by using the steps on the inside and use both hands to hold on do not carry items while climbing any ladders. (3 Point contact at all times).

Employees must ensure that no items are dropped from their level to a lower level.

No items may be thrown up or down elevated platforms or work areas. All items must be lifted or lowered by means of standard rigging methods.

II. HOW TO USE A SAFETY HARNESS HOW TO USE A SAFETY HARNESS

- 1. Check that the harness is in good condition.
- 2. Adjust waist belt according to waist line.
- 3. Secure shoulder strap to waist belt. Shoulder strap must be between two leg straps.
- 4. Secure leg straps to waist belt.
- 5. Put legs through rings of leg straps and fit belt to waist.
- 6. Adjust rings of leg straps to fit properly around leg.
- 7. Put front loops of shoulder straps through waist belt.
- 8. Adjust shoulder straps to fit properly.
- 9. Ensure harness fits comfortably.

FITTING AND REMOVAL

- A. Ensure all straps are not twisted.
- B. Lift harness, by rear dorsal "d" ring, pass arms through shoulder straps, as if putting on a jacket.
- C. Tighten waist belt to fit securely around waist.
- D. Passes each leg strap under legs and fastens to rectangular link, tighten and ensuring leg loops are not twisted and webbing emerges forward.
- E. Tighten all straps according to comfort and secure loose webbing.
- F. Adjusts dorsal "d" to be positioned between shoulder blades.
- G. To remove, reverse steps **e** to **a**.
- If subjected to fall or if the device is worn or damaged, or any other part of the unit is considered worn - **DO NOT USE**. Return the unit for evaluation and possible service immediately.
- The recommended service interval is 12 months from date of first use and thereafter at least annually, which should be done by a competent person.
- If there is any doubt of the suitable of any P.P.E device DO NOT USE.

CONDITIONS DISCUSSED WITH EMPLOYEES THAT UNDERSTAND THE ABOVE, AND THAT ALL WORK WILL BE CARRIED OUT ACCORDING TO THE FALL PROTECTION PLAN, RISK ASSESSMENT AND SAFE WORK PROCEDURE.

| Reference Number TSR/PLAN/002 mplementation Date 03.12.2018 Revision / Amendment Number 0 Revision / Amendment Date 03.12.2018 | | | THENJIW | E SUPPLIES & REPAIRS |
|---|--------------------------------|-------|------------------------|---|
| Revision / Amendment Number 0 Q03.12.2018 Q3.12.2018 IN RESCUE PROCEDURE RESCUE PROCEDURE Call the MANAGER immediately!!!! and Stay CALM! IN THE EVENT OF AN INCIDENT IN The Event OF AN INCIDENT IN Explain the location of the incident; give your current position / Level No: / Cell No / Tel number / Radio call sign. Image: Construct of the phone down until the manager tells you to do so. Call to person that is hanging in safety harness. (Conscious/Unconscious) Image: Conscious of the incident is and escort to site. Barricade the area. STAY ON SCENE Never leave the fallen person unattended reassure person. (Stay calm - Help is on the way) Turn a chaotic, stressful event into something orderfy. | | | | |
| Wavesion / Amendment Date 0 OBJECT 03.12.2018 IN RESCUE PROCEDURE Image: Construct of the second | Implementation Date 03.12.2018 | | | |
| Image: Contract of the second system of t | Revision / Amendment Number | | 0 | FALL PROTECTION PLAN |
| RESCUE PROCEDURE VINCE VINCE VINCE VINCE VINCE Call the MANAGER immediately!!!! and Stay CALM! VINCE Call the incident: give your current position / Level No: / Cell No / Tel number / Radio call sign. VINCE Do not put the phone down until the manager tells you to do so. Call to person that is hanging in safety harness. (Conscious/Unconscious) VINCE Proceed or send somebody to the lift and wait there for the Medical / Rescue / Emergency staff and escort to site. Barricade the area. STAY ON SCENE Never leave the fallen person unattended reassure person. (Stay calm - Help is on the way) Turn a chaotic, stressful event into something orderly. | Revision / Amendment Date | е | 03.12.2018 | |
| IN THE EVENT OF AN INCIDENT Call the MANAGER immediately!!!! and Stay CALM! Call the location of the incident; give your current position / Level No: / Cell No / Tel number / Radio call sign. Call the phone down until the manager tells you to do so. Call to person that is hanging in safety harness. (Conscious/Unconscious) Proceed or send somebody to the lift and wait there for the Medical / Rescue / Emergency staff and escort to site. Barricade the area. STAY ON SCENE Never leave the fallen person unattended reassure person. (Stay calm - Help is on the way) Turn a chaotic, stressful event into something orderly. | | | | |
| Stay CALM! Image: Constraint of the location of the incident; give your current position / Level No: / Cell No / Tel number / Radio call sign. Image: Constraint of the phone down until the manager tells you to do so. Call to person that is hanging in safety harness. (Conscious/Unconscious) Image: Constraint of the phone down until the manager tells you to do so. Call to person that is hanging in safety harness. (Conscious/Unconscious) Image: Constraint of the phone down until the manager tells you to do so. Call to person that is hanging in safety harness. (Conscious/Unconscious) Image: Constraint of the phone down until the manager tells you to do so. Call to person that is hanging in safety harness. (Conscious/Unconscious) Image: Constraint of the phone down until the manager tells you to do so. Call to person that is hanging in safety harness. (Conscious/Unconscious) Image: Constraint of the phone down until the manager tells you to do so. Call to person that is hanging in safety harness. (Conscious/Unconscious) Image: Constraint of the phone down until the manager tells you to do so. Call to person that is hanging in safety harness. (Conscious/Unconscious) Image: Constraint of the phone down until the manager tells you to do so. Call to person that is hanging in safety harness. (Conscious/Unconscious) Image: Constraint of the phone down until the manager tells you to do so. Call to person that is hanging the phone down until the manager tells you to do so. Call to person the tell tells tells you to the lift and wait there for the Medical / Rescue / Emergency staff and escort to site. Barricade the area. Image: | | | | |
| Image: Construction of the second | | | | |
| in safety harness. (Conscious/Unconscious) in safety harness. (Conscious/Unconscious) Proceed or send somebody to the lift and wait there for the Medical / Rescue / Emergency staff and escort to site. Barricade the area. STAY ON SCENE Never leave the fallen person unattended reassure person. (Stay calm - Help is on the way) Turn a chaotic, stressful event into something orderly. | | E | xplain the location of | |
| STAY ON SCENE Never leave the fallen person unattended reassure person. (Stay calm - Help is on the way) Turn a chaotic, stressful event into something orderly. | Hello | Do no | | |
| Turn a chaotic, stressful event into something orderly. | | | | |
| Escort the Medical / Rescue / Emergency staff to the incident. (Assist where possible) | STAY ON SCENE | Nev | | |
| | S. | E | scort the Medical / F | Rescue / Emergency staff to the incident. (Assist where possible) |

| THENJIWE SUPPLIES & REPAIRS | | |
|-----------------------------|--------------|----------------------|
| Reference Number | TSR/PLAN/002 | |
| Implementation Date | 03.12.2018 | FALL PROTECTION PLAN |
| Revision / Amendment Number | 0 | FALL FROTECTION FLAN |
| Revision / Amendment Date | 03.12.2018 | |

V. QUIZ

| Fall Protection Quiz | | | |
|----------------------|---|--|--|
| | | | |
| Na | me: | | |
| וחו | No.: Date: | | |
| | Circle the correct answer | | |
| | (Some questions may have more than one answer that applies; select the best choice): | | |
| | | | |
| 1. \ | Why is body belts no longer allowed for fall arrest protection? | | |
| a) | | | |
| | wearing a body belt. | | |
| b) | | | |
| | | | |
| d) | a and b are correct. | | |
| 2 1 | New in the use of a full hady between required for fall arrest protection? | | |
| | Why is the use of a full-body harness required for fall arrest protection? A full-body harness will distribute the force of a fall arrest impact over the entire torso and transfer the | | |
| a) | shock load to the connecting device. | | |
| b) | When worn correctly, the full-body harness minimizes the potential for serious injury to the wearer's | | |
| ς, | body. | | |
| c) | Procedures require the use of a full-body harness for fall arrest protection. | | |
| | All of the above are correct. | | |
| | | | |
| 3. \ | While donning a full-body harness which one of the following statements is incorrect? | | |
| a) | The back D-ring should be located below the shoulder blades toward the middle of the back. | | |
| b) | The leg and body straps need to be worn snugly against the body and adjusted so they are even in length. | | |
| C) | It is best if you tighten all of the harness straps before attempting to correctly position the back D-ring | | |
| d) | It is not necessary to physically check the harness straps to make certain they are straight. | | |
| | | | |
| 4. \ | Why is it important to limit the free fall distance as short as possible? | | |
| a) | The faster a free fall is stopped, the less the force is generated. | | |
| b) | The longer the free fall the greater the chance for severe body injury. | | |
| c) | To ensure that productivity is not interrupted. | | |
| d) | a and b are correct. | | |
| | for it is not according to miss to mark the basis of all here here and | | |
| | Training is not necessarily required prior to wearing a full-body harness. True. | | |
| a) b) | False. | | |
| 0) | | | |
| 6. \ | What is the best description of a leading edge? | | |
| a) | The edge of a trench. | | |
| b) | An aerial lift platform. | | |
| c) | The edge of sheet metal tin snips. | | |
| d) | The edge of any surface over which a fall can occur. | | |
| _ | | | |
| ` | 100% tie-off is required when working: | | |
| a) | 1.5m or higher exposed to an unprotected area. | | |
| b) | 10 feet or more from a protected area. Only when I think I need it. | | |
| c) d) | With electrical equipment. | | |
| u) | | | |

Reference NumberTSR/PLAN/002Implementation Date03.12.2018Revision / Amendment Number0Revision / Amendment Date03.12.2018

FALL PROTECTION PLAN

8. Never attach a lanyard snap hook to another snap hook.

a) True.

b) False.

9. When using fall protection, always secure your lanyard to an object capable of supporting a minimum weight of:

- a) 250 kg.
- b) 2.5 ton.
- c) 25 kg.
- d) 1 ton.

10. When descending a scaffold ladder, you should always keep your lanyard from becoming a tripping hazard by containing the excess dangling lanyard.

a) True.

b) False.

11. Tying lanyards in a knob to shorten them is not permitted.

a) True.

b) False.

12. Any time an employee steps into an Arial Lift (Elevating Work Platform), he/she must be tied off before the basket leaves the ground.

a) True.

b) False.

13. When preparing to use a full-body harness, you discover that it is defective,

you should:

- a) Try to make the necessary repairs.
- b) Go ahead and use it one last time.
- c) Lay it down and use another employee's harness.
- d) Return it to the tool room or appropriate designated location.

14. Studies indicate that the majority of fatal falls occur from:

- a) Floors.
- b) Ladders.
- c) Roofs.
- d) Scaffolds.