Our Health Safety & Wellbeing Management System has been developed to ensure highest standards of Safety, Health and Wellbeing on site.

This is one of a series of **Visual Standards** created to help everyone understand what “good looks like” contributing to setting a positive safety, health and wellbeing culture across the programme.

The easy to follow pictures will allow project teams to quickly determine whether their site provisions meet our SH&W expectations.
**How**
This manual will be available both in version controlled electronic and hard copy. The hard copy will be printed in weather proof format for use on site.

**Who**
All personnel listed below should have access to, read and understand this manual.
- Construction Manager/Project Manager
- Site Supervisors
- Site Forman
- Contractors
- SHW Advisors
- Process Site Teams

**When**
The existence and usage of this Visual Standard should be discussed as part of the Safety, Health and Wellbeing introduction at pre-start meetings.
This manual will be reviewed and updated when new safety, health and wellbeing risks are identified as a result of new activities on site.
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1. Competency and induction requirements

- Every person will receive eight2O health, safety and wellbeing induction.
- Everyone must hold and maintain the relevant core qualification/competency:
  - eight2O orientation/induction
  - Front Line Supervisors will receive a separate role assessment & induction
  - Thames Water’s Safety Passport
  - Plant Operators – CPCS/NPORs
  - National Water Hygiene (EUSR)/DOMS (As specified in Our Safety, Health & Wellbeing Approach)
- ID cards and competency cards must be carried at all times.
- Never carry out work or operate plant and equipment that you are not authorised, certified or qualified to do.
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2. Plant Operator Competency

- Never operate any plant/machinery unless you have been properly trained, authorised/ have provided Fit for Work Medical certificate and hold the appropriate class of driving licence or training certificate e.g.
  - Mechanical excavator
  - Dumper truck
  - Fork lift truck
  - Grab/hiab lorry
  - Mechanical winch
  - Trencher/top cutter
  - Road saw
  - Horizontal directional drilling (HDD)
  - Mobile elevated work platforms (MEWP)
  - Lifting with Excavators/Excavators used as cranes (operator to hold an equipment competency card)
  - Other training required to operate specialist equipment
  - Traffic Marshal/Banksman

Operators of any plant must carry out daily visual checks and maintain training log books of their vehicles using the appropriate inspection sheet and record and report any defects immediately. To prevent unauthorised use, all plant must be immobilised when not in use, remove the keys.
Permits and authorisations are an essential part of a safe system of work for certain types of work to ensure that all hazards/risks are identified and controlled.

- Most work whether on a Thames Water site or public place will be undertaken under one of the following primary authorisations:

Transfer of Control of Premises (TOCOP) - a site/ area has been passed over to a supplier. This form confirm that the site/ area is now the responsibility of the main or principal contractor. The form must be signed by both the Thames Water Site Manager and the supplier, in order to confirm both transfer and return of control of premises. Requests for a TOCOP must be accompanied by a site plan indicating the area to be transferred. A copy of the completed TOCOP must be clearly displayed on the site along with signs informing people that the area is subject to a TOCOP.

Thames Water Operational Safety Authorisation (TWOSA) - A TWOSA will be issued where Thames Water retains control of the premises - suppliers/visiting workers are required to work alongside Thames Water. Requests for a TWOSA must be accompanied by a written safe system of work. A copy of the completed TWOSA must be clearly displayed on the site along with signs informing people that the area is subject to a TWOSA.

TWOSA/TOCOP signed & displayed
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4. Means of communication

- **Readiness Review** completed and communicated before the start of project.
- CPP advised suitable
- **F10** within date and displayed on site
- Site inductions carried out
- Utility plans available and in good condition
- Daily plant checks completed and available for inspection
- Project risk assessments and method statement completed
- **Safe Start Pre-Task briefing** completed
- Site specific permits complete
A permit to work system is a formal written system used to control certain types of work that are potentially hazardous.

- At the planning stage check if permit to work is required from the **Local Authority/ Environmental Agency** etc.
- **Thames Water Permits to Work** are required for the following operations:
  - Confined Spaces
  - Low and High voltage electricity
  - Hot Work
  - General or Mechanical Permits
  - Sludge Digester
  - Permit to break surface (any break of surface)
  - Deep Excavation Permit
  - Works on contaminated land
  - Lifting operations
  - Use of HDD (horizontal drilling), mains bursting moling, top cutters/ trenchers etc.
  - Works on or near a demolition site
  - Works on plant containing toxic material
  - Permit to load/remove supports
  - Licence to operate – working on clean water main
Who is your First Aider on site?

Report ALL incidents and near misses and hazards promptly

Key Points:
- Know First Aiders on site
- Know location of First Aid Box & Defibrillator
- Report ALL incidents & near misses to your line manager asap or when next practicable.
- First Aid Box is to be maintained by a designated person.
- Ensure you have a blood pressure monitor on site to enhance wellbeing of your staff.
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7. Fire

Key Points

- Communicate the emergency plan at site induction and the means of raising the alarm.
- Fire Assembly point signed and communicated during site induction.
- Emergency evacuation plan posted to safety notice boards in welfare areas.
- Correct type and quantity of fire extinguishers.
- Fire extinguishers well located and immediately accessible.
- Post the names and images of the fire marshals on the appointments board.
- Minimise the use of flammable and combustible materials.
- Waste to be placed in suitable bins or skips at shift end.
- Hot works only under Permit to Work.
- Smoking is only permitted in a designated area.
- Conduct a fire patrol before leaving site.
8. Site entrance

Key Points

• Control entry to the work area.
• Provide separate entry and exit gateways for pedestrians and vehicles.
• Wheel wash or jet wash facility at the exit to prevent carriage of mud onto roads.
• Concrete or tarmac hard standing to allow vehicle cleaning.
• Traffic routes maintained in good order.
• Clear indication of speed limit
• Only designated traffic Marshals or banksman to direct and supervise vehicle movements.
• Do not block walkways so that pedestrians have to step onto the vehicle routes.
9. Access Routs and Walkways

Key Points

- Clear access routes provided to all work areas.
- Separate entry and exit for pedestrians and vehicles.
- Segregated from plant and traffic movements.
- Maintained free from trip hazards.
- Clearly defined and signposted.
- Barriers erected in accordance with manufacturers instructions.
- Firm, level, well-drained pedestrian and lit walkways .
- Where walkways cross roadways, provide a clearly signed and lit crossing point where drivers and pedestrians can see each other clearly.

Uneven/muddy ground, no designated pedestrian walkways
10. Road Crossing

Key Points

- Provide clearly defined crossing points
- Ensure crossing points are marked/display warning signs where appropriate.
- Include traffic calming measures before crossings where appropriate.
- Provide gates (red gates) before stepping on vehicle route.
- Pedestrians proceed with caution.

Gates/signage to inform pedestrians of entering/crossing area of vehicle traffic
11. Road Crossing

Key Points

- Traffic Management and Logistics plan for each site.
- All delivery drivers are to report to the gate person.
- Delivery drivers will be inducted by a traffic marshal before proceeding to the drop point.
- Delivery vehicles must be accompanied by an appointed traffic marshal at all times.
- No vehicle movements unless supervised by the designated traffic marshal (in red hat)
- Avoid reversing movements.
- Delivery drivers are subject to the site rules.

Traffic marshal in control of vehicle movement
12. Delivery of Materials

Fall prevention in place for loading/unloading of flat bed trucks. Where fall prevention is not available fall arrest systems is used.

Key Points
- Plan for safe unloading or loading of materials.
- Select appropriate handling equipment to avoid access onto vehicles.
- Provide equipment to prevent falls.
- Provide equipment to minimize the harm from a fall.
- FORS minimum of bronze for logistics vehicles

Poor material movement and handling disciplines producing serious falls from height issues in both cases!
13. Load Security

Are you competent to unload the vehicle?

Load movement likely!

Key Points

• All loads must be planned, supervised and carried out in a safe manner.
• Loads to be secured by competent operators.
• Confirmation with the driver about unloading procedure. **Is the load safe to unload?**
• Use correct load securing equipment.
• Use correct anchorage points.
• Drivers trained in the distribution and securing of loads.
• If in doubt speak to Site Supervisor.
• Access to the load!
Everyday at work you may come into contact with substances that can be hazardous to your health or the environment. These products include common substances in everyday use such as paint, bleach, solvent or fillers.

- Regulations require these substances to be clearly labelled.
- The labels advise the user of the harmful affects the substance may cause.
- Since 2009, new international symbols have been gradually replacing the European symbols. Some of them are similar to the European symbols, that you are already familiar with, but there is no single word describing the hazard. Read the hazard statement on the packaging and the safety data sheet from the supplier.
- Remember – know your substances and if in doubt ask.
- Refer to the COSHH assessments.
- Right level of PPE for the hazard including RPE.
- Spill kits to be in place.
- All vehicles to carry signed COSHH assessments and MSDS for all materials carried.
15. Storage of COSHH products

Key Points

- Pre-Task Briefings and COSHH assessments must be provided to users of hazardous substances.
- COSHH products must be kept in a designated secure bunded store.
- Keep COSHH materials in their original containers, sealing the container after use.
- Only draw the quantity of chemical you need to use in this shift.
- Ensure you have a suitable spill kits and fire extinguishers at the point of work.
- Don’t stack flammables next to combustibles.
- Flammables must be stored in a suitable fireproof and internally bunded container.
- Segregate incompatible materials as per COSHH Assessment.
- Locate stores where they will not cause unnecessary contamination.

Signed/locked/well ventilated storage of COSHH materials

Risk of fire, spillage!
16. Storage of flammable gas cylinders

**Key points**

- Flammable gases are to be stored away from combustible materials in a lockable, well-ventilated cage.
- **Control access** to the gas store.
- Protect the cage from vehicle impact.
- Identify storage locations within project fire plans.
- **Gas cylinders**, associated hoses and equipment to be **properly maintained and in good condition**. Check before use.
- When gas cylinders are not in use, the valves must be fully closed.
- Return flammable gas cylinders to store at shift end.
- Cylinders must be chained for **storage upright**.
- Call the fire brigade in the event of fire in/around the LPG store and evacuate the area immediately.
High standards means zero compromise – A high hazard site (COMAH Sites) should feel special by the nature of its design, operation and control.

- **Currently 8 of Thames Water key sites qualify under the COMAH regulations**, three Water Treatment Works and five Sewage Works
- You will **KNOW** that you are on a **COMAH site** the moment you approach entrance to site
- **Your site induction** will include additional information that are **COMAH Site specific**
- Maintain communication with Thames Water Site Manager if there is a change to your process - **Undertake process change risk assessment**.
- Do you **understand** what to do in case of emergency? Has **Emergency Plan** been communicated to you?
- Have you been trained to do the job? Do you understand what is required of you?
- Follow your safe system of work – understand hazards & undertake the right course of action.
- **Adhere to site rules/observe safety signs/instruction**
- **Do not ignore** any device installed for your safety

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**Buncefield fire 2005**

**Well controlled entry to COMAH classified site**
18. Waste storage

Key points:

- Only draw the materials you need for your shift.
- Segregate waste streams
- Clearly label skips and bins
- Empty waste receptacles frequently to avoid spillage.
- Deposit waste in an appropriate bin at shift to prevent the creation of a fire hazard.
- Keep your work and storage area tidy to eliminate trip hazards.
- All waste movements from site need waste transfer documentation
- Understand site drainage plans and prevent contamination of water courses and groundwater
Segregation of hazardous & general waste/consignment note in place

Key points

• Register your premises, unless you’ll produce or hold less than 500 kilograms of hazardous waste there in any 12-month period.
• Classify your waste to check if it’s hazardous.
• Separate and store hazardous waste safely and separate from general waste.
• Use authorised businesses to collect, recycle or dispose of your hazardous waste – check that waste carriers are registered and waste sites have environmental permits.
• Fill in the parts of the consignment note that apply to you – keep 1 copy and give 2 copies to the carrier collecting your waste.
• Keep records (known as a ‘register’) for 3 years.
• COSHH bins should have a signage.
• Used spill kits to be disposed off in COSHH bins.

No signage in place/flammables stored next to combustibles!
Key points

- EUSR Card obtained?
- **Exposure to sewage can lead to**: cramping stomach pain/ diarrhoea/vomiting/Weil’s disease/Hepatitis/asthma/skin & eyes infection etc.
- **How does this happen?**
  - Hand to mouth contact (eating/drinking/smoking or when wiping your face with contaminated hands/gloves).
  - Skin contact (Cuts/scratches/surface of skin).
  - Breathing (dust/aerosol/mist).

- Wash your hands with antibacterial soap before eating/drinking/smoking/touching your face.
- Wash your hands after using the toilet.
- Check food that you eat is correctly stored, prepared and properly cooked.
- Remove and correctly dispose of consumable PPE.
- Arrange for cleaning of dirty workwear & PPE.
- **Remove dirty workwear & PPE in the drying and wash your hands before heading to eat your meal/entering offices and other welfare facilities.**
- Challenge persons who are not maintaining acceptable levels of good personal hygiene.
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21. Cross contamination & Public Health

• **EUSR Card** obtained?

It is essential to follow simple steps and procedures to safeguard the quality of water reaching our customers.

- When pipe fittings are stored on site they should be adequately protected from contamination.
- All tools & equipment used near fittings when being installed must be kept clean & disinfected.
- Pipes should remain capped or wrapped as long as possible. They also should be kept on pallets to keep them clear of the ground and any flooding.
- It is extremely important we cap all open ended pipe work to prevent contamination.

Where competing priorities exist between minimising the risk of contamination and restoring the supply as soon as possible or completing a job by a target date, the over-riding consideration must be to ensure that **public health is not compromised**.

You must not work on potable water if you do not hold EUSR card or if any of your household suffer from stomach pain/prolonged fever/food poisoning/ infective hepatitis and jaundice.
22. Leptospirosis (Weil’s disease)

Key points

- **Route of Entry** - through contaminated fluids, tissues, or waters. The infection enters through any breaks in the skin (e.g. abrasions, cuts).
- **Cause** - through contact with animal urine (exposure to infected animal tissue, land, water, any surface or product that could have been exposed to direct contact.

In order to limit the risk of contracting the disease the following must be adhered to at all times:

1. Wash your hand regularly and dry on disposable towels not down cloths as cloths maybe contaminated and use alcohol wipe which are provided.
2. Do not handle rats, dead or alive, without adequate PPE.
3. Avoid all hand to mouth contact.
4. Eat, drink and smoke only in designated areas, after washing your hands correctly.
5. All staff should be informed of dangers of Weil’s disease.
6. Wear PPE.

Report ALL incidents and near misses and hazards promptly
Asbestos fibres can cause **lung cancer and lung diseases.**

Asbestos could be present in buildings built or refurbished before the year 2000!
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24. Display screen equipment (VDU’s)

Key points

- Train display screen equipment assessors.
- Assess workstations and train users.
- Users must adjust workstation for comfort.
- Vary tasks and take regular breaks.
- Report discomfort.

Good posture

Back pain!
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25. Working with concrete

Key points

- Wet concrete is alkaline and may cause severe burns and dermatitis if skin is not protected.
- Use PPE as per RAMS.
- Follow good hygiene practice by washing at each work break and wearing barrier creams.
- Prevent contact with skin by wearing suitable gloves.
- Front Line Supervisors must monitor workers for signs of skin damage.

Contact with skin prevented  Dermatitis/Concrete burns?
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26. Skin protection

Key points

• Plan work activities to eliminate the use of skin irritants.
• Consider substitution of hazardous substances with a lower risk alternative.
• Communicate the COSHH assessment outcome to all operatives.
• Use PPE as per RAMS.
• Provide competent skin monitors on site.
• Refer concerns to the safety team.

Contact with skin prevented

Skin burns!
27. Exposure to silica

Key points

- Monitor and risk assess levels of exposure to silica.
- Use wet cutting tools and damping down.
- Use exhaust ventilated tools and industrial vacuums.
- Provide appropriate face masks and ensure operatives are face fit tested.
- Health screening must be undertaken.

Wet cutting minimises dust release

Silicosis!
28. Dust control

Key points

- Haul roads should be kept clear of debris.
- Dust suppression should be used when necessary.
- Road sweepers should be used.

Breathe in clean air

Suffer from work-related breathing or lung problems!
29. Noise Management

- Eliminate/ reduce exposure to noise. Can you use quieter equipment or a quieter process?
- Read & understand Risk Assessment prior to work and know what control measures you need to put in place.
- Do you know the risks from noise? Do you know noise levels produced by the equipment you use?
- Refer to eight2O Noise CRIBB Card
- Maintain plant and equipment.
- Ensure you wear hearing protection as identified by in Risk Assessment and Method Statement. Type of hearing protection will depend on noise exposure levels generated. Have you been trained on the use of PPE?
- Be considerate of contractors and members of the public working in close proximity. Where appropriate advise them to wear hearing protection. Alternatively consider acoustic insulation in the area.
- Provide Health Surveillance

Don’t lose your hearing!
30. Manual handling

Key points

- Eliminate where possible by using mechanical aids
- Assess the risk from manual handling that can’t be avoided.
- Train personnel in safe handling techniques.
- Maintain a safe working environment.
- Provide handling aids where practical (trolleys, hoists, telehandlers) so that manual lifting of heavy objects is kept to a minimum.
- Avoid repetitive handling & double handling

Keep your back in a natural position when lifting

Back pain!
31. Vibration management

- Eliminate/reduce exposure to HAV as much as possible by selecting suitable work method/plant.
- Risk Assessment/Method Statement in place/signed and understood?
- Have you chosen the lowest vibration tool that is suitable and can do the job efficiently?
- Limit the time that each worker uses high vibration tools (concrete breakers, angle grinders or hammer drills).
- Know the vibration levels produced by the equipment you use.
- Provide information and training to operatives so they know what the risks are from (HAV) and what they need to do to avoid those risks.
- Vibrating tools to be properly maintained this includes keeping bits and drills sharp.
- Vibrating tools to be inspected daily with a weekly report produced.
- Arranged health surveillance for people exposed to high levels of HAV, especially when exposed for long periods.
- HAV meter to be used by all operatives using vibrating tools.

HAVS is preventable, but once the damage is done it is Permanent

Prevention is the only cure for HAVS

Vibration not monitored!
32. MEWP controls – precautions to prevent crush injuries

Key points

- Select a MEWP with measures to prevent incidental operation and trapping.
- Team to be familiar with the MEWP and its emergency lowering controls.
- Adequate monitoring arrangements in place.
- Emergency plan regularly practiced.

MEWP with emergency controls in place used by competent operator adequately supervised

Incompetent operator suffers an injury when operating MEWP
33. Mobile Elevated Work Platforms (MEWP)

Key points

- MEWPs thoroughly examined, inspected and maintained.
- MEPS to be inspected daily. Inspections recorded weekly (do the steering, brakes, hydraulics, mirrors and any other vision aid work properly? Are tyres in good condition and at the correct pressure?)
- Provide physical exclusion zone under operating area.
- Prevent incidental and unauthorized use.
- Prevent people or materials falling. Competent/trained & authorised operators.
- Ground level supervision in case of emergency.

Competent operator compliant with procedure

Climbing out of MEWP basket is not acceptable!
34. Mobile generators, pumps or plant

Key points

- Mobile generators or pumps should be placed on interceptor drip trays or plant nappies.
- Spill kits should be located nearby in case of leak or spill.
- Care should be taken when refuelling or moving.

Use of drip trays to catch any lubricant leaks

Uncontrolled release of any leaks – pollution & Slip hazard!
35. Use of chop saw

Key points

- Guarding and safety devices in place and working.
- Documented risk assessments required for chop saw use.
- Enclosure provided to contain sparks and reduce noise.
- Used by trained operatives wearing appropriate PPE.
- Saw based on stable level surface.
- Hot works permit to be obtained when required

Uncontrolled release of sparks creating a fire hazard!
36. Tool retention safety systems

**Key points**

- A tool retention safety system is best practice when using hand or power tools at height.
- The tool lanyard must be secured to the tool and operative.
- The tool retention safety system must be inspected regularly and replaced when damaged or worn.
- The tool retention system reduces injury arising from dropped tools.
- Fully retractable systems are also available.

*Stops tools from falling, when working at height*

*Tools falling from height will cause injury!*
37. Use of work benches

**Key points**

- Homemade, modified or damaged tools and equipment are not permitted.
- Materials must be held secure in a suitable attachment.
- Always use a stable bench when working with materials.
- Never work on unsecured materials.
- Ensure sufficient task lighting and waste disposal facilities are provided.
- Maintain your working area free of obstructions.

*Work bench free of obstructions and correct for task*

*Insecure work piece makes injury highly likely!*
38. Whacker plate usage

Key points

- Avoid unnecessary exposure to noise and vibration at all times.
- Always risk assess tasks and remove hazards if possible.
- Use the latest plant and equipment that is available.
- Always ask your supplier for alternatives to plant & equipment used by hand.
- Provide operatives with training.
- Daily inspection of tools & report of inspection provided weekly.

Remote controlled plant eliminates the need for person / tool contact. HAVS and noise exposure reduced.

Exposure to HAVS & noise!
39. Breaking down pile caps

Key points

- Avoid unnecessary exposure to noise and vibration at all times.
- Always risk assess tasks and remove hazards if possible.
- Use the latest plant and equipment that is available.
- Always ask you supplier for alternatives to plant & equipment used by hand.

HSE RED List prohibits hand tool breakdown of pile caps. Correct tool used for the job.

Excessive exposure to HAVS!
40. Dumper wheels restraining

Key points

- Avoid vehicle movement when off-loading and loading
- Enables the operator to stabilize creep and exit the plant while loading/off-loading
- Always risk assess task and remove hazards if possible
- Consider use of alternative plant and equipment
- 1T Dumper is prohibited!

Wheel chock in place to prevent dumper overrun

Risk of overturning!
41. Low level access

**Key points**

- Risk assessments must identify appropriate access equipment wherever there is a foreseeable risk of injury from falling.
- Guarded work platforms should be used where possible.
- Ladders are the last resort and will only be used for work of short duration and low risk.
- Ladder permit to be obtained when no other working at height solution can be implemented.
- Equipment tagged, identified on register, inspected and maintained.
- Personnel competent to use equipment.

**Guards in place & outriggers in use to ensure stability/Use of Pop-Ups**

Overreaching from stepladder creates an unstable situation. Risk of fall!
42. Mobile access tower scaffolds

Key points

- Erected by trained and competent operatives using a suitable method.
- Inspected and tagged before use, after modification and every seven days.
- Suitable edge protection and toe-boards.
- Ensure the wheels of tower scaffolds been locked when in use and the platforms empty when they are moved.
- Designed built-in ladder access.

Erected correctly by trained person

Unlocked wheels, erected using incorrect method!
Key points

- Use scaffold or system stair towers in preference to ladders.
- Properly erected and tied to supporting structure.
- Correctly inclined stair risers with handrails.
- Treads level and anti-slip adhesive applied.
- Inspected and tagged.
- Weekly record of inspection.

Fully guarded tied to the structure access scaffold

Risk of fall!
44. Scaffold

Key points

- Erected and altered by competent scaffolders.
- Designed if non-standard.
- Managed by appointed Scaffold Controller; tagged and inspected before use.
- Properly tied, boarded, guarded and protected.
- Brick guards provided to prevent materials falling from scaffolds.
- Are there effective barriers or warning notices in place to stop people using an incomplete scaffold, e.g. where working platforms are not fully boarded.

Guards in place, full toeboard and mesh retention
45. Floor edge protection

Key points

- Full height edge protection must be in place to prevent persons and materials falling.
- Materials and equipment must not pass through the protection or protrude over the edge of the slab.
- The hoist landing must be kept clear.
- Edge protection must be inspected and maintained by competent persons.
46. Access to vehicles

Don’t jump off vehicles! Always use steps & handholds. Follow safe system of work. Report missing or damaged equipment.

Key points

- Plan to avoid work at height where you can
- Where you can’t, make sure you use work equipment to prevent falls:
  - 1st choice – vehicle-based systems;
  - 2nd choice – on-site systems;
- where the risk of a fall can’t be eliminated, use work equipment to minimise the distance & consequences of a fall
- always consider measures that protect everyone at risk (e.g. platforms and guardrails) before measures that only protect the individual (e.g. safety harness).
47. Lifting operations

Key points

- Crane Authorisation obtained from Thames Water?
- Is Lifting Plan in place – this includes lifting using Excavators & HIAB?
- When excavator is used as lifting equipment ensure that only appropriately trained operators carry out the lift
- Follow the lifting minimum standards for basic lifts
- Check the ground conditions – will it support the plant being used?
- Make sure the works are properly guarded
- Close the footpath when lifting over the footpath
- Provide clear signs for pedestrians
- Beware of overhead cables
- Always use a Reversing Vehicle Marshall when manoeuvring plant/vehicle in a restricted area.
- Always use a Slinger/Signaller for grab bucket movements.
- Hard hats must be worn (Orange for Slinger Signaller)
- If necessary hand barrow material (rather than lift over pedestrians/parking your vehicle unsafely).
- NO OBJECT HANDLING CAPACITY NO LIFTING

Chain and master link can hang freely without obstruction

Hitch tilted backwards with master link subject to twisting/bending!
Key points

- Refer to the Lifting Operations Procedure for Guidance on Basic Lifts.
- Straps, chains and shackles must be thoroughly examined every 6 months.
- Make sure you have the **certificates for your lifting equipment** with your vehicle.
- Return damaged lifting equipment to stores and mark the equipment as damaged.
- Check the SWL and ensure this is sufficient for the load.
- Only use approved plates which are clearly marked with their weight.
- Ensure the load is lifted at a correct angle.
- Inspection of lifting equipment report to be provided weekly
Workplace free of trip hazards

Trip hazards, cables prone to damage, electric shock!

Key points

- Plan for temporary power points and lighting.
- Where possible cables should run along walls or ceilings, and be securely fixed.
- Cable management systems such as ‘Skyhooks’ used.
- Cables must not be allowed to lie in water.
- Cables must not create a trip hazard.
- Cables not in use, or damaged, must be removed.
50. Smoking on site

Key points

- Smoking only in external designated areas, away from materials and waste storage.
- Smoking policy communicated to workforce.
- Where shelters are provided, they must be made of non-combustible materials, be cleaned and maintained.
- ‘No-smoking signs’ clearly displayed.
- Provide suitable fire extinguishers, metal ashtrays and separate metal waste bin with lid.
51. Use of Mobile Phones

Mobile Phone Safety Zone

Key points

- Avoid incidents by using mobile phone ONLY is designated Mobile Phone Safety Zones!

Operative distracted/High risk of injury!
52. Manhole protection

Key points

- If trafficked use steel plate of sufficient strength to support maximum load.
- Secure covers to prevent incidental displacement.
- Openings covered and protected.
- Hazard clearly identified.

Manhole protection in place

Risk of fall!
53. Exclusion zones

Key points

- Exclusion zones provided where works present a risk to others.
- Exclusion zone controlled to prevent unauthorized access.
- Physical barriers erected around exclusion zone according to manufacturers instructions.
- Warning signs displayed.

Segregation in place to stop pedestrians coming into contact with moving plants/lifting operations..

Danger to the safety of people crossing plant operation zone!
54. Material Storage

Key points

• Materials to be stored in designated material storage area or as agreed with site management.
• Store perishable materials under cover and away from transport routes to avoid damage.
• Organise your material storage area – not only does it prevent damage, but leads to more efficient working.
• Order ‘just in time’ – do not over-order.
• Look out for opportunities to avoid or eliminate waste.
• Return excess material to stores.

Increase efficiency & safety on your site by storing materials correctly

Trip hazard, blocked fire exits, flammable materials stored next to combustible!
55. Stacking of Plastic Barriers

**Key points**

- Follow manufacturers recommended height for stacking but if in doubt no higher than shoulder height.
- Stack alternately (with the barrier feet on opposite side to previous barrier)
- Do not stack if barrier is no longer fit for purpose – throw it away!
- Even though it is not heavy ensure two man lift particularly when stacked above waist height
- Obey good manual handling techniques
- Materials to be stored in designated material storage area or as agreed with site management.

**Neatly stacked barriers ready to be used when needed**

**Stack is unsupported and in a state of partial collapse!**
56. Storage of reinforcing steel

Key points

• Bundles placed on packing timbers to aid handling or slinging
• Reinforcing sorted and stacked in rows for future use.
• Clear pedestrian access between rows.
• Plan off loading and storage.

Planned loading and off loading of materials

How many trip hazards can you identify?
57. Projecting reinforcement starter bars

Key points

- Starter bars should be designed out where practicable
- Maintain floor areas around starter bars ensuring they are free of materials and trip hazards
- Cover starter bars with mushroom caps or other suitable protection
- Maintain protection at all times

Starter bars covered or bent/floor area free of trip hazards

Starter bars not covered or capped!
58. Reinforced steel cage access

Key points

- Dedicated access routes to all work area’s to avoid walking on the steel cage.
- Maintained and free from trip hazards.
- Clearly signed.

Access routes free of trip hazards

Trip hazard!
59. Access to excavations

Key points

- Sides supported; benched or battered to prevent collapse.
- Inspected before the start of every shift.
- Edges fully guarded and toe-boarded.
- Safe means of access.
- Dangerous atmosphere and flood risks controlled.
- Materials, spoil and plant should be stored away from the edge of the excavation to reduce the chance of a collapse.

Planned means of access & egress

Safe access not provided!
60. Access to confined spaces

Key points

- Identify specific risks and precautions necessary to develop a safe system of work.
- Permit to work to ensure formal checks on safe system of work.
- Operatives trained in confined space working.
- Air monitoring and ventilation as required.
- Emergency plan communicated and drilled

Confined space entry planned & controlled

Uncontrolled entry into confined space. No rescue plan evident!
61. Electrical services lockout

**Key points**

- Competent duty holders appointed to manage electrical systems.
- Persons appointed to authorise works on electrical systems.
- Permit issued to confirm control measures.
- Isolate and lock out systems.
- Prove isolations.

**Isolated system stops unauthorised access**

**Uncontrolled access to electrical services, risk of burns!**
Key points

- Operators trained and provided with **data logging CAT & Generator**
- **Air Lance** provided to every Network Team
- Obtain and understand up-to-date plant and drawings. Ensure they are available on site at all times.
- Check **data logging CAT & Generator** in good working order and within calibration date and undertake a function check prior to sweeping the area to be excavated.
- Prior to excavation within the vicinity of any critical 3rd party assets and clients (oil/ gas/ petroleum/ fuel pipes) obtain specific information. Arrange for an on site meeting with the pipeline owner and agreed method of work (written & approved).
- Check for other visible signs of existing underground apparatus such as street furniture, overhead lines and surface scarring.
- Minimum distance to be maintained when using mechanical plant: – 500mm
- Hand dig to establish line and route of all plant
- **Ensure that your mark up is visible outside of the planned excavation area at all times for the duration of the work.**
- Do not use power tools directly over a marked buried conductor.
- Use the air lance where possible.
- Ensure compliance with HSG47
- Mark up all plant routes next to the excavation area inside and outside of the planned excavation.
- Ensure you use plant detection equipment as the excavation progresses. Minimum every 300mm.
- Mark plant exclusion zones.
### eight2O Visual Standards

#### 63. Utility avoidance

<table>
<thead>
<tr>
<th>Utility</th>
<th>Colour of Duct / Pipe / Cable directly buried in the ground (75mm outside diameter or less)</th>
<th>Colour of Marker/Warning Tape where used</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Gas</td>
<td>Yellow / Yellow</td>
<td>Yellow, black legend</td>
</tr>
<tr>
<td>Water Industry</td>
<td>Blue / Blue</td>
<td>Blue</td>
</tr>
<tr>
<td>Electricity Supply Industry</td>
<td>Black / Black (Red for some 11kV)</td>
<td>Yellow, black legend</td>
</tr>
<tr>
<td>Street / Road Lighting</td>
<td>Orange (E&amp;W) / Purple in Scotland</td>
<td>Yellow, black legend</td>
</tr>
<tr>
<td>Telecoms General</td>
<td>Light Grey / White</td>
<td>Yellow, black legend</td>
</tr>
<tr>
<td>Mercury Telecommunications (MCL)</td>
<td>White or Black with longitudinal stripes</td>
<td>White, blue Mercury logo</td>
</tr>
<tr>
<td>Cable TV and local telecoms services other than BT &amp; MCL</td>
<td>Green / Black or Green installed in duct</td>
<td>Green on yellow with appropriate logo</td>
</tr>
</tbody>
</table>

**Warning!** Not all services will be correctly marked on site.
Always consider safety of members of the public - Fence off all excavations & work places to prevent pedestrians and vehicles from entering the work area or being struck. Consider vulnerable people and children.

- Consult Site Survey/ Service Location Drawings
- Competent person to supervise the work/all operatives receive clear instruction on working safely in excavation.
- Risk Assessment/Method Statement/permit to break surface/PPE/Emergency Plan in place before any works are undertaken
- Avoid underground services – use data logging CAT & Generator
- Use safe digging practices, i.e. locate and dig trial holes by hand – no machines/ hand held power tools within 500mm of a service
- All works must be inspected daily and where excavations are left open overnight or for long periods precautions must be undertaken (backfilling or securely covering excavations) to prevent collapse or unauthorised access. Written weekly report available.
- Excavations must be well lit/ securely fenced/covered or backfilled overnight and at weekends.
- Traffic management in compliance with NRSWA.
- Access - provide a proprietary or ladder access. Where provided, ladders must be regularly inspected, in good order and secured. All exposed services are supported and never to be used for access and egress to the excavation.
- Exhaust fumes – petrol/diesel powered equipment not to be sited in, or near the edge of an excavation unless fumes can be ducted away or the area can be ventilated.
- Influx of water controlled by the use of pumps after the water has been channelled into sumps.
- Never work underneath an excavator (no operative in excavation when excavator in use).
- Never enter an unsupported trench where there is a risk of collapse & never work outside the protection of trench boxes or trench supports.
- Ensure excavations do not affect the footings of scaffolds/ foundations of nearby structures – does the structure need support before excavation starts? (Site Survey)
- Do not store spoil or other materials close to the sides of excavations.
- Make sure the edges of the excavation are protected against falling materials/people - toe boards/ guard rails where necessary.
- Ensure that plant does not work too close to the edge of an excavation. Use brightly painted baulks or barriers to mark.
- Where vehicles have to tip materials into excavations, use stop blocks to prevent them from over-running. Remember that the sides of the excavation may need extra support.
65. Excavation support

- Temporary support – Before digging any trench pit, tunnel, or other excavations, decide what temporary support will be required and plan the precautions to be taken.
- Battering the excavation sides – Battering the excavation sides to a safe angle of repose may also make the excavation safer. In granular soils, the angle of slope should be less than the natural angle of repose of the material being excavated. In wet ground a considerably flatter slope will be required.
- **Any excavations over 1.2m deep or adjacent to live a carriageway will require a ‘Stop and Assess’ approach be undertaken where appropriate support to prevent collapse must then be considered which must have appropriate temporary works sign off from a competent person.**
- Risk assess excavations less than 1.2 m prior to entry as even work in shallow trenches can be dangerous. You may need to provide appropriate support if the work involves bending or kneeling in a shallow trench.
- Never work ahead of the support.

**Stop blocks used to prevent vehicle from over-running**
Class 1 TW have the highest risk and must be designed by a trained and competent person. To ensure that the design has been carried out correctly an independent competent designer, familiar with high risk temporary works, must be appointed as the TW design checker for these works.

Class 2 TW are lower than class 1 TW but still represent a significant risk which needs to be properly addressed and managed.

* A typical list of class 1 & 2 TW is available in Essential Standard No 20 - Management of Temporary Works

Key appointments (in writing):

- **TW Designer** - any person who prepares or modifies the design of any temporary works.
- **TW Supervisor** - a competent person who is responsible for supervising the construction/alteration and inspection of TW prior to their first use or following any alteration.
- **TW Coordinator** - a competent person with responsibility for the co-ordination of all activities related to TW. Responsible for maintaining a register of designs and maintaining and making available all relevant information for each design.

1. Design Brief & Design to be prepared
2. All designs for high/medium risk TW must be checked by a competent person (someone other than the designer who was not involved in the original design) prior to construction and prior to any alteration.
3. Any TW that falls under class 1 must have been signed off by a competent person other that the TW Supervisor assigned to the activity.
4. TW Supervisor must:
   - ensure construction of TW is in accordance with the agreed design
   - confirm to TW Coordinator that the temporary works meet the design criteria
   - Inspect TW immediately before use (and after any significant change) for defects
   - Issue the permit to load/use as appropriate
   - Supervise its use to ensure it is used safely
   - Supervise the dismantling of the temporary works

The TW Coordinator & TW Supervisor must always have the authority to cancel the permit to use/ load and immediately prevent the further use of the temporary works if deemed unsafe.
eight₂O Safety, Health & Wellbeing Aspiration

“To create an environment that encourages a culture of care and concern for each other, intolerant of any level of harm and focussed on protecting the health and enhancing the wellbeing of our people”