

Make it **safe.** 
Make it **home.**

Workplace Safety Standards



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love every drop
anglianwater 

“ Safety is the number one priority at Anglian Water ”



Nothing is so important that we can't take the time to do it safely. We want our people to look after themselves and the people they work with.

We can have all the plans, rules and procedures in the world, but they mean nothing if we don't all take responsibility for each other.

About this booklet

This booklet details Anglian Water's minimum health and safety standards for high risk work activities. Where applicable it details 'best practice' and is in line with the relevant legislative guidance.

All the standards in this booklet apply to all work carried out on behalf of Anglian Water by:

- Anglian Water teams and partner organisations
- All Anglian Water contractors and their sub-contractors

What are workplace health and safety standards?

They provide practical pointers and signposts for reducing risk and meeting appropriate standards in key areas of employee health and safety. Following the Workplace Health and Safety Standards will help protect employees, ensure a consistent approach across Anglian Water and help organisations meet their legal obligations.

Your role as a leader

We all need to lead the way by sticking to these commitments and clearly demonstrating them in our own behaviours. We also need to challenge our teams and our colleagues where this isn't happening and call out any unsafe behaviour.

The standards set out in this booklet are minimum **standards** that everyone who carries out these tasks must follow to ensure the comfort and **safety** of everyone at work.

Dave Matthews
Head of Safety

Any derogation from these standards must be approved by the Manager and in conjunction with the Anglian Water Safety Team. Any changes will be subject to further risk assessment.

Our Safety Charter and pledges

Slow down

Nothing is so important that we cannot **take the time to do it safely.**

Start work only when safe to do so

- Always have the correct tools and equipment for the job.
- Safe Systems of Work are always in place.
- Point of Work Risk Assessments are completed.
- All pre-use checks completed.
- Ask yourself: what could go wrong and what can I do to prevent it?

Stop and reassess if anything changes

- If the tasks or method of work changes; stop and re-assess.
- If people change; stop and re-assess.
- If the working environment changes; stop and re-assess.
- If you are unsure of anything; stop and re-assess.

Be aware

We will **never knowingly walk past** an unsafe or unhealthy act or condition

Act upon all safety issues raised

- Always report unsafe acts, conditions or near misses.
- Where you can, resolve safety issues within your team but share solutions for lessons learned.

Actively manage

- Challenge unsafe behaviours and conditions; it's everyone's responsibility.
- Active management visits must be carried out.
- Contractors will supervise their own works, supported by AW teams at site level.

Think

We believe that work should have a positive effect on physical and mental health and wellbeing, and that **all accidents or harm are preventable.**

Be fit and well for work

- Be physically and mentally fit and well.
- Never under the influence of drugs or alcohol.
- Have the correct training and competencies to do your job.

Happier Healthier Safer employees for LIFE

- Create a culture of care and concern.
- Look out for one another.
- Build strong relationships, having good conversations.
- Make the right choices.
- Remember... It's not just a work thing!

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Glossary of terms used



Breaking ground - any activity which involves breaking the surface of the ground (including excavations, piling, drilling of boreholes and the insertion of rods or stakes into the ground).

Confined space - any place, including any chamber, tank, vat, silo, pit, trench, pipe, sewer, flue, well or other similar space in which, by virtue of its enclosed space, there arises a reasonably foreseeable risk of a hazardous atmosphere or a dangerous condition.

Mobile plant - equipment that is self-propelled by any means.

Construction design and management - standards for delivering work classified as construction work under the CDM Regulation 2015. To ensure construction work is as safe as reasonably practicable and the completed work presents no or minimal risk to end users of the asset.

Street works - any work carried out in the highway (or verge) on behalf of Anglian Water i.e. the installation, inspection, maintenance, repair and removal of Anglian Water assets (including, breaking up or opening any sewer, drain or tunnel or tunnelling or boring under the street).

Lifting equipment - any equipment used for lifting or lowering loads, including attachments used for anchoring, fixing or supporting it. This covers a wide range of equipment including cranes, overhead gantries and beams, excavators, telehandlers, fork-lift trucks, lorry loaders and Mobile Elevated Work Platforms. Lifting Accessories are equipment from which the load can be suspended i.e. chains and strops.

Breaking ground

Leading Behaviours

Planning and design

Planners and designers must look at alternative methods of excavation. Processes must include designing out hazards associated with breaking ground and the use of no dig technology and non-contact methods i.e. vacuum excavation/air lance/pipe lining - these should be the preferred method.

Initial site surveys should consider use of ground penetration radar and augmented reality. Where practical, designers should engage with site teams and visit the sites to help inform the design decision-making process, this includes using project rehearsal methods.

Leadership

Managers and supervisors must demonstrate the right leadership by actively promoting the use of no dig technology. They should also provide onsite coaching and support to teams breaking ground. Where practical, enabling teams should be sent ahead of proposed works to identify services and mark up area of excavation work.

A robust investigation management process should be in place following a service strike which ensures a review of works from the design stage. Notification of service strikes must be made as soon as possible to Anglian Water's safety team and initial investigation reports must be submitted to Anglian Water safety team within seven days of a service strike.

Safe working practices (minimum standards)

Safe system of work - prior to breaking ground

- Works must comply with HSG47 - Avoiding dangers from underground services.
- All persons involved in breaking of ground activities must have the right competences.
- A Point of Work Risk Assessment (PoWRA) must be completed on site.
- In date utility plans MUST be at point of work for review - NO PLANS NO DIG.
- Area must be scanned with CAT & Genny.
- Areas to be excavated must have services appropriately marked beyond the dig area.
- A permit to break ground must be completed before any breaking ground commences, unless the activity has been deemed to be low risk, in which case a robust checklist specific to breaking ground activities must be used.
- EN 61482 Arc resistant clothing must be worn during work on or adjacent to live services when carrying out breaking ground activities.
- Trial holes must be hand dug to confirm the location of underground services.



Prohibitions

- Breaking ground without a permit and/or checklist specific to the breaking ground activity.
- The use of ANY type of conductive pin that breaks ground except for earthing rods for temporary generators or permanent installations.
- Access into, across or out of an excavation using wallings, struts or exposed buried services.

Equipment

- Downloadable Cable Avoidance Tool & Genny (including attachments) e.g. e-CAT4+.
- Hand tools must be insulated.
- Non-toothed buckets on excavators.
- Means to access and review service plans.
- Utility service marker paint or equivalent should be used to identify services.
- Means to support and protect exposed services.

Competence - people responsible for breaking ground

Any persons involved in breaking ground activities must have an appropriate level of training and competence. This includes but is not limited to:

- Planners / Designers
- Site Managers.
- Supervisors
- Plant operators
- Operatives
- CAT & Genny i.e. SHOC
- Permit-writing training
- General understanding of HSG47



Confined space

Leading Behaviours

Planning and design

All entries into confined spaces must be planned. Designers must ensure that entry into confined spaces is avoided wherever possible or that the risk is reduced in accordance with the risk assessment hierarchy. Alternative work methodologies such as the use of remote cameras for inspections should be considered in the first instance.

Leadership

Managers and supervisors must demonstrate the right leadership by actively promoting the use of no-entry technology.

Safe working practices (minimum standards)

- Requirement to enter a confined space should be removed. If this is not possible then the entry must be risk assessed following the hierarchy of control to reduce risks from hazardous atmospheres - **asphyxiation, fire and explosion, loss of consciousness, drowning or asphyxiation from free flowing solids** - to as low as reasonably practical.
- Where work in a confined space cannot be avoided, a safe system of work must be put in place that includes risk assessments, monitoring of the atmosphere, training, procedures, permits/authorisations, PPE requirements, rescue, monitoring arrangements and equipment specifications.
- Those managing confined space entries must be able to demonstrate on site prior to making an entry how they will classify the confined space entry, either by use of the Anglian Water Confined Space Classification Risk Assessment template or by a suitable equivalent system in line with the national classification, and must include any specified risks as a result of the work being carried out.
- A permit to work/authorisation to enter procedure must be implemented to effectively control any work in a confined space. The permit to work must only be issued by a competent person, be valid for a maximum of one shift and require the following precautions to be checked and confirmed as in place before works commence.
 - Initial classification of the confined space which will determine the risk controls.
 - Appropriate measures to control entry and exit and which account for each person entering or leaving the confined space.
 - Atmosphere monitoring and rescue equipment appropriate for the environment and that is suitably calibrated and within service/inspection date and a suitable rescue plan in place.
 - A competent 'top' person remaining on watch at all times when any entrant remains in a confined space to raise the alarm and provide assistance if needed and only if safe to do so.
 - On completion of the works a process is in place ensuring the confined space is closed, secured and the permit is signed off and closed-out by the issuer.
 - Only Anglian Water shall issue permits for high-risk confined space entries*
Confined Space Permits, are required when making entries into either.

*if the site has been handed over to @one, SPA or IOS alliance partners and there is a derogation in place they shall issue the high-risk permit.

- NC3 (where entrant cannot stay attached to vertical winch at all times).
- NC4 high risk or complex entries involving the use of breathing apparatus
Emergency & rescue arrangements are to be detailed in the risk assessment and method statement and cannot rely upon Fire & Rescue Services (999) as part of initial rescue, self & assisted rescue provisions must be in place and in line with the complexity of the entry. The prescribed rescue plan is to be practised prior to commencement of ACTUAL works.
- All confined spaces or enclosed areas where one or more of the specified risks could cause harm to any person entering must be identified before work begins. This may be an Anglian Water representative or alliance representative if the site has been handed over.
- Where practicable any new asset requiring access for maintenance should not be installed in a confined space.
- Appropriate plant and equipment for atmosphere testing, ventilation, personal protection and rescue must be in place. An in-date calibration certification is required for all atmosphere testing equipment.
- Access to confined spaces must be controlled at all times. Where any confined space is present it must be protected to prevent unauthorised access.

Prohibitions

- Untrained personnel must not enter a confined space.
- Work in a confined space must not commence until appropriate permits and site/asset access authorisation is in place.

Competence - partners and contractors

All partners and contractors working within a confined space must conform to the Water UK Industry guidance for “The Classification and Management of Confined Space Entries” by demonstrating compliance to the relevant units of the City and Guilds Operations Scheme 6150.

AW Confined Space Classification		
Classification	Further Information	Minimum Training
NC1	Single manning SAAA / RAA Required for contractors	C & G 6150-01 1 day course, renewed every three years
NC2	Two Man - Local rescue arrangements in place SAAA / RAA required for contractors	C & G 6150-02 2 day training and assessment renewed every three years (1 day assessment)
NC3	Three Person minimum, person can remain attached to winch and can be lifted at all times i.e vertical unobstructed lifts only SAAA /RAA required for contractors	Health Assessment will also be required
NC3	High Risk Person cannot remain attached to winch line dedicated rescue team available on site **AW PERMIT REQUIRED	
NC4	High Risk - complex entries or those involving the use of full BA **AW PERMIT REQUIRED	C & G 6150-03 renewed every three years
SAAA - Site / Asset Access Authorisation RAA - Regional Access Authorisation **If site has been handed over to @one, SPA or IOS partner they will issue the CS permit		

People and plant interface



Leading Behaviours

Planning and design

Assessment of the work to be carried out and equipment required must be completed as early as possible, ensuring equipment is suitable for the environment it is intended to be used and is fit for purpose.

There must be clear plans in place for people, plant movement and traffic management, considered in advance of establishing site where possible.

Leadership

Managers and supervisors must demonstrate the right leadership by actively managing people and vehicle interfaces to eliminate or minimise these risks.

Safe working practices (minimum standards)

Traffic Management Plans

- Ensure any traffic management plans are current and define the engineering controls to prevent vehicles striking another vehicle, structure or pedestrian for fixed sites, construction sites and sites not covered by New Roads and Streetworks Legislation.
- Communication methods between relevant individuals must be contained within the plan.

FORS and CLOCS

- Companies must have a programme in place to ensure a minimum standard of safety of vehicles that deliver to site. This can be a Fleet Operator Recognition Scheme (FORS), Construction Logistics and Community Safety (CLOCS) vehicle and fleet safety standard or an internal management standard to the equivalent level.

Anglian Water works with road safety charity Brake, we use telematics to manage driver performance and metrics to demonstrate driver safety. Coaching and support is also available to improve driver safety.

Pedestrian and vehicle segregation

- All locations must assess the risks presented by the movement of pedestrians, materials and vehicles around or next to the site or workplace and implement appropriate safety measures to eliminate or minimise these risks.
- Pedestrians must be clearly separated from vehicle routes by barriers, fencing and/or a kerb, or other suitable means. Where this is not reasonably practicable a robust, safe system of work, including methods of communication, must be in place to minimise the interface risks.
- Operators should identify high risk zones around mobile plant and equipment to ensure that hazards are identified and controlled. There must be a robust, safe system of work in place, including methods of communication, before any individual can work within an identified high-risk zone.

- The use of traffic marshals must be eliminated wherever practicable, particularly around heavy equipment operations. Where traffic marshals are required, such as for pedestrian access areas or to manage public road interface, only trained and competent persons are to be used.
- In these instances, a risk assessment must be undertaken to identify where technology can be implemented to replace or remove anybody who may be required in the work area.

Parking and traffic routes

- Traffic routes and parking arrangements must be in place to avoid vehicle-to-vehicle and vehicle-to-pedestrian conflict.
- Application of one-way systems, designated turning areas, separate areas for plant storage away from walkways and other areas of high footfall, considering members of the public in vehicles or as pedestrians.
- The need for reversing maneuvers must be avoided wherever practicable.

Use of plant, equipment and vehicles

- Effective controls must be in place for managing the use of all mobile plant.
- Plant and equipment should have all-round visibility.
- Lorries should be fitted with visibility aids eg. lighting, rear view cameras.
- Operators should identify high-risk zones around mobile plant and equipment to ensure that hazards are identified and controlled.
- Communication methods between relevant individuals must be included within the plan, this should also include the use of recognised methods, for example 'Thumbs up Campaign'.

High visibility clothing

- All people working on site must wear as a minimum high visibility clothing.
- When entering a construction site, additional hi viz may be required by the site rules.

Plant

Minimum standards for plant:

- Where findings from risk assessment requires a 360 vehicle these should be readily available and must include load, height and slew restrictor
- Quick hitches, preferably full automatic
- Flashing warning lights.

Prohibitions

- Reversing buckets
- Toothed buckets

Competence

Drivers of plant	CPCS or NPORS
Forklift / Telehandler	CPCS or RTITB
Vehicle Marshalls	CPCS / CILT / FORS

Work at height



Leading Behaviours

Planning and design

Designers should, as far as is reasonably practicable, design out the need to work at height above or below ground.

Designers should ensure that they meet the requirements of the Anglian Water design standards and ladders over 4 metres must be fitted with permanent fall arrest systems.

Leadership

Managers and supervisors must demonstrate the right leadership by actively managing working at height activities and provide suitable equipment to eliminate or minimise the risks.

Safe working practices (minimum standards)

Work at height must be controlled following the Work at Height regulations hierarchy, with control measures being considered in hierarchical order. Risk assessments must detail why preferred methods are not practical.

- If possible, eliminate the need to work at height.
- Use an existing safe place of work such as a roof with handrails. Where a work area has skylights or no handrails present (with a fall of >1.5 metres) a permit must be issued by Anglian Water identifying and ensuring that control measures are in place before work begins.
- Deploy collective fall prevention, e.g. fixed scaffolds or mobile towers or mobile elevating work platforms (MEWPs) in conjunction with a fall arrest system.
- Deploy personal prevention, e.g. work restraint systems which prevent individuals accessing a leading edge such as lanyards or lines.
- Open voids must be protected with suitable void protection equipment, e.g. barriers, concertina grids.
- Deploy protection to reduce the severity of injury in the event of a fall e.g. nets or airbags.
- Deploy individual fall protection, harnesses or arrest systems.

If harnesses are used for fall arrest, their use must be approved by a senior manager who should assess the reasons for not using other methods. The exceptions to this are harnesses worn when operating MEWPs, scaffolders working to NASC SG4 guidance and in possession of CSIRS competencies, and those working in confined spaces. Any equipment used must be maintained and records available.

Rescue procedures

A rescue plan is required for all 'Permitted' activities involving work at height.

Competence

Scaffolding	CSIRS
Mobile elevating work platforms	IPAF
Mobile Scaffold	PASMA
Fall arrest netting installation	FASET or CSCS
Rope Access	IRATA

Construction (design and management)



Leading Behaviours

Planning and design

During the design phase hazards in both construction, operability and maintenance must be eliminated as far as reasonably practicable and risks reduced to a manageable level where they cannot be eliminated. Information on residual risks must be provided to the Contractor/Principal Contractor and Client/Client Rep. as the end user. Sufficient time will be made available for Planning, Design and Construction so far as is reasonably practicable.

Leadership

Managers and supervisors must demonstrate the right leadership by actively managing CDM activities making sure there are sufficient resources and that employees have the right skills, knowledge, training and experience to carry out the required functions within CDM.

Safe working practices (minimum standards)

Client

- Anglian Water must identify the need, cause and cost of construction work and allocate the appropriate resources.
- Anglian Water will provide appropriate pre-construction information, this maybe delegated to the principal contractor but Anglian Water remain accountable for it being completed.
- CDM Practitioners will advise the Client or representative to ensure compliance with the regulations.
- The Principal Designer and Principal Contractor will be appointed where applicable by the nominated Client Rep. to assist in the identification, solution and future mitigation of assets involving CDM-related activities.
- Client must involve frontline employees in devising solutions for safe operability and maintenance of constructed assets.

Principal Designer & Principal Contractor

Design stage

- Use of the AW or equivalent CDM assessment tool to categorize the work as low, medium or high complexity.
- A Technical Manager must be assigned to each Medium or High complexity project
- Development of Pre-Construction Information and Construction Phase Plan will commence.
- Where applicable notification of construction projects submitted to Health & Safety Executive.

Construction stage (including assembly, commissioning and handover)

- The Construction Phase Plan must be subject to an approval process, and Principal Contractor advised that construction work may commence.
- The Construction Phase Plan must be regularly reviewed and updated.
- The Health and Safety File must be kept updated throughout the project before handover by the PD or PC to the Client / Client Rep.
- There must be a system in place for the raising and processing of design queries and design change requests.

Prohibitions

- Use of contractors who are not approved by AW or Partner organisations in CDM work.
- Use of contractors without Site/Asset Access Authorisation (SAAA) or Regional Asset Access Authorisation (RAAA) agreements.

Competence - partners and contractors

- Contractors working on behalf of Anglian Water must be competent in their field of expertise and will be expected to have documented evidence of this.
- They must also receive a site-specific induction relating to the work they are undertaking.
- They will be sufficiently competent to apply the controls identified in their risk assessments and method statements and safe systems of work.

All personnel involved in construction work	Awareness of responsibilities with CDM regulations
Client / Client Rep	Formal safety qualification (IOSH Managing Safely as a minimum) CDM Awareness Training online (Workday) module(s)
Principal Designers for medium complexity multi contractor projects	Formal H&S qualification i.e. NEBOSH Construction or General certificate (min IOSH Managing Safely) Membership of Association of Project Safety (Preferred)
Principal designers managing or overseeing "High Complexity" construction projects	Formal qualification i.e. NEBOSH construction certificate Site Management Safety Training Scheme (SMSTS or CITB) Understanding of CITB Construction Skills GE700 Construction site safety Membership of Association of Project Safety (Preferred)
Designer	Subject / discipline expertise



New Roads and Street Works Act (NRSWA)

Leading Behaviours

Planning and design

Designers must ensure they fully consider the health and safety implications both for the construction phase and for operation and maintenance. Wherever possible the need to work in the highway should be designed out.

Leadership

Managers and supervisors must demonstrate the right leadership by actively promoting the use of working methods which do not require working in the highway.

Safe working practices (minimum standards)

- All street works must be controlled by a suitable and sufficient safe system of work. This must include identification and management of high speed traffic and associated risks.
- All street works designs will consider the health and safety of the people directly involved, other road users and pedestrians, including those that may be in a vulnerable group.
- Street Works Operatives and Supervisors must be appropriately trained and appointed on at least an annual basis.
- The relevant highways authority must be notified prior to undertaking any 'registerable works'.
- Prior to undertaking any street works which will take place within the 'precautionary area' of a level crossing, the relevant railway operator must be notified and permission granted before work commences.
- At least one trained operative must be on site while work is being carried out.
- Operatives must be able to contact a supervisor at all times.
- Class 3 high visibility trousers and vest/jacket must be worn at all times.

Competence - partners and contractors

- New Roads and Street Works Act (NRSWA) 1991: Supervisor or Operative.
- All operatives must be familiar with and comply with the requirements of 'The Red Book'.



Managing contractors



Leading Behaviours

Leadership

Managers and supervisors must demonstrate the right leadership behaviours by actively managing the work activities carried out by contractors and make sure:

- Contractors have been approved following a suitable approval process
- Contractor employees have been given a appropriate induction
- Contractors have the right skills, knowledge, experience and training.



Safe working practices (minimum standards)

- Procurement processes must define and apply health and safety criteria for the selection of contractors.
- All contractors supplying services or goods must be competent to carry out the required work.
- All work carried out by contractors must be risk assessed and managed accordingly with responsibilities clearly defined.
- Contractors shall not be permitted to commence work until suitable and sufficient safe systems of work are in place.
- Where practicable contractors should be engaged through formal frameworks.
- Personnel employing, monitoring or inspecting contractors must be competent to carry out their responsibilities.
- Contractors must be provided with all relevant health and safety information.
- The activities of contractors must be regularly monitored and performance reviewed to ensure a high level of health and safety performance is maintained.
- All subcontractors must have in place safe systems of work which are equal to or above Anglian Water standards.
- All contractor activities must be accompanied by a suitable and sufficient risk assessment.
- All contractors must be able to demonstrate suitable supervision is in place for direct employees and sub-contractors.

Prohibitions

No contractor can be permitted to carry out work on an Anglian Water site or asset until they have received an appropriate induction.

Competence - partners and contractors

Management	IOSH, CITB or SMSTS
Supervision	IOSH, CITB or SMSTS
Operatives	Subject-related qualifications

Mechanical lifting



Leading Behaviours

Planning and design

When procuring/hiring lifting equipment the supplier must be provided with all required details to enable the correct selection of the type of crane and / or associated equipment required to carry out the lift.

Any new lifting asset provided for the use of Anglian Water must comply with our minimum asset standards and be fit for purpose.

A lift plan must be produced and in place; wherever possible lifting operations should be rehearsed digitally to manage any potential clashes and ensure equipment selection is fit for purpose.

For Anglian Water; any new lifting designs or modifications to existing lifting arrangements are reviewed/ approved by Anglian Water's contracted statutory lifting equipment inspector before the equipment is used.

Leadership

Managers and supervisors must demonstrate the right leadership behaviours by actively monitoring the competencies of those engaged in lifting operations, ensuring that employees are adequately trained and appropriate lifting equipment is provided.



Safe working practices (minimum standards)

- Persons appointed to manage lifting operations must be given the necessary permission for the performance of their duties and the authority to stop operations whenever danger is likely to arise if the operation were to continue.
- All lifting operations must be adequately planned, controlled and categorised as Low, Intermediate or Complex.
- All individuals involved in lifting operations must be medically fit and competent to the extent required by their role.
- All individuals involved in lifting operations must be briefed on the safe system of work before the lift commences and re-briefed if anything changes.
- All equipment and accessories used for lifting must be CE marked and of appropriate safe working load (SWL), including allowances for safety factors - goods (1:4) and man-riding (1:10). Copies of all EC Declarations of Conformity or Test Certificates, details of any modifications or repairs and thorough examinations must be available where applicable.
- Equipment and accessories will be checked pre-use.

- A discipline must be established on site for the safe storage of lifting equipment and accessories not actually in use.
- There must be a system in operation to identify lifting equipment and accessories are within their inspection date.
- Defective equipment will be taken out of service immediately and quarantined to prevent use.
- Where applicable an assessment of ground-bearing capacity must be carried out by a competent person.
- The loading or unloading of vehicles (e.g. by a lorry-mounted crane) must be managed according to a safe system of work.
- When lifting with excavators, lifting buckets must be removed and appropriate lifting accessories used to attach the load to the lifting point.

Prohibitions

- The use of excavators, telehandlers, lorry loaders and lift trucks for lifting personnel.

Competence - partners and contractors

Crane Drivers	CPCS / NPORS
Slings	CPCS / NPORS
HIAB drivers	ITSSAR / CPCS / ALLMI
Appointed Person	CPCS / NPORS
Lift Supervisor	CPCS / NPORS



Excavations



Leading Behaviours

Planning and design

Planners and designers must look at alternative methods of no-dig solutions for excavation; processes must include designing out the need for excavations.

- Temporary work designs must be in place for all works involving excavations
- Where digs are necessary these should be designed away from existing services.

Leadership

Managers and supervisors must demonstrate the right leadership by promoting the use of no-dig technology.

- Where practical enabling teams should be sent ahead of proposed excavation works to identify site hazards including marking up services.

Safe working practices (minimum standards)

Ground conditions

- Identify ground and underlying conditions and ensure solutions are comparable with the risk.
- Assess the area for any underground services and identify beyond excavation area.
- Agree a plan prior to beginning physical works. The plan must cover construction methodology, support mechanisms, use of plant and equipment and safe stockpiling of spoil, in order not to surcharge the excavation.

Excavation management

- All excavations must consider safe angles of repose, access and structural integrity.
- Excavations greater than 1.2 metres deep must be benched, shored, battered back or sloped to a safe angle as determined by the competent person in the excavation design process.
- Where benching or battering is not possible, trenches and excavations must be mechanically shored to prevent collapse by an approved means subject to adequate temporary works design.
- For any excavation between 0.5 - 1.2 metres a risk assessment must be in place to detail why there is no need for excavation support that considers at least the need to enter excavation, surcharging, strata of ground and presence of or likely inrush of water.
- Adjacent structures, roads and sidewalks must be supported or protected where necessary to prevent collapse; this may be subject to the advice of a structural engineer.
- Materials, plant and equipment must be kept at a safe distance from the edge of excavations to avoid sudden ingress of free-flowing solid or surcharging.
- Adequate signage, physical barriers and lighting must be provided to prevent falls into excavations, especially for plant working on those excavations and vehicles or plant from adjacent thoroughfares. Temporary access / egress must be installed into excavations where appropriate.

- Water ingress into excavations must be controlled to ensure stability, and where water is present in deep excavations an appropriate dewatering programme must be in place.
- When working on existing assets where sudden water ingress is a risk within the excavation, follow confined space and isolation permit guidance.
- Daily inspections of all excavations must be undertaken or at any other time when circumstance may have led to an excavation becoming unsafe.

Stockpile management

- All stockpiles must consider safe angles, access and structural integrity.
- Maximum stockpile height must be determined by an engineer and not exceeded.
- All people must be excluded from the active loading area.
- Loading and dumping area ground stability must be approved by an engineer prior to commencement.
- Operators are not to leave the controls while loading or unloading is in progress.
- For a linear stockpile excavation must proceed along the working face and for a conical stockpile it must proceed around the toe. The working face must never be undercut or left with a hollow in it.
- Barriers and berms must not be moved or altered and the crest must only be approached by a loader or bulldozer at a right angle (90 degrees) to keep the weight of the equipment away from the edge.
- Prevent access from an unauthorised vehicle or person that could damage critical infrastructure or where the unauthorised person could be injured or killed due to the hazards within the operational area. Install physical barriers if required.
- Stockpiles of spoil must be kept at a sufficient distance from any excavation, at least as far from the edge as the excavation is deep.

Prohibitions

- No person will work in an un-assessed excavation.
- No person will break ground without relevant permit and/or checklist.
- No person will gain access into, across or out of an excavation using wailings, struts or exposed services.
- No vehicle or plant may be allowed to be so close to an excavation as to be likely to cause a collapse.
- No person should be permitted to work in an excavation if dangerous levels of fumes are present; or if there is danger from flooding (failure of groundwater pumps or excessive surface run-off) or the collapse of the side; or while the excavation is being filled by mechanical means or tipping trucks.

Competence

CPCS A58 less than 10 tracked
 A59A greater than 10 ton tracked
 A59B greater than 10 ton wheeled

NPORS

EUSR Deep excavation
 Manufacturer specific training on trench support systems.
 Temporary works Supervisor / Coordinator

Plant and machinery



Leading Behaviours

Planning and design

Designers and Construction Managers must promote the use of plant and machinery that reduces the overall risk profile of construction and other work. They should do so by exploiting opportunities for innovative solutions that mechanise tasks to reduce the need for manual activities to take place. By deploying collective agreements Alliances can ensure plant and machinery suppliers provide state-of-the-art options which include the most up-to-date operating and safety features.

Leadership

Managers and supervisors must demonstrate the right leadership by providing for use plant and equipment that has 'designed in' safety features and engineering controls. Consult with competent staff to ensure equipment is appropriate for the type and scale of the task to be undertaken.

Safe working practices (minimum standards)

All guards/covers and safety devices (interlocks, emergency stops etc.) are:

- in place at all times whilst the machinery is in use.
- suitable for their intended purpose and not easily by-passed or disabled.
- of good construction, sound material and of adequate strength.
- maintained in an efficient state and in efficient working order.
- will require use of a tool to install or remove.
- If guards are removed for maintenance, cleaning and troubleshooting activities there must be a suitable isolation process in place.
- The guard must fully protect the moving part and withstand applied forces without dislodgement.
- Only authorised persons should have access to plant and machinery.
- Check maintenance is in accordance with manufacturer's recommendations.
- Make sure that operators can readily gain access to inspection records either by visible placards affixed to the equipment or ready access to digital records.
- Equipment must be of a design that allows emergency stopping by trip devices and has manual controls that prevent hazardous and inadvertent machine operation.
- Routinely test emergency stop or other devices designed to inhibit sudden unintentional movement.
- The design of machine controls must prevent inadvertent or unexpected start-up.
- Any person working on electrical systems must adhere to the requirements of the Electricity at Work Regulations 1989 and BS7671 18th edition. In addition, apply guidance and process as outlined by AW Management of Electrical Safety.
- Electrical systems must include, where applicable, components as outlined in AW Minimum Asset Standards and WIMES.

Prohibitions

- Employee must not attempt to defeat, tamper with or otherwise render any safety device inoperative.
- Do not attempt to operate any equipment you are not authorised to use.

Competence

- General competence such as CPCS or NPORS.
- Awareness of plant or machinery they are operating.
- Electrical competence must include a recognised electrical qualification such as City & Guilds 2382 or NVQ3.
- Equipment-specific training such as Abrasive wheel training.



Change management



Leading Behaviours

Leadership

Managers and supervisors must demonstrate the right leadership by actively encouraging and sufficiently resourcing the use of change management processes to identify safety, operational and commercial risks to the business.



Safe working practices (minimum standards)

Change is generally categorised as technical, procedural or organisational.

Partners, contractors and delivery routes will implement a formal process to ensure that any technical, procedural or organisational changes are managed, consulted on and communicated to all relevant operations in a timely manner and that any required response (e.g. oversight processes, receipt of notification, mitigation plans, training and verification of implementation) is obtained and documented. Any change management process adopted must, as a minimum, include a proposer and an approver, both of whom must have the required competence or have access to competent advice.

Change may be as a result of but not limited to:

- EH&S or Learning Alerts and associated lessons learned
- Legal and Standards updates
- Process change
- Restructuring
- Innovation and new technologies
- Premises change
- Emerging research / knowledge

Business streams and delivery routes will provide notification of change to operations in a timely manner to ensure consistency in the identification, notification and actions required to implement and manage change. Consideration shall be given to raising proposed or implemented changes at the Capital Delivery forums.

Any risks associated with these changes to operational controls, contractual arrangements, regulatory requirements and design standards must be reviewed.

Competency



Leading Behaviours

Leadership

Managers and supervisors must demonstrate the right leadership by actively managing teams training and competencies.

Training (minimum standards)

- All workers with safety and health roles and responsibilities related to legal requirements or relating to the AW standards must be suitably qualified and verified as competent relevant to their role.
- All workers should be familiar with the AW vision and complete any H&S training applicable to their role as well as awareness and training opportunities that address the organisation's health and wellbeing framework.
- It is the duty of all contractors, consultants and service provider workers with EH&S roles and responsibilities related to legal or other requirements of the standards, to ensure all key personnel are aware of their EH&S responsibilities and are suitably trained to address any competency requirements or technical qualifications relevant to their role.
- Provide proof of competency (certificates, licences, training records or knowledge testing) where required by any employees of Anglian Water, contractors or service providers conducting specialist work related to high-risk activities.
- Where appropriate workers should hold membership of a relevant professional body and actively participate in continuous professional development activities.
- Each business stream and alliance must conduct H&S briefings, toolbox talks or other consultative initiatives at appropriate intervals on topics relevant to the activities occurring at or around the operation.
- All frontline leaders must be competent for the role in which they are appointed, as determined by each business unit or delivery route, and must be able to assign work to competent individuals.
- A Leadership programme for strategic training must be in place for development of future leaders.

Role /Task	Training
Underground Services	
Cable Avoidance Tool operator	CAT & Genny i.e. SHOC, Radio detection, Permit writing training General understanding of HSG47
Confined Spaces	City and Guilds 6150 or AW approved
Plant and Equipment	
Drivers of plant	CPCS or NPORS
Forklift / Telehandler	CPCS or RTITB
Vehicle Marshalls	CPCS / CILT / FORS

Role /Task	Training
Work at height	
Scaffolding	CSIRS
Mobile elevating work platforms	IPAF
Mobile Scaffold	PASMA
Fall arrest netting installation	FASET or CSCS
Rope Access	IRATA
CDM	
All personnel involved in construction work	Awareness of responsibilities with CDM regulations
Client / Client Rep	Formal safety qualification (IOSH Managing Safely as a minimum) CDM Awareness Training online (Workday) module(s)
Principal Designers for medium complexity multi contractor projects	Formal H&S qualification i.e. NEBOSH Construction or General certificate (min IOSH Managing Safely) Membership of Association of Project Safety (Preferred)
Principal designers managing or overseeing "High Complexity" construction projects	Formal qualification i.e. NEBOSH construction certificate Site Management Safety Training Scheme (SMSTS or CITB) Understanding of CITB Construction Skills GE700 Construction site safety. Membership of Association of Project Safety (Preferred)
Designer	Subject / discipline expertise
Managing Contractors	
Management	IOSH, CITB or SMSTS
Supervision	IOSH, CITB or SMSTS
Operatives	Subject related qualifications
NRSWA	
Supervisor or operative	New Roads and Street Works Act (NRSWA) 1991: Supervisor or Operative
Operatives	Must be familiar with and comply with the requirements of 'The Red Book'.
Lifting	
Crane Drivers	CPCS / NPORS
Slingers	CPCS / NPORS
HIAB drivers	ITSSAR / CPCS / ALLMI
Appointed Person	CPCS / NPORS
Lift Supervisor	CPCS / NPORS
Excavation	
Deep Excavation	CPCS - A58 less than 10 tracked, A59A greater than 10 ton tracked A59B greater than 10 ton wheeled EUSR NPORS
TW Design	Temporary works Supervisor/Coordinator
Trench support systems	Manufacturer specific
Plant & Machinery	
Operators	Familiar with safe isolation process
Grinding machine operations	Abrasive wheel training