

## Risk Assessment / Method Statement – Jointing & Splicing.

### Project Scope:

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

### Detail:

- Installed before work commences;
  - Infrastructure including chambers & ducting.
  - Joint box (footway or carriageway) containing network equipment e.g. Splicing Enclosures (L0/L1/L2/L3).
- Exchange – Splicing activities of internal & external fibre cable joint. Internal fibre cable exiting Optical Distribution Frame (ODF) spliced to external fibre cable located within cable chamber.
- Splicing activities of joints at Splicing Enclosures (L0/L1/L2) & intermediate joint (L3's).
- Assembly of structure within joint box (Mobra mounting kit).
- Presentation of fibre cable(s) within joint box to Netomnia/OR PIA specification.
- Splicing activities as per Fibre Allocation Records (FAR) - included within job pack.

### 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 <math><5\text{m}^3</math> & is not deemed as polluted then pump from chamber into carriageway drain/gutter or onto grass verge - continuously monitor. If volume is >math>5\text{m}^3</math> & is deemed as polluted, stop work & contact supervisor for tank disposal (Gully emptier). Reference 'test card' within water test kit.
7. Exchange – Conduct splicing activities internal & external fibre cable. Internal fibre cable exiting data cabinet (ODF) spliced to external fibre cable located within cable chamber.
8. Conduct splicing activities at Splicing Enclosures (L0/L1/L2).
9. Conduct splicing activities at intermediate joint (L3's).
10. Install/assemble Mowbra mounting kit within joint box.
11. Present (dress) fibre cable(s) within joint box to Netomnia/OR PIA specification.
12. Splicing activities as per Fibre Allocation Records (FAR) - included within job pack.
13. Test integrity of connections.
14. Replace chamber cover (SA002).
15. Disassemble SLG e.g. remove barriers.

	Name	Title	Date
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<b>Reviewer</b>	Lee Meek	H & S Manager	06/12/2018
<b>Authorised by</b>	Matty Carlin	Director	14/12/2018

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

LIKELIHOOD	5	5	10	15	20	25
	4	4	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5
		1	2	3	4	5
CONSEQUENCES						

<ul style="list-style-type: none"> <li>● Location / Activity</li> <li>○ Hazard</li> </ul>	<ul style="list-style-type: none"> <li>➤ Who might be harmed,</li> <li>❖ The Hazardous Event</li> <li>⤴ The Consequences</li> </ul>	Controls	Risk Rating		
			L	C	R
<ul style="list-style-type: none"> <li>● Carriageway / removing equipment from vehicle.</li> <li>○ Traffic</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Impact from passing vehicle.</li> <li>⤴ Catastrophic.</li> </ul>	<ol style="list-style-type: none"> <li>1. Vehicle to be parked with side door (access to cargo hold) adjacent to the footway.</li> <li>2. Mandatory high-visibility clothing to be worn at all times.</li> </ol>	1	5	5
<ul style="list-style-type: none"> <li>● Lifting operations e.g. carrying equipment / tooling.</li> <li>○ Manual handling</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Inappropriate manual handling.</li> <li>⤴ Major musculoskeletal injury.</li> </ul>	<ol style="list-style-type: none"> <li>1. Manual handling training provided (induction).</li> <li>2. TBT on manual handling provided at 1-year intervals.</li> <li>3. Regular refresher training at 3 yearly intervals.</li> </ol>	2	4	8
<ul style="list-style-type: none"> <li>● Exchange.</li> <li>○ Optical systems / Lasers.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Invisible laser radiation.</li> <li>⤴ Major Injury.</li> </ul>	<ol style="list-style-type: none"> <li>1. Training provided on fibre splicing activities/awareness.</li> <li>2. Laser rated equipment provided e.g. eye shields.</li> <li>3. Regular refresher training at 3 yearly intervals.</li> </ol>	2	4	8
<ul style="list-style-type: none"> <li>● Spicing activities.</li> <li>○ Fibre optic shards (glass).</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Contact with shards (eyes/skin)</li> <li>⤴ Major injury.</li> </ul>	<ol style="list-style-type: none"> <li>1. Training provided on fibre splicing activities/awareness.</li> <li>2. PPE provided e.g. eye protection.</li> <li>3. Sharps receptacle provided.</li> <li>4. Regular refresher training at 3 yearly intervals.</li> </ol>	1	4	4
<ul style="list-style-type: none"> <li>● Accessing / working on underground services.</li> <li>○ Electricity.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Contact with live conductors.</li> <li>⤴ Catastrophic.</li> </ul>	<ol style="list-style-type: none"> <li>1. Approved / Insulated tooling.</li> <li>2. Voltage detection equipment (pen) provided. (only relevant if working within street furniture)</li> </ol>	1	5	5
<ul style="list-style-type: none"> <li>● Accessing / working on underground services.</li> <li>○ Gas.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Explosive atmosphere.</li> <li>❖ Oxygen deficient atmosphere.</li> <li>⤴ Catastrophic.</li> </ul>	<ol style="list-style-type: none"> <li>1. Calibrated Gas Detection Unit (GDU) provided.</li> <li>2. Gas testing / monitoring - GDU usage / training provided on induction &amp; at regular intervals – A9/SA002 assessment.</li> <li>3. Utility provider contact number available on request (supervisor).</li> </ol>	2	5	10
<ul style="list-style-type: none"> <li>● Accessing / working on underground services.</li> <li>○ Sharps.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Infection.</li> <li>⤴ Major illness.</li> </ul>	<ol style="list-style-type: none"> <li>1. Technician training on surveying area / needle stick injuries / discarded sharps / disease &amp; infection - provided on induction &amp; (A9/SA002).</li> <li>2. Sharps hotline number provided to technician on induction &amp; at regular intervals via TBT.</li> <li>3. Regular refresher training on removal of chamber cover / surveying (sweep) work area via TBT / practical assessments (A9/SA002).</li> </ol>	2	4	8
<ul style="list-style-type: none"> <li>● Accessing / working on underground services.</li> <li>○ Venomous insects.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Stung / bitten by venomous insect.</li> <li>⤴ Minor injury.</li> </ul>	<ol style="list-style-type: none"> <li>1. Instruction involving: Leaving undisturbed / gathering photographic evidence (insect) / seeking medical advice.</li> </ol>	1	2	2

<ul style="list-style-type: none"> <li>● Location / Activity</li> <li>○ Hazard</li> </ul>	<ul style="list-style-type: none"> <li>➤ Who might be harmed,</li> <li>❖ The Hazardous Event</li> <li>⤴ The Consequences</li> </ul>	Controls	Risk Rating		
			L	C	R
<ul style="list-style-type: none"> <li>● Accessing / working on underground services.</li> <li>○ Rodents / Vermin.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Infection.</li> <li>⤴ Major Illness.</li> </ul>	<ol style="list-style-type: none"> <li>1. Leptospirosis awareness training included on induction &amp; A9/SA002 assessment.</li> <li>2. Leptospirosis card issued on induction. Instructed that card must be carried at all times.</li> <li>3. TBT on disease /awareness provided at 1-year intervals.</li> </ol>	1	5	5
<ul style="list-style-type: none"> <li>● Accessing / working on underground services.</li> <li>○ Exposed chamber.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>➤ General public.</li> <li>❖ Falling into chamber.</li> <li>⤴ Major injury.</li> </ul>	<ol style="list-style-type: none"> <li>1. Training provided on safe removal of chamber cover / guarding exposed chamber. Technician assessments on safety underground (A9/SA002).</li> <li>2. Gate guards / barriers provided.</li> <li>3. Sandbags issued for adverse weather conditions i.e. wind.</li> <li>4. Refresher training provided at regular intervals.</li> </ol>	2	5	10
<ul style="list-style-type: none"> <li>● Accessing / working on underground services.</li> <li>○ Silted / flooded chamber.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Infection.</li> <li>⤴ Major illness.</li> </ul>	<ol style="list-style-type: none"> <li>1. Training / instruction provided on safety underground assessment (A9/sa002) i.e. identification of pure &amp; polluted water.</li> <li>2. Instruction provided on removing excess water from chamber (A9/sa002).</li> <li>3. Water test kit provided. (On request)</li> <li>4. If chamber is 'silted' then advised to inform supervisor &amp; request civils cleanse .</li> <li>5. If flooded &amp; volume is &gt;5m<sup>3</sup> &amp; is deemed as polluted, stop work &amp; contact supervisor for tank disposal (Gully emptier).</li> </ol>	1	4	4
<ul style="list-style-type: none"> <li>● Accessing / working on underground services.</li> <li>○ Lifting / removal of chamber cover.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Inappropriate manual handling.</li> <li>⤴ Major musculoskeletal injury.</li> <li>⤴ Major crush injury - foot / hand.</li> </ul>	<ol style="list-style-type: none"> <li>1. Manual handling training provided (induction).</li> <li>2. Training provided on safe removal of chamber cover (induction). Technician assessments on safety underground (A9/SA002).</li> <li>3. Correct chamber cover removal keys / associated equipment provided.</li> <li>4. PPE provided e.g. steel toe capped footwear.</li> <li>5. Regular refresher training at 3 yearly intervals.</li> </ol>	2	4	8
<ul style="list-style-type: none"> <li>● Accessing / working on underground services.</li> <li>○ Cable.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>➤ General public.</li> <li>❖ Slip / trip / fall over cable.</li> <li>⤴ Major injury.</li> </ul>	<ol style="list-style-type: none"> <li>1. Retain cable within working area (K8).</li> <li>2. SLG provided e.g. gate guards / barriers.</li> <li>3. Regular refresher training at 3 yearly intervals.</li> </ol>	2	4	8
<ul style="list-style-type: none"> <li>● Accessing underground structure / confined space entry.</li> <li>○ Atmosphere.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Explosive / oxygen deficient atmosphere.</li> <li>⤴ Catastrophic.</li> </ul>	<ol style="list-style-type: none"> <li>1. Medium / high risk confined space training provided.</li> <li>2. Confined space refresher training every 2 years.</li> <li>3. Correct confined space equipment available / provided e.g. tripod, winch, harness, escape equipment.</li> <li>4. Calibrated Gas Detection Unit (GDU) provided.</li> <li>5. Gas testing / monitoring - GDU usage / training provided on induction &amp; at regular intervals.</li> <li>6. Utility provider contact number available on request (supervisor).</li> </ol>	2	5	10

<ul style="list-style-type: none"> <li>● Location / Activity</li> <li>○ Hazard</li> </ul>	<ul style="list-style-type: none"> <li>➤ Who might be harmed,</li> <li>❖ The Hazardous Event</li> <li>⤴ The Consequences</li> </ul>	Controls	Risk Rating		
			L	C	R
<ul style="list-style-type: none"> <li>● Accessing underground structure / confined space entry.</li> <li>○ Unsecure access to chamber (ladders).</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Falls from height.</li> <li>⤴ Catastrophic.</li> </ul>	<ol style="list-style-type: none"> <li>1. Medium / high risk confined space training provided.</li> <li>2. Confined space refresher training every 2 years.</li> <li>3. Correct confined space equipment available / provided e.g. tripod, winch, harness, escape equipment.</li> <li>4. PPE provided e.g. safety helmet / FPE.</li> <li>5. Utility provider phone number available on request (management).</li> </ol>	<b>3</b>	<b>5</b>	<b>15</b>
<ul style="list-style-type: none"> <li>● Working activities in vicinity of general public.</li> <li>○ Threats &amp; violence.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Assault.</li> <li>⤴ Catastrophic.</li> </ul>	<ol style="list-style-type: none"> <li>1. Threats &amp; violence awareness included on induction.</li> <li>2. TBT on threats &amp; violence provided at 1-year intervals.</li> <li>3. Company mobile telephone provided.</li> </ol>	<b>1</b>	<b>5</b>	<b>5</b>
<ul style="list-style-type: none"> <li>● Using hazardous materials (Silicon, white spirit etc)</li> <li>○ Hazardous material</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician</li> <li>❖ Contact with hazardous material</li> <li>⤴ Mild irritation</li> </ul>	<ol style="list-style-type: none"> <li>1. COSHH awareness within induction.</li> <li>2. COSHH register updated with Safety Data Sheets and available to all technicians.</li> <li>3. Suitable PPE/RPE provided and worn as per relevant SDS including goggles, gloves and dust mask. (If relevant)</li> <li>4. RPE Face fitting (If relevant)</li> </ol>	<b>2</b>	<b>3</b>	<b>6</b>

Review date	Carried out by:	Changes
01/03/2021	Paddy Lynch/JA/LM	Specific to splicing activities on Netomnia project & References to A9 changed to A9/SA002

Date of next review: 01/03/2022