

Hazard Identification and Design Risk Assessment

P08 03: May 2025

	Project No.	25672									
	Project:	Sligo University Hospital T2 Transformer and Switchgear Replacement									
	Discipline:	Mechanical & Electrical									
	PSDP:										
	Prepared By:	Keith Murphy									
Date:	12/12/2025										
Checked By:	Joe Greene										
Design Stage:											
Planning	☐										
Tender	☒										
Construction	☐										
Maintenance	☐										
Assessment of Hazard (Severity) 5 – Death (death/multiple deaths) 4 – Long term health consequence (disabling injury/chronic illness) 3 – Short term health consequence (restricted work activity, strains/sprains) 2 – No significant health & safety consequence (first aid) 1 – No health & safety consequence Assessment of Risk (Likelihood) 5 – Highly 4 – Probable 3 – Possible 2 – Remote, Unlikely 1 – Highly unlikely (near negligible)				S E V E R I T Y	5	M	M	H	H	H	
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3	L	M	M		M	H					
2	L	L	M		M	M					
1	L	L	L		M	M					
						1	2	3	4	5	
						LIKELIHOOD					
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A)	Particular Risks as set out in Schedule 1 of the Safety, Health & Welfare at Work (Construction) Regulations, 2013										
1A	Work which puts persons at work at risk of falling from a height where the risk is particularly aggravated by the nature of the work or processes used or by the environment at the place of work or construction site	Hazard Present: Yes Risk of fall from a height during the access and installation of services.	5	4	H	Contractors to provide suitable working platforms, wear the necessary PPE and take all safety precautions. Appropriate measures should be taken for the installation of services at high level. Working platforms should be installed to provide a safe footing from which work can be performed. Protection should be provided to protect those working below from dropping objects. All relevant work must comply with the Safety, Health and Welfare (Construction) Regulations.	5	2	M	☒ Contractor ☐ End User ☐ Maintenance ☐ Public ☐ Other -	Regular inspection and upkeep of implemented measures
1B	Work which puts persons at work at risk of burial under earthfalls where the risk is particularly aggravated by the nature of the work or processes used or by the environment at the place of work or construction site	Hazard Present: Yes	4	3	M	Contractor to provide barriers, warning signage and safe access/egress points to prevent falling into excavations. Contractor to prepare RAMS for Temporary works (where required) to ensure stability of excavations and adjacent structures.	4	2	M	☒ Contractor ☐ End User ☐ Maintenance ☐ Public ☐ Other -	Continual Monitoring
1C	Work which puts persons at work at risk of engulfment in swampland where the risk is particularly aggravated by the nature of the work or processes used or by the environment at the place of work or construction site.	Hazard Present: No								☐ Contractor ☐ End User ☐ Maintenance ☐ Public ☐ Other -	
2	Work which puts persons at work at risk from chemical or biological substances constituting a particular danger to the safety and health of such persons or involving a statutory requirement for health monitoring	Hazard Present: No								☐ Contractor ☐ End User ☐ Maintenance ☐ Public ☐ Other -	
3	Work with ionising radiation requiring the designation of controlled or supervised areas as defined in Directive 96/29/Euratom	Hazard Present: No								☐ Contractor ☐ End User ☐ Maintenance ☐ Public ☐ Other -	
4	Work near high voltage power lines	Hazard Present: Yes	5	5	H	As the hazard cannot be avoided it must be controlled. Where the works involve excavation around existing MV Lines or working within the MV Swirchroom care must be exercised at all times to ensure safety of personnel and existing building areas Method statements are required from the contractor describing in detail the measures to be adopted to provide adequate safety during the plant equipment removal of and to ensure the integrity for the duration of the Works. Such work may not proceed without a signed Permit-to-Work	5	5	H	☒ Contractor ☒ End User ☒ Maintenance ☒ Public ☐ Other -	Safe physical separation from the MV services to be provided by the contractor, to ensure the safety of the operatives in the area. Regular inspection and upkeep of implemented measures

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5	Work exposing persons at work to the risk of drowning	Hazard Present: No							☐ Contractor ☐ End User ☐ Maintenance ☐ Public ☐ Other -		
6	Work on wells, underground earthworks and tunnels	Hazard Present: No							☐ Contractor ☐ End User ☐ Maintenance ☐ Public ☐ Other -		
7	Work carried out by divers at work having a system of air supply	Hazard Present: No							☐ Contractor ☐ End User ☐ Maintenance ☐ Public ☐ Other -		
8	Work carried out in a caisson with a compressed-air atmosphere	Hazard Present: No							☐ Contractor ☐ End User ☐ Maintenance ☐ Public ☐ Other -		
9	Work involving the use of explosives	Hazard Present: No							☐ Contractor ☐ End User ☐ Maintenance ☐ Public ☐ Other -		
10	Work involving the assembly or dismantling of heavy prefabricated components	Hazard Present: Yes Installation of MV & LV Switchgear	4	4	H	Design team to provide information to contractor as part of tender documentation to enable them to include for all necessary lifting equipment and edge protection. All existing as-built drawings for the mechanical and electrical services to be provided were possible to the Contractor as part of the tender information.	4	3	M	☒ Contractor ☒ End User ☒ Maintenance ☒ Public ☐ Other -	Services to be surveyed/identified by the contractor in advance of works commencing. Contractor safety management on site to deal with issue through risk assessments and method statements. Access to the roof area is required under this contract, the Contractor is to ensure that the roof is adequately protected with barriers to ensure the safety of operatives. Contractor shall also consider construction methods employed for delivering plant into position. Method statements to be provided for task specific works and the Contractor shall assess the risk. Such works may not proceed without an approved Method Statement.

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B) Designers Assessment of Safety during Construction and Maintenance taking account of the Principles of Prevention (in addition to those set out in Schedule 1 of the Safety, Health & Welfare at Work (Construction) Regulations, 2013)

1.	Work involving the assembly or dismantling of heavy prefabricated components; LV Switchgear, MV Switchgear, Generator Systems and Transformers	Hazard Present: Yes	5	4	H	Due care and attention should be taken in the lifting and positioning of plant items such as Generator Systems, LV Switchgear, MV Switchgear, Transformers etc	5	3	H	☒ Contractor ☒ End User ☐ Maintenance ☐ Public ☐ Other -	Procedures must be maintained & continually monitored
2.	Existing underground Power and Telecommunications cables to the existing building This could result in the following hazards: -Damage to cables losing building power and communications systems	Hazard Present: Yes	5	3	M	Observe guidelines as per ESB Networks publication " Avoidance of Electrical Hazards when working near burried Electrical lines and Telecommunications Installation guidelines.	5	3	H	☒ Contractor ☒ End User ☐ Maintenance ☐ Public ☐ Other -	Continual Monitoring
3.	Works in the Public Realm	Hazard Present: Yes	3	3	M	As far as possible the Contractor is to ensure public safety is prioritised during the construction works. Ensure that the work area is properly hoarded off to prevent any unauthorised access and to protect the public from the activities on site.	3	2	M	☐ Contractor ☒ End User ☒ Maintenance ☒ Public ☐ Other -	Continual Monitoring
4.	Manual handling	Hazard Present: Yes	4	3	M	Lifting to be carried out by trained and qualified personnel. Mechanical aids to be used when required. Method statements to be provided for task specific works and Contractor to assess risk.	4	2	M	☒ Contractor ☐ End User ☐ Maintenance ☐ Public ☐ Other -	Continual Monitoring

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5.	Heavy plant items lifting / craneage.	Hazard Present: Yes Crane lift from The Mall to MV & LV Switchrooms. (2 floors over street level). 1 No. Transformer @ 5150kg), 1 No. MV Switch @ 1000kg and 1 No. LV Distribution Board - 3 No. sections @ 1200kg)	5	4	H	As the hazard cannot be avoided it must be controlled. Prior to the crane lift operation being carried out, the Contractors selected crane specialist will be required to carry out a CBR test to establish the subgrade strength to ensure the ground is strong enough to support the crane's outriggers or temporary piling mats. Provisional discussions with a crane lift specialist confirm the suitability of The Mall. location for the proposed crane lift. Final weights of selected condenser units to be communicated by the Contractor to the Crane Lift Specialist. Crane lift to take place at weekend early morning at a time of reduced pedestrian and vehicular traffic.	5	4	H	☒ Contractor ☒ End User ☒ Maintenance ☒ Public ☐ Other -	All lifting operations involving lifting equipment must be properly planned by a Competent Person; appropriately supervised; and carried out in a safe manner with the following non-exhaustive list of information to be provided to PSCS. Operation 1: CBR Test •Mobile crane to act as test weight •CBR Test Report •RAMS/Insurances •Permits/Traffic Management Operation 2: Crane Lift •Lift Plan •Crane Rigging RAMS •Method Statement •Risk Assessment •Rigging Drawings •Crane Position Drawings •Traffic Management •DCC Permits •Contract Lift Insurances
6.	Heavy plant items moving & final positioning.	Hazard Present: Yes Final positioning of MV & LV Switchrooms. 1 No. Transformer @ 5150kg), 1 No. MV Switch @ 1000kg and 1 No. LV Distribution Board - 3 No. sections @ 1200kg)	5	4	H	As the hazard cannot be avoided it must be controlled. The movement / locating of any of the identified equipment shall only be undertake by way of specialist lifting equipment appropriately rated for the designated loads and by operatives specifically trained in the lifting / moving of heavy loads. As the LV Distribution Board will be installed on a raised floor the appropriate temporary flooring, rated for the loads noted, shall be installed in the LV Switchroom to facilitate the installation of the Distribution Board.	5	4	H	☒ Contractor ☐ End User ☐ Maintenance ☐ Public ☐ Other -	Continual Monitoring
7.	Danger of loss of vital building services incl. building power, water, heating, cooling, medical gases, ventilation, due to tie-ins and connection to existing systems.	Hazard Present: Yes	5	3	H	As the hazard cannot be avoided it must be controlled. Where the works involve interconnection with, diversion, relocation or disturbance to existing services, adequate care must be exercised at all times to ensure the safety of personnel and the continuity of supply of services to the Hospital. Method statements are required from the Contractor describing in detail the effected services and the measures to be adopted to provide adequate protection and continuity of services and to ensure their integrity for the duration of the works	5	3	H	☒ Contractor ☒ End User ☐ Maintenance ☒ Public ☐ Other -	Continual Monitoring
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