EAST DUNBARTONSHIRE COUNCIL

HEALTH & SAFETY PROCEDURE

WORKING AT HEIGHT

SP23

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1. INTRODUCTION

East Dunbartonshire Council (EDC) has a specific legal duty under the Work at Height (WAH) Regulations 2005. Additionally, The Management of Health and Safety at Work Regulations 1999 (MHSWR) require that every employer undertake risk assessments to identify potential hazards to employee health and safety and anyone who may be affected by their work activity. Further legislative duties apply under CDM 2015 upon Client`s Designers and Contractors. And lastly the Health and Safety at Work Act 1974 imposes a duty to ensure the health, safety, and welfare at work of its employees and those affected by our undertaking.

Besides carrying out a risk assessment, EDC have a duty to also

- ensure adequate planning of WAH is undertaken
- appoint competent people to Plan, Manage/Supervise and Undertake WAH
- plan and implement emergency procedures for WAH
- provide clear information and training to employees regarding safe WAH practice
- work together with other employers sharing the same workplace
- ensure that those working at height are in reasonably good health

Falls from height are one of the biggest causes of workplace fatalities and major injuries in the UK. EDC have a legal obligation to comply with the Work at height Regulations 2005 (WAHR), ensuring that employees and contractors are protected from falls from height.

EDC must ensure that Distance and Consequences are assessed, and that SSoW are developed and adopted to control foreseeable risk from WAH activities.

The purpose of this procedure is to ensure that all employees including contractors avoid working at height, where possible, and when unable to avoid WAH, all contractors implement suitable and sufficient control of such work tasks.

This includes ensuring the safety of those who may be impacted by the work at height e.g. those working or passing beneath, or about the WAH activity.

2. SCOPE

This procedure applies to all EDC contractors, employees, trade operatives and team/squad leaders and the role specific / activities required from them.

3. ROLES AND RESPONSIBILITIES

3.1 CHIEF EXECUTIVE

The East Dunbartonshire Council (EDC) Chief Executive has ultimate responsibility for health and safety and for making sure that adequate provision is available for the implementation of the requirements of this Management Procedure.

It is important to acknowledge that the Chief Executive’s responsibilities are shared, in that the Deputy Chief Executive, Executive Officers and Senior Managers will be responsible and accountable within their areas of responsibility.

3.2 DEPUTY CHIEF EXECUTIVE

The Deputy Chief Executive has a delegated responsibility for making sure this management Procedure is implemented in respect of premises under the control of or otherwise, occupied by EDC Place, Neighbourhood and Corporate Assets.

3.3 EXECUTIVE OFFICERS & MANAGERS

The Executive Officers and Managers must ensure the following:

- Adequate resources and competent person(s) are allocated to support the implementation of this Management Procedure and relevant associated Health and Safety legislation
- Ensure that all work activities that involve work at height are identified
- Eliminate the need to undertake work at height whenever it is reasonably practicable to do so
- Undertake risk assessment for those activities where work at height cannot be eliminated and reduce the level of risk, so far as is reasonably practicable
- Provide all the necessary equipment to allow safe access to and egress from the place of work
- Provide all the necessary equipment to ensure adequate lighting and protection from adverse weather conditions
- Provide suitable plant to enable the materials used or created in the course of the work to be safely lifted to and from the workplace and stored there if necessary
- Ensure that any working platform and its supporting structures are selected and/or designed in accordance with current standards
- Make provisions for regular inspections of all equipment required for working at height
- Ensure that all persons who must undertake work at height are trained and competent to do so.
- Require any contractors from whom they procure services to comply with this policy
- Must strive to deploy best practice where practicable

3.4 HEALTH AND SAFETY TEAM

The EDC Health and Safety Team will advise the management in fulfilling their duties regarding the implementation of this Management Procedure and associated regulations and guidance.

In particular, the Health and Safety Team shall:

- Advise the Executive Officer, Senior Manager, Team, and Squad Leaders in fulfilling their duties
- Work with teams to provide feedback about actions and control measures that may need to be taken to prevent harm and protect employees
- Provide and reinforce training and education on health risks associated with certain tasks

- Monitor the compliance with this management procedure and the associated regulations and guidance by carrying out periodical audits and inspections and issuing subsequent reports detailing any possible gaps or issues that need to be addressed.
- Must aim to communicate best practice where known, and keep up to date their knowledge of any new SSOW, or specific risk mitigation methods that come onto the market

3.5 EMPLOYEES RESPONSIBILITIES

Employees must:

- WAH in accordance with safety procedures as outlined in the operating manual
- When working at height they must work in compliance of written and or communicated risk assessment controls as applicable
- They must use all WAH work equipment as per training and intended purpose
- They must ensure pre-use checks are adopted as applicable and that all records of such checks are retained as required
- Not tamper or interfere with any safety equipment or PPE provided
- Report any faulty WAH equipment to their manager/supervisor and clearly identify the equipment as faulty and ensure it is removed from use immediately
- Report all accidents and incidents in accordance with SP01 Accident & Incident Reporting Procedure
- Any deployment of fall-arrest equipment must be reported
- Any failure of any working at height platform must be reported
- Prior to accessing any WAH equipment or platform provision, a competent person must assess it as being visibly fit for use.
- All person must ensure that any leading edge or fragile surface is suitably guarded against, where there is evident risk of a fall into or through such voids

4. DEFINITIONS

4.1 WORKING AT HEIGHT

Personal Fall Protection System means – (a) a fall prevention, work restraint, work positioning, fall arrest or rescue system, other than a system in which the only safeguards are collective safeguards; or (b) rope access and positioning techniques.

Suitable means suitable in any respect which it is reasonably foreseeable will affect the safety of any person.

Work at Height means – (a) work in any place, including a place at or below ground level.

(b) obtaining access to or egress from such a place while at work, except by a staircase in a permanent workplace, where, if measures required by these Regulations were not taken, a person could fall a distance liable to cause personal injury.

Work Equipment - means any machinery, appliance, apparatus, tool or installation for use at work (whether exclusively or not) and includes anything to which regulation 8 and Schedules 2 to 6 of WAH 2005 apply.

Working Platform - (a) means any platform used as a place of work or as a means of access to or egress from a place of work.

(b) includes any scaffold, suspended scaffold, cradle, mobile platform, trestle, gangway, gantry, and stairway which is so used.

Working at Height (WAH) - means work in any place, including a place above or below ground level whereby if measures required by the regulations were not taken, a person could fall a distance liable to cause personal injury.

This includes any work:

- Where a person could fall when working from a ladder or on a roof
- Where a person could fall from an edge through an opening or fragile surface or
- Where a person could fall into an opening in a floor or a hole in the ground

Any reference to carrying out WAH includes obtaining access to, or egress from such a place while at work (except by a staircase in a permanent workplace).

It is a legal requirement to conduct all work at height in accordance with the WAH Regulations. Employers must provide and maintain a safe place of work and safe access and egress to and from that place of work, that includes WAH.

4.2 SHORT DURATION OF WORK

Ladders (*which includes step ladders*) are legal where the task (or series of tasks) is of low risk and short duration. **Note:** accumulated short periods in the same location are not deemed to be a series of isolated tasks, they amount to a continuation of a task.

Each time of use imposes risk, if you add each time of reuse in the same location, you collectively increase the risk.

The HSE recommend no longer than 30 minutes is permitted for a single task.

You can undertake a series of tasks that take longer, but each individual task should not last longer than 30 minutes

And if it's longer than 30 minutes for a single task**,** you must consider another type or work equipment

4.3 SAFE EXISTING PLACE OF WORK

This is a place, (including the means of access), that although at height, is already safe as it has adequate permanent protection usually in the form of parapet walls or guardrails. This situation is highly desirable in the hierarchy as work at height has been avoided.

4.4 COLLECTIVE FALL PREVENTION (CFP)

If an existing place of work (i.e., a safe place) cannot be utilised then work equipment is to be utilised to prevent falls. This work equipment includes temporary guard rails, scaffolds, tower scaffolds, MEWPs etc. This is the preferred situation when work equipment is required for various reasons:

- Falls are prevented for all persons working at height
- When set up correctly CFP can require minimal specific input from the user, notably visual inspection and on instrument monitoring
- However, Temp-Work may require uplift of additional lifts, or may involve striking, back propping and additional lifts to continue work to full height requirement – e.g., formwork (Peri / DOKA etc.), scaffolds (all forms), may require additional lifts as applicable
- Similarly, a deep shaft may require edge protection, intermediate landings and stairs as opposed to single vertical ladder access/egress, any vertical shaft ladder that extends 4m plus should be enclosed e.g., a Cat Ladder.

4.5 COLLECTIVE FALL PROTECTION cont.:

If fall prevention measures are not reasonably practicable or do not eliminate the risk of a fall, then work equipment should be used to mitigate the effects of a fall. Work equipment includes nets and airbags or other equipment that provides a soft landing and does not require any specific input from the user.

All such equipment should be located as close to the underside of the drop footprint as possible to limit the distance of falls, nets when adopted should not permit excessive sagging if fallen into, to prevent impact from obstructions, plant, materials etc. below the drop zone.

4.6 PERSONAL FALL PROTECTION SYSTEMS

This covers a variety of safety systems including work restraint, personal fall prevention, work positioning, rope access, fall-arrest, and rescue systems.

These systems are for individual use, require technical training in pre-inspection usage, safe use, safe storage, and an appreciation of their limitations of use.

4.7 WORK RESTRAINT

Is a personal fall protection system that uses a body holding device connected to a reliable anchor to prevent a person from reaching an area where there is a risk of a fall. The body holding device will usually consist of a fixed distance lanyard that has no shock absorber fitted, e.g., a secure rope line or inertia wheel type attachment, secured / restrained via a suitable 1-ton restraint anchor point. The safety line / inertia line is then attached to the individuals full body safety harness or approved waist belt by a suitable carabineer clip.

An alternative method can adopt a horizontal (running) line strung and secured between two secure anchor points. Which then allows for more than 1 individual to be secure perpendicular to the secured horizontal (running) line, clipped on by carabineer and adjustable safe working positioning line.

4.8 FALL ARREST SYSTEM

Is a personal fall protection system that uses a harness connected to a reliable anchor to arrest and restrict a fall, whilst limiting the forces on the body. This is achieved by incorporating an energy-absorbing device into the system. In the worst case, a fall-arrest system may take up to 6 metres to deploy and therefore there must be adequate clearance available. Consideration is also required to the pendulum effect of such a fall. Which could result in serious injury. The energy-absorbing device will often be built into the lanyard but could take the form of an inertia reel when the user is more or less directly below the anchor point. Waist belts are not acceptable as parts of fall-arrest systems.

4.9 WORK EQUIPMENT

Means any machinery, appliance, apparatus, tool, or installation for use at work (PUWER 1998). This includes all working at height equipment.

5. GENERAL ARRANGEMENTS

5.1 WORKING AT HEIGHT LEGISLATION

Specific requirements of the Work at Height Regulations (2005) are that:

- All work at height is properly planned, supervised, and conducted
- The risks from work at height are assessed and appropriate work equipment is selected and used
- The place where the work will be carried out is safe
- Weather conditions have been considered
- Those involved in work at height are trained and competent
- The risks from falling objects are properly controlled
- The risks from fragile surfaces are properly controlled
- Equipment for work at height is properly inspected, maintained, and stored

5.2 HIERARCHY OF CONTROLS FOR WORKING AT HEIGHT

The Work at Height Regulations set out a control hierarchy for the avoidance of risks from work at height which are as follows:

AVOID WORK AT HEIGHT

The underlying principle of the Work at Height Regulations is that working at height should be avoided wherever possible. This essentially means doing as much work as possible from the ground, using extending tools instead of a ladder, or lowering something to ground level before repairing it.

Avoiding work at height also means avoiding work on fragile surfaces, which may be enclosed, but still liable to cause a fall through them rather than off them.

PREVENTION OF FALLS

Use of an existing safe place of work for means of access is to be made where practicable, e.g., an existing place of work with permanent collective passive protection such as handrails toe boards etc.

Where this is not reasonably practicable, sufficient work equipment is to be provided to prevent a fall occurring by using collective work equipment such as a scaffold fitted with adequate guardrails and safe access/egress, e.g., integrated stairs. Ladders are a secondary option and should be short lift application – 2m lifts maximum, to reduce distance and consequences of falls. The pitch of ladders is also a contributory factor in falls; hence they must be set at 1/4

All fall protection is to be chosen to protect the collective firstly and the individual lastly. E.G., under netting fall protection secured in place, as close to the underside of the void as practicable, is chosen in advance of multiple safety harnesses and safety lines.

Similarly, air bags or bean bags would be used beneath roof trusses being fixed upon the wall/roof plate formation.

MINIMISE THE DISTANCE AND CONSEQUENCES OF A FALL

Where the measures taken to prevent a fall do not eliminate the risk of a fall occurring, sufficient work equipment is to be provided, as far as is reasonably practicable, to firstly minimise the distance of a fall, and then minimise the impact consequences of a fall.

Suitable collective work equipment to minimise distance and consequences include nets or airbags, positioned as close under the work surface or at a lower level.

Tools on tethers prevent falling tools as can toe boards on alloy towers and scaffold.

Paint kettles if dropped spill less paint than a 1 or 5 litre can, kettle hooks hold the kettle in place, permitting 3 points of ladder contact for example. A paint can in 1 hand and a brush/roller in another does not.

Brick guards prevent falling material, and unlike using debris netting, do not add additional wind load.

Fewer people fall from podiums than fall from steps, podiums often permit 360 degrees working - all round working from the podium platform, and incorporate stabilisers to aid stability

Suitable personal fall arrest systems (FAS) may also require use of additional PPE, e.g., a life jacket whilst working next to unguarded water. Any additional PPE requirement must not impact upon the safe working at height procedure, and similarly, the WAH SSoW must include for any unimpeded additional PPE requirement. **NOTE**: *tidal influence may seriously impact safe use of fall arrest systems, refer to Hierarchy of controls as applicable.*

Additional training and instruction are to be given to workers as necessary where interaction issues exist between WAH safety equipment and additional PPE requirement.

EDC's Health and Safety strongly recommend the WAH training courses be undertaken by those employees at risk from typical WAH tasks:

- Safe use of stepladders and ladder awareness training
- Ladder inspection (Inspectors) training
- Basic Scaffold user awareness training

High risk working at height work activities will be delivered to employees by appointed specialised training providers for instance:

- Short Duration use of leaning ladders and roof ladders using a TETRA system or similar method.
- Mobile elevated work platform (MEWP) – (IPAF) operator training course. The Prefabricated Access Suppliers' and Manufacturers' Association (PASMA), are the lead trade and training body for mobile access towers

EDC will appoint suitably trained and competent contractors to safely erect, alter and dismantle scaffolding structures.

All scaffolders on EDC projects must hold the relevant Construction Industry Scaffolding Record Scheme (CISRS) competence card; showing the types of scaffolding they are trained to erect and dismantle.

Once a scaffold has been erected and inspected by a competent person, the scaffold contractor must issue a first use inspection certificate. This certificate confirms the scaffold, complies with statutory duties, is structurally sound and in a condition that is safe to use.

All those working on a roof should be competent and be of adequate good health to do so and have adequate training for their trade duties.

The various types of training could include installing edge protection, operating a MEWP, manual handling, tower scaffold erection or the use of harnesses and rescue procedures.

The person responsible for controlling the works must:

- Be competent to do so
- Ensure that all WAH is suitably planned and complies with the hierarchy of controls for WAH – collective protection for all persons, before individual protection
- Ensure those supervising or completing the work are competent to do so
- Ensure Operatives have received adequate training in the use of any access equipment they are required to use. (Such as ladders, stepladders, mobile elevated work platforms (IPAF), alloy tower use (PASMA) , FPS, and scaffold awareness)
- Ensure Operatives are adequately trained in the use and maintenance of any personal protective equipment (PPE) they are required to use
- Ensure, where applicable, that Operatives have read and understood the contents of any written method statement or other plan of work

- Ensure that there is a written SSoW – RAMS, which is communicated to all participants as applicable
- Ensure that where any **Permit to Work** procedure applies, that the permit is complied with Fully

5.4 SELECTION, USE, STORAGE AND MAINTAINANCE

When selecting all ladders and low-level portable WAH access equipment manufactured and supplied within the UK and the EU should be manufactured to specified standards and correctly classified. Please refer to H03 Schedule of Approved Work at Height Equipment for more information.

WAH equipment compliant to BS EN131, Professional (Industrial and trade), designed for industrial applications and environments is the preferred access equipment to be used for works on EDC Projects.

These requirements apply to all portable ladder types and include stepladders, platform steps and extension ladders. Specialist single use ladders, (e.g. pole ladders, loft ladders) and fixed access ladders (e.g. static roof access ladders) are not intended for classification under these standards.

As well as selecting the correct work equipment the duty holders should ensure that it is well maintained and regularly inspected. Schedules 2 to 6 of the Work at Height Regulations set out the requirements for work equipment. For maintenance refer to Regulation 5 of the PUWER Regulations. Records of inspections must be available for review as applicable.

All equipment must be correctly stored within a secure compound area or if appropriate, within the trade persons Council vehicle. This equipment must be always locked away when not in use to ensure no third-party intervention.

Trades people use portable ladders which are secured in Council vehicles including triple section ladders and roof ladders which are secured on roof racking systems on top of their vans when not in use. All ladders are to be fully secured to the roof racking system as applicable.

5.5 PERSONAL PROTECTIVE EQUIPMENT

Suitable work equipment and PPE for work at height to be selected as determined by the task risk assessment and utilised as determined by the method statement and in accordance with the manufacturer's instructions.

Work and personal fall protection equipment must comply with BS 8437: and all equipment and PPE to comply with relevant British and European Standards.

All operatives when trained in their use, are to wear full body harnesses on restricted high places where the task risk assessment and method statement require it. And they are to be secured to the designated anchor point as applicable. NOTE: if they are unable to be in a place of safety when unclipping from the designated secure anchor, they must adopt an additional lanyard to aid movement to a position of safety – no fall risk evident.

All personnel must wear hard-hats with chin straps when the WAH risk of a fall is evident

All personnel on the ground (within the designated site perimeter or exclusion zone) are to wear head protection.

Eye protection to be worn where the task risk assessment and method statement require it.

Protective work clothing is to be worn, that is suitable for the work activity being undertaken and for the prevailing environmental conditions. Overalls are preferred as there is less chance of clothing becoming loose and flapping about. However, it is important that all clothing is comfortable and does not restrict movement. A high visibility jacket may be worn on top if required.

Pockets should be closed with fasteners to prevent items falling and small tools should be kept in a bag or attached by means of a tether / carabineer. Consider wearing a tool belt to carry tools safely.

Footwear is to provide firm support to the foot and ankle. It is to have a well-defined instep and patterned sole to prevent slipping. Steel toe caps are always to be used and where long climbs are involved or if the work involves standing on a ladder rung or bracing, strengthened soles are recommended.

Protective gloves are to be available and worn when appropriate for the work activity being undertaken. They are to protect against heat, cold, sharp edges, protective coatings, splinters, and bird droppings.

6. RISK ASSESSMENT AND METHOD STATEMENTS

6.1 PLANNING WORK AT HEIGHT ACTIVITES

If work at height cannot be avoided, a suitable and sufficient risk assessment must be carried out by a competent person and a safe system of work developed including the provision of emergency procedures. This should be completed in accordance with industry standards and EDC's management system.

Where the risks are significant the risk assessment and method statement must be written and kept on file for audit purposes.

The aim of carrying out a risk assessment is to.

- Determine what work requires design input
- Determine what Contractor(s) are required
- Determine what tasks require a Permit to Work
- Establish that you have **No** alternative method other than to work at height
- Identify the most suitable work equipment to allow a safe and practicable work method, that accommodates the collective over individual need
- Identify actions to be taken to prevent falls and to minimise the consequences.
- Identify issues regarding existing services that may cause impact upon those working at height
- Establish practicable rescue procedures

A permit to work on roofs will be required where access is to be gained to any roof area without adequate fixed protection against falls, or where any roof has fragile coverings.

Additional permits apply for **Hot Work** and **Electrical Work –Safe Isolation – Live Working.**

6.2 ASSESSING THE RISKS

When assessing the risks, all foreseeable hazards must be considered in advance and the following issues may need consideration:

Work at height can include, but is not exclusively limited to:

- Working at ground level adjacent to an excavation
- Working on roofs without adequate fixed protection
- Working on fragile roofs and or roofs with unguarded roof lights
- Working from a ladder or step ladder
- Working from podiums or hop-ups
- Working from a scaffold or scaffold tower
- Work using MEWPS – LOLER 1998 applies to MEWP use – **regulation 5 Lifting Equipment for Lifting of Persons and Regulation 8 Organisation of Lifting Operations applies**

Hazard consideration is also required from the impact of existing services, - load impact - fixed service impact and any overhead services – e.g., GS6 avoiding danger from overhead power lines.

6.3 AREAS FOR CONSIDERATION IN THE ASSESSMENT

- The work activity being carried out
- Frequency of access
- The duration of the work
- The location in relation to the presence of hazards such as open excavations, overhead services etc.
- The working environment about weather or lighting
- Weather conditions – wind load impact – HSE states that 23 MPH winds increase instability in working operatives
- Public / Traffic interface
- Safe means of access and egress
- lone working
- Drop exclusion zones
- Condition and stability of work surfaces such as fragile materials, slippery surfaces etc. ;
- Physical capabilities of the workers such as pregnancy or vertigo sufferers
- The equipment to be used and its inspection
- Material handling at height - Falling objects
- Impact on adjacent work activities, or passage of staff adjacent to work at height

- Prevention of access by unauthorised persons
- Potential drop zone impact – proximity / interface risk

6.4 DEVELOPING A METHOD STATEMENT

In the development of a written method statement, the information gathered during the risk assessment will be used to construct a document that will give information and instruction to the employees who are to carry out the work.

It will also detail, where necessary:

- Collective fall prevention - Collective protection measures, e.g., guard rails, should be deployed in the first instance rather than personal protection. Fall arrest/restraint equipment should be the last in the hierarchy of control
- Personal fall arrest
- Requirements for inspection
- The means for preventing unauthorised access to the area underneath the work being carried out
- Any supervision that may be necessary
- Material handling - removal and placement – safe loading restrictions
- Any weather conditions that workers may be exposed to e.g. icy roofs, slippery surfaces in the rain, wind
- Rescue Plan / Emergency Procedure - it is not acceptable just to rely on the emergency services, this needs to be covered in the risk assessment and planned prior to the work being carried out

6.5 EMERGENCY AND RESCUE PLAN

Any method statement must include a rescue plan that considers how an injured worker could be safely recovered.

Speed of response is an essential consideration, especially where a safety harness is being used as a control measure. A person suspended in a harness may be unconscious within five minutes and dead within fifteen minutes if help is not immediately available. Dangling static legs drain blood via gravity impact, starving the brain of oxygen.

Suspension trauma is a complex and dangerous issue, suspension in the harness causes blood to gather in the legs, this reduces blood in the brain causing dizziness, followed by sweating and anxiety, this leads to shock, eventually so little blood flows to the heart and lungs that the heart rate plummets, blood pressure drops, and you pass out. Oxygen starvation causes severe brain trauma, and possible death.

Descent to the ground is to be speedily achieved if suspension trauma is to be avoided. Selection of a suitable harness that includes integrated relief straps can assist the suspended person provided they are conscious and not suffering from shock. The relief straps aid the suspended person to lift and lower their legs, which increases blood flow about the body.

For any work at height on a restricted high place, the person in charge is to prepare a suitable and sufficient emergency plan for dealing with emergencies. The plan should

include names and telephone numbers of all emergency and support services that may need to be contacted.

A rescue plan is to be prepared by the person in charge for each work at height activity. The plan is to be effective, considering the task and location, for the rescue to be carried out promptly. The rescue method, equipment, and location of equipment is to be detailed in the plan.

A rescue may be required to be carried out by personnel suitably trained in rescue from height. All members in the team must be able to communicate with each other including the rescue personnel with all means of communication to be proven effective.

A rescue plan is not necessarily to rely on the emergency services as in some cases, such as when fall-arrest equipment is used, rescue cover is provided by trained employees. In any case the agreement of the emergency services is to be obtained to carry out the rescue before it is included in a rescue plan. EDC employees must use K02 MEWP Emergency Rescue Plan when using a MEWP. Two trained operatives must be always present when operating the MEWP to help rescue the operator if necessary and or raise the alarm in an emergency.

7. WORKING AT HEIGHT EQUIPMENT AND GUIDANCE

7.1 SCAFFOLDS

This applies to both traditional tube and fitting or system scaffolds and mobile tower scaffolds:

Scaffolds should be designed to protect the public. This includes preventing materials falling, ensuring they are strong enough to carry the loads required, ensuring that traffic and pedestrians are in safe areas especially during erection and dismantling and preventing unauthorised access especially when unattended

Scaffold design, erection and dismantling should be carried out by competent staff under competent supervision. Scaffolds should be adequately braced and securely tied or otherwise supported. Additional ties may be required if the scaffold is sheeted or used for hoisting or loading materials. Upright standards, bearing directly on the ground should have base plates and timber sole plates of adequate size / free from defects as applicable

Scaffold work platforms should be fully boarded on all working lifts, with the boards arranged to avoid slips and trips, stair or ladder access provided should be suitable and secure.

Ladders should be angled at around 75^0 to the horizontal, (i.e., one out for every four up), to minimise the chance of sliding. Where practicable ladders should extend a minimum of 1m above work platforms to provide safe hand hold access. Ladders should be fitted with gates or trap doors. Ladders should be limited in length to 2 m lifts to minimise the distance of falls, this 2m height also aids IP removal in event of serious injury at height, a stretcher is more easily lowered between 2 m lifts, than they would be down longer ladder lengths.

There should be handrails and mid rails fitted to all scaffolds, along with mandatory toe boards of 150mm minimum height

There should be no wider gap than 150mm between the building line and the inner scaffold boards about the building line.

Scaffolds should be inspected by a competent person before first use, after any changes have been made and at regular intervals not exceeding 7 days. Ladders should also be checked regularly for defects, as set out in the Method Statement or Safety Management Plan.

No changes to the structure should be carried out except by a competent person and care should be taken that they are not loaded beyond design levels.

EDC employees who have been trained to do so must use the FO5 Pre-Use Scaffold Inspection Checklist before accepting a scaffold handover from the scaffold contractor. Any issues noted must be reported to the line manager immediately. **Do not use the Scaffold if in any doubt about the safety/integrity of the scaffold and contact your team leader and or the health and safety team for advice.**

For mobile tower scaffolds; the maximum height to minimum width ratio should be 3:1 unless the manufacturer's instructions state otherwise, (this will usually involve the use of outriggers). The wheels must be locked when in use and the scaffold unoccupied when being moved. Tower scaffolds should never be used to support ladders. Mobile tower scaffolds are to be made secure when not attended to prevent unauthorised access and use.

For the erection and certification of mobile tower scaffolds the competent person is to have PASMA or equivalent training and certification.

7.2 MOBILE ELEVATED WORKING PLATFORMS (MEWP)

This section covers all types of MEWPs including scissor lifts and platforms at the ends of boom, (more commonly known as cherry pickers). The booms may be telescopic or articulated and may be lorry mounted, trailer mounted or self-propelling.

MEWPS can provide a quick and easy positioning solution for someone who needs to work at height. There are however many different types available, and it is essential to use the right type for the job. When choosing a MEWP, consideration should be given to the height and reach of the work, the ground conditions, the type of fuel (if indoors), the nature of the work and the number of workers required.

The operators of any MEWP must be properly trained and hold current IPAF or equivalent certification. In addition, the machinery itself should have a valid LOLER examination certificate, valid for 6 months. Daily pre-use checks should also be carried out prior to use and normally weekly inspections are carried out. EDC employees should use the H01 MEWP (Mobile Elevated Work Platform) Checklist before usage and report all defects to their line manager immediately.

The Risk Assessment for the task will determine whether the users are required to be restrained when at height. That said, for carrier platforms (cages) on booms it is good practice for harnesses to be worn, with a restraint lanyard, (i.e., a fixed lanyard without a

fall-arrester fitted), attached to a solid anchor at low point within the carrier platform. This is to prevent falls from the carrier platform which could topple the machine. MEWPs should be fitted with double guard rails and toe boards.

Following the Task Based Risk Assessment an emergency rescue plan will be drawn up prior to the commencement of the work. If there is any doubt as to the effectiveness of the rescue plan, (e.g., using an unfamiliar machine for the first time), then it should be proved by a practice run with the support from the manufacturer and or supplier. EDC employees along with team leaders and or supervisors should use N01 MEWP (Mobile Elevated Working Platform) Permit and must use K02 MEWP Emergency Rescue Plan as part of a management strategy to help reduce the risk of an accident or incident from potentially occurring. Two trained operatives must be always present when operating the MEWP to help rescue the operator if necessary and or raise the alarm in an emergency situation.

Exclusion areas should be introduced below and around the MEWP to protect others from falling objects. Effective barriers and signs should also be in place to prevent collisions with other vehicles, which could topple the machine.

Generally, MEWPs are used for work positioning only. They are not to be used for gaining access to a fixed workplace such as a roof unless the carrier platform has been adapted to allow users to walk directly to a safe area of the roof. They should always be used within their loading capabilities which vary depending on the height and reach required. A MEWP must never be used as a crane.

Some MEWPs have outriggers which act as stabilisers. These are generally the lorry or trailer mounted machines which usually have a greater reach. Operators of these machines require additional training, and this will be indicated on their IPAF certificates.

Other dangers arise when the carrier platforms are moved or when the whole machine is moved. If MEWPs are moved in the raised position, then a banksman should be used on the ground. It is essential that the MEWP is always kept on firm ground as any vertical movement, even in one wheel will become amplified and could cause the machine to topple. Depressions as shallow as 75mm have been known to cause overturning and particular care is required where inspection covers are present.

Always look up and consider the risk of plant coming near overhead powerlines, if concerned Stop the job and seek advice from your team leader and or supervisor.

When the carrier platform is moved the operator may be at ground level or on the carrier platform. In either case there is a danger of impact between those on the carrier platform and the structure. There should always be an adequate method of communication between the ground and those on the carrier platform. This is particularly important in a machinery breakdown/rescue situation. Some machines will cut out should any part become wedged beneath a structure. In this case they can only be brought down by an operator on the ground.

Weather conditions must be considered prior to the commencement of work with a MEWP even if the work is indoors as doors and windows may be opened. Forecast wind speeds are normally mean wind speeds as the actual gust speeds measured on site may be twice these values. Lightning is a potential risk especially when the platform is at a local high point. Forecasts for lightning prediction are to be obtained before using a MEWP outdoors.

Assess other alternative work methods if the operations are required on soft ground or near steep slopes or excavations, when the weight of the machine can affect the ground and cause soil failures or slippages.

Any MEWP landed on a Public Road within a traffic route must be enclosed by a Chapter 8 Safe Working Zone Enclosure footprint – New Roads and Street Works Guidance applies to Roadwork.

The USE of MEWPS is subject to a Lifting Plan. Lifting of Persons apply. Refer to LOLER 1998 Regulation 5.

7.3 LADDER HIERARCHY

The Ladder Hierarchy of controls are as followed:

- tie the leaning ladder to a suitable point, making sure both stiles are tied; **(preferred option is to secure the ladder to a structure)**
- where this is not practical, secure with an effective ladder stability device.
- if this is not possible, then securely wedge the ladder, e.g., wedge the stiles against a wall.
- if you can't achieve any of these options, foot the ladder. Footing is the last resort. Avoid it, where 'reasonably practicable', by using other access equipment.

In accordance with the preferred option identified in the ladder hierarchy of controls which is to secure the leaning ladder to the fabric of the building on which you are working on. This may be achieved by using a ladder stabilisation system and the user wearing a harness and fall arrest equipment to help reduce the risk of the ladder moving.

This method also allows the operative to maintain three points of contact via mechanical means if they must carry tools or material to safely carry out a short duration task and if they must safely transfer onto a roof ladder. This creates a more stable working platform and allows the use of a fall protection system to self-rescue in the event of an emergency. A Tetra System or similar is recommended for safe working at height from a ladder.

7.4 SAFE USE OF LADDERS AND STEPLADDERS

EDC employees will use only approved ladders/stepladders supplied by the Council and Management will keep a register of all ladders, recorded on the **H02 Ladder Register.** Following the risk assessment process and hierarchy of ladder control, if ladders or steps are chosen as the best means of access then the following guidance should be followed:

- They should only be used as a workplace for light work of short duration. In one position for a maximum of 30 minutes; 30 min use is not to be accumulated whilst working in the same location
- The general condition of ladders must be examined before each time of use, in addition to its regular 6 monthly examination.

- Do not overload it – consider workers' weight and the equipment or materials they are carrying before working at height. Check the pictogram or label on the ladder for information along with the manufacturer's instructions.
- Operatives must make sure ladders/steps are set on a firm and level base with non-slip adjustable feet or a suitable equivalent piece of equipment. Typical examples include purpose made levelling devices, securely fitted timber or non-slip matting.
- Ensure any locking devices are fully engaged.
- You must face the ladder/steps and use both of your hands when climbing or descending.
- Maintain three points of contact (hands, feet & torso) at the working position.
- Avoid holding items when climbing (consider using a tool belt);
- Work within the stiles of the ladders/steps and do not overreach, or side load.
- Dependant on ladder design, do not use the top three steps of the stepladder unless a suitable handrail is available.
- Ladders should be set to a 4:1 angle and all extending ladders should have an overlap of at least 3 rungs. If the 1:4 rule cannot be achieved, risk assess and consider use of alternative access equipment.
- The correct angle of 75 degree will help minimise the risk of the ladder sliding away from the wall.
- Where ladders are used to access work platforms they should, where practicable, extend 1m beyond the platform
- Where using a ladder to access a space below a floor, the ladder must be secure and protrude above the floor to ensure a safe handhold when stepping off/on to the floor level
- Do not rest ladders against weak upper surfaces (e.g., glazing, or plastic gutters). Alternatively, you can use effective spreader bars or effective stand-offs (Microlight).
- Do not try to move or extend ladders while standing on the rungs.
- Any use of a ladder should be completed as a two-person operation.
- A Tetra System or similar is recommended for safe working at height from a ladder
- Where there is a risk of electrocution do not use metal ladders, consider fiberglass.
- All users of portable ladders must be trained in their use.

7.5 WORKING ON ROOFS

In the construction industry falls account for more deaths and injuries than any other cause and roofers account for a high percentage of those killed in falls from height. Accidents also occur during roof maintenance, cleaning, and inspection operations. A high proportion of work at height accidents involve falling from or through roofs and frequently involve fragile roofs.

As with all work at height there is a systematic hierarchy which should be followed when planning the work. Refer to section 5.2. Remember that fall prevention takes precedence over fall-arrest measures and within each category, collective measures take precedence over personal measures. This is because collective measures are passive in that they do not require the user to take any action. With personal protection, not only does the user have to remember to use the equipment, it must also be used correctly.

Getting on and off a roof is a major risk. A secure means of entry / egress is essential. Stair access towers or tower scaffolds are suitable. Consider whether the work could be carried

out more safely from the ground where practicable, e.g., roofs can be formed at ground level or be prefabricated off site and be raised into position by Crane, however, that brings its own risks. Lastly, use of ladders may be possible where the practicality of other methods is not practicable.

For those on the roof the first line of defence is adequate edge protection to prevent falls occurring. The top guard rail should be at least 0.95m high (preferably 1.1m high) with an intermediate rail at mid height. Where there is a risk of objects being kicked off or a person sliding underneath a toe board (also known as a kicker plate) should be fitted.

Additional impact loading is to be considered for on pitched roofs, where the fall protection is being temporary fitted about the roof eves. The higher the pitch the greater the potential loading if someone were to fall and roll or be blown onto the edge protection in place. This is termed **dynamic loading** and exceeds typical perpendicular loading when the roof pitch exceeds 10-degree dynamic loading must be allowed for and the dynamic impact loading increases as the pitch increases, typically at 10 degrees, 30 degrees, 45, degrees and 60, degrees. Any such provision of edge protection on pitched roofs should be designed.

If the roof itself cannot provide an adequate platform either because of its pitch or fragility, then other measures are to be considered such as using a MEWP so that the work can be carried out from the carrier platform (cage) or a platform installed.

Where adequate fall prevention measures cannot be provided consider collective passive systems such as nets, airbags, and bean bags to minimise the consequences of a fall. All of these require them to be placed as close to the underside of the fall leading edge as practicable – distance and consequences

Nothing should be thrown from a roof or scaffold – bombing of materials is not permissible, even into skips. Enclosed chutes should be used, or the rubbish lowered to ground in a controlled manner within a container. Care should be taken to protect the public from falling objects either from the roof or from the means of access. If they cannot be kept at a safe distance, then additional protection measures are required.

Unauthorised and public access must be always prevented. When considering signage remember that this is ineffective with young children.

All those working on a roof should be competent to do so and have adequate training for their duties. The various types of training could include installing edge protection, operating a MEWP, manual handling, tower scaffold erection or the use of harnesses and rescue procedures.

Weather conditions can endanger lives particularly during windy conditions when loose objects can get blown around or those carrying sheeting may be blown over. Rain snow and ice can cause slips and the cold can cause numbness and the increased likelihood of people losing their grip or dropping objects. Ensure loose objects are not left at height when the site is unattended, e.g., at evenings and weekends, in case the wind picks up. Lightning is also a significant risk.

Short-duration roof work could include inspections, replacement of a few tiles or a minor adjustment to a TV aerial. The work should be carried out in minutes rather than hours and

it may not be practicable to provide full edge protection. However, the following two minimum requirements always apply:

- A safe means of access and egress to and from the roof level
- A safe means of working on a roof. (This may involve properly constructed roof ladders or personal restraint systems however it should be remembered that MEWPs can be appropriate for short duration work).

Fragile roofs are those that cannot safely carry the weight of the people and materials on it. Where they are known to exist adequate warning signage should be fixed on the approaches and adequate precautions taken such as the introduction of a permit system and anti-climb measures provided.

In assessing fragility there are a number of factors to consider:

- Material thickness
- Span between supports
- Sheet profile
- Type, number, and quality of fixings
- Support design including purlins
- Structure age and condition (any roof can become fragile with time)
- The vicinity of roof lights.

A risk assessment should be carried out by a competent person before work commences on roofs. It may be that the whole roof is fragile, or it may be just in small areas such as roof lights. Roofs can also be temporarily fragile e.g., at certain stages of construction.

Where work on a fragile roof cannot be avoided the area must be made safe with staging to distribute the loads along with adequate edge protection and safe platforms. Any staging or platform members fitted should span at least two purlins (if structurally adequate) or between other supports and not rely upon the support of the fragile surface. Where valley or parapet gutters are used for access, fixed covers should be provided extending far enough to prevent anyone falling on them or from falling through the roof.

Any fall protection measures used should have good anchorages and the use of nets below the roof is a possibility. Where there are only small areas of fragile material they should be fenced off or securely covered with warning notices displayed. For short duration work on fragile roofs, it may be that the use of harnesses and permanent running-lines may be adequate.

Where work on a flat roof is at least 3m back from the roof perimeter and edge protection is not provided, the working area and access to it should be marked out with continuous physical barriers. This method of protection will require tight supervision.

Where nets are fitted, they should be installed by a competent person, securely attached and as close as possible beneath the roof surface or edge.

On traditional pitched roofs most falls are over the eaves. Edge protection along the eaves will have to be strong enough to restrain someone falling against it and therefore the length of the slope and steepness of the pitch must be considered. On large or steep roofs, it may

be that intermediate protection is required. If work is to be carried out within 3m of the gables, then edge protection will be provided here too.

On sloping roofs work should not be carried out directly on slates or tiles as they do not provide a safe footing, particularly when wet. Use roof ladders and proprietary staging to enable safe passage in addition to the edge protection.

Fixed fall restraint systems are common on roofs. Anyone using such a system should be trained in its use along with the use of the work equipment worn. The system itself should have current certification and have been inspected, by a competent person, as per the manufacturer's recommendations, which is usually at a maximum interval of 12 months. The use of any fixed safety line system should be controlled by a work at height permit.

You must consider the pendulum effect upon anyone falling, when using any safety line secured to an anchor point. The safety line length should not exceed the perpendicular drop from the ridge fixing /anchor point. Nor should it exceed the shortest distance from the centre of a flat roof to the roof edge at the eve. **Not No Shock Absorber Lanyard / Harness to be used**, **as this is a fixed work restraint scenario**. **Not Suitable for fall arrest**.

7.6 WORKING WITH EXCAVATIONS

Anyone working near an excavation is working at height if there is a risk of a fall. Additionally, anyone in an excavation is at a risk of materials falling. A typical soil density is 1.5 g/cm3 therefore a cubic metre of soil will weigh 1.5 tonnes.

Where ground is to be broken then an 'N03 Permit to Dig' MUST be issued to help manage work near to underground services. For further information please refer to SP38 Permit to Work Procedure.

In the event confined space work must be carried out by EDC trade teams, it will be carried out by individuals who are trained and competent in undertaking works in confined spaces.

A 'N02 Confined Space Entry' Permit to work is required for all EDC confined space entry work. For more information, please refer to SP38 Permit to work procedure. Where emergency breathing apparatus is adopted as a risk control for confined space work, a Top MAN must be present All excavations should be supervised and inspected at least daily by a competent person. If more than 2m deep, then it should be inspected for every shift. A thorough formal inspection, (with results recorded), should be carried out every 7 days, unless a risk assessment identifies more frequent inspection. An 'O01 Excavation Daily Inspection Checklist' must be completed where there is a change in the working conditions surrounding the excavation. For example, following heavy rainfall after a rest or break period or at the start of the days' work.

Shoring must be available for all excavations and must be used if the depth exceeds 1.2m except where the sides are battered and safe and even at lower depth if sides are unstable.

Signs and barriers should be used for all excavations. These should be readily available prior to commencing the dig. And be adopted about the dig footprint as the dig is commenced.

Use cable detection equipment and as-built drawings to locate buried services and use only careful hand digging, (i.e., no picks), in their vicinity until their precise position has been established. No Excavator digging permitted within 500mm of known underground services. Adopt toothless buckets as applicable, adopt an excavation lookout to aid any excavator digging in potential service located sub-soils

Keep spoil heaps, vehicles, and other materials at a safe distance from the edge of the excavation. Ensure that stop blocks are used to guide tipper drivers. Remember that additional surcharges will increase the chance of soil failure, particularly during wet weather.

Ladders used for access and egress must be non-static inducing so that sparks are not created that could ignite any dangerous gases. Where there is a risk of dangerous gases occurring ensure that any tools used are intrinsically safe. Adopt Gas Monitors as applicable pre-entry and ongoing as work is progressed.

Some excavations can be classed as confined spaces and may require the use of a gas monitor and a permit provided by the authorised person for confined spaces.

Where excavations are considered as confined spaces then the management must contact the Health and Safety Team for assistance with SSOW.

It is the recommendation that all Confined Space work be awarded to a Comat all times and the rescue equipment must be tested as being in good working order prior to entry into the confined space.

7.7 OPEN HATCHES

The following must be actioned to help reduce the risk of someone falling through a hatch or loose floorboards.

The customer and anyone else in the property/area must be advised of the opening and extra care must be taken when vulnerable groups of people and animals/pets are identified during a dynamic risk assessment. Any temporary cover provided must be secured in place against accidental movement.

Hatches and or loose floorboards must be reinstated if the operative leaves the site for any length of time i.e., pick up material or during breaks.

Staff must ensure they have multiple layers of protection in place in order to protect people from injury from potentially falling through open floors including but not limited to:

- Suitable and sufficient Risk Assessment, continually monitor the work site and update accordingly
- A meaningful and effective safety engagement with the customer and all others in the property
- Appropriate safety signs at entry points to the work area and close to the hazard
- Robust safety barriers around open hatches/raised floorboards or other hazards
- Always Remaining diligent and vigilant whilst working in premises
- Additional air vents must be provided where persons are to work under floorboards – improved air flow must be provided in advance – **caution is noted** in that any suspect

ACM being identified, will mean **work stops immediately**, and notification and testing is conducted accordingly to identify the offending material?
- Keep a look out for vermin evidence – adopt suitable PPE as applicable
- A two-person team must be utilised and an emergency plan in place and communicated to each other if working under the floor within the floor void
- **NO SMOKING IN FLOOR VOIDS**

Asbestos survey reports should be reviewed before entering any underfloor space where necessary and once under the floor carry out a visual inspection of the space for any signs of asbestos. **If in doubt stop work and contact your team leader for advice.**

All task specific risk assessments and method statements must be reviewed before work commences.

7.8 WORKING IN A ROOF SPACE

Before work commences the following considerations must be made:

- **Asbestos survey reports should be reviewed before entering any roof spaces** where necessary and once in the attic carry out a visual inspection of the space for any signs of ACM / asbestos not noted in any existing Asbestos Register. **If in doubt stop work and contact your team leader for advice.**
- All task specific risk assessments and method statements must be reviewed before work commences.
- The area should have sufficient lighting, with operatives carrying a backup torch in case of a failure of lights.
- The roof space should be visually assessed for obstacles such as items stored by the building user.
- Vent the roof space for 10 mins prior to entry
- The roof space should be visually assessed for any wildlife infestations such as bats, birds, bees, wasps etc. which may cause a hazard. If suspected work should be stopped and the operatives' team leader contacted. **NEVER disturb or attempt to remove wildlife.**
- The roof space should be visually assessed for any electrical or mechanical hazards.
- Care must be taken to prevent falls through an unprotected loft opening.
- Any work which requires operatives to enter the roof space will require a detailed risk assessment where the roof space is not permanently floored.
- Operatives can incorporate differing access techniques and equipment like the use of crawling boards to prevent accidental falls through the ceiling, where permanent flooring is not installed for repair/installation work.
- Emergency arrangements (rescue) must be considered when working in roof spaces and recorded where required during the risk assessment process.
- **No Lone Working Permitted in Roof Voids**
- In addition to the personal protective equipment which East Dunbartonshire Council operatives must wear on every job, bump caps must be worn, and respiratory protection and overalls may be required dependent of the task. Caution where fibre glass insulation is present.
- **NO SMOKING IN ROOF VOIDS**

8. MONITOR AND REVIEW

As part of the EDC Health and Safety Management System, the EDC Health and Safety Team will conduct regular audits and inspections to monitor the implementation of this management procedure.

The EDC Health and Safety Team will review this management procedure every two years from the date of signing or sooner because of any changes to legislation or some other event i.e., a major incident or accident, or following improved best practice guidance notification.

The EDC Health and Safety Team will provide feedback in the form of a report following any audits and inspections. When necessary, the procedure will be amended and reissued with an updated version number.

All Team Leaders must ensure that local procedures are updated to reflect any changes to the management procedure.

9. REFERENCES

HSE Guidance and Regulation

- CDM 2015
- The Work at Height Regulations 2005
- The Provision and Use of Work Equipment Regulations 1998
- Health and Safety at Work Act 1974
- The Management of Health and Safety at Work Regulations 1999
- The Manual Handling Operations Regulations 1992
- The Personal Protective Equipment at Work Regulations 1992 (Amendment) Regulations 2022

East Dunbartonshire Council: Health and Safety Policy / Procedure

- HSP01 Health and Safety Policy
- HSP04 Management of Asbestos Policy
- HSP05 Management of Contractors
- HSP07 Controlling Workplace Hazards Policy
- SP01 Accident & Incident Reporting
- SP03 Trade Specification for Scaffolding
- SP13 Manual Handling
- SP15 CDM Procedure
- SP29 Duty Holder
- SP32 PUWER
- SP38 Permit to Work

East Dunbartonshire Council: Health and Safety Forms

- F03 Monthly Harness, Lanyard, and Inertia Reel Inspection Record
- F05 Pre-Use Scaffold Inspection Checklist
- H01 MEWP (Mobile Elevated Working Platform) CHECKLIST
- H02 Ladder Check list Form

- H03 Schedule of Approved Work at Height Equipment
- H04 Ladder Inspection Register
- K02 MEWP Emergency Rescue Plan
- N01 MEWP (Mobile Elevated Working Platform) Permit
- N02 Confined Space Permit
- N03 Permit to Dig
- O01 Excavation Inspection Report
- HS1a for Accidents/Violent Incident/Fire Alert
- HS1b forms for Near Miss incidents/ Dangerous Occurrence