Risk Assessment / Method Statement – Hand Rodding & Roping.

Project Scope:

Location issues: *Heavy public presence, adverse weather conditions, transport*.

Detail:

- Installed before work commences;
  - Infrastructure including chambers & ducting.
  - Joint box (footway or carriageway) containing network equipment.
- Effectively guide continuous rods (cobra) or hand rods (coupling) through existing ducting to desired end point.
- Installation of draw-rope between start & end point.
- Draw-rope primed for fibre optic cable installation (pulling) activities.

Hazard Identification and Risk Controls

Provided in the attached Risk Assessment.

Environmental Protection Measure:

Waste and spoil disposed of in the designated area or receptacle provided for waste.

Quality Control:

The installation will be checked on completion by inspection.

Welfare:

Local knowledge of public welfare facilities beneficial. Local business welfare facilities must only be utilised if/when purchasing products or if permitted by owner/manager.

Emergency Procedures:

Reference to instruction detailed within Map group (uk) vehicle pack.

Method

1. Effectively segregate working area to prevent unauthorised access.
2. Provide clear safe, alternative pedestrian routes if work area obstructs existing footway.
3. Break seal & partially raise chamber cover. Complete initial atmosphere test prior to removing chamber cover (three bleeps/20 seconds per bleep).
4. Safely & correctly remove chamber cover in accordance with required standard (SA002). Contain open chamber, chamber cover & equipment within segregated area.
5. Complete thorough atmosphere tests & continuously monitor (SA002).
6. If water is present within chamber, perform water test to determine category e.g. pure water, sewage etc. If volume is <5m^3 & is not deemed as polluted then pump from chamber into carriageway drain/gutter or onto grass verge - continuously monitor. If volume is >5m^3 & is deemed as polluted, stop work & contact supervisor for tank disposal (Gully emptier). Reference 'test card' within water test kit.
7. Assemble equipment – Clamp guides 2A within joint box, guide rod flex attached to clamp guides 2A, gate guards & bell mouth, bell mouth fitted in duct entry. Continuous rods (cobra) inserted into entry point of guide rod flex (K8).
8. Proof existing duct (pre-installed). Deploy rods through guide rod flex & ducting to test fluidity of duct (unobstructed).
9. If hand rodding activities indicate an obstruction, replace chamber cover, remove equipment & refer job to Client FBC (Field Based Co-ordinator).
10. If ducting proves clear, guide rods through ducting to desired end point (K8).
11. Secure draw-rope correctly to rod end & retrieve draw-rope by withdrawing rods.
12. Test fluidity of draw-rope & secure within joint box.
13. Disassemble equipment – Clamp guides 2A, guide rod flex, bell mouth.
14. Replace chamber cover (SA002).
15. Disassemble SLG e.g. remove barriers.

	Name	Title	Date
Document Author	James Alderson	H & S advisor	21/02/2019
Reviewer	Lee Meek	H & S Manager	21/02/2019
Authorised by	Matty Carlin	Director	27/02/2019

Likelihood			Consequence		
1	Very unlikely	1 in a million of hazardous event	1	Insignificant	No injury
2	Unlikely	1 in 100,000 of hazardous event	2	Minor	Minor injuries requiring first aid
3	Fairly likely	1 in 10,000 of hazardous event	3	Moderate	Up to 7 days absence
4	Likely	1 in 1,000 of hazardous event	4	Major	More than 7 days absence
5	Very likely	1 in 100 of hazardous event	5	Catastrophic	Death

Location / Activity Hazard	Who might be harmed, The Hazardous Event The Consequences	Controls	Risk Rating L	 C	 R
Carriageway / removing equipment from vehicle. Traffic / Construction vehicles.	Technician(s). Impact from passing vehicle. Catastrophic.	1. Construction site induction provided by developer. 2. Vehicle to be parked with side door (access to cargo hold) adjacent to the footway. 3. Mandatory high-visibility clothing to be worn at all times.	1	5	5
Lifting operations e.g. carrying equipment / tooling. Manual handling	Technician(s). Inappropriate manual handling. Major musculoskeletal injury.	1. Manual handling training provided (induction). 2. TBT on manual handling provided at 1-year intervals. 3. Regular refresher training at 3 yearly intervals.	2	4	8
Pushing / pulling activities e.g. hand rodding. Manual handling.	Technician(s). Inappropriate manual handling. Major musculoskeletal injury.	1. Specific manual handling training provided (technician assessments). 2. Regular refresher training at 3 yearly intervals.	2	4	8
Pushing / pulling activities e.g. hand rodding. Defective equipment (rods).	Technician(s). Blow from flailing equipment (rods). Major injury.	1. Equipment inspection training provided (K8 or equivalent). 2. PPE provided e.g. eye protection, safety helmet, hand protection (gloves), to be worn by all engineers carrying out the activity or at risk from being struck by the rods. 3. Regular refresher training at 3 yearly intervals.	1	4	4
Accessing / working on underground services. Electricity.	Technician(s). Contact with live conductors. Catastrophic.	1. Approved / Insulated tooling. 2. Voltage detection equipment (pen) provided.	1	5	5
Accessing / working on underground services. Gas.	Technician(s). Explosive atmosphere. Oxygen deficient atmosphere. Catastrophic.	1. Calibrated Gas Detection Unit (GDU) provided. 2. Gas testing / monitoring - GDU usage / training provided on induction & at regular intervals – SA002 assessment. 3. Utility provider contact number available on request (supervisor).	2	5	10
Accessing / working on underground services. Sharps.	Technician(s). Infection. Major illness.	1. Technician training on surveying area / needle stick injuries / discarded sharps / disease & infection - provided on induction & technician assessments (SA002). 2. Sharps hotline number provided to technician on induction & at regular intervals via TBT. 3. Regular refresher training on removal of chamber cover / surveying (sweep) work area via TBT / practical assessments (SA002).	2	4	8

Location / Activity Hazard	Who might be harmed, The Hazardous Event The Consequences	Controls	Risk Rating		
			L	C	R
Accessing / working on underground services. Venomous insects.	Technician(s). Stung / bitten by venomous insect. Minor injury.	1. Training / instruction involving: Leaving undisturbed / gathering photographic evidence (insect) / seeking medical advice. 2. Refresher training.	1	2	2
Accessing / working on underground services. Rodents / Vermin.	Technician(s). Infection. Major Illness.	1. Leptospirosis awareness training included on induction & SA002 assessment. 2. Leptospirosis card issued on induction. Instructed that card must be carried at all times. 3. TBT on disease /awareness provided at 1-year intervals.	1	5	5
Accessing / working on underground services. Exposed chamber.	Technician(s). General public. Falling into chamber. Major injury.	1. Training provided on safe removal of chamber cover / guarding exposed chamber. Technician assessments on safety underground (SA002). 2. Gate guards / barriers provided. 3. Sandbags issued for adverse weather conditions i.e. wind. 4. Refresher training provided at regular intervals.	2	5	10
Accessing / working on underground services. Silted / flooded chamber.	Technician(s). Infection. Major illness.	1. Training / instruction provided on safety underground assessment (SA002) i.e. identification of pure & polluted water. 2. Instruction provided on removing excess water from chamber (SA002). 3. Water test kit provided. 4. If chamber is 'silted' then advised to inform supervisor & request civils cleanse . 5. If flooded & volume is >5m^3 & is deemed as polluted, stop work & contact supervisor for tank disposal (Gully emptier).	1	4	4
Accessing / working on underground services. Lifting / removal of chamber cover.	Technician(s). Inappropriate manual handling. Major musculoskeletal injury. Major crush injury - foot / hand.	1. Manual handling training provided (induction). 2. Training provided on safe removal of chamber cover (induction). Technician assessments on safety underground (SA002). 3. Correct chamber cover removal keys / associated equipment provided. 4. PPE provided e.g. steel toe capped footwear. 5. On site manual handling training. 6. Regular refresher training at 3 yearly intervals.	2	4	8
Accessing / working on underground services. Draw-rope.	Technician(s). General public. Slip / trip / fall over cable. Major injury.	1. Retain draw-rope within working area (K8). 2. SLG provided e.g. gate guards / barriers. 1. Regular refresher training at 3 yearly intervals.	2	4	8

Location / Activity ○ Hazard	➢ Who might be harmed, ❖ The Hazardous Event The Consequences	Controls	Risk Rating		
			L	C	R
Accessing underground structure / confined space entry. ○ Atmosphere.	➢ Technician(s). ❖ Explosive / oxygen deficient atmosphere. Catastrophic.	1. NC2 City & Guilds Medium / high risk confined space training provided. 2. Confined space refresher training every 2 years. 3. Correct confined space equipment available / provided e.g. tripod, winch, harness, escape equipment. 4. Calibrated Gas Detection Unit (GDU) provided. 5. Gas testing / monitoring - GDU usage / training provided on induction & at regular intervals. 6. Utility provider contact number available on request (supervisor).	**2**	**5**	**10**
Underground Chamber / Confined Space working ○ Gas ○ Unsecured chamber ladders ○ Flooding	➢ Technician ❖ Explosive / oxygen deficient atmosphere ❖ Falls from height ❖ Drowning Catastrophic Catastrophic injury Catastrophic	1. NC2 City & Guilds Medium/high risk confined space training 2. Refresher confined space training every 2 years 3. Correct confined space equipment available (tripod, winch, harness, escape set, walkie talkies) 4. Calibrated GDU provided 5. Gas testing/GDU usage training provided in induction and at regular intervals. 6. Utility provider phone number supplied to technician. 7. Permit to Work completed before all confined space work	**2** **3** **2**	**5** **5** **5**	**10** **15** **10**
Working activities in vicinity of general public. ○ Threats & violence.	➢ Technician(s). ❖ Assault. Catastrophic.	1. Threats & violence awareness included on induction. 2. TBT on threats & violence provided at 1-year intervals. 3. Company mobile telephone provided.	**1**	**5**	**5**

Review date	Carried out by:	Major Changes
01/10/2019	**Lee Meek**	**None**
09/10/2020	**Lee Meek**	**A8 references changed to SA001 and A9 references changed to SA002**
08/10/2021	**James Alderson**	**None**

Date of next review: 01/10/2022