TASK RISK ASSESSMENT WORKSHEET

CONTRACT NO	REF	DATE	REV
190707	RA-2026-CbskRMVA	07.08.2026	A

PROJECT 132 kv cable works

CLIENT	CONSULTANT	MAIN CONTRACTOR	SUBCONTRACTOR
Taqa	Green	El Sewdy	Heliopolis

ACTIVITY Route Marker Installation

ASSESSORS	— PROJECT MANAGER *signature*	— HSE ENGINEER *signature*	— PROJECT MANAGER *signature*	— CIVIL ENGINEER *signature*	— HSE ENGINEER *signature*

SN	Activity	Hazard / Aspect	Consequence	Groups Exposed	Existing Controls	Initial Risk P × S = R	Additional Controls	Residual Risk P × S = R
1	**Complete HDPE Duct Infill**	1. Vehicle movement and traffic hazards 2. Manual handling during loading/unloading 3. Uneven ground conditions	Personal injury, property damage	Site Personnel, Subcontractors, Public	1. Implement traffic management plan 2. Designated walkways 3. Mandatory PPE 4. Speed limit enforcement	**P 3 × S 3** **9**	1. Comply with ADOSH SF CoP 27.0 2. Daily vehicle inspection 3. Toolbox talk	**P 2 × S 2** **4**
2	**Site mobilization and setup of temporary**	Passing high-speed public traffic and moving site vehicles	Personal injury, property damage	Site Personnel, Subcontractors, Public	Approved TTM plan, high-visibility clothing (Class 3), physical water-filled/concrete barriers, advanced warning signs, and trained flagmen.	**P 3 × S 3** **9**	Deployment of Truck Mounted Attenuators (TMA) and enforcement of reduced speed limit zone in coordination with local traffic authorities.	**P 2 × S 2** **4**
3	**Trench excavation and sub-surface ground preparation**	Accidental strike on existing buried live electrical cables or gas utilities	Personal injury, property damage	Site Personnel, Subcontractors, Public	Utility mapping review, CAT & Genny cable avoidance scanning, and manual trial pits (pot-holing) prior to mechanical excavation.	**P 3 × S 3** **9**	Mandatory Permit to Dig system, use of insulated hand tools near identified utilities, and continuous competent supervision.	**P 2 × S 2** **4**
4	**Uncoiling, handling, and positioning HDPE pipe**	Sudden release of stored mechanical spring energy in coiled HDPE pipe	Personal injury, property damage	Site Personnel, Subcontractors, Public	Use of specialized pipe reeler/uncoiler frame, controlled strap cutting procedures, and establishing exclusion zones.	**P 3 × S 3** **9**	Mandatory deployment of safety restraints/bands before unstrapping and wearing high-impact resistant safety glasses and gloves.	**P 2 × S 2** **4**
5	**HDPE pipe jointing via electrofusion and**	High-temperature heating elements, hot molten plastic, and portable electrical generators	Personal injury, property damage	Site Personnel, Subcontractors, Public	Certified welding equipment, RCD-protected generators, heat-resistant safety gloves, and portable fire extinguishers nearby.	**P 3 × S 3** **9**	Hot Work Permit implementation, provision of localized exhaust ventilation or respiratory protection (FFP3) in confined areas.	**P 2 × S 2** **4**
6	**Entry into underground chambers and manholes**	Hazardous atmosphere (oxygen deficiency, toxic gases like H2S/methane), engulfment, or fall from height	Personal injury, property damage	Site Personnel, Subcontractors, Public	Confined Space Entry Permit, pre-entry 4-gas atmospheric testing, forced air ventilation, and tripod rescue system with harness.	**P 3 × S 3** **9**	Continuous multi-gas monitoring during entry, dedicated trained top-person/standby monitor, and verified emergency rescue plan.	**P 2 × S 2** **4**

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7	**Mechanical winch pulling of HDPE sub-ducts**	High-tension winch wire snap, rotating capstans, and pinch/nip points	Personal injury, property damage	Site Personnel, Subcontractors, Public	Properly rated winching wire with calibrated weak-link swivel, emergency stop switches, and safety guards over rotating parts.	P 3 × S 3 **9**	Integrated load monitoring with automatic shut-off at peak tension limits and strict exclusion zones along the tension line.	P 2 × S 2 **4**
8	**Duct proving (mandrel testing) and air**	Uncontrolled high-pressure compressed air release and projectile ejection of foam pig or mandrel	Personal injury, property damage	Site Personnel, Subcontractors, Public	Calibrated pressure relief valves, secure containment/catcher cage at receiving duct end, clear exclusion zone enforcement.	P 3 × S 3 **9**	Mandatory Pressure Testing Permit, full-face protection shields for operators, and calibrated double-gauge manifolds.	P 2 × S 2 **4**
9	**Pre-excavation scanning and utility route survey**	Unidentified underground live high/medium voltage electrical cables and utilities	Electric shock, electrocution, severe arc flash burns, structural power disruption	Surveyors, Cable Avoidance Tool (CAT) operators, site supervisors	Obtain current utility drawings; perform mandatory Cable Avoidance Tool (CAT) and Signal Generator (Genny) scanning; mark identified cable lines with ground spray paint; issue Dig Permit prior to work.	P 4 × S 5 **20**	Enforce hand-digging trial holes along marked routes; implement daily supervisor sign-off on Permit to Dig; mandate zero mechanical digging within 500mm of identified live services.	P 1 × S 5 **5**
10	**Loading, transport, and offloading of concrete route markers and posts**	Heavy manual lifting, unstable loads, awkward postures, and sharp edges	Musculoskeletal disorders (MSDs), spinal injuries, crushed hands or feet, lacerations	Lorry drivers, logistics crew, groundworkers	Utilize mechanical lifting aids (vehicle cranes/tail lifts) where feasible; conduct team lifts for items over 20kg; wear cut-resistant gloves and steel toe safety boots.	P 4 × S 3 **12**	Provide pre-task manual handling refresher training; restrict maximum single-person manual lift to 25kg; inspect all lifting gear and slings prior to use.	P 2 × S 2 **4**
11	**Vehicle positioning and working near live public roadways / highways**	Passing third-party vehicular traffic, low-visibility conditions, reversing vehicles	Severe collision, personnel impact causing critical injuries or fatality	Field technicians, traffic marshals, public road users	Implement Temporary Traffic Management (TTM) in accordance with Chapter 8 / local roadwork standards; wear High-Vis clothing (Class 3); operate amber warning beacons on all work vehicles.	P 3 × S 5 **15**	Deploy trained vehicle banksmen for all reversing maneuvers; set up physical cone barriers and warning signage at appropriate safe stopping distances.	P 1 × S 4 **4**
12	**Hand digging foundation holes for marker post installation**	Striking hidden underground electrical cables with sharp hand tools, buried sharp objects	Electrical arc flash, severe electric shock, puncture wounds, localized hand injuries	Excavation operatives, groundworkers	Use fully insulated non-conductive hand excavation tools (rated to 1000V, BS EN 60900); excavate carefully using soft-dig techniques (e.g., digging side-to-side, not pitching down); wear dielectric boots.	P 3 × S 5 **15**	Continuous scanning with CAT tool as excavation progresses vertically; halt work immediately and report if unidentified tiles, warning tape, or concrete slabs are struck.	P 1 × S 4 **4**

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LIKELIHOOD / FREQUENCY

Descriptor	Likely Frequency	Probability
Frequent	Occurs frequently	5
Often	Occurs several times per year	4
Likely	Has occurred more than once	3
Possible	Has occurred	2
Rare	Never occurred	1

RISK MATRIX — PROBABILITY × CONSEQUENCE

Probability	Consequence				
	Insignificant (1)	Minor (2)	Moderate (3)	Major (4)	Catastrophic (5)
Rare (1)	1	2	3	4	5
Possible (2)	2	4	6	8	10
Likely (3)	3	6	9	12	15
Often (4)	4	8	12	16	20
Frequent / Almost Certain (5)	5	10	15	20	25

15 - 25	Extreme Risk	Activity or industry should not proceed in current form.
8 - 12	High Risk	Activity or industry should be modified to include remedial planning and action and be subject to detailed EHS assessment.
4 - 6	Moderate Risk	Activity or industry can operate subject to management and/or modification.
1 - 3	Low Risk	No action required, unless escalation of risk is possible.