

# METHOD STATEMENT

This procedure should be read in conjunction with all relevant specifications and standards for Safety, Environment, Engineering, Construction and Reinstatement. The specifications below are those of Utility Support Solutions Limited, however, the specifications of the adopting authorities shall have precedence where they differ from those indicated

|                        |                                                                                                                                                                                     |               |              |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|
| Method Statement Title | Excavating and installation of fence posts.                                                                                                                                         |               |              |
| Scope                  | To provide a safe and efficient method of excavating and installing fence posts to the required specifications. The procedure covers works in both public highway and private land. |               |              |
| Procedure Reference    | MS08                                                                                                                                                                                | Issue Number  | 01           |
| Issue Date             | 02/08/24                                                                                                                                                                            | Review Period | Annually     |
| Originated By          | Robin Wilkes                                                                                                                                                                        | Approved By   | Ian McDonald |

This method statement has been developed, and must be read, in conjunction with the risk assessment manual. Particular attention should be given to the following risk assessments:

|                                      |                                 |
|--------------------------------------|---------------------------------|
| RA #1 – Underground Services         | RA #26 – Manual Handling        |
| RA #2 – Overhead Services            | RA #63 – Loading and Unloading  |
| RA #12 – Gas Escapes                 | RA #79 – Lifting Equipment      |
| RA #13 – Using a Jackhammer          | RA #E1 – Water from Excavations |
| RA #24 – Use of Vibrating Hand Tools | RA #E3 – Excavated Materials    |

## Relevant Documentation

HSE Guidance Note HS (G) 47 – Avoiding danger from underground services

HSE Guidance Note GS6 – Avoidance of danger from overhead electric lines

Safety at Street Works and Road Works – A Code of Practice

NJUG – Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees.

## Emergency Arrangement Details

|                                                                                     |                                                                                     |                                                                                      |                                          |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------|
|  |  |  |                                          |
| Fire/Evacuation                                                                     | First Aid                                                                           | Pollution/Spill                                                                      | Other                                    |
| SP08 – Emergency Preparedness & Response                                            | HSEI01 - Emergency Information                                                      | MS04 – Spill Response                                                                | SP08 – Emergency Preparedness & Response |

## Personal Protective Equipment (PPE) Requirements

|                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |  |
| Head (EN397)                                                                        | Foot (BS EN345-1)                                                                   | Protective Clothing                                                                 | Hi-Vis Jacket                                                                       | Hand (BS EN388)                                                                     | Eye (EN166)                                                                           | Hearing (EN 352-1)                                                                    | Dust Mask (EN149)                                                                     |
| ✓                                                                                   | ✓                                                                                   | ✓                                                                                   | ✓                                                                                   | ✓                                                                                   | ✓                                                                                     | ✓                                                                                     | ✓                                                                                     |

Other PPE Requirements: Based on risk assessment (PAM's)

Construction Dust (Note: construction dust is harmful and can lead to fatal lung diseases such as silicosis)

|                                                   |                                                                                                   |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Will the work create dust or fumes?               | Yes, during loading/unloading and excavation                                                      |
| Identify control measures to minimize dust/fumes: | Water suppression for dust in addition to dust mask, operatives clean shaven and face fit tested. |
| If dust cannot be avoided, identify required RPE: | EN149 dust mask during dust creating operations                                                   |

## Hazardous Materials

|                                        |     |
|----------------------------------------|-----|
| Are hazardous materials to be used?    | No  |
| Are COSHH/DSEAR data sheets available? | Yes |

Relevant COSHH Risk Assessments Reference should be made to the USS COSHH Manual.

|                      |  |
|----------------------|--|
| COSHH #2 - Aggregate |  |
|                      |  |

| Permit to Work                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Identify any Permit to Work required for this activity?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Permit arrangements under SCO. |
| Description of Safe Working Method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                |
| <p>All team leaders must have Operative qualifications under New Roads and Street Works Act for Excavating. In addition to this all team leaders as a minimum must have suitably defined and approved Cable avoidance training.</p> <p>All plant operators must have suitable training for the equipment being utilized (NPORS or similar)</p> <p>All operational supervisory staff must have Supervisory qualifications under New Roads and Street Works Act for Excavating. Additionally, all supervisory staff will be provided with a copy of the appropriate documentation detailed above to enable the appropriate advice to be provided if required.</p> <p>This method statement is aimed at providing a safe and efficient method of excavating and installing fence posts within the confines of a Gas compound to the specified depth to assist in the refurbishment of the reinstated surfaces within the specified areas of work. This Method Statement covers works in both public highway and private land.</p> <p>This Method Statement should be read in conjunction with all relevant specifications and standards for Safety, Environment, Engineering, Construction and Reinstatement.</p> <ol style="list-style-type: none"> <li>1. Site specific information will be obtained from the Client and the USS competent person will refer to these when carrying out the initial site survey to identify and clarify site specifics.</li> <li>2. USL will where required advised the utilities companies of the job and a copy of all utility drawings will be obtained.</li> <li>3. USL will where required notify the roads department of the intended works as required and a provisional commencement date will be obtained.</li> <li>4. The roads department will be consulted before removing or obliterating permanent traffic signs and advise on completion.</li> <li>5. All affected stakeholders and others in the vicinity of the works area who may be affected by the work will be informed of the nature of the work, expected duration and the out of hours emergency contact number.</li> <li>6. Competencies and experience of all site personnel involved in the works will be checked and will include but not be limited to:- <ol style="list-style-type: none"> <li>a. SHEA GAS</li> <li>b. CSCS / CPCS (as applicable).</li> <li>c. NCO.</li> <li>d. SCO qualifications.</li> <li>e. NRSWA Qualifications.</li> <li>f. Cable Avoidance training.</li> </ol> </li> <li>7. Before any work is commenced on site a Site Specific Risk Assessment will be carried out. Any observations and actions should be noted on the Site Specific Risk Assessment form included in the project file.</li> <li>8. The completed Risk Assessment form will be signed, dated and retained within the project file. On any subsequent days an assessment should be carried out to ensure that site conditions have not changed.</li> <li>9. Drawings, material lists and specifications should be checked to ensure that they are relevant to the proposed works.</li> <li>10. All necessary traffic management systems, signing, guarding and lighting should be in place and operational prior to commencement.</li> <li>11. Utilities will be identified and legibly marked on the ground surface; where required the utility provider will be contacted for assistance / presence on site to prove the status and ownership of the utility e.g. voltage, dead, pot ended (drilling tapping will be done by the asset owner -the utility provider may make the utility safe to allow the work to progress).</li> <li>12. Where overhead cables are present the site safety officer or appropriate Electricity Authority should be contacted to determine safe working practices.</li> <li>13. Each day all plant, tools, materials and equipment should be checked for safety, soundness and fitness for purpose prior to commencement of work.</li> <li>14. Tooling on site will consist of:-</li> </ol> |                                |

- a. CAT & Genny (within calibration).
  - b. Plant Nappies or Drip Trays + Spill Kits
  - c. Signing, Lighting & Guarding
  - d. Welfare Facilities
  - e. Compound
  - f. Hand Tools consisting of
    - Safe Dig tooling
    - Hammers As required
    - Spanners As required
    - Gnerrator As required
  - g. Stihl Saw.
  - h. Excavator + Lifting Slings and shackles with appropriate LOLER certificate)
  - i. Water Pump.
15. The works area will be walked and checks will be made for existing surface defects, damaged structures or boxes and any other anomalies. Any findings should be noted in the appropriate manner and notified to the relevant authority / person.
  16. If there are any concerns about the possibility of the presence of contaminated land which has not been previously identified, no work should be carried out until the Project Manager or Agent has been consulted. Signs of contaminated land may include odour, discoloured run off or discoloured / unusual excavated material.
  17. High visibility jackets appropriate for the road type should be worn at all times when working on or near the highway or in any other location where vehicles may pass in close proximity.
  18. Where necessary, shallow trial holes shall be excavated to locate other plant or determine any other obstructions, which may prevent the design route being followed.
  19. The impact of any adjacent open excavations on the proposed works should be considered
  20. The proposed area to be excavated should be marked on site, taking due regard of other utilities, in order to minimise hole size while taking account of the nature of work to be carried out.
  21. As the excavations may be within 10 metres of a Gas Pressure Regulating Station, NGN will be made aware prior to work commencing
  22. All underground electric cables should be treated as live unless certified as dead by their owner
  23. Hand excavation using appropriate tools will be used to locate buried plant and cables before using mechanical excavation.
  24. A CAT and Genny Survey will be carried out using the CAT in all modes, with the GENNY used first.
  25. Where appropriate direct connections will be made to Street light columns, Electric Services and any other exposed metallic utility.
  26. Where underground utilities are identified as "shallow" i.e. less than the standard depth, the works will be planned to include hand digging of additional trial holes to the side of the track to prove the lay of the main and to expose underground utilities in the area of work.
  27. All excavations will be carried out in accordance with HSG 47 and under no circumstances will excavations be carried out directly above any known apparatus, excavations will be made to the side of the apparatus until the depth can be positively identified.
  28. Mechanical excavation will not be used for this activity
  29. NJUG guidance and care should be taken while excavating in the vicinity of trees to ensure that no damage is caused to the root system.
  30. Excavate a sufficient area in advance to ensure that the correct depth can be achieved for the finished surface within the specifications can be maintained.
  31. If due to local site conditions (other plant, mass concrete etc.) the minimum cover, or any other cover specifically specified by the Designer, can not be achieved the Designer must be notified and no further work at the location carried out until a variation to the Design has been supplied by the Designer.
  32. Existing utility plant situated in or across the excavation must be suitably supported as required and must not be used to climb on or rest equipment. Care must be exercised to ensure that any other shallow utilities apparatus, not exposed but adjacent to the excavation is not affected by ground movement.
  33. The positions of the posts will be marked on the ground prior to any excavation works being undertaken. The client will approve the post positioning.

34. Prior to commencing any excavation work in areas where underground services have been located and exposed in accordance with HSG47-avoiding danger from underground services. Will be checked for location and marked where paint has been washed away.
35. All areas to be excavated shall be CAT & Genny scanned using a ECAT4+ and Jenny. The area will be scanned by a trained and competent operator before any digging work.
36. Only safe dig techniques will be used for any excavation that takes place.
37. The surface layer will be broken up using hand held breaking equipment, Using safe dig techniques, safety Shovels and air lance excavation works will commence watching for signs of services and marker tape etc. Repeat the checks with the cable and pipe locator.
38. The excavations will be dug to a depth suitable to accept the lower part of the post. This is envisaged to be 800mm with an additional 100mm depth to accommodate the foundation materials. Excavated materials will be placed in a wheel barrow and wheeled into the site skip.
39. On completion of each post hole, the hole will be filled to a 100mm layer of 3-1 ballast and cement mix. The mix will be mixed in a cement mixer and barrowed to the post hole. The mix will be compacted in the post hole using a hand compactor.
40. Each post will be delivered and stored on the delivery pallet, at a position close to the location where the posts will be installed.
41. Each post will be manually handled into position by a minimum of two persons. Each post will be lowered onto the compacted foundation base and the height above ground checked for accuracy with a tape measure.
42. The area around each post will be backfilled with a 1-3 Cement / Ballast concrete mix. To a depth of 50mm below the surface level to allow for the final reinstatement materials. The Cement/ Ballast mix will be mixed using a cement mixer and barrowed to the position then placed into the hole around the post. Each post will be checked for Height using a tape measure and checked for Level (Plumb) using a spirit level/ plumb line. Each post will be secured in place with Ratchet Straps so as to ensure the post does not move whilst the concrete mix is curing. Once the concrete mix is secure (The Next Day) the straps can be removed.

Repeat the process for each post.

|                                                                                 |                                                                                                                                           |                                                                                                                                                                                                               |                                         |                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |   |                                                                          |               |                    |  |  |
|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------|---------------|--------------------|--|--|
| Risk Assessment No                                                              |                                                                                                                                           | RAMS-08                                                                                                                                                                                                       |                                         | Activity        |       | Excavating and installation of fence posts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   | Location                                                                 |               | NGN Governor sites |  |  |
| Assessment Undertaken by                                                        |                                                                                                                                           | R. Wilkes                                                                                                                                                                                                     |                                         | Assessment Date |       | Aug 2024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |   | Review Date                                                              |               | Aug 2025           |  |  |
| Risk Ratings                                                                    |                                                                                                                                           |                                                                                                                                                                                                               |                                         |                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |   |                                                                          |               |                    |  |  |
| Persons at risk (PAR)                                                           |                                                                                                                                           | Severity / Harm Rating (S)                                                                                                                                                                                    |                                         |                 |       | Likelihood (L)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |   |                                                                          |               |                    |  |  |
| E                                                                               | Employees /Contractors                                                                                                                    | 1                                                                                                                                                                                                             | Negligible injury or no injury          |                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1 | Extremely unlikely to occur at any time                                  |               |                    |  |  |
| P                                                                               | Members of Public                                                                                                                         | 2                                                                                                                                                                                                             | Minor injury requiring First Aid        |                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2 | A rare combination of factors would be required for an incident to occur |               |                    |  |  |
| V                                                                               | Visitors                                                                                                                                  | 3                                                                                                                                                                                                             | Lost time injury                        |                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3 | Could happen, but considered unlikely under normal circumstances         |               |                    |  |  |
| C                                                                               | Clients                                                                                                                                   | 4                                                                                                                                                                                                             | Single serious injury or single death   |                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 4 | Not certain, but an additional factor may result in an incident          |               |                    |  |  |
|                                                                                 |                                                                                                                                           | 5                                                                                                                                                                                                             | Multiple deaths and or serious injuries |                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5 | Almost inevitable that an incident will result - Highly likely to occur  |               |                    |  |  |
| Tolerance rating                                                                |                                                                                                                                           |                                                                                                                                                                                                               |                                         |                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |   |                                                                          |               |                    |  |  |
| 15 - 25                                                                         |                                                                                                                                           | DANGER - Task/activity should not proceed. Further control measures are to be put in place to reduce risk. When in place the level of risk should be re-assessed for adequacy before the work recommences.    |                                         |                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |   |                                                                          |               |                    |  |  |
| 7 - 14                                                                          |                                                                                                                                           | SIGNIFICANT RISK is attached to this task/activity. Look critically at ways of reducing the level of risk to a more tolerable level by improving existing control measures or by introducing new controls.    |                                         |                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |   |                                                                          |               |                    |  |  |
| 1 - 6                                                                           |                                                                                                                                           | TOLERABLE RISK - Consider if risk is "as low as reasonably practicable", If not try to reduce risk further by improving control measures. Keep under review and continue with task/activity, but with caution |                                         |                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |   |                                                                          |               |                    |  |  |
| NB. Full PPE will be utilised as a matter of course during any works undertaken |                                                                                                                                           |                                                                                                                                                                                                               |                                         |                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |   |                                                                          |               |                    |  |  |
| Initial Assessment No controls                                                  |                                                                                                                                           |                                                                                                                                                                                                               |                                         |                 |       | Risk Mitigation Measures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |   |                                                                          |               |                    |  |  |
| Item No                                                                         | Hazard Identification                                                                                                                     | PAR                                                                                                                                                                                                           | S                                       | L               | Score | Control Measures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | S | L                                                                        | Revised Score | Risk Acceptable    |  |  |
| 1                                                                               | Pedestrians & vehicles - Inadequate clearance between equipment and individuals , causing cuts, lacerations, bruising, entrapment loss of | E,P,V,C                                                                                                                                                                                                       | 4                                       | 4               | 16    | Operatives to wear high-visibility clothing and hard hats. Signing and guarding to comply with Chapter 8 and Method Statement and Risk Assessment for 'Signing and Guarding'. Use lookouts / banks men to ensure that vehicles and the public are kept away from the working area Substantial guard rails must be provided to prevent falls into the excavation, e.g. Heras fencing. Where there is a risk of children gaining access ensure that the area is either backfilled, guarded with Heras fencing or securely covered. | 4 | 1                                                                        | 4             | Yes                |  |  |

|   |                                                                                                      |         |   |   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |   |   |   |     |
|---|------------------------------------------------------------------------------------------------------|---------|---|---|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|-----|
|   | digits and limbs.<br>Death.                                                                          |         |   |   |    | Walkways must be provided for pedestrians<br>Vehicle parking to be planned and vehicle doors that may obstruct pedestrians and traffic kept closed<br>Working area to be arranged to provide sufficient width for pushchairs and electrically powered scooters for the elderly – secured ramps are to be provided on kerbs.<br>Areas where the customers and the public may walk must be kept free from tools and materials<br>Work is to be stopped and supervisor consulted when customers/public are violent or aggressive                                                                                                                                                                                                                                     |   |   |   |     |
| 2 | Other Contractor Employees,<br>Members of the Public, Vehicular Traffic.                             | E,P,V,C | 4 | 3 | 12 | Operatives to wear high-visibility clothing.<br>Signing and guarding to comply with Chapter 8 requirements<br>Use lookouts / banksmen to ensure that vehicles and the public are kept away from the working area when setting out.<br>Utilise Beacons on Vehicles when undertaking all works.<br>Backfill excavations, however where this is not possible place skid-resistance footway board over excavations in the footway.<br>Where road plates are used, they must have a skid resistance surface, they must also be rigidly secured into position.<br>Road plates must be either sunk into the surface of the road or a suitable bitumastic material should be used to provide a ramp to the plate level.<br>Ramp signs must be positioned to warn drivers. | 4 | 1 | 4 | Yes |
| 3 | Poor lighting. Slips trips and falls, broken bones.                                                  | E,P,V,C | 4 | 4 | 16 | Place Road Danger lamps next to signs which are on, or partially on the footway.<br>Operatives must wear long sleeve high-vis clothing.<br>Hazard warning lights and flashing beacons must be in use.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4 | 1 | 4 | Yes |
| 4 | Excavation / Deep Excavations -<br>Excavation collapse causing crush injuries asphyxiation and death | E,P,V,C | 4 | 5 | 20 | Excavations deemed deep will require Confined Space control measures<br>Works must stop and an alternative SSOW<br>If working in poor ground conditions it may be required to shore excavations.<br>The excavation must be securely guarded with scaffold guarding or crowd control barriers<br>Ensure safe access and egress is maintained via ladders that are footed and secured at the top.                                                                                                                                                                                                                                                                                                                                                                   | 4 | 1 | 4 | Yes |

|   |                                                                                                                                         |         |   |   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |   |   |   |     |
|---|-----------------------------------------------------------------------------------------------------------------------------------------|---------|---|---|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|-----|
|   |                                                                                                                                         |         |   |   |    | <p>Prior to the commencement of any work a risk assessment must be carried out in relation to each excavation</p> <p>If poor ground conditions are experienced then appropriate shoring must be installed.</p> <p>Ensure that a continuous atmospheric monitoring takes place and the results recorded.</p> <p>Inspection of the excavation must take place, in accordance with the inspection schedule.</p> <p>All excavated areas must be protected with a suitable barrier.</p> <p>Safe digging practices must be observed.</p> <p>Works to be Supervised at all times</p> <p>Spoil from the excavation must be stored away from the edge of the excavated area</p>                                                                                                                                                                                                                                                                                                                           |   |   |   |     |
| 5 | Use of Plant and Equipment                                                                                                              | E,P,V,C | 3 | 4 | 12 | <p>Training in equipment to be utilised</p> <p>No untrained personnel to use equipment</p> <p>No mechanical Excavating within 500mm of any identified underground apparatus.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4 | 1 | 4 | Yes |
| 6 | Hazardous substances, Dusts (Silica / Asbestos) Contact, Skin contact over a long period can lead to severe dermatitis and skin cancer. | E       | 4 | 4 | 16 | <p>A material Health &amp; Safety Datasheet is obtained for every substance prior to it being used within the business.</p> <p>Data Sheet transposed into COSHH assessment outlining the correct use of the substance.</p> <p>No employee will undertake any work liable to expose him or her to hazardous substances unless a suitable and sufficient assessment of the risk has been prepared and the steps needed to comply with the regulations has been implemented.</p> <p>Where risks can not be avoided or engineered out suitable and adequate personal protective clothing will be provided as a last resort.</p> <p>Appropriate equipment and maintenance procedures will be implemented with records being kept.</p> <p>Where required appropriate medical surveillance will be provided undertaken by an appointed occupational Doctor.</p> <p>Employees exposed to substances hazardous to their health will be provided with such information, instruction and training as is</p> | 4 | 1 | 4 | Yes |

|    |                                                                                  |          |   |   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |   |   |   |     |
|----|----------------------------------------------------------------------------------|----------|---|---|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|-----|
|    |                                                                                  |          |   |   |    | <p>suitable and sufficient for them to know the health risks associated with the substances they are using.</p> <p>Use hydraulic flag and block cutters where possible</p> <p>Water sprays on cutting saws are to be used to control dust from cutting operations – concrete, flags etc.</p> <p>If no water is available disposable half mask respirators to minimum of FFP3 standard should be used and fit tested to the individual</p>                                     |   |   |   |     |
| 7  | Noise - Lack of concentration caused by noise possibly causing injury, Deafness. | E,P,V,C  | 3 | 3 | 12 | <p>Ensure equipment has been maintained in line with manufacturers recommendations</p> <p>Ensure the correct cutting drill is utilised for the materials being cut</p> <p>Any canopies / Mufflers must be closed when the equipment is in operation</p> <p>Operatives must wear suitable ear protection when noise levels exceed 85db.</p>                                                                                                                                    | 3 | 1 | 3 | Yes |
| 8  | Hand / Arm Vibration Causing VWF or carpal tunnel syndrome                       | E        | 3 | 3 | 9  | <p>Operatives are advised not to grip controls too tightly.</p> <p>Operatives must keep their hands and arms warm i.e. wear gloves and suitable clothing to maintain blood supply to the hands, fingers and arms.</p> <p>Periodically rotate the use of vibratory equipment with other operatives by carrying out other operations.</p> <p>Monitor vibration levels daily and report any excessive exposure.</p> <p>Ensure guidance on Vibration assessments is followed.</p> | 3 | 1 | 3 | Yes |
| 9  | Working at Height, falls and falling material                                    | E,P,V,C, | 3 | 4 | 12 | <p>Avoid the need to work at height whenever possible.</p> <p>Ensure access ladders are secure at top of excavations.</p> <p>Ensure access steps/ ladders are free from debris and detritus.</p>                                                                                                                                                                                                                                                                              | 4 | 1 | 4 | Yes |
| 10 | Manual Handling - Strains and Sprains to back and muscles.                       | E        | 3 | 3 | 9  | <p>Manual handling to be avoided or reduced as much as possible.</p> <p>Consider the use of mechanical lifting aids before carrying out any lifting activity.</p> <p>Keep any carrying distances to a minimum.</p> <p>Undertake a Manual Handling assessment before lifting.</p> <p>Two operatives or mechanical means must be used if the equipment is assessed as too heavy for one operative</p> <p>Manual Handling training for all site personnel</p>                    | 3 | 1 | 3 | Yes |

|    |                                                                                             |         |   |   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |   |   |   |     |
|----|---------------------------------------------------------------------------------------------|---------|---|---|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|-----|
|    |                                                                                             |         |   |   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |   |   |   |     |
| 11 | Electricity and Electric shock activation of Strike alert. Shock and Burns, Death.          | E       | 5 | 4 | 20 | Contact with underground / overhead apparatus can cause an electric shock if an electric cable has been struck or damaged. Do not touch the equipment. Vacate area immediately.                                                                                                                                                                                                                                                                                                    | 5 | 1 | 5 | Yes |
| 12 | Excavated spoil Falling into excavations trip hazards                                       | E       | 3 | 4 | 12 | Ensure that all excavated spoil is stored at a safe distance from excavation, e.g. if the excavation is 1 metre deep, the leading edge of the spoil must be 1 metre away from the top of the excavation, if the excavation is 2 metres deep, then the leading edge of the spoil must be 2 metres away from the top of the excavation etc.<br>Ensure Excavations are inspected on a daily basis any movement in the excavation must be documented on the excavation inspection from | 3 | 2 | 6 | Yes |
| 13 | Materials, plant or equipment falling into the excavation. Lost time injuries head injuries | E,V,P,C | 4 | 4 | 16 | Do not store materials close to the excavation.<br>Do not park or operate vehicles or plant close to the sides of the excavation.<br>Position stop blocks where vehicles or plant must operate close to the excavation<br>Ensure poling boards are protruding over the top of the excavation in order to prevent objects falling into the excavation                                                                                                                               | 4 | 1 | 4 | Yes |

|    |                                                                                                                                                             |         |   |   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |   |   |   |     |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---|---|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|-----|
| 14 | Fumes –<br>Asphyxiation Death                                                                                                                               | E       | 5 | 4 | 20 | Do note site petrol or diesel-engine equipment such as generators or compressors in, or near the edge of an excavation unless fumes can be ducted away or the area can be ventilated.<br>Prior to working in excavation do tests for toxic gases or oxygen depletion. This test should then run continually whilst working in the excavation.                                                                                                                                                                                                                                                                                                                                                                                                                                           | 5 | 1 | 5 | Yes |
| 15 | Slips, Trips and Falls                                                                                                                                      | E,P,V,C | 4 | 4 | 16 | Access to the working area to be kept clear of tools and materials at all times<br>Working area to be maintained in a tidy condition as work progresses<br>Mud to be cleaned from boots when leaving the working area and mud swept off footpaths<br>Check the condition of stairs or places slips or trips may occur<br>Take extra care in wet or freezing conditions<br>Footwear must fit well - soles to be in good condition and kept clean – Boots must provide ankle support<br>Steps into the vehicle to be kept clear and free from mud. Extra care to be taken if there is no step                                                                                                                                                                                             | 4 | 1 | 4 | Yes |
| 16 | Underground<br>Services - Service<br>Strikes, Loss of<br>supply, damage to<br>property, burns to<br>individuals, electric<br>shock, heart failure<br>Death. | E       | 4 | 4 | 16 | Read and implement the controls in Method Statement and Risk Assessment for 'Avoiding Danger from Underground Services'<br>Ensure that no mechanical equipment does not operate within 500mm of underground services.<br>Only trained and experienced operatives may carry out excavation activities.<br>CAT and Genny must be used at all times even when the surface has been broken and underground apparatus has been identified. All underground plant along proposed pipe route will be identified and exposed prior to commencement of operations.<br>A suitable handover to the team leader should take place ensuring the team leader is aware of all safety critical information, including locations and types of apparatus, depths of the apparatus, size of the apparatus. | 4 | 1 | 4 | Yes |

|    |                                                                   |   |   |   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |   |   |   |     |
|----|-------------------------------------------------------------------|---|---|---|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|-----|
| 17 | Poor Underground Service Prints, Service Prints Unreadable        | E | 4 | 4 | 16 | Stop work and contact line manager if prints are unreadable or if the prints are not understood<br>Adequate training needed for both reading / Interpreting utility prints<br>Ensure prints are complete i.e. sufficient details behind the prints.<br>Quality Checking of Prints prior to breaking ground.                                                                                                                                               | 4 | 1 | 4 | Yes |
| 18 | Operatives Not Trained to use locating equipment                  | E | 3 | 5 | 15 | At least one operative per team to be trained in the use of CAT & GENNY.<br>Only trained operatives to carry out this operation, Specific location Tool                                                                                                                                                                                                                                                                                                   | 3 | 1 | 3 | Yes |
| 19 | Defective locating equipment                                      | E | 4 | 5 | 20 | Only use calibrated in date equipment<br>Ensure Equipment is functioning correctly by carrying out a function check.<br>Equipment has been tested over a known source<br>Change batteries regularly and have spares available<br>Stop work if equipment is considered faulty                                                                                                                                                                              | 4 | 1 | 4 | Yes |
| 20 | Shallow laid services, Undetectable services                      | E | 5 | 5 | 25 | Clearly mark route of services identified<br>Dig pilot holes in advance of working zone in order to clearly locate services<br>Hand dig within 0.5 m of all services<br>Use locating equipment at regular intervals<br>Utilise Safe Digging Practices Never excavate directly over a known identified service – Excavate to the side of a known identified service and undermine<br>Always ensure CAT & Genny is used on all modes (Power, Radio & Genny) | 5 | 1 | 5 | Yes |
| 21 | Tools striking live services Tools Striking Services once exposed | E | 5 | 4 | 20 | Rubber grips to be fitted to all jack hammers<br>Mechanical tools not to be used within 0.5 m of any service.<br>Hand dig with spades not forks or picks within 0.5m of any service<br>Protect exposed services with Rubber mats, Split Ducts etc.<br>Never Utilise Exposed services as Steps to exit the excavation<br>Consider utilising Air Pick                                                                                                       | 5 | 1 | 5 | Yes |

|    |                                                                                                                 |   |   |   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                            |   |   |   |     |
|----|-----------------------------------------------------------------------------------------------------------------|---|---|---|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|-----|
| 22 | Exposing damaged Services                                                                                       | E | 4 | 4 | 16 | Do not attempt to repair any service<br>Report any damage immediately to your supervisor<br>Ensure the works area is made safe                                                                                                                                                                                                                                                                                                                             | 4 | 1 | 4 | Yes |
| 23 | Cable(s) cast/buried in concrete                                                                                | E | 4 | 5 | 20 | In order to prevent persons being injured, either of the following should be carried out:-<br>1. Make the cable dead (Documented proof must be obtained from the owner/operator stating that the cable is dead)<br>2. Agree a safe system of work with the owner/operator prior to progressing the work                                                                                                                                                    | 4 | 1 | 4 | Yes |
| 24 | Excavating within 3m. of a Medium, Intermediate or High Pressure pipelines, or 3 <sup>rd</sup> Party pipelines. | E | 3 | 4 | 12 | Identify any 3rd party marker posts and report to Line Manager<br>Check for 3rd party pipelines on prints<br>All teams must be in possession of the relevant documentation from the Gas Network operators if excavating in the vicinity of IP,HP pipelines<br>If you have not been issued with a permit from the gas network operator, stop work and contact your supervisor.                                                                              | 3 | 1 | 3 | Yes |
| 25 | Psychosocial (Work related stress)                                                                              | E | 4 | 4 | 16 | General notice board displays mental health first aiders and mental health committee members.<br>Administrators to check impact from previous job including driving and working hours.<br>Supervisors to highlight any booked jobs that may cause concern for the week ahead at the Operations meeting and monitor any last minute additions to their teams workload.<br>Line managers to actively communicate with reporter's and highlight any concerns. | 4 | 1 | 4 | Yes |

