Instructions for the Use of the Excel Spreadsheet

There are Four tabs at the bottom of this worksheet

Instructions tab is the one you are reading

Title Tab
The Title Tab is the front cover pages of the Risk Assessment
Simply insert your Company Name, Date and Assessor name where indicated
Print the front cover once you have completed your Audit
Do not enter any data other than Company name, Date and Assessor - the data will copy from the risk assessment details

Audit Details Tab
Read each section and answer the questions
Enter Data ONLY in the white coloured boxes for each question
Enter a score for each question as indicated
If the question is not aplicable score it as max potential score
Enter comments in the comments box

H&S Plan Tab
Fill in the relevant boxes in answer to the questions posed

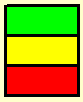
Method Statement Tab
A generic method statement is included
The items highlighted in blue are where you can insert details of Materials, Equipment and Method
This sheet is completely unprotected so that you can edit it for your own particular project

Once complete simply print off both the H&S Plan, Title, Risk Assessment & Method statement pages
Note you may need to change your printer settings
You have now completed your Health & Safety Plan & Risk Assessment

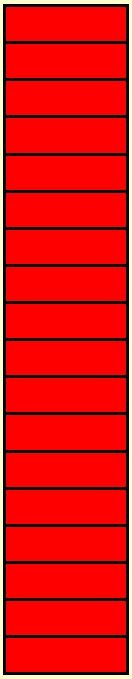
Health & Safety
General Ground Works
Risk Assessment

Date	
Company Name	
Assessor	

Performance Acceptable - no action required
Performance marginal - ongoing action required
Performance not acceptable - urgent action required



General Hazards
Road Safety
Equipment
Maintenance
Training
Ladders
Tools and Machinery
Hazardous Substances
Noise
Hand Arm Vibration
Electricity and Other Services
Protecting the Public
Fire
Ventilation
Manual Handling
Hygiene
Accidents and First Aid
Excavation Work



Question Make a judgement about your level of compliance against each question. Score 1 for marginal, Score 2 for mostly, score 3 for fully compliant	Potential Score	Score	% Performance	Comments
General Hazards				
Do you ensure that there are no trip hazards to general public presented by trailing hoses / cables / equipment by cordening off and displaying signs	3		0	
Do you ensure that there are no slip hazard presented from wet pathways to general public by cordon and signage	3		0	
Do you ensure that the operator has suitable footwear to prevent a slip hazard while concentrating on work.	3		0	
Do you ensure that the operator has suitable footwear to prevent a slip hazard presented from wet pathways	3		0	
Do you ensure there is no electrocution hazard from working near to overhead power source.	3		0	
Do you ensure that no injury to others can occur from falling objects or fabric of the building that may be dislodged.	3		0	
Do you provide hard hats for operators to prevent injury from falling objects	3		0	
Do you give consideration to the day and time of working to minimise the numbers of people who may be present.	3		0	
Do you provide hi-viz clothing.	3		0	
	27	**0**	**0**	

Question Make a judgement about your level of compliance against each question. Score 1 for marginal, Score 2 for mostly, score 3 for fully compliant	Potential Score	Score	% Performance	Comments
Road Safety				
Are journeys to and from the workplace are subject to documented risk assessment.	3		0	
Are loads secure to ensure that it does not shift under normal driving conditions	3		0	
Is the load secure to ensure that it does not shift under emergency braking	3		0	
Is the load secure to ensure that it does not shift during a collision	3		0	
Do you provide suitable vehicles	3		0	
Do you provide suitable equipment	3		0	
Do you provide a means of securing the load	3		0	
Do you ensure the vehicle is not overloaded	3		0	
Do you give consideration to The payload capacity of the vehicle and the potential of overloading.	3		0	
Do you give consideration to Driving conditions and braking distances.	3		0	
	30	**0**	**0**	

Question Make a judgement about your level of compliance against each question. Score 1 for marginal, Score 2 for mostly, score 3 for fully compliant	Potential Score	Score	% Performance	Comments
Equipment				
When choosing equipment do you consider the duration and extent of work.	3		0	
When choosing equipment do you consider the height at which work has to be done.	3		0	
When choosing equipment do you consider the site conditions.	3		0	
When choosing equipment do you consider the means of delivery required.	3		0	
	12	**0**	**0**	

Question Make a judgement about your level of compliance against each question. Score 1 for marginal, Score 2 for mostly, score 3 for fully compliant	Potential Score	Score	% Performance	Comments
Maintenance				
Do you carry out a pre-use visual inspection – Obvious defects in equipment e.g. loose clamps, fittings, etc.	3		0	
Do you have regular documented management inspections that takes into account the degree of use of equipment. In practise three monthly inspections are recommended.	3		0	
Do you have procedures should be in place for handling any defects found that would include repair or replacement.	3		0	
	9	**0**	**0**	

Question Make a judgement about your level of compliance against each question. Score 1 for marginal, Score 2 for mostly, score 3 for fully compliant	Potential Score	Score	% Performance	Comments
Training				
Do you instruct operators in the daily pre use check	3		0	
Do you instruct operators in Manual handling	3		0	
Do you instruct operators in ground conditions	3		0	
Do you instruct operators in cordoning off	3		0	
Do you instruct operators in recognising common Hazards	3		0	
Do you instruct operators in the the need for the operator to be vigilant with regard to the surroundings.	3		0	
Do you inform operators not to use defective equipment.	3		0	
Do you inform operators to carry our pre-use checks of equipment.	3		0	
Do you inform operators to always cordon off and/or display suitable warning signs when working in public areas.	3		0	
	27	**0**	**0**	

Question Make a judgement about your level of compliance against each question. Score 1 for marginal, Score 2 for mostly, score 3 for fully compliant	Potential Score	Score	% Performance	Comments
Ladders				
Does the ladder meet the requirments of BS EN 131	3		0	
Do you limit ladder length to 9m	3		0	
Do you ensure a pre use check is carried out daily	3		0	
Do you ensure defective ladders are not used	3		0	
Do you tie off the ladder wherever possible	3		0	
Do you ensure that you do not over-reach	3		0	
Does the ladder have anti-slip feet	3		0	
Do you ensure the ladder is at the correct angle 1:4	3		0	
Do you ensure rungs and stiles are clean and not slippery	3		0	
Do you ensure that ladders are not left unattended	3		0	
Do you use a tool belt	3		0	
Do you ensure that suitable footwear is used	3		0	
Do you ensure both stiles are in contact with the ground and upper resting point of the ladder	3		0	
Do you ensure that the surface the top of the ladder is resting on is strong enough to withstand the load	3		0	
	42	**0**	**0**	
Tools and Machinery				
Are the right tools or machinery being used for the job?	3		0	
Are tools and machinery maintained in good repair and are all safety devices operating correctly?	3		0	
Are all operators trained and competent?	3		0	
	9	**0**	**0**	

Question Make a judgement about your level of compliance against each question. Score 1 for marginal, Score 2 for mostly, score 3 for fully compliant	Potential Score	Score	% Performance	Comments
Hazardous Substances				
Have you identified all harmful substances and materials, such as asbestos, lead, solvents, paints, cement and dust ?	3		0	
Do you ensure the substances that are used are safe for the operator	3		0	
Do you ensure that the substances that you use do not present a risk to the environment	3		0	
Do you ensure the thinning chemicals / solvents that are used are safe for the operator	3		0	
Do you ensure that the thinning chemicals / solvents that you use do not present a risk to the environment	3		0	
Do you ensure the cleaning chemicals that are used are safe for the operator	3		0	
Do you ensure that the cleaning chemicals that you use do not present a risk to the environment	3		0	
Have you controlled exposure to hazardous substances, by doing the work in a different way, to remove the risk entirely	3		0	
Have you controlled exposure to hazardous substances, by using a less hazardous material	3		0	
Have workers had information and training so they know what the risks are from the hazardous substances used and produced on site, and what they need to do to avoid the risks?	3		0	
	30	**0**	**0**	

Question Make a judgement about your level of compliance against each question. Score 1 for marginal, Score 2 for mostly, score 3 for fully compliant	Potential Score	Score	% Performance	Comments
Noise				
Have workers had information and training so they know what the risks are from noise on site, and what they need to do to avoid those risks?	3		0	
Have you identified and assessed workers' exposure to noise?	3		0	
Can the noise be reduced by using different working methods or selecting quieter plant eg by fitting breakers and other plant or machinery with silencers?	3		0	
Are people not involved in the work kept away from the source of the noise?	3		0	
Is suitable hearing protection provided and worn in noisy areas?	3		0	
Have you arranged health surveillance for people exposed to high levels of noise?	3		0	
	18	**0**	**0**	

Question Make a judgement about your level of compliance against each question. Score 1 for marginal, Score 2 for mostly, score 3 for fully compliant	Potential Score	Score	% Performance	Comments
Hand Arm Vibration				
Have workers had information and training so they know what the risks are from hand-arm vibration (HAV) on site, and what they need to do to avoid those risks?	3		0	
Have you identified and assessed risks to workers from prolonged use of spraying equipment ?	3		0	
Has exposure to HAV been reduced as much as possible by selecting suitable work methods and plant?	3		0	
Are reduced-vibration tools used whenever possible?	3		0	
Have vibrating tools been properly maintained?	3		0	
Have you arranged health surveillance for people exposed to high levels of hand-arm vibration, especially when exposed for long periods?	3		0	
	18	**0**	**0**	

Question Make a judgement about your level of compliance against each question. Score 1 for marginal, Score 2 for mostly, score 3 for fully compliant	Potential Score	Score	% Performance	Comments
Electricity and Other Services				
Have all necessary services been provided on site before work begins and have you also identified existing services present on site (eg electric cables or gas mains) and taken effective steps, if necessary, to prevent danger from them?	3		0	
Are you using low voltage for tools and equipment eg battery-operated tools or low voltage systems?	3		0	
Where mains voltage has to be used, are trip devices, eg residual current devices (RCDs), provided for all equipment?	3		0	
Are RCDs checked daily by users and properly maintained?	3		0	
Are cables and leads protected from damage?	3		0	
Are all connections to the system properly made and are suitable plugs used?	3		0	
Are tools and equipment checked by users, visually examined on site and regularly inspected and tested by a competent person?	3		0	
Where there are overhead lines, has the electricity supply been turned off, or have other precautions been taken, such as providing 'goal posts' or taped markers?	3		0	
Have hidden electricity cables and other services been located (eg with a locator and plans) and marked, and have you taken precautions for safe working?	3		0	
	27	**0**	**0**	

Question Make a judgement about your level of compliance against each question. Score 1 for marginal, Score 2 for mostly, score 3 for fully compliant	Potential Score	Score	% Performance	Comments
Protecting the Public				
Is the work fenced off from the public?	3		0	
Are the public protected from falling material?	3		0	
When work has stopped for the day is the boundary secure and undamaged?	3		0	
When work has stopped for the day are all ladders removed or their rungs boarded so that they cannot be used?	3		0	
When work has stopped for the day is all plant immobilised to prevent unauthorised use?	3		0	
When work has stopped for the day are chemicals or dangerous substances locked away in secure storage places?	3		0	
	18	**0**	**0**	
Fire				
Do you ensure no flammable substances are on or near sources of heat or direct sunlight?	3	0	0	
Do you ensure flammable substances are correctly stored in flameproof cupboards (solvents, paints, etc.)?	3		0	
Do you ensure there is no potential for a flammable substance to be spilled onto sources of heat or electrical equipment?	3		0	
Do you ensure flammable waste materials are not left in waste bins overnight?	3		0	
Do you ensure ovens are not covered by towels or clothing?	3		0	
Do you ensure oily/ paint contaminated paper towels or rags are disposed of properly?	3		0	
Are fire extinguishing equipment and methods adequate (e.g. extra fire blankets or extinguishers)?	3		0	
	21	**0**	**0**	

Question Make a judgement about your level of compliance against each question. Score 1 for marginal, Score 2 for mostly, score 3 for fully compliant	Potential Score	Score	% Performance	Comments
Ventilation				
Is there sufficient ventilation, natural and forced?	3		0	
Do you ensure minimum fumes get into the area being worked ?	3		0	
Do you provide adequate respiratory personal protection if needed ?	3		0	
	9	**0**	**0**	
Manual Handling				
Do you ensure working positions don't pose a hazard that could cause muscular strains, such as poor lifting positions?	3	0	0	
Do you ensure working positions don't pose a hazard that could cause muscular strains, such as heavy or large and awkward objects?	3	0	0	
Do you ensure working positions don't pose a hazard that could cause muscular strains, such as bad posture ?	3		0	
Do you ensure working positions don't pose a hazard that could cause muscular strains, such as repetitive twisting or turning?	3		0	
	12	**0**	**0**	

Question Make a judgement about your level of compliance against each question. Score 1 for marginal, Score 2 for mostly, score 3 for fully compliant	Potential Score	Score	% Performance	Comments
Hygiene				
Is toilet and hand washing facilities adequate?	3		0	
Do you issue rubber gloves to reduce contamination?	3		0	
Is the provision of barrier creams and hand cleaners adequate?	3		0	
	9	**0**	**0**	
Accidents and First Aid				
Are there adequate accident treatment provision?	3		0	
Do you ensure everything in the first aid boxes is within its use by date?	3		0	
Are there adequate first aid box provision?	3		0	
	9	**0**	**0**	

Health & Safety Plan

Part 1 - Project Details		
Project co-ordinator		
Site		
Dept		
Work Site Address		
Phone number		
Description of works:		
Programme of works:	**Start date:**	

Part 2 - Existing Environment	
Are any of the following applicable to the works - if yes enter brief detail in space provided or N/A	
2.1	**What happens / what activity** occurs at the worksite? E.g. manufacturing, office, building site, etc.
details:	
2.2	**Underground hazards** - are there any utility services in vicinity such as electricity, gas, water, BT, CTV, etc.
details:	
2.3	**Overhead hazards** - is there any working overhead, overhead moving plant, overhead lines, limited headroom, etc.
details:	
2.4	**Access/egress restrictions** - are there any procedural (security) or physical access problems during the works?
details:	
2.5	**Existing structure** - will work be affected by fragile roof, asbestos, demolition work, stability of structures, etc?
details:	
2.6	**Existing ground conditions** - will work be affected by land contamination, water table, ground stability, etc.
details:	
2.7	**Environmental Management** - are there any noise sensitive areas, is spillage or waste management needed, etc.
details:	

Part 3 - Site wide elements	
Are any of the following applicable to the works - if yes enter brief detail in space provided or N/A	
3.1	Is any **special clothing** or **specialist PPE** needed to carry out the works?
Details:	Waterproof suit, Full face protection, Rubber Gloves and Boots
3.2	Are any **special skills training** or **site safety induction training** needed prior to working?
Details:	
3.3	Are there any **special traffic** or **pedestrian routes** or, any **'no-go'** or **restricted** areas at site?
Details:	
3.4	Are there any site specific arrangements for **unloading** and **storage** of materials and equipment?
Details:	
3.5	Arrangements for **welfare facilities** at the work site e.g. toilet, washing, shelter, eat/drink, etc?
Details:	
3.6	Are there any **special site rules**: e.g. permit to work system, site reporting procedures, etc.?
Details	
3.7	**Work off the ground**: detail working height & safe work method - scaffold, MEWP, harness, steps
Details:	
3.8	Who will be **supplying the plant**, equipment, access equipment & scaffold as required to work?
Details:	
3.9	Arrangements for **Emergencies** e.g. A&E hospital, first aiders, fire, major incident management, etc.
Details:	

Part 4 - Project liaison & communication.	
If yes to any point - indicate brief details in space below or N/A	
4.1	**Project review meeting** - where are they held? how often are they held?, who should attend?, etc.
Details	
4.2	Arrangements to **review and vet method statements** and **risk assessments** for work tasks
Details:	
4.3	Arrangements to allow work of other specialist contractors to be safely integrated on the project
Details:	

Method Statement

Introduction

0

Any working operation, which an employee or contractor carry out will meet all the legal requirements.

Work area may on agreement be fenced, roped or taped and have no admittance notices displayed.

Adequate supervision of the workforce will be provided at all times.

All staff will be suitably and sufficiently trained for the task they are to perform. Whilst the depth of knowledge is dependent on the task the worker is to undertake, the areas of knowledge are the same:
1. Adequate knowledge of chemicals used to appreciate the dangers at the level that the worker will be
2. Adequate knowledge of the equipment to be used
3. Adequate understanding of the procedures and methods which they will be using, including where necessary, practical experience
4. An appreciation of the hazards that may arise in the normal function of their task and what precautions are put in place to control the risk - including appreciating their limitations and when they should report a problem
5. Sufficient information to enable them to recognise if the equipment or system they are, or are about to, work with or on is safe enough to permit the work to continue

A permit to work must be obtained from a suitable authority for:

Work near electrical installations
Working at heights
Confined space
Working on the roof
And any other work deemed hazardous.

Materials Used

Enter a list of materials being used in the project

A Coshh Data sheet for all chemicals used is attached.

Equipment

Enter a list of Equipment to be used on the project

Method

Enter a brief description of the actual method to be used and the order it will be done

Access to Site

An inspection of site will be made with the project Manager, prior to commencement of work. At this time any problems with site conditions will be identified and discussed.

Security

Prior to starting on site all employees will obtain permission to access the site.

A list of staff working on site will be notified each day.

Normal working hours would be 08:00 to 18:00 hours

Delivery

Delivery of product, material or services will be direct to site in vehicles appropriate to the access available.

Deliveries will be as per time slot allocated.

Unloading

All personnel will ensure they adhere to the procedures set out in the Health & safety plan for Manual Handling and be wearing the required PPE before commencing work.

The product or materials will be moved using skates, trolleys or other appropriate devices. It may be necessary to carry if no other means are available.

Tools and Equipment

All equipment or tools brought on to premises will be of sound construction and will meet the statutory requirements applicable to these tools or equipment.

An employee can not use any other tools but their own including machinery or equipment, unless authorised

Employees are prohibited from using contractor tools, machinery or equipment.

All lifting equipment will carry a current certification, which will be available for inspection

All portable electrical equipment will comply with Company standards and conform to the 1989 Electricity at

All ladders used will be of type 1 or 2 and not domestic ladders. Ladders will be in a safe condition and are used in accordance with company standards.

Protective Equipment

The Company will provide their employees with safety equipment and protective clothing:
Waterproof Suit
Full face Protection
Rubber gloves
Rubber boots

Employees will wear hearing protection in noise hazard areas and will be instructed on how to wear the

Employees will wear the safety glasses when instructed to do so.

The Company will provide safety footwear for their employees before entering the designated areas

Fire

All Company staff have been advised of the fire evacuation procedure, and of the assembly points they are report to in the event of a fire.

"No Smoking" policy will be in force at all times by Company staff.

Staff will be made aware of the location of fire extinguishers.

COSHH

The Company will not introduce any hazardous substance without the prior approval of the Health and Safety Department onto premises.
Floor and Wall Tile Adhesive

Noise

The Company will control noise levels of any activities carried out on site and must not expose anyone, to noise levels above 85dB(A).

Accidents

All accidents will be reported to managing site authority. An accident means any injury to personnel, damage to property, or event, which may have led to such an occurrence.

The company may wish to investigate all accidents that occur and expect the co-operation of the managing site authority and his employees in ascertaining the true cause in an effort to prevent a similar accident.

Accidents and dangerous occurrences must be reported in accordance with Report of Injury, Disease or Dangerous Occurrences Regulations 1995.

First Aid

In the event of an accident First Aid is available.

Work Instructions

The following method statement has been developed to provide a safe system of work and must be adhered to at all times, any significant deviation from this system must first be authorised by your manager or safety representative. **Please read the entire sheet before beginning the procedure, if you have any questions please contact your**

The main hazards to your safety and health are;

a) Falls from height
b) Contact with electricity.
c) Injury from incorrect Manual handling.
d) Skin and eye irritation from dust
e) Respiratory tract irritation from inhaling dust
f) Injury from slips trips and falls.
g) Lone working.
h) Injury to other staff or members of the public.

Preventative Measures you must take;

a) You must be “competent” to carry out the task.
b) You must use residual current devices with electrical equipment.
c) Warning signs must be placed around the work area.
d) You must not lift beyond your capabilities, get help if necessary.
e) You must follow all directions given by the site foreman or his agents
f) You must have suitable respiratory protection when working in dusty environments

Personal Protective Equipment you must wear;

a) Dust masks to BSEN 149 Class FFP1
b) Eye protection to BSEN 166
c) Safety boots

Environmental Protection Measures you must take;

a) You must dispose of waste to the designated area provided for waste.

Equipment Required;

a) Warning signs.
b) Residual Circuit Breaker.
c) Hand Tools

Task Description

This method statement describes the work process for General Ground Works

Staff and Training

All staff are qualified, experienced and receive ongoing training. A site manager will be appointed to each contract who will be responsible for quality and safety. Apprentices and young workers will be supervised and are not allowed to carry out tasks or operate

Preparation & Induction

A risk assessment will be carried out for all tasks which will be discussed with members of staff and the sub contractors, any queries or concerns will be raised with the contract manager who will ensure it is dealt with. Staff and sub contractors will be inducted onto site by the principle contractor and will follow all site rules and safety procedures.

Welfare
The principle contractor is responsible for providing adequate washing, toilet, drying and refreshment facilities for staff and sub-contractors, staff and contractors are responsible for ensuring that such welfare facilities are maintained in a clean and wholesome manner.

Material Handling
All materials required for site will be unloaded to a designated unloading and storage area which will be away from the work area as far as is practicable. This area will be kept tidy to minimise trip hazards. Materials as and when required will be collected from the storage area to the work area. All staff will take care when handling materials.

Manual Handling
All staff and contractors have been instructed on the potential dangers of manual handling, and have received manual handling training. Staff and contractors will not lift items of tools or equipment beyond their capabilities. Heavy or awkward items will be broken down into smaller pieces or dual lifted where this is not possible. It is the responsibility of the site foreman to identify and control potentially dangerous manual handling situations as

Working from Step Ladders
The majority of tasks carried out at height involve working below 2 metres from step ladders; all staff have been made aware of the dangers of working from step ladders and have been instructed on the safe use of ladders. Staff are required to read and understand HSE leaflet INDG402 The Safe use of Ladders & Stepladders. Only competent members of staff will be allowed to work from step ladders and it is the

Contractor/Visitor Safety
The Company will liaise with other contractor's staff on a day to day basis and ensure they are aware of the risks present during the works. Staff and contractors will not leave any area of work in a dangerous condition or with risks to themselves, other contractors, tenants, or visitors, all tools and equipment will be cleared to secure storage at the completion of each shift. Scaffold, ladders and any other access to height will be made

Tools and Electrical Equipment
All items of tools and equipment will be visually inspected on a regular basis defective or damaged equipment will be removed from service. Electrical tools will be 110V where possible, sub contractors will not be allowed to bring on to site any damaged or defective tools, the site foreman is responsible for ensuring all tools and equipment allowed on the

Excavation Work

Before digging any trenches, pits, tunnels, or other excavations, decide what temporary support will be required and plan the precautions that are going to be taken against:

- collapse of the sides
- materials falling into people working in the excavation
- people and vehicles falling into the excavation
- undermining nearby structures etc
- underground services
- water inflow; and
- premature removal of support.

Make sure the equipment and precautions needed such as trench sheets, props, baulks etc are available on site before work starts. If information such as results of soil tests or trial holes is available, it may provide useful data on conditions likely to be found on site

Collapse of the sides or roof

Prevent the sides from collapsing by battering them to a safe angle or supporting them with sheeting or proprietary support systems. Take similar precautions to prevent the face Install support without delay as the excavation progresses. Never work ahead of the support. The work should be directed by a competent supervisor.

A competent person who fully understands the dangers and necessary precautions should inspect the excavation at the start of each shift. Excavations should also be inspected after any event that may have affected their strength or stability, or after a fall of rock or earth. A record of the inspections will be required. Put right immediately any faults that are found.

Materials falling into excavations

Do not store excavated spoil and other materials or park plant and vehicles close to the sides of excavations. The extra loadings from spoil, vehicles, etc can make the sides of excavations more likely to collapse. Loose materials may fall from spoil heaps, etc into the excavation. A scaffold board used as a toe board and fixed along the outside of the trench sheets will provide extra protection against loose materials falling. Hard hats will protect those working in the excavation from small pieces of materials falling either from above, or

People and vehicles falling into excavations

Prevent people from falling by guarding excavations. Edges of excavations more than 2 m deep should be protected with substantial barriers where people are liable to fall into them. All excavations in public places should be suitably fenced off to prevent members of the

Prevent vehicles from falling into excavations by keeping them out of the area. Vehicles passing close to the edges of excavations may also overload the sides, leading to collapse. Where necessary, use baulks or barriers to keep vehicles away from excavated edges. Baulks and barriers are best painted or marked to make sure they can be seen by

Where vehicles have to tip materials into excavations, prevent them from over-running into the excavation by using stop-blocks. The sides of the excavation may need extra support.

Undermining nearby structures

Make sure excavations do not undermine the footings of scaffolds, buried services or the foundations of nearby buildings or walls. Many garden or boundary walls have very shallow foundations which are easily undermined by even small trenches, causing the wall to collapse onto those working in the trench. Before digging starts, decide if extra support for the structure is needed. Surveys of the foundations and the advice of a structural engineer

Other aspects of excavation safety

Ensure there is good ladder access or other ways of getting in and out of the excavation

Consider hazardous fumes - do not use petrol or diesel engines in excavations without making arrangements for the fumes to be ducted safely away or providing for forced ventilation. Do not site petrol or diesel-engined equipment such as generators or compressors in, or near the edge of an excavation; exhaust gases can collect and

Underground services

Underground services can be easily damaged during excavation work. If the proper precautions are not taken, it is all too easy for workers to hit these services, resulting in

- to themselves and anyone nearby from the heat, flame and molten metal given off when an electricity cable is struck; from escaping gas when a gas pipe is hit; or from flooding of the excavation when a water pipe is damaged; and

- from the interruption of services to hospitals, emergency services etc.

Before work starts, service plans should be obtained. Use the service plans to see whether the place intended for digging will involve working near buried underground services. Look out for signs of services such as manholes, valve covers, street-lights etc. Check for pipes Before digging, make sure that:

- all workers involved in the digging know about safe digging practice and emergency procedures and that they are properly supervised;

- the locator is used to trace as accurately as possible the actual line of any pipe or cable or to confirm that there are no pipes or cables in the way and the ground has been

- there is an emergency plan to deal with damage to cables or pipes. Have a system for notifying the service owner in all circumstances. In the case of gas pipe damage, ban smoking and naked flames. Carry out evacuation whenever necessary (this may include people in nearby properties likely to be affected by leaks). Erect suitable signs to warn

Excavate using safe digging practice:

- keep a careful watch for evidence of pipes or cables during digging and repeat checks with the locator. If unidentified services are found, stop work until further checks can be

- hand dig trial holes to confirm the position of the pipes or cables. This is particularly important in the case of plastic pipes which cannot be detected by normal locating

- hand dig near buried pipes or cables or use air-powered excavation devices. Use spades and shovels rather than picks and forks which are more likely to pierce cables. It is

- do not use handheld power tools within 0.5 m of the indicated position of an electricity

- do not use an excavator to excavate within 0.5 m of a gas pipe.

- treat all pipes or cables as 'live' unless it is known otherwise. What looks like a rusty pipe may be conduit containing a live cable. Do not break or cut into any service until its identity is certain and it is known that it has been made safe;

- support services once they are exposed to prevent them from being damaged, and make sure that they are not used as hand or footholds when people are getting in and out

- report any suspected damage to services;

- backfill around pipes or cables with fine material. Backfill which is properly compacted, particularly under cast or rigid pipes, prevents settlement which could cause damage at a

- once new services have been laid, update the plans.

Signed ……..

Date …….