Safe Operating Procedure 018

For

UCC Building Office Movement of Vehicles {incl. MEWPs}

# CONTROLLED

Authorised By Paul Prendergast



Issue:	Date	Prepared By	Reviewed By	Approved By	Description
1	April 2013	Paul Prendergast	Buildings Office Management Staff UCC H&S Officer	Paul Prendergast	Safe Operating Procedure for controlling hazards and risks associated with Movement of Vehicles associated with Buildings Office activities.
2	July 2013	Paul Prendergast	Buildings Office Management Staff UCC OCLA	Paul Prendergast	Amended following review by HSA
3	Aug 2013	Paul Prendergast	Buildings Office Management Staff UCC OCLA	Paul Prendergast	Amended following review by HSA



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#### 1.1 GENERAL

The Buildings Office recognises that certain activities may expose Buildings Office staff to the Hazards associated with Movement of Vehicles during the course of their work. The Buildings Office also recognises that this may also expose the wider UCC population and visitors in this regard.

This SOP defines the approach of The Buildings Office to the Safe movement of Vehicles under its control and has been designed to identify the safe systems of work necessary in this regard.

This SOP will be implemented by UCC's Building Office Staff and their contractors.

This SOP is written to comply with the Requirement in BS 8460:2005 section 9.2.8 to prepare a Risk Assessment & Method statement for Use of MEWPs

It is important for Buildings Office Staff as Per Annex F with responsibility for selecting, specifying and managing vehicles, MEWPs, construction type vehicles on site or vehicular deliveries to UCC understand the risks associated with the use of same and take adequate precautions to eliminate or control those risks.

A list of vehicles in daily use by the Buildings Office is attached as Annex E

A list of Buildings Office staff with management and supervisory responsibility for movement of vehicles incl. MEWPs is Attached as Annex F

# 1.2 APPLICATION

This SOP applies to UCC Building Office operations

The Buildings Office is responsible for the management and maintenance of 143,000m2 (1.5m sq ft) of buildings, 30 hectares of grounds and property and approximately 120 individual buildings sited at over 20 locations.

The Buildings Office is responsible for maintaining and upgrading UCC's physical infrastructure of buildings, engineering services, grounds and the voice telephony network.

Address:	Building and Estates Office
	University College Cork
	Cork, Ireland.
Mail:	bereception@ucc.ie

Applicable Activities:

- Engineering Services Maintenance / Refurb/Upgrade of UCC's mechanical and electrical assets.
- Buildings Maintenance / Refurbishment / Upgrade of UCC's building assets.
- Estates Maintenance / Upkeep / Refurbishment of UCC's grounds assets.
- Utilities / Telecoms Maintenance / Upgrade/Refurbishment of UCC's telephony network.
- Buildings Project Work Reconfiguration / Refurbishment of UCC building stock.



#### 1.3 SAFETY STATEMENT

Guidance on Movement of vehicles is given in the Buildings Office Safety statement in Sect 8 (S18-8 Movement of Vehicles)

## 1.4 Safety with regard to Movement of Vehicles.

The Buildings Officer will have overall responsibility for all transport safety associated with the Buildings Office and will ensure that procedures are in place to cover all aspects of movement of vehicles used by the Buildings Office. Correct implementation of these procedures will be confirmed by regular on-site checks, these checks will be carried out by the staff listed in Annex F - Buildings Office staff with management, supervisory responsibility.

All Drivers, Operators and Vehicle Signallers will be trained and competent to carry out the duties assigned to them.

Buildings Office Staff as Per Annex F are responsible for selecting, specifying and managing vehicles, MEWPs, construction type vehicles on site or vehicular deliveries to UCC and are required to understand the risks associated with the use of same and take adequate precautions to eliminate or control those risks.

Planning and Risk assessment is crucial to their safe operation. The guidance in this SOP is designed to help with this planning. Further information is available from the relevant British Standards, HSA or HSE guidance as referenced in Annex D. These documents are available in the Buildings Office Safety folder on the shared server {NAS}

## 1.5 General control Measures

Buildings Office Staff as Per Annex F in control of vehicle movements will ensure the following measures are in place.

- Identify all the hazards associated with the movement of vehicles or activities within the workplace e.g.
  - o pedestrian activities
  - o the arrival and departure of vehicles
  - o vehicle movement within the workplace
  - o loading and unloading
  - o adverse weather
  - o any other aggravating circumstances
- Vehicles will only be driven by persons who are trained, competent & authorised to do so.
- Drivers will be in possession of the appropriate driving licence to drive the vehicle in question. Where additional specific training is required {e.g. to operate MEWPs} they will also be trained & competent in that specific training
- Plan Routes to minimise and control potential interaction with pedestrians or other vehicles.
- Vehicle speed will be controlled by suitable means such as rumble strips or sign posting and in all
  cases will observe the UCC maximum speed limit of 15 Km/Hr unless safety factors require a lower
  limit (such as the max speed of a MEWP is limited to the comfortable walking speed of the vehicle
  signaller) or as per the Manufacturers handbook, whichever is the lower.
- Fire exits and hydrants will not be obstructed by vehicle parking.
- Adequate parking/loading spaces will be provided for the task at hand.
- Separate pedestrian walkways will be provided where there are aggravating factors which increase the hazard of the task. The criteria for making the decision will include;



- o High Pedestrian Footfall
- o Roadworks along the Route
- Restrictions along the route
- o Poor Weather conditions
- o If an existing footpath is taken out of service
- Any other relevent task specific matter that might aggravate the risk to pedestrians
- Suitable routes are identified for deliveries and despatches
- Commercial deliveries will be arranged for outside normal business hours, where practicable.
- Minimise reversing where practicable e.g. by suitable traffic routing. Provide help for reversing drivers (e.g. Vehicle signal man) where reversing is unavoidable for lorries/trucks if required due to insufficient space in the departmental car park areas/ internal roads or where vision of the driver is impaired for any reason.
- Control contractors to ensure overhead or underground services are not damaged.
- Provide adequate external lighting to enable proper vision during hours of darkness. Do not proceed if lighting is inadequate.
- Maintain adequate distance from any air intake points.
- Clean mud from roads caused by builder's or other activities.
- Provide mirrors and warning signs at blind corners (road/path intersections) where necessary.
- Visibility and inherent vehicle blind spots including the fitting of effective vehicle visibility aids such as (CCTV, mirrors and Fresnel lens) to overcome areas of restricted driver visibility & the use of vehicle radar systems, ultrasonic, contact and proximity devices and visual warning devices as parts of systems of work.
- Maintain safe pedestrian access and egress to and from areas and from buildings, emergency vehicle access,
- Only vehicles that are licensed for public roads with appropriate seat belts and illumination fitted should be allowed to exit the curtilage of UCC controlled sites (this includes UCC site to site crossings via the public road network at any time).
- · Reject oversized vehicles that suppliers attempt to send to site or unscheduled deliveries
- Keep site vehicles, delivery vehicles and private vehicles apart, where possible, by establishing private vehicle parking areas, specified delivery routes and storage areas. (private vehicles of staff or visitors should not be parked in the Buildings Office works yard).
- Use of wall-mounted mirrors to help eliminate blind spots.
- Task specific teamwork requirements including communication, signalling & visibility, audibility and field of vision. The criteria for assessing the task specific teamwork requirements will be derived from the task specific risk assessment including a permit to work for the classes of vehicle listed in para 1.7 which will have been prepared by the Buildings Office staff as per Annex F and will include the following non-exhaustive list;
  - o The nature and location of the task
  - o The scale of the impact of the task on adjacent pedestrian walkways
  - o The volume of pedestrian traffic
  - o Exacerbating issues affecting communication, signalling, visibility, audibility or field of vision.
  - o Other relevant task-specific issues
- Drivers will drive with care, e.g. use the correct routes, drive within the speed limit at the site and follow any other site rules. They will park safely, and in safe locations. They will use safe working practices e.g. when loading/unloading securing loads, carrying out maintenance etc.



- High-visibility clothing is mandatory for persons entering high-risk areas, e.g. loading areas.
- Buildings Office Staff as Per Annex F will ensure that all drivers are competent to perform the work they are given.
- No one unfit to drive through the influence of alcohol or drugs will be permitted to drive any vehicle.

Buildings Office Staff as Per Annex F will give particular consideration to;

- The appropriate vehicle selection for the job (safety hierarchy) and the site area (road widths & manoeuvring space available).
- The appropriate time for the job to be carried out. Vehicle movements will be scheduled for times of low pedestrian activities.
- The unexpected behaviour of students, pedestrians in general and others involved in the project,
- Ground stability and load limits (internal road bridges and over basement roof slabs, bespoke drains),
- Unprotected edges at escarpments, embankments or near water courses
- Road gradients cambers, overhanging trees and over -head structures,
- Levels of illumination and glare and changing sun direction (am/pm)
- Urban campus density (multiple building exiting and external path convergence) and immovable street furniture
- Others works being executed in the area by other entities (need for co-ordination or postponement)
- Students with visual or mobility impairments and non- native English speakers (signage perception), activities on campus with a high foot fall associated.
- Damage resulting to roads and pathways from use of large axel vehicles. (repairs required)
- Weather conditions, ground conditions and terrain, including impact of adverse weather conditions
- Obstructions (both high and low level),
- Electrical/ gas services and other utilities (both over ground and underground),
- High bodied vehicles or boom type vehicles passing beneath overhead electrical power lines the requirements of ESB CODE OF PRACTICE FOR AVOIDING DANGER FROM OVERHEAD ELECTRICITY LINES will be implemented
- The space available and needed for vehicle and pedestrian/cyclist safety and loading and unloading including physical separation barriers to segregate pedestrians during reversing, loading and unloading.
- The provision of refuges, observation positions, radio communications and CCTV systems which
  may assist in removing signallers from areas of vehicle movement. The Safe System of work will
  be detailed in the Permit to Work

#### 1.6 Reversing

- When planning and controlling site vehicle operations, the hierarchy of control measures for reversing operations, detailed in Table 3 of HSG 144 reproduced below, should be followed by Building Office Supervisory Staff.
- Vehicles required to reverse on site should provide adequate visibility around the vehicle for the driver to ensure safety. Safe systems of work such as this need to be devised and followed for all reversing operations, particularly when signallers are used to control third-party risks or assist in the accurate positioning of the vehicle.

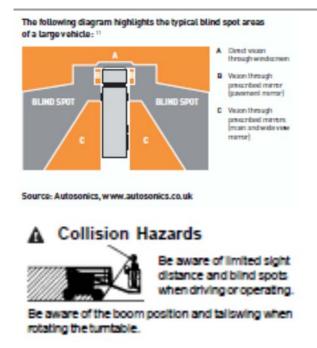


- The most effective way of managing the risks from vehicle reversing is to avoid the need for reversing manoeuvres by providing one-way systems, turning areas and drive-through loading and unloading areas. The length of distance to be reversed must also be reduced.
- Vehicle warning systems offer the lowest level of protection in the hierarchy and, if they are the only precaution used, are only appropriate for low-risk situations.
- Reversing should only take place where there is enough light for drivers and pedestrians to see clearly what is happening.
- Segregating pedestrians and vehicles, and improving the ability of the driver to see around the vehicle from the driving position, are more effective ways of improving pedestrian safety during reversing.
- Reversing alarms that activate when vehicles are put into reverse to warn people that a vehicle is
  reversing should be considered for large vehicle reversing operations. Warnings devices, e.g.
  reversing alarms on mobile mechanical plant, must be unambiguous and easily understood.
- Drivers must ensure that where visibility from the driving position is restricted, they use visibility aids or a trained vehicle signaller. However Drivers must Stop their vehicle if they lose sight of the signaller or if a vehicle visibility aid becomes defective. It is also advisable for truck, bus and coach drivers to use a vehicle signaller when reversing.

1 Eliminate need to reverse	Implement one-way systems around site and in loading and unloading areas
	Provide designated turning areas
2 Reduce reversing operations	Reduce the number of vehicle movements as far as possible
	Instruct drivers not to reverse, unless absolutely necessary
3 Segregate vehicles and pedestrians	Design vehicle reversing areas which:
	<ul> <li>allow adequate space for vehicles to manoeuvre safely</li> <li>exclude pedestrians; and</li> </ul>
	<ul> <li>are clearly signed to have physical stops or buffers to warn drivers that they have reached the limit of the safe reversing area</li> </ul>
4 Ensure safe systems of work are followed	Fit CCTV, convex mirrors, Fresnel lens etc to overcome restrictions to visibility from the driver's seat, particularly at the sides and rear of vehicles
	Fit radar proximity devices to vehicles to indicate to drivers when there are objects near the vehicle
	Ensure everyone on site understands site rules on vehicle safety
	Drivers and signallers need to be in constant communication during reversing operations
	Signallers should not be put at risk from vehicle movements, eg by standing directly behind reversing vehicles
	Ensure all vehicles on site are fitted with appropriate warning devices
5 Provide warnings when vehicles are reversing	Ensure reversing warning lights and alarms are in good working order and instruct workers to keep clear of moving vehicles

Table 3. Hierarchy of Control measures for reversing operations – HSE HSG 144
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#### 1.7 Vehicle Movements that require a task specific Permit to work

The movement and use of the following vehicles is deemed to be non-routine and will be controlled via the UCC Permit to Work system. The completion of the Permit to Work must be undertaken by the Buildings Office Staff as Per Annex F and communicated effectively to all persons involved in the job. The planning phase prior to completion of the Permit to Work must involve visiting the route to be traversed by the Buildings Office Staff as Per Annex F including the location where the task is to be carried out.

- Tasks that involve the movement of MEWPs beyond internal movements within the Works compound.
  - Note; where there is a works compound established {i.e. a hoarded off area which is secured from unauthorised access & within which the Works take place} within the compound, the activities of all construction tasks {including MEWP movements} will be controlled by the PSCS. If the MEWP must access the compound by passing through other UCC areas, that that transit activity must be subject to a UCC Permit to Work.
- Tasks that involve the movement of unusually large vehicles, including deliveries and loading for example
  - o Articulated Trucks
  - o Cranes
  - o Rigid trucks with 2 steering axles
  - o Rigid trucks of 18T or greater capacity
  - o Ready-mix concrete trucks of 5 cum or greater capacity
- Tasks that involve the movement or delivery of construction-specific vehicles and plant (including, loadalls, excavators, towed generators, cranes, block trucks, dumpers, JCB's etc),
- Tasks that involve the movement and use of forklift trucks.

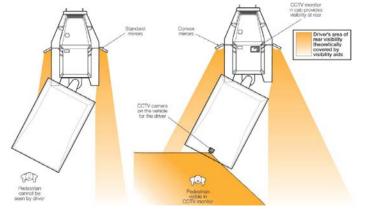


- Tasks that involve the movement of towed trailers, high bodied mobile pods/containers/ display units or generators
- Tasks that involve deliveries and off-loading that can only be conducted on public roads externally or on the man internal road networks (a traffic management plan is required)

A list of Reference documents which will provide guidance for the preparation of permits is attached as Annex D. These documents are available in the Buildings Office Safety folder on the shared server {NAS}

## 1.8 Driver Safe work practices

- A summary of driver safe work practices in Table 4 of HSG 144 is reproduced below.
- Drivers should ensure that loads are stable before and whilst driving and they are familiar with the use of all the additional attachments on the machinery that they are operating, such as lifting points and quick hitches on excavators, as these may vary.
- Seat belts as provided in vehicles must be worn whilst driving.
- Hand held mobile phones PDAs or MP3s must not be used whilst driving.
- Drivers should be aware of their own responsibilities and avoid taking risks and short cuts.
- Vehicle blind spot devices must never be seen by drivers as a substitute for safe and careful driving.



• Effective braking systems, including parking brakes, are essential for the safe use of vehicles. Parking brakes should be fitted on trailers over 0.75 t maximum gross capacity. Where parking brakes are not fitted, trailer wheels need to be chained or locked to prevent movement when the trailer is parked. Wheel chocks should be used to prevent unintended vehicle and trailer movements when parked on sloping ground.



- Trailers with maximum gross weights between 0.75 t and 3.5 t should have at least an overrun brake (i.e. an inertia brake), while trailers over 3.5 t should be fitted with braking systems linked to the towing unit.
  - Only operate vehicles if you are competent and authorised to drive them
  - Do not drive when your abilities are impaired by ill health, poor vision, prescribed or illegal drugs, or alcohol
  - Make sure you fully understand the operating procedures of the vehicles you control and all of the accessories you are using
  - Know the site emergency procedures
  - Understand the system of signals used on site
  - Visiting drivers: seek appropriate authority to enter the site and operate vehicles
  - Know the safe operating limitations of your vehicle, particularly relating to safe maximum loads and gradients
  - Carry out daily checks on your vehicles and report all defects immediately to supervisors
  - Follow site procedures and comply with all site rules
  - Do not drive at excessive speeds
  - Follow established site traffic routes
  - Ensure that windows and mirrors are kept clean and clear
  - Keep the vehicle tidy and free from items which may hinder the operation of vehicle controls
  - Do not allow passengers to ride on vehicles unless safe seating is provided
  - Park vehicles on flat ground wherever possible, with the engine switched off, the handbrake and trailer brake applied, and where necessary use wheel chocks
  - Do not reverse without checking behind the vehicle for pedestrians, vehicles or obstructions
  - Where visibility from the driving position is restricted, use visibility aids or a signaller. Stop if you lose sight of the signaller or the visibility aid becomes defective
  - Do not remain on vehicles during loading operations, unless the driver's position is adequately protected
  - Ensure loads are safe to transport
  - Do not attempt to get on or off moving vehicles
  - Do not make adjustments with the engine running and guards removed
  - Do not smoke during refuelling operations

# Table 4 Drivers' safe work practices checklist – HSE HSG 144

#### 1.9 Visibility & Signalling

- Vehicle Signallers Where the Buildings Office Risk assessment {as per Annex B or where a Permit to work is required as per this SOP, then as per the Permit to work} shows that site controls cannot be improved further and a trained vehicle signaller is required, the Buildings Office Staff as Per Annex F shall ensure that a vehicle signaller is provided this should be a designated person whose tasks are to keep the area of movement free of pedestrians and to ensure a safe vehicle manoeuvre. They will achieve this by stopping any pedestrians a safe distance away from the vehicle movement and asking that they stay safely away. If for any reason a pedestrian goes or attempts to go too close to the movement, the signaller will direct the operator to stop immediately and will not authorise the operator to proceed until the route is again clear. In the unlikely case that pedestrians deliberately attempt to frustrate movement, the vehicle signaller will contact UCC security staff. Signallers used to direct pedestrian and vehicle movements need to be trained and competent in the methods used to ensure their own and other people's safety (see Figure 13 of HSG 144 reproduced below).
- Details of safe systems of work to be implemented to prevent signallers being struck by vehicles with particular
  regard to working in close proximity to MEWPs traversing the UCC campus are given in section 1.14. This
  section sets out the hierarchy of "choice selection" for MEWPs and also clarifies the situations where a truck
  mounted hoist is classed as a vehicle and when it is classed as a MEWP.



- If drivers are not able to see clearly (or lose sight of a vehicle signaller, pedestrian or cyclist) in a vehicle/blind spot for any reason, they should apply the brakes and stop the engine immediately, leave the cab or MEWP cage and check behind the vehicle before continuing to reverse/traverse. In a busy place this precaution may not be enough, because people can move behind a vehicle or into the blindspot after the driver has returned to the cab or MEWP cage in these situations it is the responsibility of the vehicle signaller to ensure that the blind spots remain clear.
- Vehicle signallers will be authorised by Buildings Office Staff as Per Annex F and easily distinguished on site by the use of colour-coded clearly labelled high visibility jackets, Red in colour. Red jackets will be retained for sole use by vehicle signallers.
- A checklist of safe work practices for signallers is provided in Table 5 of HSG 144 reproduced below.
- The vehicle signaller and the driver must decide based on their training and by reference to the Permit to Work {where issued} how the driver is to make and keep contact with the vehicle signaller. The options available include hand signals or voice {if noise levels allow}. In poor light, flags or lights may be appropriate and over longer distances, radio communications may be required. Both the driver and the vehicle signaller must understand and agree upon what signals are going to be used before guided manoeuvring begins (see example signals below). The designated vehicle signaller task is to keep the reversing area or traversing area free of pedestrians (if they cannot be otherwise physically excluded) and to ensure a safe vehicle manoeuvre whilst not endangering themselves. A competent and authorised vehicle signaller must make sure that the correct signals are used.
- Details of the use of Radios between MEWP operators and MEWP Vehicle Signallers are given in section 1.14
- Signallers should not walk or stand in any vehicle blind spot and in general should always keep well away from and out of the direct line of traverse, away from any slewing arm/ boom or any physical obstructions or pinch points when a vehicle is being guided is in motion, and away from any other oncoming vehicles and cyclists (all directions).

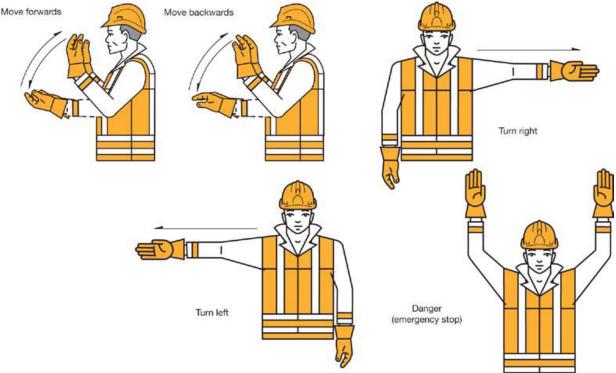


Figure 13 Signals to drivers \_ HSE HSG 144



- In some circumstances, it will not be allowable to use a vehicle signaller due to the size of vehicles involved (e.g. if large earthmoving dumpers were on site for some exceptional earth removal project) and the difficulty that drivers could have in seeing them.
  - Ensure you know and understand relevant safety procedures and correct signalling systems
  - Ensure drivers understand the correct signalling systems
  - Signal instructions clearly
  - Ensure you are visible to the driver and the driver is visible to you; if not, stop the vehicle moving
  - Stand in a safe location at all times
  - Warn pedestrians and make sure they are kept away from vehicle operations
  - Wear appropriate protective equipment, including high-visibility clothing
  - Report work hazards to supervisors
  - Make sure you can get to and from your work location safely
  - Do not ride on the vehicle you are directing unless you are in a designated safe position
  - Do not direct vehicles if your ability is affected by alcohol or drugs

# Table 5 Signallers' safe work practices checklist – HSE HSG 144

- Safety advice for visibility of vehicle signallers as contained in HSE HSG 136 Workplace transport include the following:
  - High-visibility equipment (vests, arm or cuff bands, gloves, bats, batons or flags). Signallers may
    sometimes be given a high-visibility vest of a different colour to other site workers colour Red, to help
    distinguish them;
  - Vehicle and site-fixed visibility aids (such as mirrors).
  - Portable radios or similar communication systems can be helpful, if they will not hinder prompt stopping action or otherwise cause a distraction. They will be used where the Risk Assessment carried out as part of the permit to work by the Buildings Office staff as per Annex F deems that the use of hand signals or voice are not acceptable for the task at hand.
  - o In low-light conditions adequate lighting to be provided.
  - Vehicle signallers should be visible to drivers at all times and should stand in a safe position. They should always wear hi-visibility clothing and ensure their signals can be seen clearly.

# 1.10 Specific Preventative measures for cars and vans (reproduced from Brake the UK road safety charity guidance):

There are some basic rules that drivers of cars and vans must follow to avoid reversing incidents. These rules are:

- Reverse into parking spaces, rather than out of them. There is less chance of hitting a person or another vehicle;
- Avoid reversing, including three-point turns, whenever possible.
- If you have taken a wrong turning, it is safer, for example, to drive a short distance up the road to a roundabout than do a three-point turn in the next side road;
- If having to reverse, minimise the distance, do it slowly, and keep checking around;



- If someone offers to help you reverse, make sure you can see them at all times, and agree a clear hand signal for 'stop';
- If unsure whether you are about to reverse into a low-level object, such as a bollard, and no-one is helping you, stop, get out and check;
- Never reverse blind when people, particularly children, may be about;
- Before reversing always check the gear selection is correct and the vehicle is about to drive in the right direction;
- Make sure all windows and mirrors are clear, and that you use them.

## 1.11 General additional guidance for large vehicles as highlighted earlier above

- High bodied vehicles or boom type vehicles passing beneath overhead electrical power lines (extensive precautions such as reproduced below from HSG 144 will be required where such vehicles may have to pass under any overhead power lines, this includes make sure there is enough clearance and that the presence of the power lines is adequately marked e.g. by using "goalposts".) Specific precautions are also necessary for dumpers/vehicles tipping loads.
- H.S.A. information sheet 2008 on the Use of Mobile Machinery on Construction Sites also advises on requirements for certain categories of equipment that may be occasionally used on UCC sites.

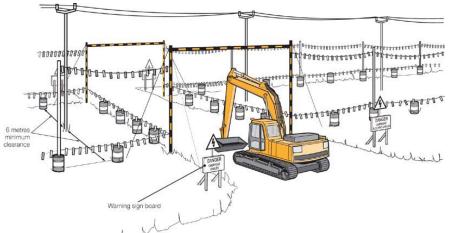
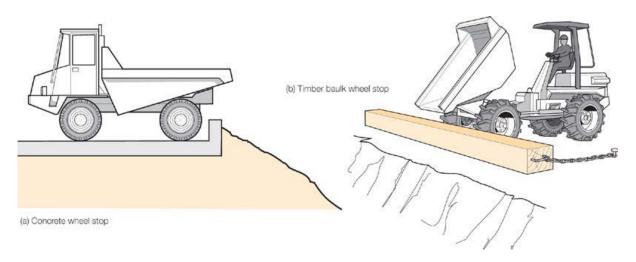


Figure 3 Overhead cable protection on a vehicle traffic route – HSG 144





## 1.12 Employees carried on mobile work equipment

- AFARP {as far as reasonably practical} there is a duty on all Buildings Office Staff as Per Annex F to prevent employees from falling out of the equipment when it is moving or stationary. The task-specific controls to achieve this will be determined by the Risk Assessment carried out as part of the permit to work by the Buildings Office Staff as Per Annex F.
- Details of safe systems of work to be implemented to prevent employees from falling out of MEWPs. are given in section 1.14
- Where Risk assessment shows there is a significant risk of injury, employees should be protected from falling objects
  whilst being carried by mobile work equipment. They must also be protected from the risk of trapping by wheels or
  tracks. Where an employee riding on mobile work equipment is at risk from the equipment rolling over, the risk must be
  minimised. (AFARP). Only authorised trained personnel shall ride in Buildings Office equipment in properly restrained
  seating inherent to the vehicles design or in the protected cage space provided for standing (using seat belts and fall
  restraints as relevant to the equipment)
- The safety requirement will be met by equipment selection in the main. Where parts of the mobile work equipment prevent it rolling over by more than 90° (e.g. the boom of a hydraulic excavator when in the travelling position) otherwise, steps will have to be taken to stabilise the equipment so that it cannot roll over or it must be fitted with a roll over protection structure (ROPS).



# Figure: Site dumper with ROPS fitted.

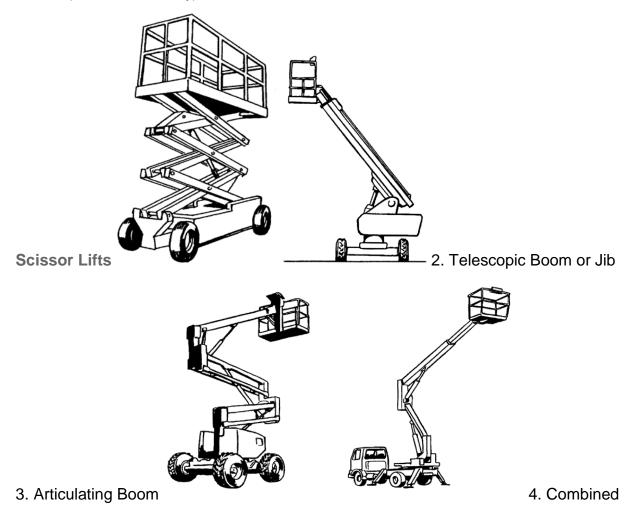
- The precautions and safe systems of work specifically required for the safe operation of dumper trucks are further set out in H.S.A. information sheet 2010 on the Safe Use of Site Dumpers on Construction Sites.
- In order to ensure safe machinery, systems must be in place to check for defects and to maintain the machine. A daily prestart check on the basic controls should be completed by the operator as well as a periodic thorough check by a competent person.
- The dumper will be serviced as required as per the manufacturers manual).
- Schedule 6 of the Safety, Health and Welfare at Work (Construction) Regulations 2006 requires the following devices to be fitted to site dumpers



- All dumpers should be fitted with ROPs conforming to the relevant standard (EN 474- 6:2006, BS EN 1351 0:2000 & BS EN 3471:1994). Tyres must be checked for defects regularly and should be kept at the appropriate tyre pressure.
- o Dumpers with No Cab (front tip) require a Dumpers Reversing alarm and (front tip) flashing beacon
- o Dumpers (front tip (with cab) require Dumpers Convex mirrors; (front tip) reversing alarm and flashing beacon

# 1.13 General Guidance for Mobile Elevating Work Platforms (MEWP)s

The Principal MEWP Machine Types are;



- The safest MEWP for the job must be selected by Buildings Office Staff as Per Annex F having regard to the hierarchy in para 1.14.1 of this SOP18 The hierarchy of choice is;
  - Scissors Lift generally for internal use.
  - Truck Mounted Hoist 1st choice for external work, where practicable. Note, In the particular case of the truck hoist, it ceases to be classed as a MEWP (for the purposes of this part of the SOP) after it has retracted and stowed its special MEWP features (Boom, Cage, Jack legs etc.) and departed its work site and until it reaches its new work site. In this retracted and stowed condition, it will be treated as any other vehicle.
  - o Boom lift, suitably sized for the task at hand.



- Slow drive speeds {as per para 1.14.1 below, this will be the slower of the comfortable walking speed of the vehicle signaller or any speed constraints, given in the Manufacturer's Operating Manual}. are to be used, by drivers, particularly when reversing and if sight lines and visibility are restricted or compromised.
- Materials must not be "carried" on the guard rails of a MEWP. If they cannot be safely carried within the carrier or basket then purpose-made and tested securing/handling equipment designed to be used with the MEWP should be used.
- The following relevant Extracts from HSE Information sheet CIS # 58 ..... the selection and management of mobile elevating work platforms are also applicable;
  - The trained MEWP operator is responsible for carrying out a basic daily/pre-use inspection and function check and records of these checks should be kept.
  - The operator should also be fully aware of the procedure expected to be followed should they identify a fault with the MEWP, i.e. isolate the controls, tag the machine and report the defect to the Buildings Office supervisory Staff member who issued the Permit to Work, who will ensure that the fault is rectified before the MEWP is put back into service.
  - The operator should satisfy him or himself whether or not that particular MEWP in use is designed for the operator to travel on with the work platform in the elevated position and whether or not the controls are protected to prevent accidental contact with the operator's torso.
- The following Relevant Extracts from BS 8460:2005 Safe use of MEWPs are also applicable;
  - Ex 6.6 Use of personal fall protection systems All personnel in the work platform of boom-type MEWPs need to use suitable full body harnesses with a work restraint systems only (short lanyard) attaching the operator's full body harness to a suitable anchorage point in the work platform. (UCC Note: This is applicable whilst working aloft including travelling. An exception only arises in the case of a MEWP working near water).
  - o 7.3 Medical considerations Consideration must be given (by Supervisory staff) as to whether those employed for tasks associated with the safe use of MEWPs are medically fit for work. It is good practice for all operating and maintenance personnel to be screened for fitness before employment and at periodic intervals; also after sickness or an accident, where it appears likely that this could have affected fitness, in order to assess the possible effect of the illness or injury and its treatment on the individual's current and future performance.
  - Each person's fitness for operating or maintenance should be judged individually. Some disabled workers have developed skills which compensate for their disability, however their competence in an emergency should also be considered.
  - o Points to be considered concerning the normal level of fitness required are as follows.
    - a) General MEWP operators should generally have full movement of the trunk, neck and limbs and normal agility. A stable disposition is required in personnel.
    - b) Vision Proper guidance of the MEWP and its load depends upon good judgement of space and distance, and this generally requires the effective use of both eyes. Although some persons with monocular vision can undertake certain kinds of work platform work satisfactorily, normal distant vision should not be less than 6/12 with both eyes, and if corrected by glasses it is essential that these are worn while operating. Correct colour vision should also be taken into consideration in relation to the operation of colour coded controls. NOTE The ability to read a car number plate at 22.86 m (75 ft) for figures 88.9 mm (3.5 in) high or at 20.42 m (67 ft) for figures 79.4 mm (3.125 in) high is equivalent to a visual acuity of between 6/9 and 6/12.
    - c) Hearing The ability to hear instructions and warning signals with each ear.



- d) Epilepsy This should not debar if the individual is eligible for an ordinary driving licence (i.e. has had no waking seizures for three years) but any recurrence of seizures should be reassessed medically.
- 10.2 Unloading on the highway and travelling between adjacent sites Where MEWPs are unloaded from a transporting vehicle on the highway or a MEWP travels on the public highway between adjacent sites, it is essential that precautions are taken to protect the persons involved from passing traffic. Arrangements, such as the use of warning cones, signs and marshals, should also be made to warn other vehicles of the presence of the MEWP and any associated vehicles. (In the case of movement within UCC sites, a traffic management plan must be devised and agreed with the Gardai in such cases.)
  - 10.3 Travelling to the workplace on site The MEWP selected for use should be capable of travelling over the ground conditions found on the job site. A "smooth slab" machine might not be suitable for travelling over the rough ground on a construction site. As such, only rough terrain MEWPs should be selected for use on surfaces that are not compacted and substantially level ground. The intended route of the MEWP should be checked before setting off for hazards such cables, building projections or other obstacles which could present a danger. Before travelling, the MEWP should be in the recommended travel position and regular on-going checks made to ensure that there are no persons in the path of the machine. The outriggers or stabilizers should be retracted and locked as recommended by the manufacturer before moving off. Whilst travelling, the operator should look out for other vehicles and persons in the path of the machine. If visibility is limited then a trained vehicle signaller with suitable high visibility clothing should direct the movement of the MEWP. see above previously on vehicle signallers and driver communication.
- 11.2 Travelling with the operator on an elevated work platform The operator may only travel on the elevated work platform of a MEWP if the machine has been specifically designed to be used in this way. The jolting caused by an uneven surface can be magnified considerably at the work platform and could cause instability and danger to any occupants of the cage or platform. MEWPs may only travel up or down slopes when they have been specifically designed to do so. When travelling on a slope it is strongly recommended that an additional person guides the operator from ground level. Before travelling the operator should check that:
  - a) the stabilizers or outriggers are not extended;
  - b) no ramps, trenches, holes or other visible hazards lie in the path of travel;
  - c) no overhead cables, building projections or other overhead hazards obstruct the path of the MEWP;
  - d) adequate warning, such as the use of the horn, has been given to persons on the ground;
  - e) nothing has been left unsecured and liable to fall from the work platform;
  - f) hoses, cables, wires etc. have not been left hanging or trailing from the machine.
- 11.7 Parking of MEWPs Wherever possible MEWPs should be parked in a secure compound or in a supervised area inaccessible to unauthorized persons. Any keys should be removed from the MEWPs when not in use. Keys as issued only to authorized operators and retained by them until the end of the work period. On completion of the work the MEWP should be parked in the designated parking area with the engine or motor switched off, the work platform lowered to its parking position and the brakes applied. If the MEWP has to be parked on a gradient the wheels should be chocked.
- 12.2.3 MEWP Daily pre-use checks At the beginning of each shift or working day before work commences, the following visual and functional routine checks, if appropriate for the type of MEWP, should be carried out:



- a) checks as required by the manufacturer's handbook;
- b) cleanliness and general signs of damage;
- c) efficiency of brakes;
- d) correct pneumatic tyre pressures (where fitted);
- e) lights (when fitted);
- f) levels of the engine cooling-water, lubricating oil and hydraulic oil;
- g) security of any pin locating arrangements and visible damage to the prime means of support for the work platform and extending structure;
- h) hydraulic leaks;
- i) operation of stabilizers/outriggers;
- j) correct functioning of controls and safety devices (for example interlocks, anemometers, load/movement limiters/sensors, 2-way communications systems);
- k) chassis.
- A defect reporting system should be in place so that any defects are rectified promptly. It is good practice to keep a record of the daily check.
- 12.2.5 MEWP Intermediate inspections The intermediate inspections listed should either be carried out once a week or at intervals recommended by the manufacturer. These inspections are in addition to the checks recommended in 12.2.3 and are to ensure that all systems function correctly, the MEWP is free from damage and that fluid levels are within the manufacturer's limits. Inspections should be appropriate for the type of MEWP and include the following.
  - a) Inspections as required by the manufacturer's handbook.
  - b) Check pneumatic tyres, where fitted, for correct pressures and damage.
  - c) Wheel nuts should be in place and properly tightened.
  - d) Brakes should be tested for efficient working.
  - e) Lights, when fitted, should be in working order.
  - f) Batteries should be clean, free from corrosion and checked for adequate water level (if applicable) before use and before recharging.
  - g) All structural parts should be sound and free from visible defects.
  - h) Powered mechanisms for raising, slewing and steering etc. should be working properly.
  - i) Hydraulic systems should be free from leaks.
  - j) Hydraulic fluid levels should be checked where accessible.
  - k) Any additional equipment should be functioning satisfactorily.
  - I) All electrical equipment operating at above 55 volts should be checked.
  - NOTE Attention is drawn to the SHWW Electricity Regulations regarding testing of equipment.
  - m) The base structure, including any safety guards, should be free of damage and clear of debris.
  - n) All engine, water, oil and fuel levels should be checked and topped up where necessary.
  - o) All hoses, fittings, wiring and valves etc. should be inspected for leaks, security and damage.
  - p) All ground station controls should be tested including any safety cut-outs fitted.
  - q) All support structures such as scissor packs, booms or outriggers, where fitted, should be inspected for damage, loose or missing retaining pins, damaged hoses and wiring, and any loose or missing fittings.
  - r) Any emergency lowering and slewing equipment fitted should be tested.
  - s) All operating and warning decals should be clear and readable.



- t) All platform guard-rails, entrance-gate latches and harness points should be checked for security.
- u) All platform workstation controls including any emergency systems should be tested.
- v) Drive systems, brakes, steering and speed controls should all be tested for correct operation.
- w) Any audible or light alarms fitted by the manufacturer should be checked for correct operation.
- x) Any communication system fitted between platform and ground level should be in good working order.
- A written record of the weekly inspection should be retained by the responsible body. A defect reporting system should be in place so that any defects are rectified promptly.

## 1.14 Specific control Measures for Particular vehicles/activities.

## 1.14.1 MEWPs {Mobile Elevated Work Platforms}.

MEWPs are an effective way of working safely at height and are used by Buildings Office staff for a variety of tasks. When moving a MEWP from one work location to another, the following procedures will be followed;

- As per para 1.7, The movement and use MEWPs is deemed to be non-routine and will be controlled via the UCC Permit to Work system. The completion of the Permit to Work must be undertaken by the Buildings Office staff as per Annex F and communicated effectively to all persons involved in the job.
- The planning phase prior to completion of the Permit to Work must involve visiting the route to be traversed by the Buildings Office staff as per Annex F including the location where the task is to be carried out.
- The planning phase prior to completion of the Permit to Work must involve consideration of the appropriate time for the job to be carried out. Vehicle movements will be scheduled for times of low pedestrian activities.
- The planning phase prior to completion of the Permit to Work must involve consideration of the appropriate vehicle selection for the job (safety hierarchy) and the site area (road widths & manoeuvring space available). The hierarchy of choice is;
  - o Scissors Lift generally for internal use.
  - Truck Mounted Hoist 1<sup>st</sup> choice for external work, where practicable. Note, In the particular case of the truck hoist, it ceases to be classed as a MEWP (for the purposes of this part of the SOP) after it has retracted and stowed its special MEWP features (Boom, Cage, Jack legs etc.) and departed its work site and until it reaches its new work site. In this retracted and stowed condition, it will be treated as any other vehicle.
  - o Boom lift, suitably sized for the task at hand.
- All MEWP operators will be trained & certified in the particular class of MEWP that they are using {e.g. Scissors lift, Boom, Truck mounted etc.}
- MEWP activities will always be accompanied by a trained visual signaller.
- It is a requirement that the MEWP be supplied with its Operators manual & that the manual is kept on the vehicle when in use.
- MEWP operators shall familiarise themselves in advance with the Manufacturers Operator manual of the particular make & model of MEWP being used, in particular with the relevant safety features of the MEWP and they shall operate the MEWP in accordance with this manual.



- The pro-forma "Buildings Office MEWP OPERATORS CHECKLIST" will be included as part of the
  Permit to Work for the task in question and the MEWP operator will carry out these checks and
  complete and return the checklist on completion of the task. A copy of the Checklist is attached as
  annex A. The function of the checklist is act as a tool to assist the operator & vehicle signalman to
  check that the conditions on which the Permit to Work issued for the task remain applicable and the
  control measures stated in the Permit to Work are implemented and recorded. The checklist requires
  the Operator & Vehicle signaller to consider the control measures required for the safe operation of the
  MEWP. If they consider that any necessary control measures are not adequately dealt with in the
  permit, they will cease work and return to the person issuing the permit.
- Buildings Office Staff as Per Annex F will authorise work with MEWPs. They will have identified that a MEWP is the most suitable form of equipment for the task at hand {in their absence the Buildings Officer will make the authorisation},
- All MEWP Operators must have
  - o A current driving Licence { minimum of Category B} to operate any MEWP
  - In the specific category of the Truck mounted hoist, a current driving Licence minimum of Category B is required up to a 3.5T truck and a minimum of Category C1 up to 7.5T.
  - o Buildings Office staff will not operate truck mounted hoists over 7.5T
- Driving a MEWP or acting as Vehicle Signaller is a team operation that demands concentration.
  - The Vehicle Signaller and the Operator will not operate a MEWP under the influence of any intoxicant.
  - The Vehicle Signaller and the Operator will not operate a MEWP under the influence of any substance prescribed or otherwise in any condition whether physical, mental or emotional, that might potentially have adverse effects on their capability to carry out their duties.
  - The Vehicle Signaller and the Operator will declare any medical conditions they may have that might potentially affect their capability to properly carry out their duties.
  - o If a MEWP operator loses their driving licence they must inform relevant Supervisor.
- Neither the Vehicle Signaller nor the MEWP operator shall use any device that might distract them from their duties unless the MEWP has been brought safely to a halt in advance, this includes;
  - o Mobile Phones
  - o Cameras
  - Any other devices including MP3 or similar.

An exception to this is Hands Free, Voice Activated, 2-way radios used for communication purposes between the MEWP Operator & Vehicle Signaller.

- High Vis Jackets, Safety footwear and Hard Hat are mandatory for both Vehicle Signaller and MEWP operator.
- A suitable Safety harness, worn and affixed to the designated attachment point in the work platform shall be worn by any person within the work platform, at all times. This will be a combination of a full body harness to BSEN361 and a work restraint type lanyard to BSEN354
- MEWPs will be driven forward in the "normal direction". The machine should only be reversed in cases where it is not practicable to turn it and in those cases it will only be in crawl speed and under the guidance of the Vehicle Signaller.
- A fully road-compliant Truck Hoist is the only class of MEWP to be driven on the public roads.
- The MEWP Operator will only move the MEWP if all other persons are a safe distance away from the MEWP, and the Vehicle Signaller directs that it is safe to do so. It is important that:

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- No person will be within 2m of any part of the MEWP, the Vehicle signaller and the Operator, working in tandem and in accordance with their training, will ensure that this distance is maintained, in general by watching ahead of the route of the MEWP and advising pedestrians to stay away but always with the 1<sup>st</sup> response {which can be taken by the operator or the vehicle signaller} being to halt the MEWP if anybody is likely to impinge within this distance. One the MEWP is stopped the Vehicle Signaller will request the person to move away, In an exceptional case of non-co-operation with the requests of the vehicle signaller, he will contact UCC Security staff {all the while leaving the MEWP stopped}. This is to ensure that the MEWP Operator has sufficient visibility of any potential person or hazard. The 2m distance is for general guidance and is the minimum distance to be observed. The operator or Vehicle Signaller should increase this distance if necessary to maintain visibility.
- The MEWP Operator is aware of 'Blind Spots' and limited sight distance, when driving or operating a MEWP. The operator shall not move the MEWP, unless the Vehicle Signaller directs that it is safe to do so, and he can see road surface between the MEWP and the nearest person i.e. that he can see in excess of the full height of any person in the direction of travel of the MEWP. If the case is that this distance would be less than 2m specified above, then the operator shall observe the full 2m distance.
- All vehicles must observe the local speed limit, and any speed constraints, given in the Manufacturer's
  Operating Manual. In addition to this, the speed of the MEWP shall also be governed by the speed of
  the Vehicle Signaller, who shall proceed at a comfortable walking pace. As a general rule, this would
  not exceed 2.5 mph or 4 Km/hr but may be less in certain circumstances {e.g. if the basket is raised}
  which will be detailed in the manufacturers handbook and obeyed by the operator. Different types of
  MEWP and different models within the same category type of MEWP will have different drive speed
  options, the Operator will select the appropriate option, as per the manufacturers handbook.
- The Operator and Vehicle Signaller will check the intended route together before setting off, for any fixed hazards such as cables, building projections or other obstacles which could present a danger or other difficulties in moving the MEWP.
- Wherever possible MEWPs should be parked in a secure compound or in a supervised area inaccessible to unauthorized persons. Any keys should be removed from the MEWPs when not in use. Keys as issued only to authorized operators and retained by them until the end of the work period.
- On completion of the work the MEWP should be parked in the designated parking area with the engine
  or motor switched off, the work platform lowered to its parking position and the brakes applied. If the
  MEWP has to be parked on a gradient the wheels should be chocked.

# 1.14.2 Specific duties of Vehicle signaller

- A Vehicle signaller will attend at all times when a MEWP is being moved from one location to another.
- The Vehicle signaller will be either
  - A trained MEWP operator whose training course included a specific module on Vehicle Signalling
  - o A person who has undergone the specific MEWP Vehicle Signalling course
- The Vehicle signaller will at all times remain a safe distance from the MEWP {as detailed above} while in motion and will direct the MEWP operator to stop if for any reason he is required to enter any area closer than that.



- During the process of moving the MEWP, the Vehicle Signaller will direct the MEWP operator when to stop and when it is safe to proceed. The Operator must obey any signal to Stop by the Vehicle Signaller. The Operator may also Stop the MEWP at any stage.
- If persons are encountered on the route, the Vehicle Signaller will direct the operator to Stop and will
  not direct that it is safe to proceed until the persons have passed. The Risk Assessment carried out as
  part of the Permit to Work will have taken potential pedestrian movements into account and the
  volume of pedestrians should be low. However, in the event of an unexpected volume of pedestrians
  for any reason the Operator will halt the MEWP, in a safe position and report back to the Person
  Issuing the Permit for further instructions. In the unlikely event of non-co-operation by pedestrians, the
  Operator will halt the MEWP, in a safe position and contact UCC Security staff.
- The Vehicle Signaller will indicate potential obstacles such as Bollards, Potholes, Parked Cars etc. to the operator and will remove and replace bollards etc. as necessary.
- The Vehicle Signaller will pay particular heed at places where pedestrians may potentially encounter the MEWP i.e. at junctions, at exits from buildings etc.

# 1.14.3 Exceptional circumstances.

- As part of the preparation of the Permit to work, particular attention will be paid to non-routine issues. A non-exhaustive list of potential non-routine issues are;
  - o Poor weather conditions including high winds, heavy rain, fog, ice etc.
  - o Poor ground conditions
  - o Exceptionally heavy pedestrian movements {e.g. conferences etc.}
  - o Interference with a designated Means of Escape from an occupied building.
- Voice Activated, hands-free radios between the Vehicle Signaller and the Operator will be used for all MEWP operations where Buildings Office Staff are operating the MEWP.
- The following additional resources are available, as necessary;
  - The Use of Flags to increase visibility of the Vehicle Signallers hand signals. These will be used in cases where visibility is poor including fog, rain etc.
  - The addition of a 2<sup>nd</sup> Vehicle Signaller and/or a 2<sup>nd</sup> person in the operators work platform. The additional persons would be considered in exceptional cases where the risk assessment carried out as part of the Permit to work by the Buildings Office Staff as Per Annex F indicates that for some reason {e.g. high pedestrian volumes or the like} the task should be deferred to a later time BUT the Risk Assessment for the task at hand has deemed it an immediate safety risk that cannot be deferred AND the combined overall Risk Assessment {for the MEWP & the Task} is that the task can proceed if these additional resources are made available.
  - In normal circumstances, it is expected that the Vehicle signaller together with the operator will be in a position to see and control all persons approaching or in the vicinity of a moving MEWP. However, where MEWPs are traversing narrow campus internal roadways which preclude maintaining a minimum separation distance between the MEWP and the Vehicle Signaller except where the Vehicle Signaller remains in the direction of travel; yet pedestrian traffic is likely to approach the moving MEWP from the rear; then a 2<sup>nd</sup> Vehicle signaller will be provided to see and control this area. This decision will derive from the risk assessment carried out as part of the Permit to work by the Buildings Office Staff as Per Annex F.



## 1.15 RISK ASSESSMENT

The Risk Assessments associated with this SOP are attached as Annex B. Part of the controls in these risk assessments are that Permits to Work are required for certain specific vehicles – these Permits to Work include a further task specific Risk Assessment

If any particular aspect of the Movement of Vehicles falls outside of the scope of this SOP or if the arrangements and controls specified in this SOP cannot be implemented for some reason, a further Hazard Identification and Risk Assessment will then be carried out for the Task in question by the Buildings Office Staff as Per Annex F and agreed prior to implementation with the Buildings Officer. Adequate arrangements and controls will be devised and assessed by the Buildings Office Staff as Per Annex F and agreed prior to implementation will be implemented for the Task in question and will be included in the Permit to Work for the Task in question.

The Buildings Officer will then update the SOP to reflect these new arrangements and controls

# 1.16 Traffic Management

Subject to the requirements of this SOP and further subject to the requirements of the Permit to work (specifically required in the circumstances detailed in the SOP) All vehicles will use only the paved roadways shown on the traffic management layout for UCC – copy attached as Annex C. These roadways are colour coded (see legend in bottom right hand corner) into 2 types,

- roadways that are generally open to all vehicles {incl MEWPs} within UCC
- roadways that are not generally open to all vehicles these will require that the Buildings Office staff as per Annex F arrange the necessary access to these areas for all vehicles {incl MEWPs}.

Where a Permit to work is in use, the roadway to be used will be shown on the traffic management layout plan for UCC – copy attached as Annex C, and attached to the permit.

For movement of MEWPs, a set of risk assessments has been prepared for the Campus Routes and are attached as part of Annex B

#### 1.17 Review

This SOP will be reviewed & updated periodically



	Buildings Office	Tick if
	MEWP OPERATORS CHECKLIST	Checked
1	Training required - Operator Training	
-	- MEWP Vehicle Signaller	
2	Prior to operating MEWP the operator must:	
	1. Ensure GA1 (6 monthly inspection) is available and in date	
	2. Complete Weekly inspection GA3 form (or ensure it is complete)	
	3. Ensure the Operator Manual is with the machine	
	4. Be in possession of a completed permit to work	
3	Complete Pre operation inspection as listed:	
	<ul> <li>Be sure that all decals are legible and in place</li> </ul>	
	<ul> <li>Check for engine oil leaks and proper oil level</li> </ul>	
	<ul> <li>Check for hydraulic oil leaks and proper oil level</li> </ul>	
	<ul> <li>Check for engine coolant leaks and proper level of coolant</li> </ul>	
	<ul> <li>Check for battery security level</li> </ul>	
	<ul> <li>Check for proper tyre pressure</li> </ul>	
	Check the following components or areas for damage, improperly installed	
	or missing parts and unauthorised modifications.	
	<ul> <li>Electrical components, wiring and electrical cables</li> </ul>	
	<ul> <li>Hydraulic hoses, fittings, cylinders and manifolds</li> </ul>	
	<ul> <li>Fuel and hydraulic tanks</li> </ul>	
	<ul> <li>Drive and turntable motors and drive hubs</li> </ul>	
	<ul> <li>Boom wear pads</li> </ul>	
	<ul> <li>Tyres and wheels</li> </ul>	
	<ul> <li>Engine and related components</li> </ul>	
	<ul> <li>Limit switches and horn</li> </ul>	
	<ul> <li>Alarms and beacons (if equipped)</li> </ul>	
	<ul> <li>Nuts, bolts and other fasteners</li> </ul>	
	<ul> <li>Platform condition including entry mid-rail or gate</li> </ul>	
	Check entire machine for:	
	<ul> <li>Cracks in welds or structural components</li> </ul>	
	<ul> <li>Dents or damage to machine</li> </ul>	
	<ul> <li>Be sure that all structural and other critical components are present</li> </ul>	
	and all associated fasteners and pins are in place and properly	
	tightened.	
	<ul> <li>After you complete your inspection, be sure that all compartment</li> </ul>	
	covers are in place and latched.	
1	DDE (Dersonal Protective Equipment)	
4	<ul> <li>PPE (Personal Protective Equipment)</li> <li>Harness and suitable Lanyard</li> </ul>	
	<ul> <li>Harness and suitable Lanyard</li> <li>Hard Hat</li> </ul>	
	<ul> <li>High Vis Vest / Coat</li> <li>Steel Tee Cap Rests</li> </ul>	
	Steel Toe Cap Boots Tack Specific	
	Task Specific	
	<ul> <li>Gloves / Safety Glasses / Ear Muffs</li> </ul>	



5	Additional Resources needed- Consider:
	<ul> <li>Radio</li> </ul>
	<ul> <li>2nd Signaller</li> </ul>
	<ul> <li>Flags</li> </ul>
	<ul> <li>Agreed communication protocol with MEWP Signaller.</li> </ul>
6	Route Planning & Inspection
	Walk and inspected the travel route of MEWP. Consider:
	<ul> <li>Width of roadways, obstructions, slopes</li> </ul>
	<ul> <li>Ground Conditions</li> </ul>
	<ul> <li>Steep Gradients</li> </ul>
	<ul> <li>Weather conditions</li> </ul>
	<ul> <li>High Level of Pedestrian Movements</li> </ul>
7	Completing the Task. Consider:
	<ul> <li>Ground Condition</li> </ul>
	<ul> <li>Weather Condition</li> </ul>
	<ul> <li>Overhead Wires</li> </ul>
	<ul> <li>Exits / Entrance Doors</li> </ul>
	<ul> <li>Separating Work areas from pedestrian movements</li> </ul>
	<ul> <li>Exceptionally heavy pedestrian movement.</li> </ul>
8	Parking:
	<ul> <li>Level ground</li> </ul>
	<ul> <li>Not causing obstruction</li> </ul>
	<ul> <li>Platform lowered</li> </ul>
	<ul> <li>Tum off and remove key</li> </ul>
	<ul> <li>Isolate using Emergency Stop button</li> </ul>

 Completed By (Signature):
 (MEWP Operator) Date:

 Signed by: (Signature):
 (MEWP Signaller) Date:

 This completed checklist must be returned to the Section Supervisor on completion of the work, to be signed by Section Supervisor on receipt and record kept on file.

Received By: \_\_\_\_\_\_ (Section Supervisor) Date: \_\_\_\_\_\_

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Likelihood (L) Categories Severity (S) Categories					SEV	ERITY			Risk Acceptability		
5 Certain or Near Certain	5 Multiple Fatalities			5	4	3	2	1	High (H)	Unacceptable, must reduce. Communicate Residual Risk if applicable	
4 Very Likely 3 Likely	4 Permanent Total Disability, Single Fatality	trix	L 5	High		High	Medium	Low	Medium (M)	Tolerable, assuming risk has been reduced as far as "Reasonably	
2 Somewhat Likely	<ol> <li>Major Injury, Lost Time Injury</li> <li>Minor Injury, Restricted Workday</li> </ol>	(R) Matrix	E 4	High	lligh	Medium	Medium	Laner		Practicable". Communicate Residual Risk	
1 Unlikely	Case 1 Slight Injury, First Aid	sk (R	1 3 H	High	High	Medium	Low	Low	Low (L)	Tolerable. Communicate Residual Risk.	
	1 Singht injury, thist Aid	Risk	02	High	Medium	Medium	Low	Low			
			D 1	Medium	1.099	Low	Low	Law			

Risk Assessment: Mover	ment	of Vehi	cles	Date: July 2013 Revision: 2				Completed By:
Work Activity: Supplies to Maintenance Works Acros			utine	Location: All areas of Campus	Approved By:			
Hazard/Risk	Ris	k Ratin	g Before	Existing Controls	Proposed Controls			
	L	S	RR		L	S	RR	
General	4	4	High	The Buildings Office has issued an SOP #18 re Movement of Vehicles to inform Buildings Office Staff on the procedures to be adopted for the safe management/use of vehicles on campus. This SOP stipulates that in certain circumstances a Permit to work {which includes a task specific Risk Assessment} is required and will be the Risk Assessment for that task. In cases where the Permit is not mandatory, i.e. in low-risk routine cases, this risk assessment is applicable.	2	2	Low	Implementation and regular monitoring by Buildings Office Staff for compliance with this risk assessment and SOP
Contact of supplier vehicles with pedestrians	3	4	High	Speed limit established– Max 15kph – Dead Slow movement to be observed. Where possible early delivery of materials to location – avoid/reduce interaction with pedestrians Provision of pedestrian crossing and pedestrian routes Clear vehicle routes – no vehicle access areas identified, signage posted, hatching on ground where necessary, mirrors for blind corners, signage etc.	2	2	Low	Implementation and regular monitoring by Buildings Office Staff for compliance with this risk assessment and SOP

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Standard Operating Procedure # 18 Movement of Vehicles Rev 0.1 – Mar 2013



				Avoidance of vehicles reversing on site where possible – one-way systems, assistance when reversing is required. Commercial loads / large loads managed on an event basis by UCC contact – provision of method statement by supplier. The provision of adequate lighting to allow movement of vehicles and pedestrians in a safe way. Maintenance of roadways to ensure a high standard of surface and road markings is achieved. No Mobile Phone Usage, No Cameras, No MP3 or similar when operating vehicle.				
Movement of Vehicles by UCC Staff, Vans, trucks etc.	3	4	High	Speed limit observed – Max 15kph – Dead Slow movement to be observed. Vehicle movement planned during 'quite times', out of hours where possible. Vehicles will be maintained to a high level, cleaning of windows, correct positioning of mirrors, maintenance of brake lights, indicator lights etc. All drivers will hold required licence for vehicle in question. Rules of the Road to be observed at all times. Strict adherence to one-way systems and signage posted on campus. The provision of an assistant when reversing is required – operators instructed not to take a chance. Cessation of operations in adverse weather conditions. All loads in open back trucks to be secured with netting / tied down. Provision of a traffic management plan	2	2	Low	Implementation and regular monitoring by Buildings Office Staff for compliance with this risk assessment and SOP
Loading & off-loading of materials	3	4	High	<ul> <li>The loading and unloading of materials must be a planned event, all details associated with loading and unloading must be assessed before execution. Factors to consider;</li> <li>1. Ensure that the safest location is chosen to unload materials. (Areas with low pedestrian activities).</li> <li>2. Ensure that a vehicle signaller is available where the use of mechanical equipment is used to unload or load materials e.g. a telescopic loadall or forklift (ensure that all operators of plant are trained CSCS).</li> <li>3. Where mechanical loading or unloading is required the area must be cordoned off. All plant must have flashing beacons and comply with schedule 6 of the construction regulations where applicable.</li> <li>4. Unloading / loading area must no obstruct vehicle or pedestrian routes and emergency exits from buildings.</li> </ul>	2	2	Low	Implementation and regular monitoring by Buildings Office Staff for compliance with this risk assessment and SOP

Standard Operating Procedure # 18 Movement of Vehicles Rev 0.1 – Mar 2013



				<ol> <li>Where provided purpose designed loading areas to be used.</li> <li>Where possible loading and unloading must take place out of hours.</li> <li>Ensure that all operators involved in loading and unloading activities have and wear high visibility vests.</li> <li>Loads are not to be unsecured until at their final destination. Strictly no movement of vehicles with unsecured loads. Loads to be inspected before unsecured to ensure load for stability and evenness of distribution.</li> </ol>				
Weather Conditions	3	4	High	The movement of all vehicles must take account of adverse weather conditions, the following non-exhaustive list of adverse weather conditions will require vehicle operators to consider stopping operations or seek further advice from their immediate supervisor;      1. High winds.     2. Heavy rain.     3. Snow and ice     4. Flooding	2	2	Low	Implementation and regular monitoring by Buildings Office Staff for compliance with this risk assessment and SOP
Overhead Obstructions (i.e. trees, protruding building elements, power lines etc.)	2	3	Med	Where UCC lead (B&E / Department Representative) have not experience the movement of the vehicle in question along the proposed route the route must be walked in advance. Overhead obstructions can cause harm to both operators (for example interaction with a telescopic handler and overhead lines) and pedestrians (low lying braches breaking from trees as a truck passes), if vehicle operators are unsure about the height of overhead obstructions they must not proceed and they must contact their immediate supervisor or ensure at a minimum a trained vehicle signaller is available to guide the vehicle operator.	2	2	Low	Implementation and regular monitoring by Buildings Office Staff for compliance with this risk assessment and SOP
Interaction by Two of More Vehicles on Campus.	2	3	Med	When one or more vehicles are operating in a single area (including two vehicles passing on a narrow carriageway) one of the vehicles operators must take control of the area or a trained vehicle signaller must be available. If vehicle operators are unsure then drivers must stop until it is deemed safe to proceed. There are numerous areas around the campus where it would be difficult for two vehicles to pass. If vehicles operators are unsure about the planned route then the area will need to be walked on foot first. Note: This includes interaction with staff vehicles and work vehicles.	2	2	Low	Implementation and regular monitoring by Buildings Office Staff for compliance with this risk assessment and SOP

Standard Operating Procedure # 18 Movement of Vehicles Rev 0.1 – Mar 2013



Emergency scenarios on campus.	3	4	High	In the event of an emergency scenario on campus (for example fire, bomb treat or flooding) all vehicle movement will stop. If vehicles are located on known emergency access egress routes at the time of the emergency then the vehicle operator will find the nearest safe parking location.	2	2	Low	Implementation and regular monitoring by Buildings Office Staff for compliance with this risk assessment and SOP
Encountering Students / Staff / Members of the public with limited visibility or hearing.	2	3	Med	Pedestrians will have the right of way at all times, regardless of the location on site. Vehicle and plant operators will be instructed that this is the case and to further expect encountering / expect such events	2	2	Low	Implementation and regular monitoring by Buildings Office Staff for compliance with this risk assessment and SOP

Likelihood (L) Categories	Severity (S) Categories				SE	VERITY			Risk Acceptability
5 Certain or Near Certain 4 Very Likely	5 Multiple Fatalities 4 Permanent Total Disability, Single Fatality	×	L	5 5 High	4 High	3 High	2 Medium		High (H) Unacceptable, must reduce. Communicate Residual Risk if applicable.
3 Likely 2 Somewhat Likely 1 Unlikely	<ul><li>3 Major Injury, Lost Time Injury</li><li>2 Minor Injury, Restricted Workday</li></ul>	(R) Matrix	K E	4 High	High	Medium		Low	Medium (M) Tolerable, assuming risk has been reduced as far as "Reasonably Practicable". Communicate Residual Risk
T Offikely	Case 1 Slight Injury, First Aid	Risk (R	I H O	3 High 2 High	High Medium	Medium Medium		Low	Low (L) Tolerable. Communicate Residual Risk.
			O D	1 Medium	Low	Low	Low	Low	
					_				

# SOP #18 Annex B Part 2 Risk Assessment: Movement of MEWPs

Likelihood (L) Categories Severity (S) Categories			SEVERITY							Risk Acceptability				
5 Certain or Near Certain	5 Multiple Fatalities				5	4	3	2	1	Unacceptable, must reduce. Communicate Residual Risk if applicable				
4 Very Likely 3 Likely	4 Permanent Total Disability, Single Fatality	Risk (R) Matrix		5 11		High	High	Medium						
2 Somewhat Likely	3 Major Injury, Lost Time Injury 2 Minor Injury, Restricted Workday		E	4 111	ap.	High	Medium	Medium	Low	Practicable". Communicate Residual Risk				
1 Unlikely	Case		L   1   H	3 111	ate	High	Medium	Low	Low	Tolerable. Communicate Residual Risk.				
	1 Slight Injury, First Aid		0	2 11	gir 👘	ledium	Medlum	Law	Low					
			D	1 Med	lium	Low	Low	Low	Low					
							-1							

Risk Assessment: MEWP Movement Work Activity: Supply & Movement of MEWPs				Date: July 2013		Afor				
					Completed By: Approved By:					
			IEWPs	Location: All areas of Campus						
Hazard/Risk	Risk Rating Before		g Before	Existing Controls	Risk Rating After			Proposed Controls		
	L	SS	RR		L	S	RR	Jul	10	
The Movement of MEWPs may not be safely managed.	4	4	High	The Buildings Office has issued an SOP #18 re Movement of Vehicles to inform Buildings Office Staff on the procedures to be adopted for the safe management/use of vehicles on campus. This SOP stipulates that in certain circumstances a Permit to work {which includes a task specific Risk Assessment} is required and will be the Risk Assessment for that task. In all cases Involving MEWPs {including movement of the MEWP to/from the task area} a Permit which includes a Task specific Risk Assessment is mandatory.	2	2	Low	by Building with this ris Permit to w	ation and regular monitoring s Office Staff for compliance k assessment and SOP. rork, including a risk nt, required for every task.	

UCC MAIN CAMPUS VEHICULAR ACCESS ROUTES Risk Assessment Report for MEWP Access Across UCC Main Campus



UCC MAIN CAMPUS VEHICULAR ACCESS ROUTES

**RISK ASSESSMENT REPORT FOR MEWP ACCESS** 

Revision 6 26th Sept 2013

1CC

2 3 Coláiste na hOllscoile Corcaigh, Éire University College Cork, Ireland

UCC MAIN CAMPUS VEHICULAR ACCESS ROUTES Risk Assessment Report for MEWP Access Across UCC Main Campus

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1.0	PURPOSE
2.0	RISK ASSESSMENT
3.0	UCC Traffic Management Drawing for Main Campus

UCC MAIN CAMPUS VEHICULAR ACCESS ROUTES Risk Assessment Report for MEWP Access Across UCC Main Campus



#### 1.0 RISK ASSESSMENT OVERVIEW

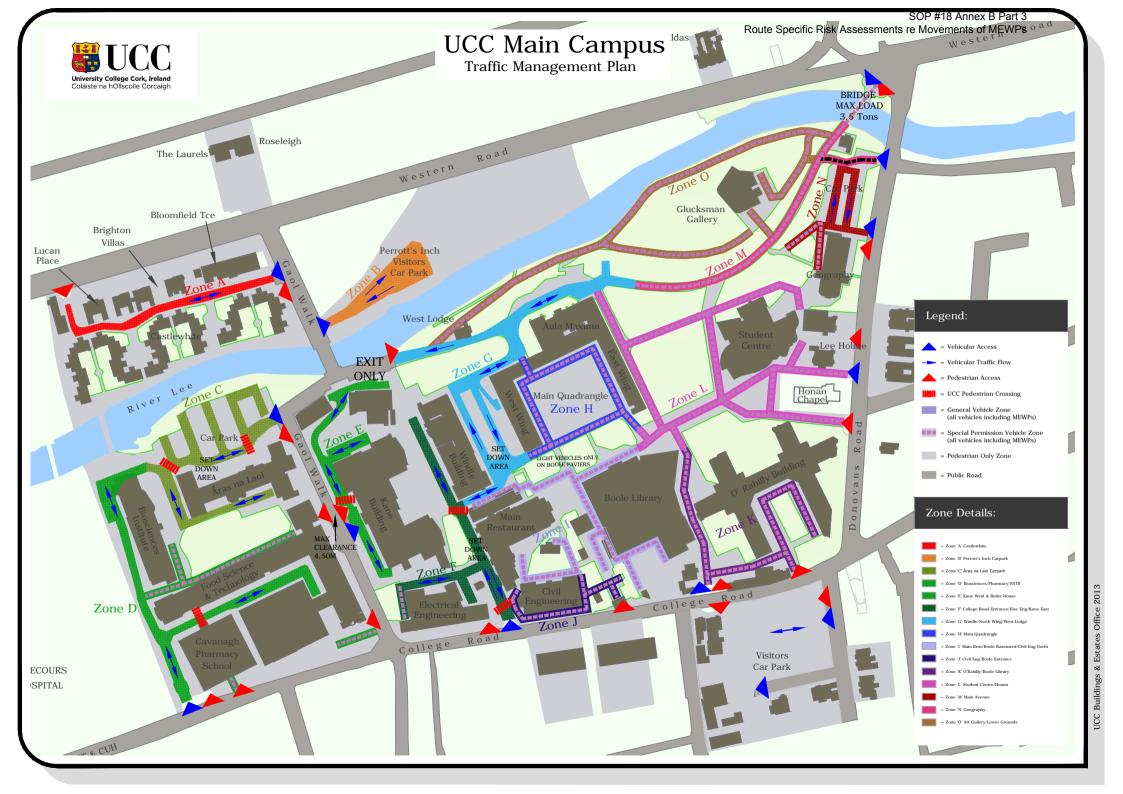
Purpose This document and associated risk assessments have been prepared to provide operatives of MEWPs and MEWP Signalmen information on the hazards, risks and control measures for moving MEWPs across UCC Campus.

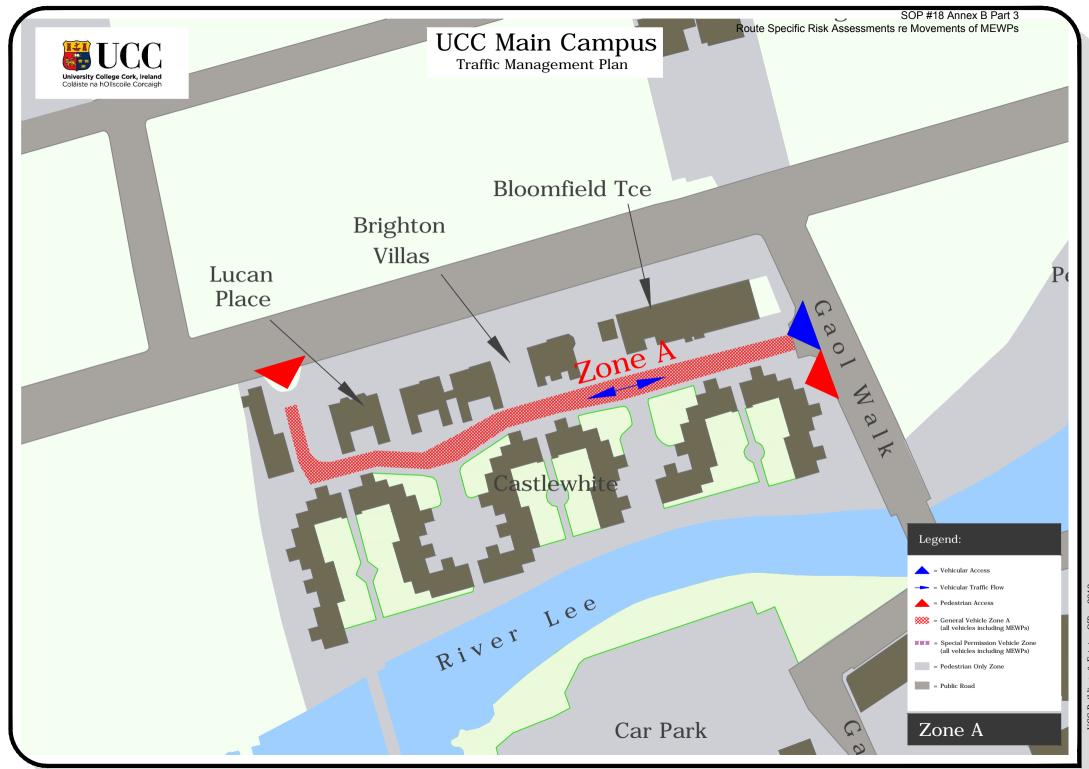
The routes on the main campus fall into 2 categories:

- > General Vehicular Access Designed Road Ways to accommodate vehicles access to different parts of the site
- Special Permission Vehicle Zone Areas suitable for certain types of vehicles but are currently prohibited with physical bollards. These zones are heavily populated pedestrian zones.

The routes on the campus have been identified on UCC Main Campus Traffic Management Plan. The routes have been broken into different zones and colour coded.

This report will identified the hazards, risks and control measures associated with the movement of MEWPs across each zone. The report does not cover the activity of the MEWP once at the place of work; a separate risk assessment is required for this activity.







### ZONE A

### Castle White Accommodation / Southern Elevation of Brighton Villas and Bloomfield Terrace

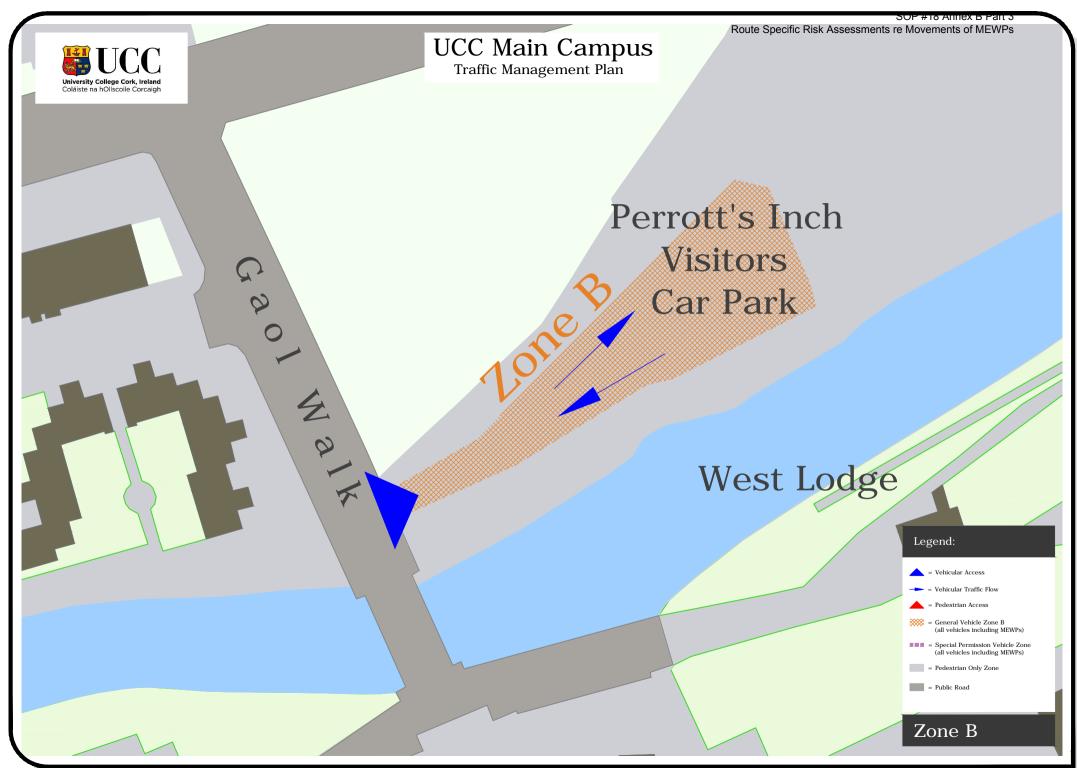
This zone allows for the movement of vehicles to Castlewhite apartments and to the southern elevation of Brighton Villas and Bloomfield Terrace

The length of the route is approximately 150m and the width of the road is approx. 6m narrowing to 3m. This is a heavy pedestrian zone with students staying in the 63 apartments and accessing the buildings of Brighton Villas and Bloomfield Terrance on a daily basis.





Hazard/Risk	F		Rating fore			Existing Controls	I		Rating After	Possible Further Controls
Movement of MEWP for Maintenance Activities	L	S	RR			fore setting out on route – new hazards, environmental factors (weather etc.), unknown events, mpus etc. to be explored. UCC Permit to Work Required.	L	- S	RR	
Hazard:				Vehicle Signalman	i to be	present for all movement of MEWPs.				
Car Movement	2	4	Med			nalman to be trained in accordance with UCC SOP 018.	1	4	Low	
Pedestrian Movement	3	4	High	MEWP to travel at	a slov	pace when accessing the entrance as the road veers towards the footpath and where road narrow	2	2 4	Med	Consider moving vehicle
Narrow Entrance	2	3	Med	towards the west s			1	3	Low	early in the morning or late in
Narrow section of Road	2	3	Med			ntre of the road to avoid sudden movement of cars and pedestrians stepping of the footpath	1	3	Low	the evening (weather and
Uneven surfaces	2	2	Low			WP operator to stop for all vehicle movement and pedestrian movement. Signalman to give the	1	2	Low	day light hours permitting).
Weather conditions	2	3	Med			proceed when pedestrians have safely passed the stationary MEWP.	1	3	Low	
				No movement of N	1EWP	in poor light situations, on icy road conditions, heavy rain, snow or other weather conditions impair	ıg			
Who is at risk:				the vision of the op						
UCC Building Staff						uneven surfaces - such areas must be identified in advance of movement and an agreed solution				
UCC Staff & Students						perator e.g. stop and avoid.				
Members of the Public						k pedestrian traffic i.e. 08.30 – 09.30 – 12.30 – 1400 & 16.40 – 18:00 nt allowed in the zone during the movement.				
Likelihood (L) Categories	Severi	y (S) (	Categories		lovenn	SEVERITY Risk Acceptability				
5 Certain or Near Certain	E 14	ultinda	Fatalities			5 4 3 2 1				
4 Very Likely				sability, Single Fatality	×	L 5 High High High Medium Low High (H) Unacceptable, must reduce	Commu	inicate	e Residual R	isk if applicable.
3 Likely			ury, Lost Ti	J. J. J	Matrix	K 4 High High Medium Medium Low Medium (M) Tolerable, assuming risk ha	been re	educe	d as far as "I	Reasonably Practicable". Communicate
2 Somewhat Likely				ted Workday Case	R) N	E Residual Risk				5
1 Unlikely			ury, First Ai	,	Risk (R)		eidual P	ick		
<u>-</u>		5 1	<b>.</b>		Ř		Juudi Ni	131.		
						D 1 Medium Low Low Low				





### ZONE B

### Perrott Inch Car park

This zone allows for up to 75 car spaces. The car park is used by students, staff and on occasion by members of the public.

The entrance to the car park narrows to approx. 3.5m and is protected with speed ramps on approach and on exit. There is an access gate to the green area on the east side of the car park. The eastern end of the car park operates as a one-way system.



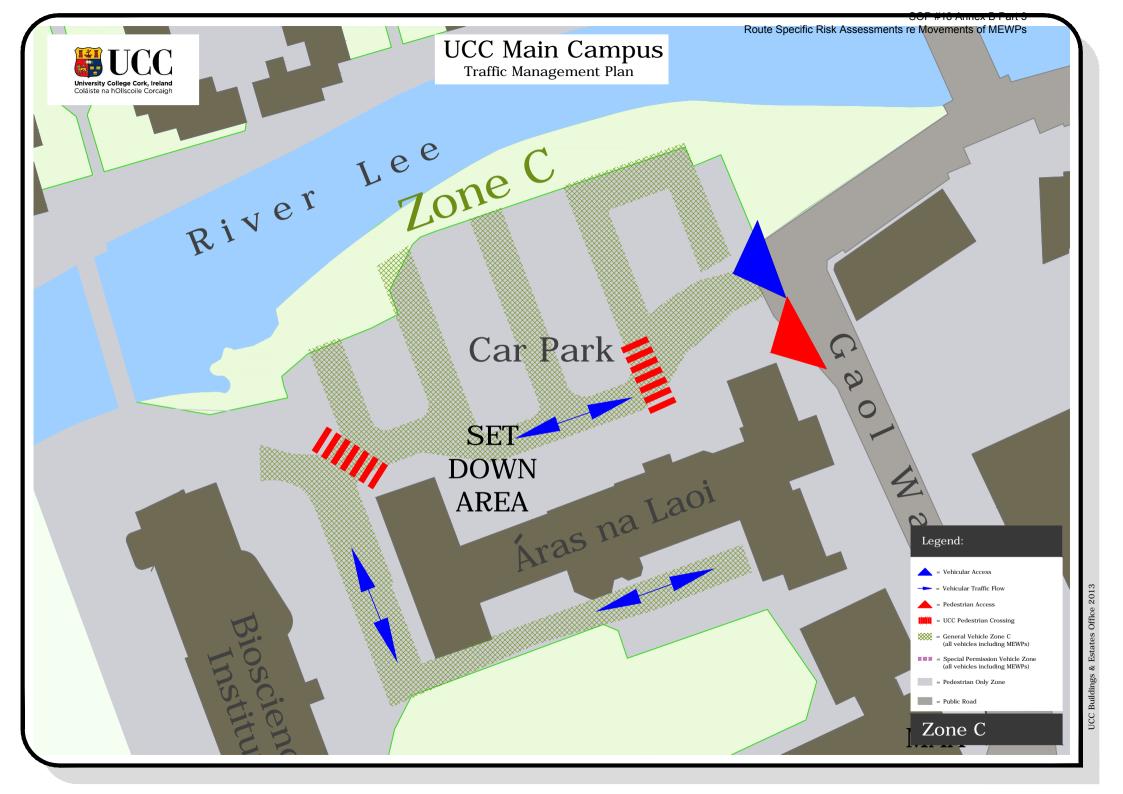
Looking East Completed By: ASM

Approved By:

Review Date: Aug 14



Hazard/Risk	R	isk F Bef	Rating fore			Existing Controls	Risl	k Ratir	ng After	Possible Further Controls
Movement of MEWP for Maintenance Activities	L	S	RR			ore setting out on route – new hazards, environmental factors (weather etc.), unknown events, npus etc. to be explored. UCC Permit to Work Required.	L	S	RR	
Hazard:         Overhanging Branches.         Car Movement         Pedestrian Movement         Narrow Entrance         Speed Ramps         Uneven surfaces         Weather conditions         Who is at risk:         UCC Building Staff         UCC Staff & Students         Members of the Public	2 2 3 2 2 2 2 2 2	3 4 3 3 3 3	Med Med Med Low Med Med	Vehicle Signalmar Vehicle Operator a Vehicle to travel a to avoid sudden m MEWP to travel or trees. Signalman to direc operator the go ah No movement of M impairing the visio Route to be exam between signalma	n to be and Sig t a slow overne n the co t to Mi nead to AEWPs n of the ined fo n and	resent for all movement of MEWPs. alman to be trained in accordance with UCC SOP 018. pace when accessing the entrance and where road narrows. Extra care when moving over ramps	1 2 1 1 1 1	3 4 3 3 3 3	Low Med Low Low Low Low	Consider moving vehicle early in the morning or late in the evening (weather and day light hours permitting).
Likelihood (L) Categories	Severit	y (S) (	Categories			SEVERITY Risk Acceptability				I
<ol> <li>Certain or Near Certain</li> <li>Very Likely</li> <li>Likely</li> <li>Likely</li> <li>Somewhat Likely</li> <li>Unlikely</li> </ol>	4 Pe 3 Ma 2 Mir	rmane ijor Inji nor Inji	ury, Lost Tir	ted Workday Case	Risk (R) Matrix	Image: Low of the system     S     Image: Low of the system     Image: Low of the system <thi< td=""><td>been red</td><td>duced as</td><td></td><td>if applicable. sonably Practicable". Communicate</td></thi<>	been red	duced as		if applicable. sonably Practicable". Communicate





#### ZONE C Access Road to Aras Na Laoi Building And Aras Na Laoi Car Park

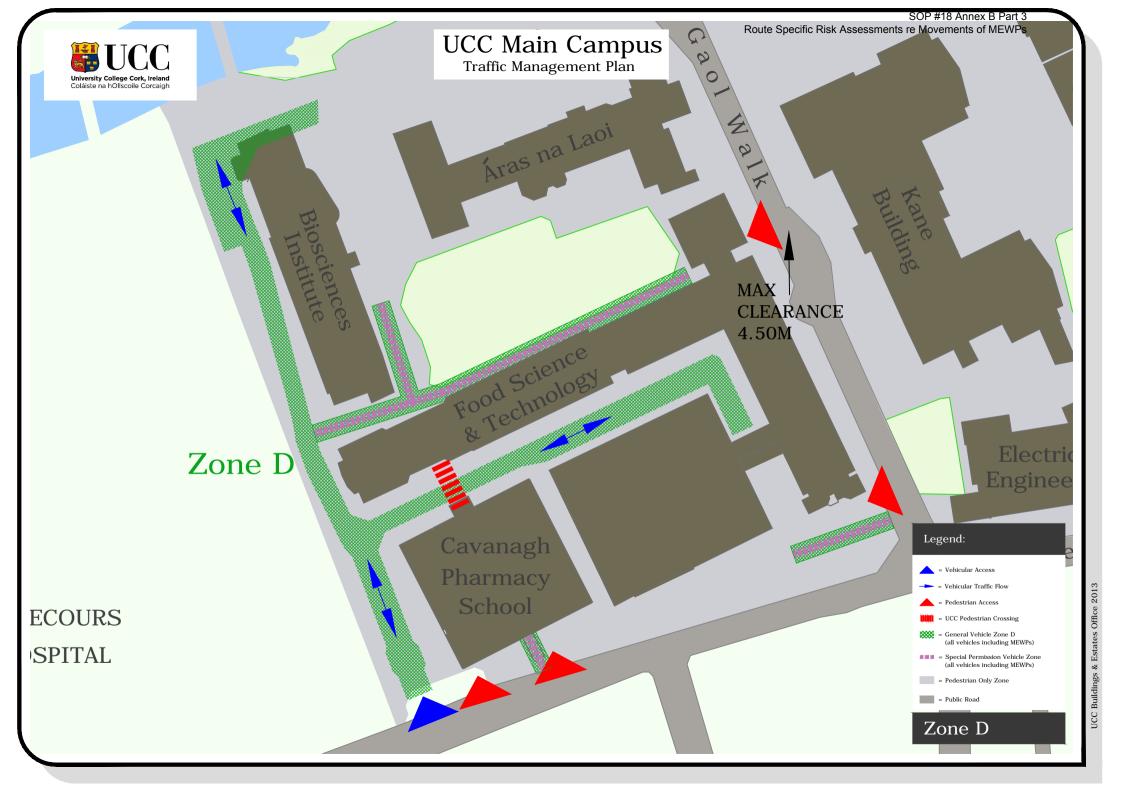
There is a large staff car park in this zone, the access road runs from Gaol Walk towards the Bioscience building and wraps around Aras Na Laoi. There is a vehicle control barrier at the entrance with a single speed ramp. This is a heavy pedestrianised area owing to the number of cars in the car park. The road narrows to approx. 3.5 at the S/W corner of the Aras Na Laoi. There is also a steady flow of people accessing and existing Aras Na Laoi and using the pedestrian bridge from Aras Na Laoi to Castlewhite Apartments. There is two way traffic on the full length of the route



Looking East South Elevation of Aras Na Laoi Completed By: ASM



Hazard/Risk	1	Risk R Befo	•							Existi	ng Cont	rols				Ris	sk Rati	ng After	Possible Further Controls
Movement of MEWP for	L	S	RR	Route to be exam	ined be	fore sett	ting of	ut on r	oute –	new ha	azards, o	environ	menta	l factors (weather	etc.), unknown events,	L	S	RR	
Maintenance Activities				additional number	s on ca	mpus ei	tc. to l	be exp	lored.	UCC P	ermit to	Work F	Pequire	ed.					
Hazard:				Vehicle Signalmar	n to be p	resent	for all	l move	ment o	of MEW	Ps.								
Car Movement	2	4	Med	Vehicle Operator a	and Sigi	nalman	to be	traine	d in ac	cordan	ce with I	JCC SO	DP 01	3.		2	4	Med	
Pedestrian Movement	3	4	High	MEWP to travel at	a slow	pace w	hen a	ccessi	ng the	entran	ce and v	vhere r	bad na	rrows.		1	4	Low	Consider moving vehicle
Narrow Entrance / Speed	2	3	Med	MEWP to travel or	n the ce	ntre of t	he roa	ad to a	avoid s	udden	moveme	ent of ca	ars and	d pedestrians ste	oping of the footpath.	1	3	Low	early in the morning or late in
Ramp			Med	Signalman to direct	t to ME	WP ope	erator	to sto	p for a	ll vehic	e movei	ment ar	id ped	estrian movemen	t. Signalman to give the			Low	the evening (weather and
Narrow section of Road	2	3	Low	operator the go ah											0 0	1	3	Low	day light hours permitting).
Uneven surfaces	2	2	Med	No movement of N	/EWPs	in poor	light s	situatio	ons, or	n icy roa	ad condi	tions, h	eavy r	ain, snow or othe	r weather conditions	1	2	Low	
Weather conditions	2	3	Med	impairing the visio						5			5			1	3	Low	
				Route to be exami	ned for	uneven	surfa	aces –	such a	areas m	iust be i	dentifie	d in ac	vance of movem	ent and an agreed				
Who is at risk:				solution between s	signalm	an and o	opera	tor e.g	. stop	and av	oid.				·				
UCC Building Staff				No movement duri	ng pea	k pedes	trian t	traffic i	.e. 08.	30 - 09	9.30 – 12	2.30 – 1	400 &	16.40 - 18:00					
UCC Staff & Students				No other MEWP m	noveme	nt allow	ed in	the zo	ne dur	ing the	movem	ent.							
Members of the Public				Access to the sout	h side d	of Aras I	Na La	aoi is v	ery res	stricted	and sho	uld only	be d	one when the are	a is clear.				
Likelihood (L) Categories	Seve	rity (S)	Categories						SE	VERITY				Risk	Acceptability				
5 Certain or Near Certain			Fatalities			-	L 5	5 High	4 High	3 High	2 Medium	1 Low		High (H)	Unacceptable, must reduc	ce. Com	municate	Residual R	sk if applicable.
4 Very Likely				sability, Single Fatality	Matrix		I K A			Medium	Medium				T.1			1 <b>.</b>	
3 Likely			ury, Lost Ti	, ,	) Ma		E	High	High		Medium	Low		Medium (M)	l olerable, assuming risk r Residual Risk	nas beer	n reauced	a as far as "H	Reasonably Practicable". Communicate
2 Somewhat Likely			,	ted Workday Case	k (R)		L   3 	High	High	Medium	Low	Low			Residual Risk				
1 Unlikely		Slight Inj	ury, First Ai	a	Risk		0 2	High	Medium	Medium	Low	Low		Low (L)	Tolerable. Communicate I	Residua	l Risk.		
								Medium	Low	Low	Low	Low							
I						L													





#### ZONE D

Access Road From College Road To The West And North Elevations Of The Bioscience Building And Access To The Central Courtyard Between Food Science And Pharmacy Buildings.

This route is primarily used for vehicles accessing the car park and by delivery vehicles to the Food Science, Bioscience and Pharmacy building. There is an overhead walkway on the approach to the Food Science / Pharmacy Courtyard (8m high) and a section of overhanging building façade (approx. 7m high and protruding by approx. 3m) to the north elevation of the Biosciences. The route from College Rd. falls significantly to the n/w corner of the Bioscience building. There is also a special permission area in this zone – approx. 150m of access way to the north elevation of the Food Science building (overlooking Aras Na Laoi). There is two-way traffic on the full length of the route.



Looking East Completed By: ASM Approved By:

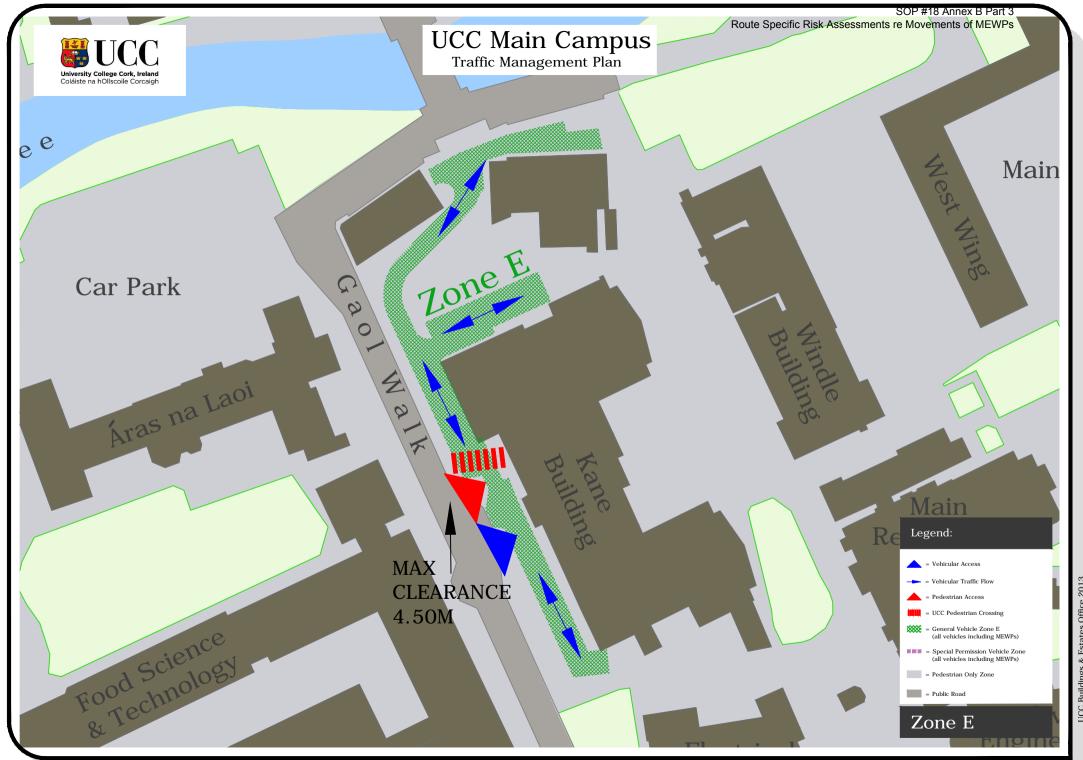
Aug 14

Looking North

Review Date:



Hazard/Risk	R		Rating fore	Existing Controls	Ris	k Ratir	ng After	Possible Further Controls
Movement of MEWP for Maintenance Activities	L	S	RR	Route to be examined before setting out on route – new hazards, environmental factors (weather etc.), unknown events, additional numbers on campus etc. to be explored. UCC Permit to Work Required.	L	S	RR	
Hazard:				Vehicle Signalman to be present for all movement of MEWPs.				
Over hanging structure & High	2	4	High	Vehicle Operator and Signalman to be trained in accordance with UCC SOP 018.	2	4	Med	
Level Pedestrian Walkway				Vehicle to travel at a slow pace when descending the slope on the road. When moving from north to south and up the				Consider moving vehicle early
Steep slope on road from south	2	4	High	slope in the courtyard operator to adjust the basket to ensure a clear line of sight is achieved.	2	4	Med	in the morning or late in the
entrance to north. Steep slope or	۱			Vehicles to stop before accessing beneath overhead walkway and overhanding structure (north of Bioscience).				evening (weather and day light
ramp to courtyard south of food				Signalman to approve safe passage before continuing.				hours permitting).
science				Signalman to direct MEWP operator to stop at all pedestrian junctions and where pedestrians are encountered.				
Uneven surfaces	2	3	Med	Signalman to give the operator the go ahead to proceed when pedestrians have safely passed the stationary MEWP.	1	3	Low	
Weather conditions	2	3	Med	No movement of MEWPs poor weather conditions, in icy road conditions, heavy rain, snow or other weather conditions	1	3	Low	
Pedestrian Zone north of food				impairing the vision of the operator when moving.				
science	2	3	Med	Route to be examined for uneven surfaces – such areas must be identified in advance of movement and an agreed	1	3	Low	
Who is at risk:				solution between signalman and operator e.g. stop and avoid.				
UCC Building Staff				For movement in the special permission area, express permission must be sought; the type of machine must be				
UCC Staff & Students				assessed against the surface of the ground and the proposed use.				
Members of the Public				No other MEWP movement allowed in the zone during the movement.				
Likelihood (L) Categories	Severit	y (S) (	Categories					
			Fatalities	L 5 High High High Medium Low High (H) Unacceptable, must rec	uce. Co	mmunica	ate Residual	Risk if applicable.
4 Very Likely 3 Likely 2 Somewhat Likely	3 Ma	ajor Inj	ury, Lost T	sability, Single Fatality me Injury ted Workday Case & & & & & & & & & & & & & & & & & & &	k has be	een reduc	ced as far as	"Reasonably Practicable". Communicate
1 Unlikely			ury, First A		e Residu	ual Risk.		



UCC Buildings & Estates Office 2013

### UCC MAIN CAMPUS VEHICULAR ACCESS ROUTES Risk Assessment Document for MEWP Access



### ZONE E

# Access to Kane Building off Gaol Walk, Access to the Western and Northern Elevation of the Kane Building and Access to UCC Boiler Room

This zone allows for the movement of vehicles to the car park on the west and north side of the building and for over 1000 students to and from the Kane Building. The access route is narrow and reduces to approx. 3.5m in places. An overhead link corridor (4m high) connects the Kane building to the food science building. The total distance is approx. 300m. The route from the n/w corner of the Kane Building falls significantly towards the Boiler Room. There is two-way traffic on the full length of the route.

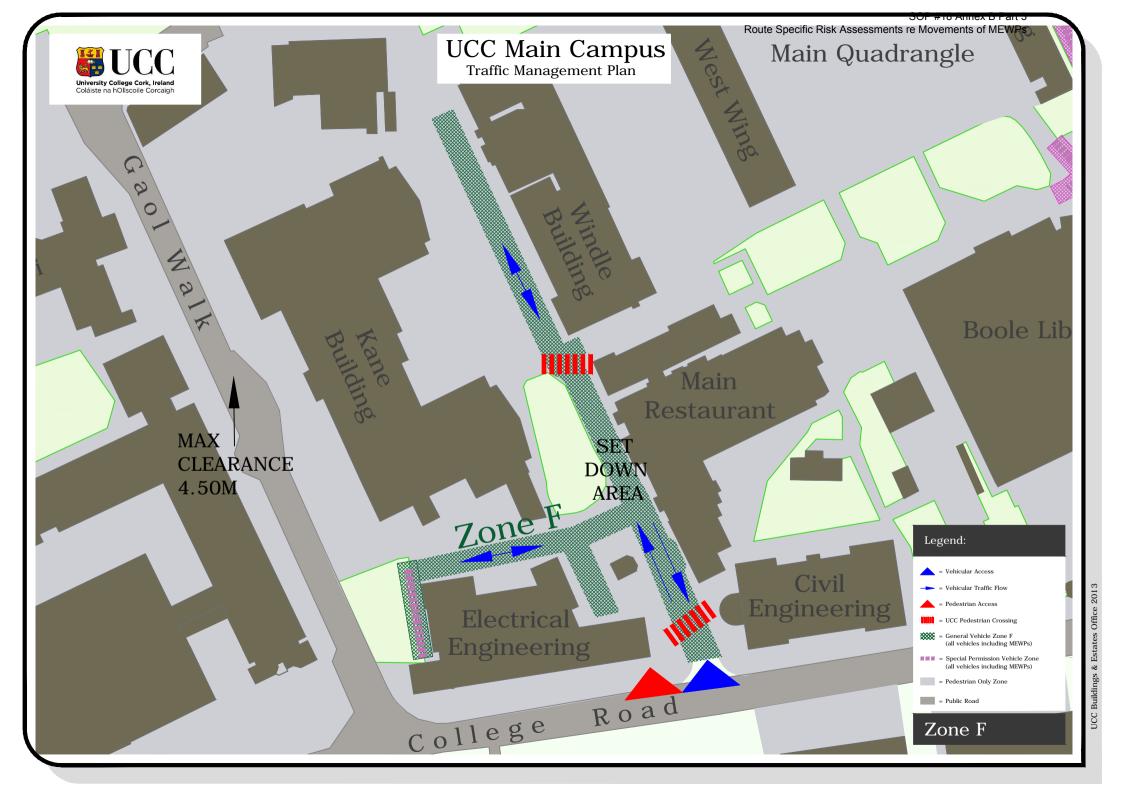


Looking East Completed By: ASM Approved By: Review Date: Aug 14

Looking West-



Hazard/Risk	I	Risk Ra Befo	5			Existing Controls		-	Rating fter	Possible Further Controls
Movement of MEWP for Maintenance Activities	L	S	RR			before setting out on route – new hazards, environmental factors (weather etc.), unknown bers on campus etc. to be explored. UCC Permit to Work Required.	L	S	RR	
Hazard:						e present for all movement of MEWPs.	1			
Car Movement	2	4	Med			Signalman to be trained in accordance with UCC SOP 018.	2	4	Med	
Pedestrian Movement	3	4	High			centre of the road to minimise interaction with vehicles and pedestrians.	1	4	Low	
High Level Pedestrian			Ű	Vehicle to travel	at a sl	ow pace when descending the slope on the road. When moving from Boiler House towards				
Walkway	2	4	Med			to adjust the basket to ensure a clear line of sight is achieved.	1	4	Low	Consider moving vehicle early in
Steep slope on road from Boiler House	2	4	Med		before	accessing beneath overhead walkway (west side of Kane). Signalman to approve safe	2	4	Med	the morning or late in the evening (weather and day light hours
Uneven surfaces	2	3	Med			WP operator to stop at all pedestrian junctions and where pedestrians are encountered.	1	3	Low	permitting).
Weather conditions	2	3	Med	Signalman to giv	e the	operator the go ahead to proceed when pedestrians have safely passed the stationary	1	3	Low	
Who is at risk: UCC Building Staff						Ps in poor light conditions, icy road conditions, heavy rain, snow or other weather conditions the operator when moving.				
UCC Staff & Students Members of the Public				solution between	n signa	for uneven surfaces – such areas must be identified in advance of movement and an agreed Iman and operator e.g. stop and avoid. ment allowed in the zone during the movement.				
Likelihood (L) Categories	Severi	ty (S) Ca	tegories			SEVERITY Risk Acceptability				
5 Certain or Near Certain		ultiple Fa				L 5 High High High Medium Low Unacceptable, must	reduc	e. Com	municate Re	esidual Risk if applicable.
<ol> <li>Very Likely</li> <li>Likely</li> <li>Somewhat Likely</li> </ol>	3 M	ajor Injur	y, Lost Tim		R) Matrix	L Residual Risk	risk h	nas beer	n reduced as	s far as "Reasonably Practicable". Communicate
1 Unlikely			y, First Aid	,	Risk (	Image: Problem in the second secon	cate F	Residua	l Risk.	
2 Somewhat Likely	2 M	linor Injur	y, Restricte	d Workday Case	Risk (R) M	Image: Second Region     Image: Second Region <td></td> <td></td> <td></td> <td></td>				





### ZONE F

# Main Vehicle Entrance of College Road and Access to Southern Elevation of Electrical Engineering and Western Elevation of Kane Building.

This area accommodates a significant number of vehicles on a daily basis. All daily deliveries to the main campus are via this route including public service drops and pickups at the College bus stop. The route is two-way with a number of pedestrian walkways existing onto the route. The route falls gradually from south to north. The distance is approx. 250m and leads into Zone G.

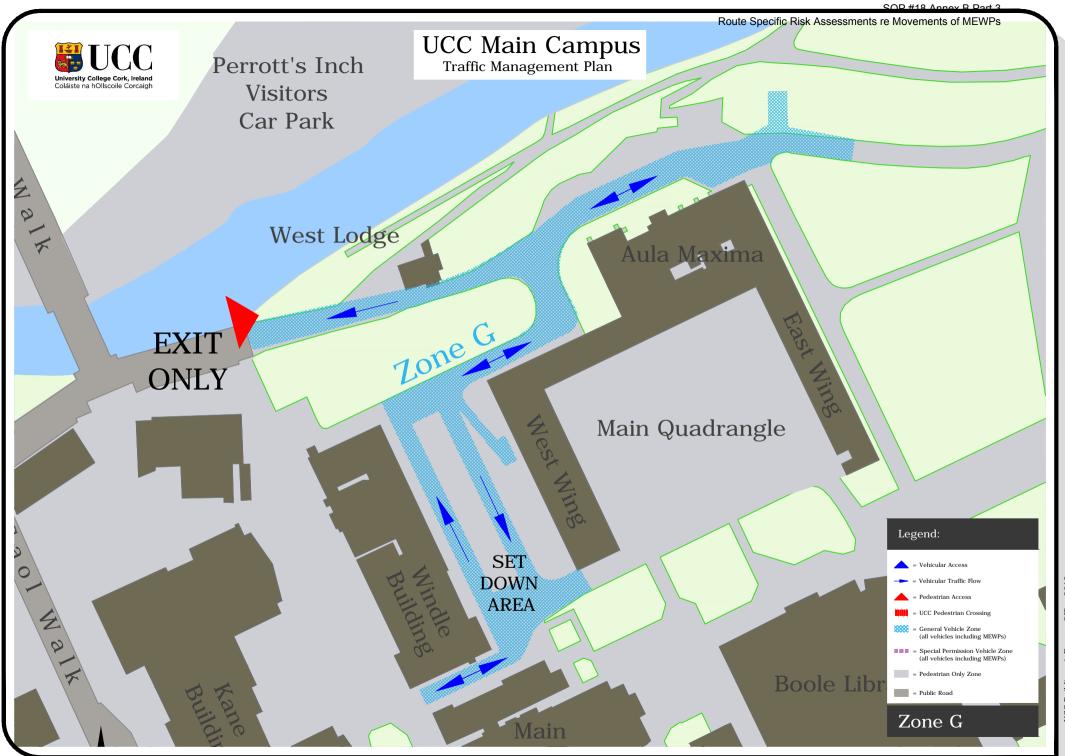


Looking North Completed By: ASM Approved By: Review Date: Aug 14

Looking North



Hazard/Risk	R		Rating fore			Existing Controls	R		Rating fter	Possible Further Controls
Movement of MEWP for Maintenance Activities	L	S	RR			e setting out on route – new hazards, environmental factors (weather etc.), unknown events, us etc. to be explored. UCC Permit to Work Required.	L	S	RR	
Hazard: Vehicle Movement Pedestrian Movement Multiple Junctions Uneven Surfaces Weather Conditions Who is at risk: UCC Building Staff UCC Staff & Students Members of the Public	2 3 2 2 2	4 4 3 3 3	Med High Med Med Med	Vehicle Signalman to to Vehicle Operator and S MEWP to travel at a sli MEWP to travel on the Signalman to direct ME operator the go ahead No movement of MEW impairing the vision of Signalman to proceed, Route to be examined between signalman an	be pres Signali ow pac centre EWP o to pro Ps in j the op aheac for un d oper	tent for all movement of MEWPs. nan to be trained in accordance with UCC SOP 018. ce when accessing the entrance as this is a particularly busy pedestrian zone. e of the road to avoid sudden movement of cars and pedestrians stepping of the footpath. perator to stop for all vehicle movement and pedestrian movement. Signalman to give the ceed when pedestrians have safely passed the stationary MEWP. poor light conditions, on icy road conditions, heavy rain, snow or other weather conditions	2 2 1 1	4 4 3 3 3	Med Med Low Low	Consider moving vehicle early in the morning or late in the evening (weather and day light hours
Likelihood (L) Categories	Se	verity	y (S) Categ	ories		SEVERITY Risk Acceptability				
<ol> <li>Certain or Near Certain</li> <li>Very Likely</li> <li>Likely</li> <li>Somewhat Likely</li> <li>Unlikely</li> </ol>	5 4 3 2 1	Per Ma Mir	ijor Injury, L	tal Disability, Single Fatality ost Time Injury estricted Workday Case	Risk (R) Matrix	Image: Constraint of the stress of the st	as bee	en red	luced as	sidual Risk if applicable. far as "Reasonably Practicable". Communicate





Looking East -

Looking East

Approved By:

Gaol Walk Entrance

Completed By: ASM

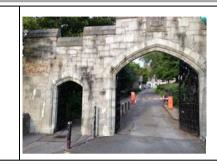
Review Date: Aug 14

#### ZONE G

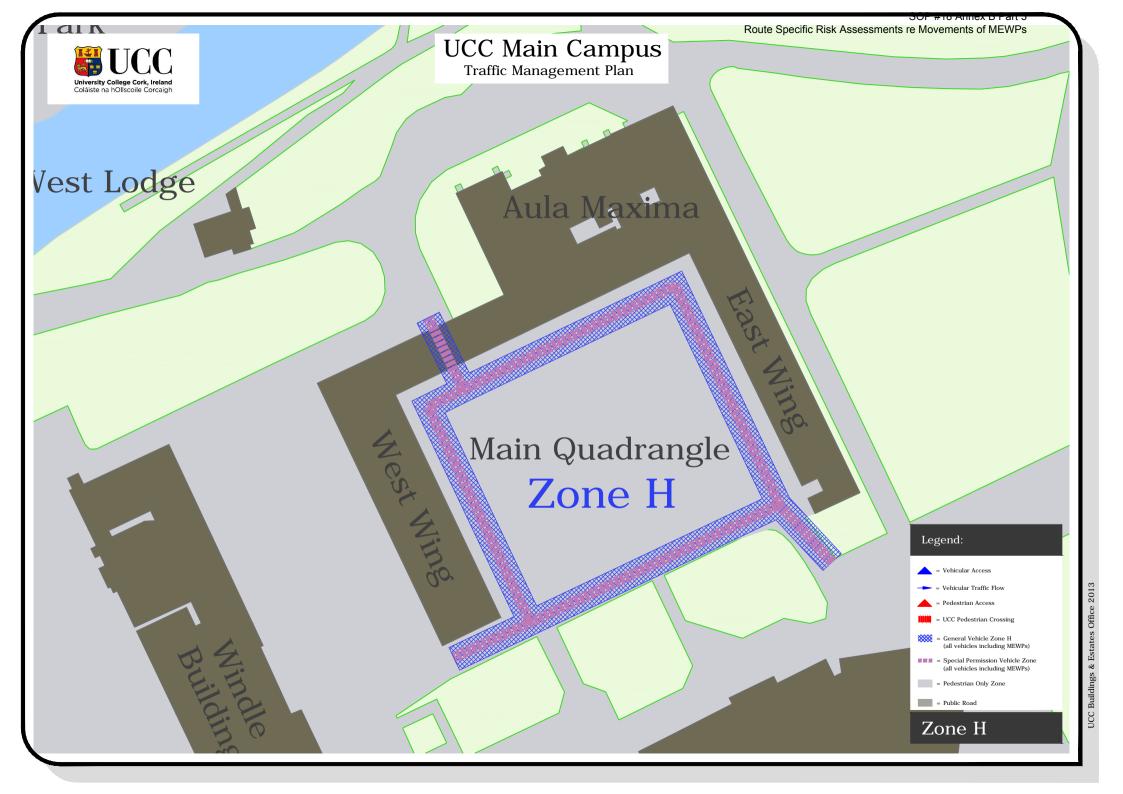
## Access To Car Park Between Windle Building And Quadrangle, Access To North Side Of Quad And Exit Ramp To Gaol Walk.

This zone allows for the movement of vehicles from the main entrance route to the college into staff car park and for deliveries to the main restaurant and Quad. The entrance point off Zone F is narrow and is suitable for one-way traffic only. The car park between the Windle and the Quad is a one-way system, the road narrows to 4m here. The exit ramp from this zone to Gaol Walk falls severely. There is two-way traffic on the remainder of route beyond the car park.





Hazard/Risk		Risk F Bef	Rating ore			Existing Controls			R	isk F Af	Rating ter	Possible Further Controls
Moving MEWP Through Route	L	S	RR	numbers on campus etc. to	o be	etting out on route – new hazards, environmental factors ( explored. UCC Permit to Work Required.	weather etc.), u	nknown events, additional	L	S	RR	
Hazard: Car Movement Pedestrian Movement Narrow Entrance Steep Ramp Narrow Section of Road Uneven surfaces Weather conditions Who is at risk: UCC Building Staff UCC Staff & Students Members of the Public	2 3 2 3 2 2 2 2	4 3 4 3 2 3	Med High Med High Low Med Med	Vehicle Operator and Signa MEWP operator to stop at the traffic to allow MEWP to pass MEWP to travel on the cent MEWP to travel at a slow part of the Windle building is one Signalman to direct MEWP go ahead to proceed when No movement of MEWPs in the vision of the operator will Route to be examined for up between signalman and ope No movement during peak No other MEWP movement	alma the e ass th ntre o pace n e wa o ope n pede n pede n pede n pede n pede n pede n pede n allo	rator to stop for all vehicle movement and pedestrian mov estrians have safely passed the stationary MEWP. or light conditions, on icy road conditions, heavy rain, snov moving. en surfaces – such areas must be identified in advance of	leaving. ians stepping of k. This ramp is o rement. Signalm w or other weath movement and 8:00	the footpath. ne way. The car park east an to give the operator the er conditions impairing an agreed solution	2 2 1 2 2 1 1	4 4 3 4 3 2 3	Med Low Med Low Low	Consider moving vehicle early in the morning or late in the evening (weather and day light hours permitting).
Likelihood (L) Categories	Se	verity (	S) Categor	es		SEVERITY	Risk /	Acceptability				
<ol> <li>Certain or Near Certain</li> <li>Very Likely</li> <li>Likely</li> <li>Somewhat Likely</li> <li>Unlikely</li> </ol>	5 4 3 2 1	Perm Major Minor	Injury, Los		Risk (R) Matrix	L 3 High High Medium Low	digh (H) Vledium (M) Low (L)	Unacceptable, must reduce. C Tolerable, assuming risk has t Residual Risk Tolerable. Communicate Resi	been r	educe		Risk if applicable. "Reasonably Practicable". Communicate





### ZONE H

### Main Quadrangle

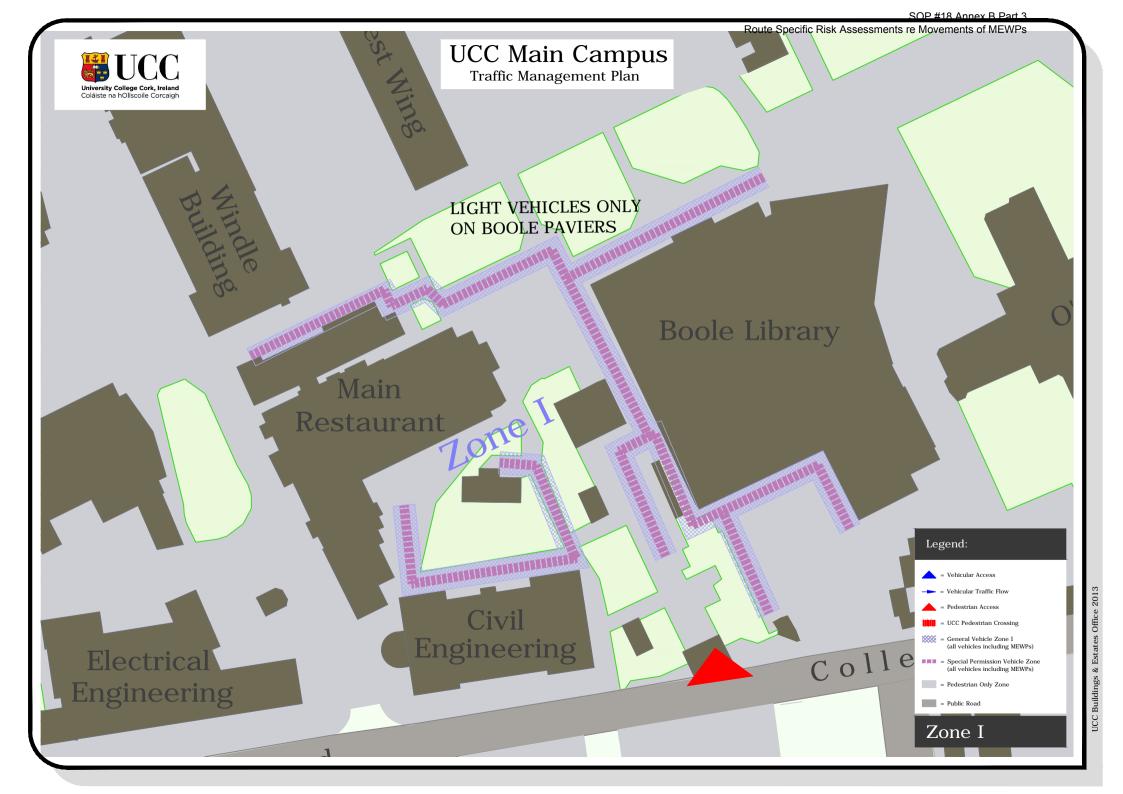
This zone is a special permission vehicle zone and is restricted with bollards. Permission must be granted before accessing this zone. There are 9 exits leading onto the Quadrangle. The route is approximately 200m in length and the width of the road approx. 6m.



Looking East Completed By: ASM Approved By: Review Date: Aug 14



Hazard/Risk	R		Rating Fore			Existing Controls	Ris	k Ratir	ng After	Possible Further Controls
Movement of MEWP for Maintenance Activities	L	S	RR			before setting out on route – new hazards, environmental factors (weather etc.), unknown bers on campus etc. to be explored. UCC Permit to Work Required.	L	S	RR	
Hazard: Vehicle Movement Pedestrian Movement Uneven Surfaces Weather Conditions Who is at risk: UCC Building Staff UCC Staff & Students Members of the Public	1 3 2 2	4 4 3 3	Low High Med Med	Vehicle Signalm Vehicle Operato MEWP to travel Signalman to dii operator the go No movement o impairing the vis Signalman to pr movement or no Route to be exa solution betwee	nan to l or and at a sl on the rect Mi ahead of MEW sion of roceed ot. mined n signa	e present for all movement of MEWPs. isignalman to be trained in accordance with UCC SOP 018. ww pace when accessing the entrance as this is a particularly busy pedestrian zone. centre of the road to avoid sudden movement of cars and pedestrians. WP operator to stop for all vehicle movement and pedestrian movement. Signalman to give the to proceed when pedestrians have safely passed the stationary MEWP. Ps in poor light conditions, icy road conditions, heavy rain, snow or other weather conditions he operator when moving. ahead of MEWP, to junctions and direct operator on whether it is safe to proceed with for uneven surfaces – such areas must be identified in advance of movement and an agreed lman and operator e.g. stop and avoid. ment allowed in the zone during the movement.	1 1 1	4 4 3 3	Low Low Low	Consider moving vehicle early in the morning or late in the evening (weather and day light hours permitting).
Likelihood (L) Categories	Severity (	S) Cat	egories			SEVERITY Risk Acceptability				
<ol> <li>Certain or Near Certain</li> <li>Very Likely</li> <li>Likely</li> <li>Somewhat Likely</li> <li>Unlikely</li> </ol>	4 Perm 3 Major 2 Minor	r Injury r Injury	Total Disal	bility, Single Fatality e Injury d Workday Case	Risk (R) Matrix	Image: Low of Decision of	has be	en reduc		Risk if applicable. s "Reasonably Practicable". Communicate



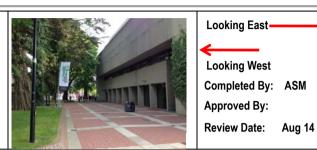


#### ZONE I

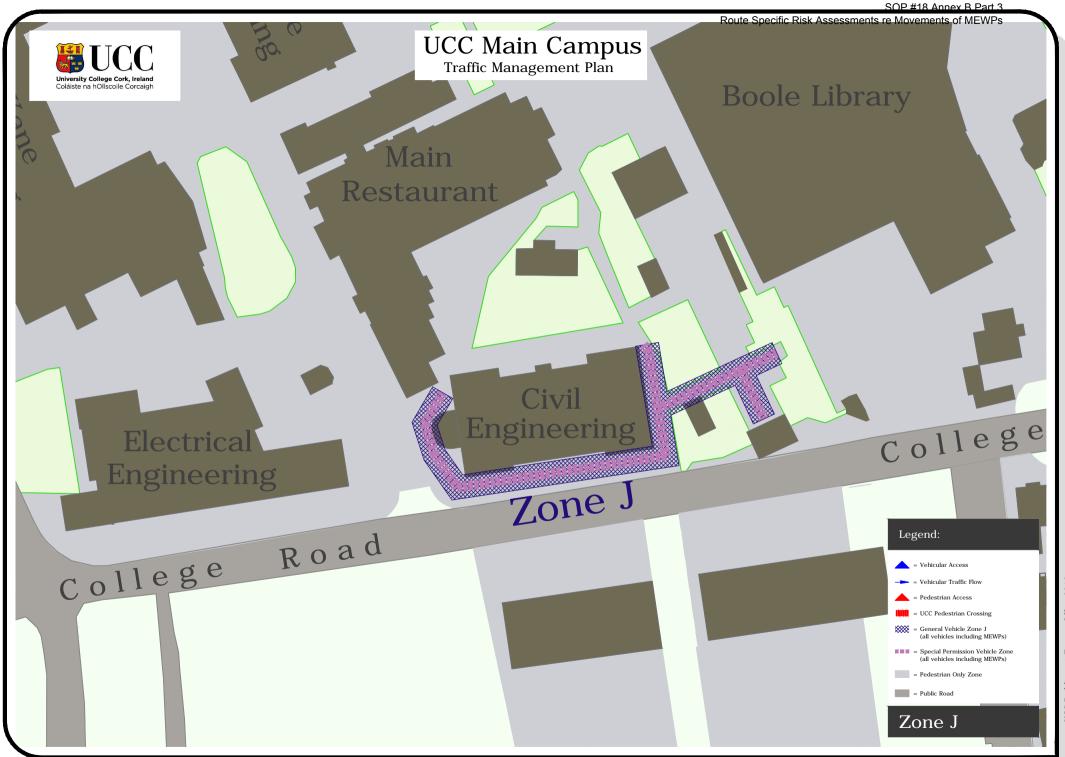
# Access to South of Boole, South of Restaurant, Pedestrian Zone to East of Building & Estates, North of Civil Engineering and West of Boole.

This zone is a special permission Vehicle zone and is a heavily pedestrianized zone. There are three access points into this zone 1) from the south side of Building & Estates, 2) North side of the College Bar and 3) at the Boole Library Entrance. Access point 2 and 3 is restricted to MEWPs with a width of 1.2m with access points restricted to 1.5m. Operators and Signalman should use the access point closest to the proposed point of work. The surface of the zone is predominately paving, this too will have an impact on the type of machine suitable for the area.

Hazard/Risk	R	isk F Bef	Rating ore			Existing Controls		R		Rating ter	Possible Further Controls
Movement of MEWP for Maintenance Activities	L	S	RR			ng out on route – new hazards, environmental factor blored. UCC Permit to Work Required.	s (weather etc.), unknown events, additional	L	S	RR	
Hazard: Overhanging Branches Narrow Entrance Points Pedestrian Movement Uneven Surfaces Surface Material Weather Conditions Who is at risk: UCC Building Staff UCC Staff & Students Members of the Public	2 2 3 2 2 2	3 3 4 3 3 3	Med High Med Med Med	Vehicle Signalman to be pres Vehicle Operator and Signalm MEWP to travel at a slow pac be assessed before entry as t MEWP to travel on the centre Signalman to direct to MEWP when pedestrians have safely No movement of MEWPs in p of the operator when moving. Surface material along route t surface material strength and Route to be examined for une signalman and operator e.g. s	sent fc man to ce whe the ac e of the P oper ly pass poor li g. to be d base neven s stop a	or all movement of MEWPs. be be trained in accordance with UCC SOP 018. en accessing the entrance, as this is a particularly buccess points to this zone are restricted. Signalman to reoute to avoid sudden movement of pedestrians. ator to stop for all pedestrian movement. Signalman sed the stationary MEWP. Ight conditions, icy road conditions, heavy rain, snow assessed for suitability before commencing on route ement beneath. surfaces – such areas must be identified in advance	o alert operator of overhanging branches. to give the operator the go ahead to proceed or other weather conditions impairing the vision e. Load bearing capacity to be examined –	1 1 2 1 1	3 3 4 3 3 3	Low Low Med Low Low Low	Consider moving vehicle early in the morning or late in the evening (weather and day light hours permitting).
Likelihood (L) Categories           5         Certain or Near Certain           4         Very Likely           3         Likely           2         Somewhat Likely           1         Unlikely	<b>Se</b> 5 4 3 2 1	Mult Perr Majo Mino	or Injury, L	es al Disability, Single Fatality ost Time Injury estricted Workday Case	All Marine	SEVERITY       1     5     4     3     2     1       1     5     High     High     High     Medium     Low       1     4     High     High     Medium     Low     Low       1     3     High     High     Medium     Low     Low       0     2     High     Medium     Medium     Low     Low	Risk Acceptability         High (H)       Unacceptable, must reduce. Comm         Medium (M)       Tolerable, assuming risk has been residual Risk         Low (L)       Tolerable. Communicate Residual R	reduce			if applicable. Isonably Practicable". Communicate







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### ZONE J

#### West, South and East of Civil Engineering Building and Access to Pedestrian Entrance off College Road.

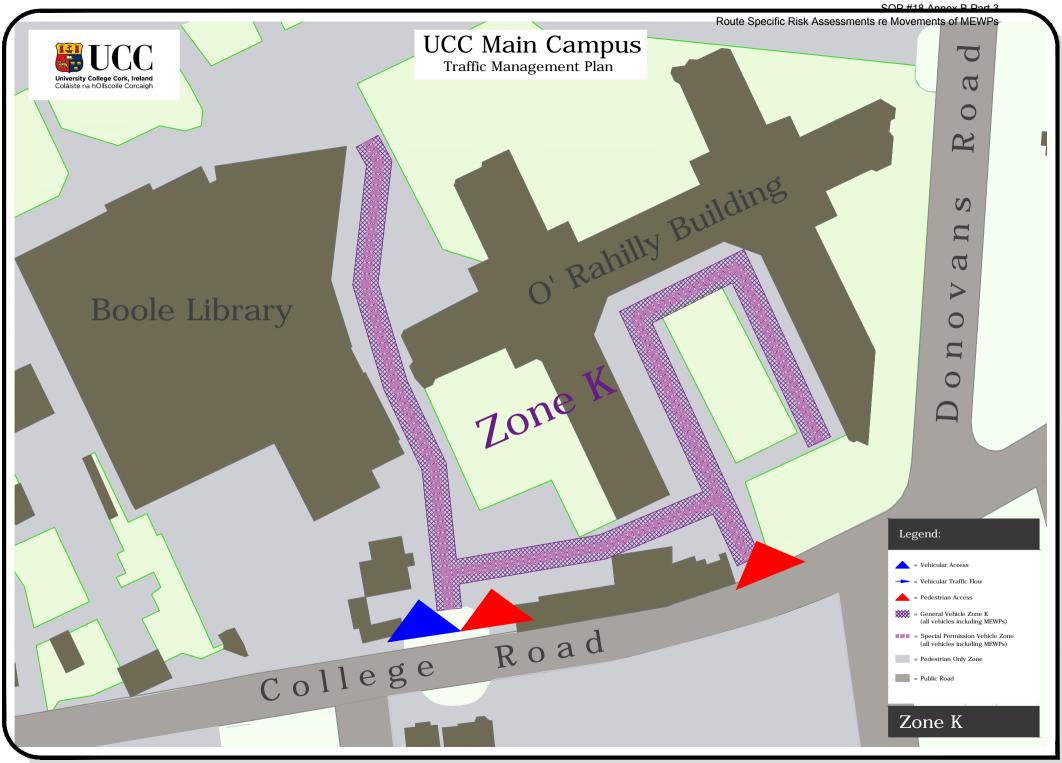
This zone is a pedestrian priority zone and is restricted with bollards and a gate near the main entrance to the College. Permission must be granted before accessing this zone. The area here is quite restricted and there are several exits out of the Civil Engineering building. The path falls gently from south to north on the western elevation. The pedestrian access point off College Road is also very busy.



Looking West Completed By: ASM Approved By: Review Date: Aug 14



R		-			Existing Controls	Ris	k Ratiı	ng After	Proposed Controls
L	S	RR				L	S	RR	
			additional numbers	s on ca	npus etc. to be explored. UCC Permit to Work Required.				
1	4	Low	Vehicle Operator a	nd Sig	alman to be trained in accordance with UCC SOP 018.	1	4	Low	
3	4	High	MEWP to travel at	a slow	bace when accessing the entrance, as this is a particularly busy pedestrian zone. Care required	1	4	Low	Consider moving vehicle
2	3	Med	as the path falls fro	om sou	n to north along the western elevation of the Civil Engineering Building.	1	3	Low	early in the morning or late in
2	3	Med	MEWP to travel or	the ce	tre of the route to avoid sudden movement of cars and pedestrians. MEWP operator to keep	1	3	Low	the evening (weather and
									day light hours permitting).
			Signalman to direct	t MEN	P operator to stop for all pedestrian movement. Signalman to give the operator the go ahead to				3 3 1 3,
			proceed when ped	estriar	have safely passed the stationary MEWP.				
			No movement of M	IEWPs	n poor light conditions, icy road conditions, heavy rain, snow or other weather conditions				
			Route to be exami	ned for	uneven surfaces – such areas must be identified in advance of movement and an agreed				
			solution between s	ignalm	n and operator e.g. stop and avoid.				
			No other MEWP m	oveme	at allowed in the zone during the movement.				
Sev	erity (	S) Categ	ories		Risk Acceptability				
5 4				.×i	L 5 High High High Medium Low	reduce	e. Com	imunicate	Residual Risk if applicable.
3	Single Major I	Fatality njury, Lo	st Time Injury	(R) Matr					l as far as "Reasonably
	Case	• •		Risk	H 2 High Medium Medium Low Low D 1 Medium Low Low Low Low	cate R	esidua	Il Risk.	
	L 1 3 2 2 2 <b>Sev</b> 5 4 3 2	BeforLS14342323Severity (S5Multiple4Perm Single3Major I2Minor I Case	1       4       Low         3       4       High         2       3       Med         3       Med       Severity (S) Categ         5       Multiple Fatalitie         4       Permanent To Single Fatality         3       Major Injury, Lo         2       Minor Injury, Re Case	Before         L       S       RR       Route to be examinated additional numbers         1       4       Low       Vehicle Signalman         1       4       Low       Vehicle Operator a         3       4       High       MEWP to travel at         2       3       Med       as the path falls from the bus signalman to direct proceed when ped No movement of No impairing the vision Route to be examinated and the solution between	Before         L       S       RR       Route to be examined befared ditional numbers on carrent additional numbers on additional numbers on carrent additional numbers on carrent additional numbers on additional numbers on additional numbers on carrent additional numbers on additional numbers on additional numbers on additional numbers on carrent additional numbers on additionad numbers on additionad numbers on additin add	Before       R       Route to be examined before setting out on route – new hazards, environmental factors (weather etc.), unknown events, additional numbers on campus etc. to be explored. UCC Permit to Work Required.         1       4       Low       Vehicle Signalman to be present for all movement of MEWPs.         2       3       Med       Signalman to be present for all movement of MEWPs.         2       3       Med       As the path falls from south to north along the western elevation of the Civil Engineering Building.         2       3       Med       MEWP to travel at a slow pace when accessing the entrance, as this is a particularly busy pedestrian some. Care required as the path falls from south to north along the western elevation of the Civil Engineering Building.         2       3       Med       MEWP to travel on the centre of the route to avoid sudden movement. Signalman to give the operator to keep within 2m of the building line where possible to avoid exit doors from the building.         2       3       Med       MeWP to travel on the centre of the route to avoid actid doors from the building.         3       Signalman to direct MEWP operator to stop for all pedestrian movement.       Signalma to give the operator the go ahead to proceed when pedestrians have safely passed the stationary MEWP.         No movement of MEWPs in poor light conditions, icy road conditions, heavy rain, snow or other weather conditions impairing the vision of the operator when moving.       Route to be examined for uneven surfaces – such areas must be identified in advance of mov	Before       R       Route to be examined before setting out on route – new hazards, environmental factors (weather etc.), unknown events, additional numbers on campus etc. to be explored. UCC Permit to Work Required.       L         1       4       Low       Vehicle Signalman to be present for all movement of MEWPs.       1         2       3       Med       as the path falls from south to north along the western elevation of the Civil Engineering Building.       1         2       3       Med       MEWP to travel at a slow pace when accessing the entrance, as this is a particularly busy pedestrian zone. Care required       1         2       3       Med       MEWP to travel at a slow pace when accessing the entrance, as this is a particularly busy pedestrian zone. Care required       1         2       3       Med       MEWP to travel at a slow pace when accessing the outrance, as this is a particularly busy pedestrian zone. Care required       1         2       3       Med       MEWP to travel at a slow pace when pedestrians have safely passed the stationary MEWP.       1         No movement of MEWPs in poor light conditions, icy road conditions, heavy rain, snow or other weather conditions impairing the vision of the operator when moving.       Route to be examined for uneven surfaces – such areas must be identified in advance of movement and an agreed solution between signalman and operator e.g. stop and avoid.       No other MEWP movement allowed in the zone during the movement.         Severity (S) Categories	Before       Number of the person of the perso	Before       R       Route to be examined before setting out on route – new hazards, environmental factors (weather etc.), unknown events, additional numbers on campus etc. to be explored. UCC Permit to Work Required.       L       S       RR         1       4       Low       Vehicle Operator and Signalman to be present for all movement of MEWPs.       Vehicle Operator and Signalman to be present for all movement of MEWPs.       1       4       Low         2       3       Med       as the path falls from south to north along the western elevation of the Civil Engineering Building.       1       3       Low         2       3       Med       as the path falls from south to north along the western elevation of the Civil Engineering Building.       1       3       Low         2       3       Med       MEWP to travel on the centre of the route to avoid sudden movement of cars and pedestrians. MEWP operator to keep within 2m of the building line where possible to avoid exit doors from the building.       1       3       Low         3       Med       Signalman to direct MEWP operator to stop for all pedestrian movement. Signalman to give the operator the go ahead to proceed when pedestrians have safely passed the stationary MEWP.       No wowement of MEWPs in poor light conditions, icy road conditions, heavy





### ZONE K

### Vehicle Access off College Road Via South Lodge & O'Rahilly Building.

This zone is a pedestrian priority zone and is restricted with bollards. This is a heavy pedestrian zone. Permission must be granted before accessing this zone. The zone allows access to the southern and eastern elevation of the Boole Library and the western and southern elevation of the O'Rahilly Building. The zone also allows access to the courtyard on the south side of the O'Rahilly Building. The ramp from the entrance to the n/e corner of the Boole library falls gradually. The route in the courtyard also falls from south to north. The surface in this zone is a mixture of paving and will only be suitable for certain types of MEWPs

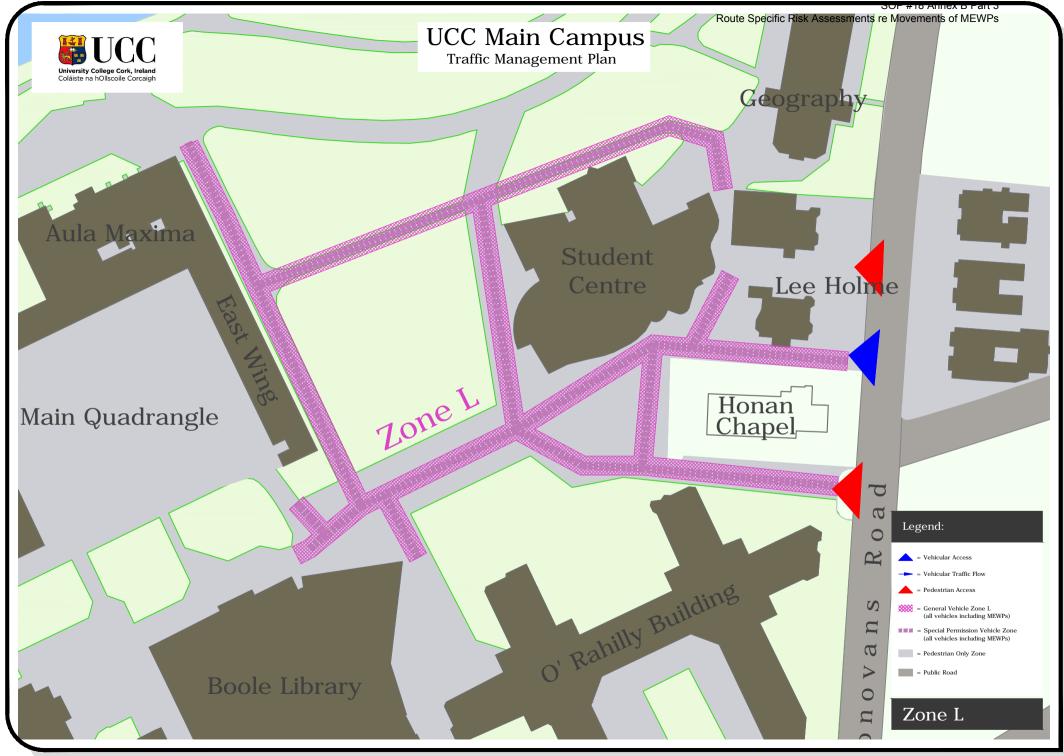


Looking North Completed By: ASM Approved By: Review Date: Aug 14

Looking North



Hazard/Risk		sk R Befo	ating ore	Existing Controls	Ris	k Rati	ng After	Possible Further Controls
Moving MEWP West to East & East to West Hazard: Vehicle Movement Slope on walkway Pedestrian Movement Uneven Surfaces Weather Conditions Who is at risk: UCC Building Staff UCC Staff & Students Members of the Public	L 1 2 3 2 2	S 4 3 4 3 3	RR Low Med High Med Med	Route to be examined before setting out on route – new hazards, environmental factors (weather etc.), unknown events, additional numbers on campus etc. to be explored. UCC Permit to Work Required. Vehicle Signalman to be present for all movement of MEWPs. Vehicle Operator and Signalman to be trained in accordance with UCC SOP 018. MEWP to travel at a slow pace when accessing the entrance. The size of the MEWP will have to be established before accessing through the arch at the south lodge. The entranceway to the ORB is greater in size and should be considered before the south lodge entrance. This area is a particularly busy pedestrian zone. Care required as the path falls from south to north along the western elevation of the Boole Library and from south to north in the courtyard of the O'Rahilly Building. MEWP to travel on the centre of the route to avoid sudden movement of pedestrians. Signalman to direct MEWP operator to stop for all pedestrian movement. Signalman to give the operator the go ahead to proceed when pedestrians have safely passed the stationary MEWP. No movement of MEWPs in poor light conditions, icy road conditions, heavy rain, snow or other weather conditions impairing the vision of the operator when moving. Route to be examined for uneven surfaces – such areas must be identified in advance of movement and an agreed solution between signalman and operator e.g. stop and avoid. No other MEWP movement allowed in the zone during the movement.		S 4 3 4 3 3	RR Low Med Low Low Low	Consider moving vehicle early in the morning or late in the evening (weather and day light hours permitting).
Likelihood (L) Categories Certain or Near Certain Very Likely Likely Somewhat Likely Unlikely	5 4 3 2	Multip Perm Major Minor	Injury, Los	Image: Single Fatality     Image: Single	has beei	n reduced		sk if applicable. Reasonably Practicable". Communicate





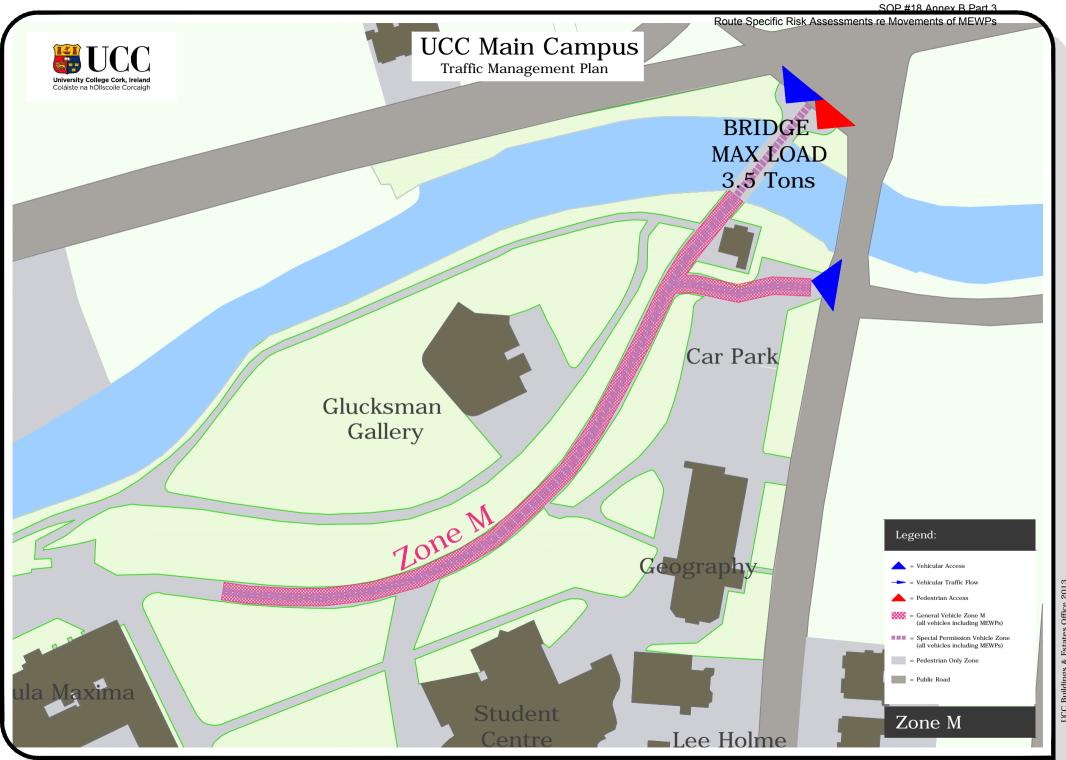
#### ZONE L

Pedestrian Zone – UCC Amphitheatre, Area Surrounding Aras Na Mac Léinn, Pedestrian routes in President's Garden, Access around Honan Chapel and Access way to O'Donovan's Road North of ORB This zone is a pedestrian priority zone and is restricted with bollards, access is possible via the access route off O'Donovan's Road and via entering Zone H & G. Permission must be granted before accessing this zone. This is a heavily pedestrianized zone. The width of the access ways around Aras Na Mac Léinn reduces to approximately 3m with pinch points at 1.8m. The chosen access point and the chosen MEWP must be considered when working in this zone. Movement of vehicles should, where possible be out of hours or where the risk assessment has demonstrated it is safe to do so.





Hazard/Risk		sk F Bef	Rating ore	Existing Controls	F		Rating fter	Possible Further Controls
Movement of MEWP for Maintenance Activities	L	S	RR	Route to be examined before setting out on route – new hazards, environmental factors (weather etc.), unknown events, additional numbers on campus etc. to be explored. UCC Permit to Work Required.	L	S	RR	
Hazard:				Vehicle Signalman to be present for all movement of MEWPs.				
Overhanging Branches	2	3	Med	Vehicle Operator and Signalman to be trained in accordance with UCC SOP 018.	1	3	Low	
Narrow Entrance Points &	2	3	Med	MEWP to travel at a slow pace when accessing the entrance, as this is a particularly busy pedestrian zone. Type and size of	1	3	Low	Consider moving vehicle early in
Narrow paths				MEWP to be assessed before entry as the access points to this zone are restricted. Signalman to alert operator of overhanging				the morning or late in the evening
Pedestrian Movement	3	4	High	branches. Travel around the Aras Na Mac Linn requires care as the route is narrow and the path falls away in varying directions.	2	4	Med	(weather and day light hours
Uneven Surfaces	2	3	Med	MEWP to travel on the centre of the route to avoid sudden movement of pedestrians	1	3	Low	permitting).
Surface Material	2	3	Med	Signalman to direct MEWP operator to stop for all pedestrian movement. Signalman to give the operator the go ahead to	1	3	Low	
Weather Conditions	2	3	Med	proceed when pedestrians have safely passed the stationary MEWP. No movement of MEWPs in poor light conditions, icy road conditions, heavy rain, snow or other weather conditions impairing the		3	Low	
Who is at risk: UCC Building Staff UCC Staff & Students Members of the Public				vision of the operator when moving. Surface material along route to be assessed for suitability before commencing on route. Load bearing capacity to be examined – surface material strength and basement beneath. Route to be examined for uneven surfaces – such areas must be identified in advance of movement and an agreed solution between signalman and operator e.g. stop and avoid. No other MEWP movement allowed in the zone during the movement.				
Likelihood (L) Categories	Sev	erity	(S) Catego	ries Risk Acceptability				
5 Certain or Near Certain 4 Very Likely	5		iple Fataliti	1 5 High High High Medium Low Olacceptable, must reduce	e. Co	mmun	icate Resi	dual Risk if applicable.
<ol> <li>Likely</li> <li>Somewhat Likely</li> </ol>	3	Majo	or Injury, Lo		as be	en rec	luced as fa	ar as "Reasonably Practicable". Communicate
1 Unlikely	1		nt Injury, Fir	st Aid	Residu	ual Ris	k.	



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Looking West

Looking East

Approved By:

Completed By: ASM

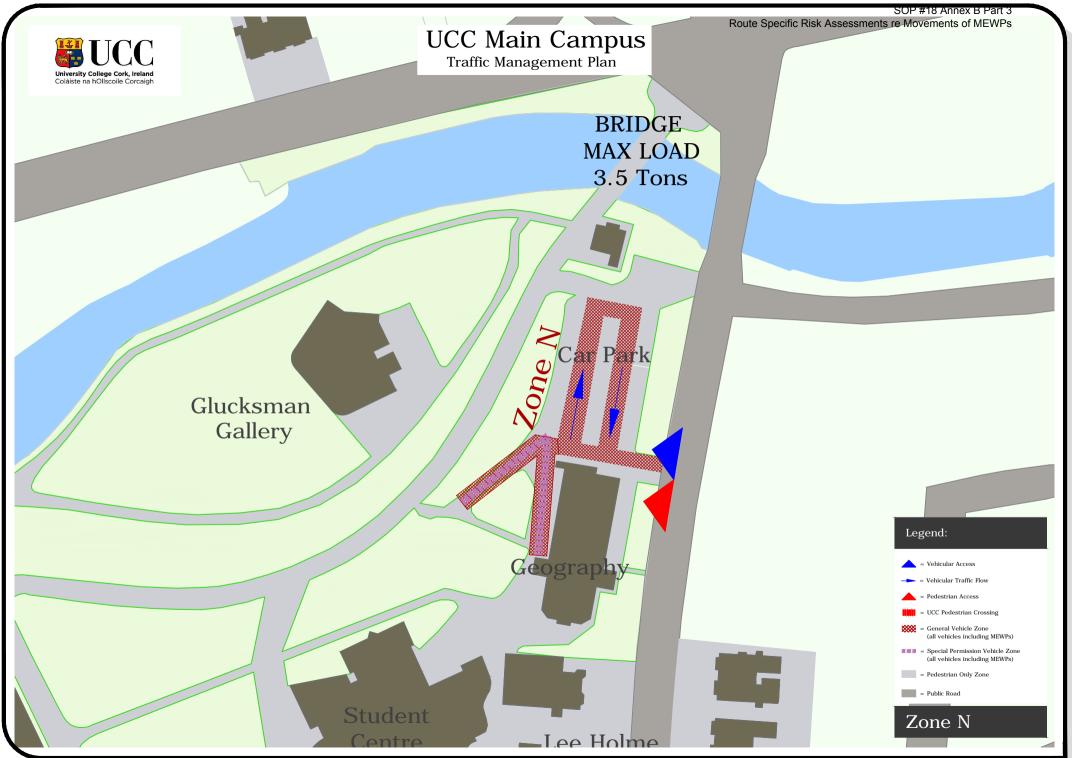
Review Date: Aug 14

### ZONE M

## Avenue From Entrance Gate At The Junction Of Western Road And O'Donovan's Road To North East Corner Of Quad

This zone allows for the movement of vehicles and pedestrians to the Glucksman Gallery. It is the main pedestrian route for students and staff walking to the City Centre. There are 4 pedestrian junctions off this route. The road falls significantly from west to east and has a gradual bend along the entire route. This is a special permission vehicle zone. Width of avenue Approx. 6m and is approx. 150m in length.

Hazard/Risk	Risk Rating Before			Existing Controls		Risk Rating After			Possible Further Controls	
Movement of MEWP for	L	S	RR	Route to be examined before setting out on route – new hazards, environmental factors (weather etc.), unknown events,	1	L	S	RR		
Maintenance Activities				additional numbers on campus etc. to be explored. UCC Permit to Work Required.						
Hazard:				Vehicle Signalman to be present for all movement of MEWPs.						
Over hanging branches	3	4	High	Vehicle Operator and Signalman to be trained in accordance with UCC SOP 018.		1	4	Low	Vehicle to enter route via	
Bend on road	2	4	Med	Vehicle to travel at a slow pace when descending the slope on the road. When moving from east to west (up the slope) operative	tor	1	3	Low	vehicle delivery route off	
Steep slope for final 70% of	3	3	Med	to adjust the basket to ensure a clear line of sight is achieved.		2	4	Med	O'Donovan's Road	
route				MEWP to travel on the centre of the road to avoid overhanging trees and to allow a safe passage to both sides at all times.						
4 no. pedestrian walkways	3	4	High	Signalman to direct MEWP operator to stop at all pedestrian junctions and where pedestrians are encountered. Signalman to		2	4	Med		
merging onto road.			Ŭ	give the operator the go ahead to proceed when pedestrians have safely passed the stationary MEWP.					Consider moving vehicle early	
Uneven surfaces	2	4	Med	No movement of MEWPs in poor light conditions, on icy road conditions, heavy rain, snow or other weather conditions impair	ng í	1	4	Low	in the morning or late in the	
Weather conditions	4	4	High	the vision of the operator when moving.		1	4	Low	evening (weather and day light	
Unknown stability of bridge	3	5	High	Route to be examined for uneven surfaces – such areas must be identified in advance of movement and an agreed solution	Med	hours permitting).				
Who is at risk:				between signalman and operator e.g. stop and avoid.						
UCC Building Staff				No movement of MEWPs on bridge – SWL 3.5t – Sign to be positioned on approach to bridge indicating prohibitions.						
UCC Staff & Students				No movement during peak pedestrian traffic.						
Members of the Public				No other vehicle movement allowed in the zone during the movement.						
Likelihood (L) Categories	S	everity	y (S) Categ	ories SEVERITY Risk Acceptability						
5 Certain or Near Certain	5	Mu	Itiple Fatali	es L 6 Ulas Ulas L 1 L 1 L 1 L 1 L 1 L 1 L 1 L 1 L 1 L	duaa Car		alaata	Decidual	Diak if applicable	
4 Very Likely	4	Pe	rmanent To	al Disability, Single Fatality		IIIIu	licale	Residual		
3 Likely	3	Ма	jor Injury, L		k has bee	en re	duced	as far as	"Reasonably Practicable". Communicate	
2 Somewhat Likely	2	Mir	nor Injury, F	Restricted Workday Case 😥 L 3 High High Medium Low Low Residual Risk						
1 Unlikely	1	Sli	ght Injury, F	estricted Workday Case irst Aid			sk.			
				D 1 Medium Low Low Low						



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### ZONE N

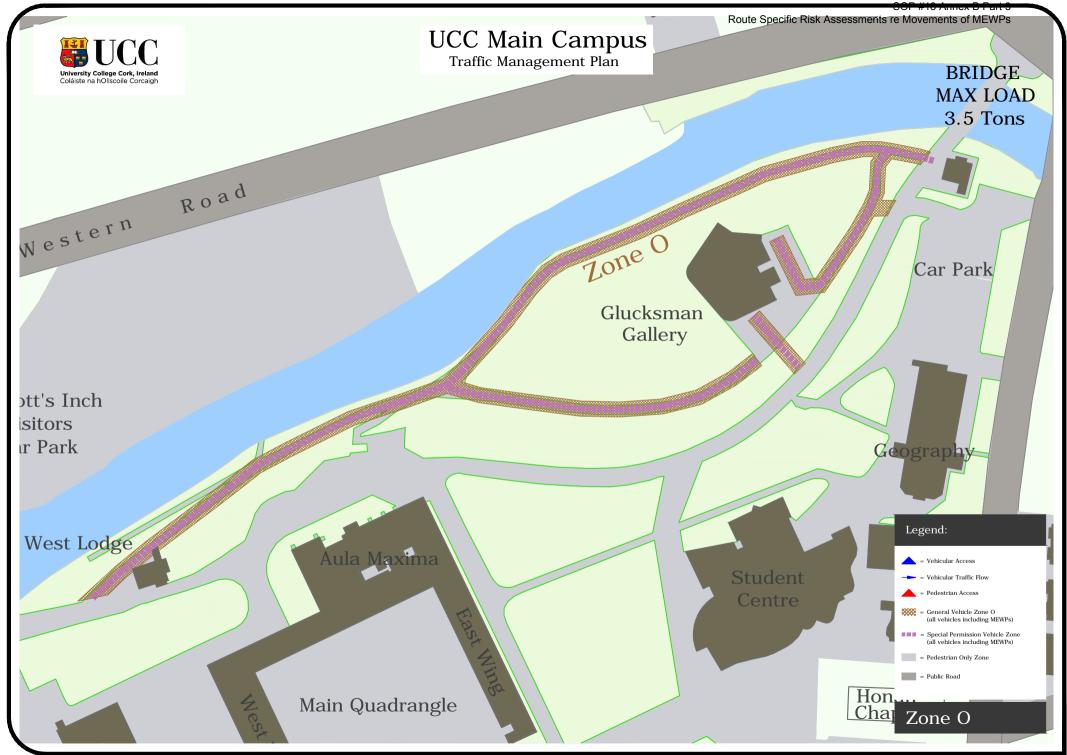
### Geography Building Car Park and Access West Side of Building

This zone allows for the movement of vehicles and pedestrians to the Geography Building. The car park is used by staff and students who access the main campus. This zone alos allows for access to the west and east elevations of the building. There is a gradual slope from south to north in this zone. Access to the zone is off O'Donovan's Road.





Hazard/Risk	Hazard/Risk Risk Rati Before		•			Existing Controls		R	isk F Af	Rating ter	Possible Further Controls
Movement of MEWP for	L	S	RR	Route to be examined before setting out on route – new hazards, environmental factors (weather etc.), unknown events, additional					S	RR	
Maintenance Activities						explored. UCC Permit to Work Required.					
Hazard:						t for all movement of MEWPs.					
Car Movement	2	4	Med	Vehicle Operator and Sign	nalma	n to be trained in accordance with UCC SOP 018.		2	4	Med	
Pedestrian Movement	3	4	High			when accessing the entrance and where path narrows on the w	vest side. Care required on slope that	1	4	Low	Consider moving vehicle early
Narrow Entrance / Speed	2	3	Med	falls from south to north on	n wes	side of Geography Building.		1	3	Low	in the morning or late in the
Ramp				MEWP to travel on the cer	ntre of	the route to avoid sudden movement of cars and pedestrians s	stepping of the footpath				evening (weather and day light
Narrow Path to West Side	2	3	Low			ator to stop for all vehicle movement and pedestrian movemen	nt. Signalman to give the operator the	1	3	Low	hours permitting).
Uneven surfaces	2	2	Med			estrians have safely passed the stationary MEWP.		1	2	Low	1 37
Weather conditions	2	3	Med	No movement of MEWPs i	in poo	r light conditions, on icy road conditions, heavy rain, snow or of	ther weather conditions impairing	1	3	Low	
				the vision of the operator when moving.							
Who is at risk:				Route to be examined for u	Route to be examined for uneven surfaces – such areas must be identified in advance of movement and an agreed solution						
UCC Building Staff				between signalman and operator e.g. stop and avoid.							
UCC Staff & Students					o movement during peak pedestrian traffic i.e. 08.30 – 09.30, 12.30 – 1400 & 16.40 – 18:00						
Members of the Public				No other MEWP movement allowed in the zone during the movement.							
				Access to the south side o	of Aras	s Na Laoi is very restricted and should only be done when the a	area is clear.				
Likelihood (L) Categories	Sev	verity	(S) Catego	pries		SEVERITY	Risk Acceptability				
5 Certain or Near Certain	5		Multiple Fatalities			L 5 High High High Medium Low	Unacceptable, must reduce. C	Comm	unicat	e Residual	Risk if applicable.
4 Very Likely 3 Likely	4			al Disability, Single Fatality ost Time Injury	Matrix	K 4 High High Medium Medium Low Medium	n (M) Tolerable, assuming risk has t	been r	educe	ed as far as	s "Reasonably Practicable". Communicate
2 Somewhat Likely	2			estricted Workday Case	(R) N	L J 3 High High Medium Low Low	Residual Risk				
1 Unlikely	1		nt Injury, Fi	,	Risk (	1     3     High     High     High     High     Low     Low       0     2     High     Medium     Medium     Low     Low	Tolerable. Communicate Resi	dual F	Risk.		
					D 1 Medium Low Low Low						



UCC Buildings & Estates Office 2013



### ZONE O

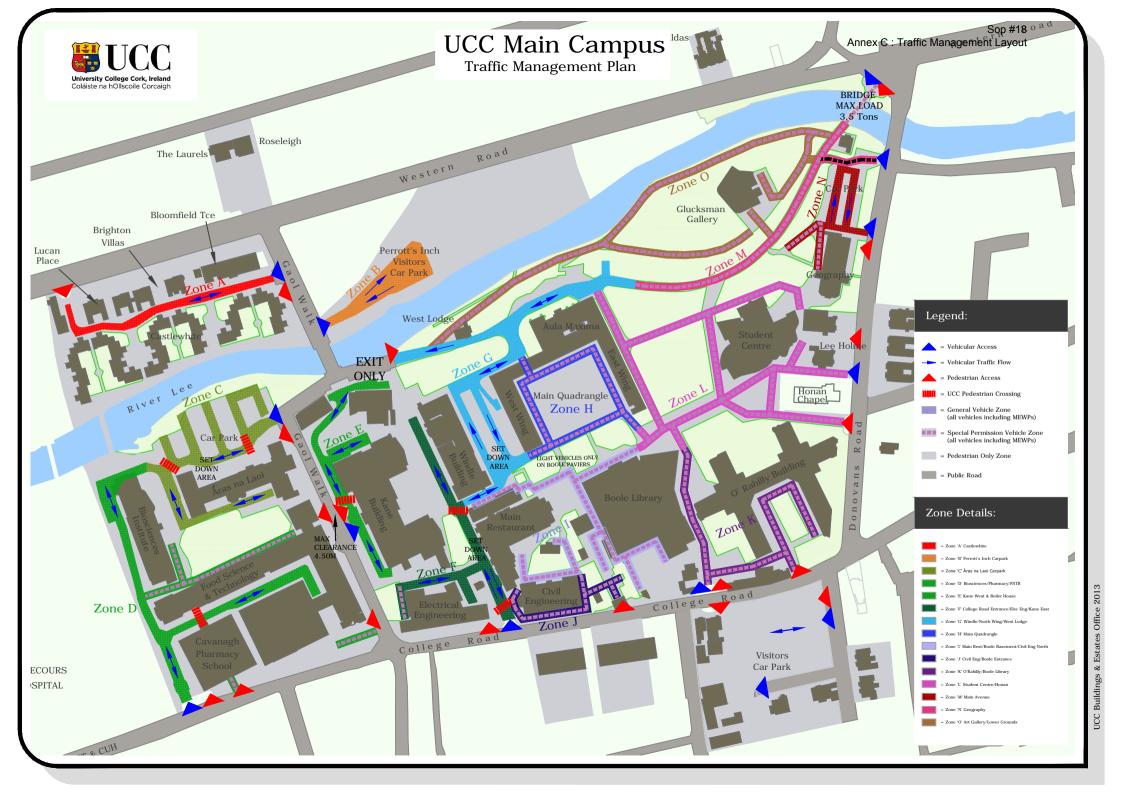
Avenue From West Lodge to Glucksman Gallery Entrance (North Steps).

This is a Special Permission Vehicle Zone and is often used by members of the public. The area is particularly busy during the summer months.

Width of avenue Approx. 2.5m



Hazard/Risk	R		Rating ore	Existing Controls	Risk Rating After			Possible Further Controls
Movement of MEWP for Maintenance Activities	L	S	RR	Route to be examined before setting out on route – new hazards, environmental factors (weather etc.), unknown events, collapse of embankment etc. to be explored. Permit To Work Required				
Hazard: Low over hanging branches Narrow Road Steep slope on ramp adjacent to west lodge Pedestrian Zone frequented by members of the public Uneven surfaces Weather conditions Water – Unprotected river bank Who is at risk: UCC Building Staff UCC Staff & Students Members of the Public	3 2 3 3 2 4 3	4 4 4	High Med High High High High	Vehicle Signalman to be present for all movement of MEWPs. Vehicle Operator and Signalman to be trained in accordance with UCC SOP 018. Only MEWPs with a width of 1.2 – 1.5m are suitable for this route. Proposed task and requirement for MEWP (incl. type) to be risk assessed before accessing this area – No access along river until further control measures are identified. When travelling parallel to the river the MEWP is to travel off the centre line and closer to the south verge of the path. At no time should the MEWP be within 1.2m of the edge of the path on the riverside. Signalman to direct MEWP operator to stop when encountering pedestrians. Signalman to give the operator the go ahead to proceed when pedestrians have safely passed the stationary MEWP. No movement of MEWPs in poor light conditions, on icy conditions, heavy rain, snow or other weather conditions impairing the vision of the operator when moving. Route to be examined for uneven surfaces – such areas must be identified in advance of movement and an agreed solution between signalman and operator e.g. stop and avoid. No movement during peak pedestrian traffic. No other MEWP movement allowed in the zone during the movement.	1 1 2 1 1 3	4 3 4 4 4 4 4 4	Low Low Med Low Low Low High	Consider moving vehicle early in the morning or late in the evening (weather and day light hours permitting). Consider protective railings along river bank.
Likelihood (L) Categories           5         Certain or Near Certain           4         Very Likely           3         Likely           2         Somewhat Likely           1         Unlikely	5 4 3 2	Multip Perma Major Minor	Injury, Los	Disability, Single Fatality Time Injury ricted Workday Case				



SOP 18

**Movement of Vehicles** 

### Annex D – List of Reference Material

- BS8460-2005 COP Safe Use of MEWPs
- HSA Workplace Transport Risk Assessment Information sheet
- HSA Workplace Transport Checklist
- HSE Information Sheet MISC614 Preventing falls from boom type mobile elevating work platforms
- HSE Information sheet CIS 58 The selection and management of mobile elevating work platforms (MEWPs}
- HSE Guide book- The safe use of vehicles on construction sites Ref hsg144
- International Powered Access Federation Ltd (IPAF), 2005. Technical Guidance Note H1 - Safety harnesses in mobile elevating work platforms
- ESB Code of Practice for avoiding danger from overhead electricity lines

SOP 18

Movement of Vehicles

Annex E – List of Buildings Office Vehicles

Toyota Dyna		03C 1608
• Ford 3910 Tractor		339 YZK
IZEKI Ride on Mower		SXG22
Green Machine Sweeper 525		05C 22289
• FORD TRANSIT 350 MWB CHASSIS C 6.3To	nne	09 C 5587
• Volkswagen VAN LWB 2800 102 BHP 5SP	1.813T	11 C 12053

# Annex F - Buildings Office staff with management and supervisory responsibility for movement of vehicles, including MEWPs.

The Director of Buildings and Estates has overall management and supervisory responsibility for the Buildings and Estates function, and as per Section 5.6 of the Buildings Office Safety Statement, certain of the Director's functions are delegated to the Buildings Officer and in turn to the Building Officer's staff.

The Buildings Office is lead by the Buildings Officer. It is divided into the following sections, and staff with management and supervisory responsibility for movement of vehicles, including MEWPs are as follows;

Section	Functions	Designated Personnel	Duties with regard to movement of vehicles incl. MEWPs				
Buildings Office	Maintaining and upgrading the University's physical infrastructure of buildings, engineering services, grounds and the voice telephony network in the Buildings Office areas of responsibility	Buildings Officer	<ul> <li>a. implementing the policies and procedures in the SOP, including:-</li> <li>b. selecting the safest MEWP for the job,</li> <li>c. issuing a Permit to Work where required.</li> <li>d. carrying out on-site checks to confirm correct implementation of the procedures in the SOP,</li> <li>e. authorising Signallers as appropriate,</li> <li>f. preventing employees from falling out of equipment when it is moving or stationary</li> </ul>				
Buildings Maintenance	Building Fabric Maintenance including Roofing, Flooring, External Facades, Interiors, Windows, Decoration etc. Construction Management of minor works and refurbishment projects in accordance with Health & Safety, Procurement and other relevant requirements.	Superintendent of Buildings Who may assign responsibility to Supervisor of Buildings	<ul> <li>a. implementing the policies and procedures in the SOP including:-</li> <li>b. selecting the safest MEWP for the job,</li> <li>c. Issuing a Permit to Work where required.</li> <li>d. carrying out on-site checks to confirm correct implementation of the procedures in the SOP,</li> <li>e. authorising Signallers as appropriate,</li> <li>f. preventing employees from falling out of equipment when it is moving or stationary</li> </ul>				

Section	Functions	Designated Personnel	Duties with regard to movement of vehicles incl. MEWPs
Engineering Services Maintenance	Electrical and Mechanical services maintenance, Electricity, Gas, Water, Steam, Heating. Air- Conditioning etc. Construction Management of maintenance projects in	Superintendent of Engineering, Who may assign responsibility to Supervisor of	<ul> <li>a. implementing the policies and procedures in the SOP including:-</li> <li>b. selecting the safest MEWP for the job,</li> <li>c. Issuing a Permit to Work where required.</li> <li>d. carrying out on-site checks to confirm correct implementation of</li> </ul>
	accordance with Health & Safety, Procurement and other relevant requirements.	Engineering OR to Facilities Co- Ordinator	the procedures in the SOP, e. authorising Signallers as appropriate, f. preventing employees from falling out of equipment when it is moving or stationary
Grounds Maintenance	Grass cutting, estates management, waste management, external bins, sweeping of paving etc.	Estates Administrator	<ul> <li>a. implementing the policies and procedures in the SOP including:-</li> <li>b. selecting the safest MEWP for the job,</li> <li>c. Issuing a Permit to Work where required.</li> <li>d. carrying out on-site checks to confirm correct implementation of the procedures in the SOP,</li> <li>e. authorising Signallers as appropriate,</li> <li>f. preventing employees from falling out of equipment when it is moving or stationary</li> </ul>
External Utility Service Management and Telecommunications (Voice telephony network maintenance)	Procuring, managing Utility service providers, increasing load etc. Voice telephony network management including installation of new phones and fax machines and enhancement of services.	Utilities/Telecom Administrator	<ul> <li>a. implementing the policies and procedures in the SOP including:-</li> <li>b. selecting the safest MEWP for the job,</li> <li>c. Issuing a Permit to Work where required.</li> <li>d. carrying out on-site checks to confirm correct implementation of</li> </ul>

Section	Functions	Designated Personnel	Duties with regard to movement of vehicles incl. MEWPs					
	Provision of a minor works		<ul> <li>the procedures in the SOP,</li> <li>e. authorising Signallers as appropriate,</li> <li>f. preventing employees from falling out of equipment when it is moving or stationary</li> <li>a. implementing the policies and procedures in the SOP including:-</li> <li>b. selecting the safest MEWP for</li> </ul>					
Provision of Architectural Services for minor works and refurbishment	and refurbishment service to University Academic departments. Planning, specifying, pricing, tendering and managing works in accordance with Health & Safety, procurement and other relevant requirements at the request of departments.	Maintenance Co-Ordinator,	<ul> <li>the job,</li> <li>c. Issuing a Permit to Work where required.</li> <li>d. carrying out on-site checks to confirm correct implementation of the procedures in the SOP,</li> <li>e. authorising Signallers as appropriate,</li> <li>f. preventing employees from falling out of equipment when it is moving or stationary</li> </ul>					
Provision of Mech and Elec Design Services for minor works and refurbishment	Provision of a minor works and refurbishment service to University Academic departments. Planning, specifying, pricing, tendering and managing works in accordance with Health & Safety, procurement and other relevant requirements at the request of departments.	Services Co- Ordinator	<ul> <li>a. implementing the policies and procedures in the SOP including:-</li> <li>b. selecting the safest MEWP for the job,</li> <li>c. Issuing a Permit to Work where required.</li> <li>d. carrying out on-site checks to confirm correct implementation of the procedures in the SOP,</li> <li>e. authorising Signallers as appropriate,</li> <li>f. preventing employees from falling out of equipment when it is moving or stationary</li> </ul>					

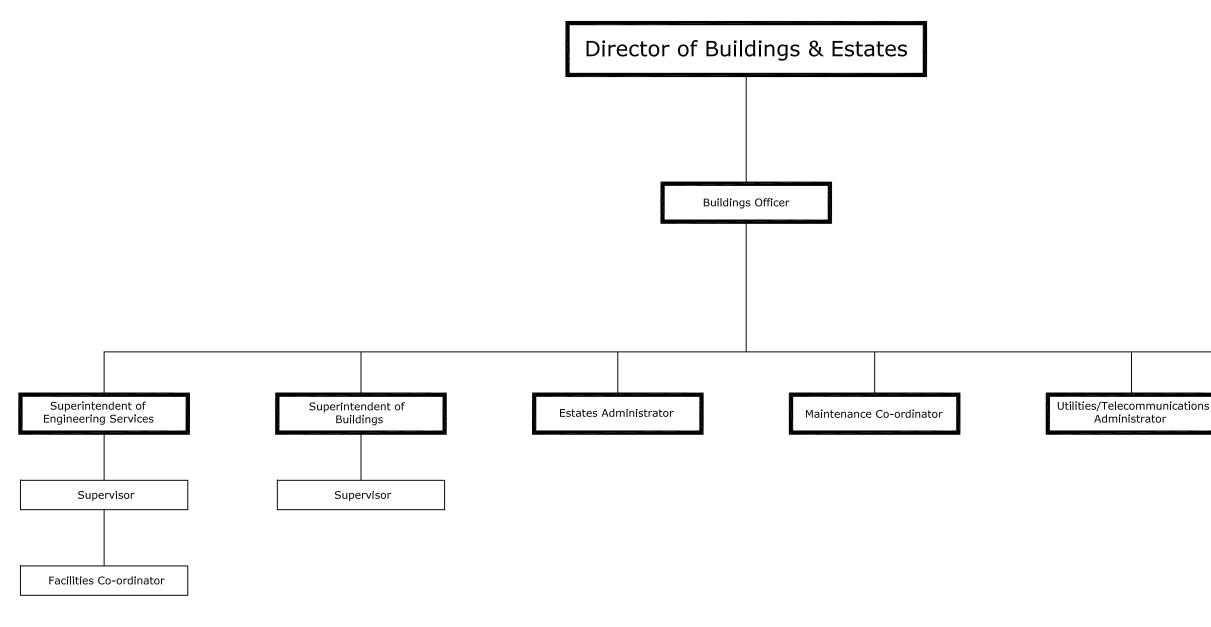
An organisation chart of the Buildings Office staff is attached.

Any of the tasks of the Buildings Office may involve movement of Vehicles, including MEWPs, as part of the task. The Risk Assessment and Controls for MEWP activities will be carried out by the designated person with management and supervisory responsibility for the task and will include the issuing of a Permit to Work for the task. These persons are identified in Annex F.

The Buildings Officer has overall management and supervisory responsibility for the Movement of Vehicles including MEWPs in the Building Office. In the absence of the designated personnel in any particular section of the Buildings Office above, the Buildings Officer will take on management and supervisory responsibility for movement of vehicles including MEWPs.

# UCC Buildings Office Organisational Chart

In relation to management & supervisory responsibility for movement of vehicles (incl. MEWPs).



Services Co-Ordinator