Work scope details:

Title: Installation of New Ethernet Drop in Room S103

Work Scope Summary: This work involves pulling a data cable from Room S103 to the network hub located in the S107 middle pipe chase to support a second desk. The task includes drilling into the wall to mount a data outlet and ensuring the work area is clean and free of hazards upon completion.

Key Work Scope Components:

• Pulling data cable from S103 to the hub in S107

• Drilling into the wall for mounting a data outlet

• Use of personal protective equipment (PPE) including nitrile gloves and shoe covers

• Wet wiping disturbed surfaces to minimize contamination

• Testing data cable pairs and connectors post-installation

Relevant previous events and lessons learned:

Event Title	Event Summary	Lessons Learned	Reference Link
Electrical Installation Incident	An electrician suffered an electrical shock while installing new wiring due to improper lockout/tagout procedures.	Always ensure proper lockout/tagout procedures are followed to prevent accidental energization of circuits.	OSHA Lock out/Tagout
Lead Exposure During Renovation	Workers were exposed to lead dust during wall renovations without adequate PPE, leading to health issues.	Ensure proper PPE is used and that air monitoring is conducted in areas where lead exposure is possible.	CDC Lead Safety
Noise-Induced Hearing Loss	Workers drilling in a confined space experienced temporary hearing loss due to inadequate hearing protection.	Implement mandatory use of hearing protection when noise levels exceed 85 dBA and provide training on its importance.	NIOSH Hearing Loss
Silica Exposure from Drilling	A worker developed respiratory issues after prolonged exposure to silica dust during drilling operations.	Utilize wet methods or HEPA vacuums to control silica dust and conduct air monitoring during drilling activities.	OSHA Silica Standard
Ladder Safety Violation	A worker fell from a ladder due to improper ladder use and lack of inspection.	Conduct pre-use inspections of ladders and provide training on safe ladder use.	OSHA Ladder Safety

Missing Hazards:

Hazard	Missing or Inadequate Mitigation in Current Work Control Document	Recommended Mitigation for Revision	Reference Link	SBMS Link
Electrical hazards	Not addressed	Implement lockout/tagout procedures before starting work on electrical systems.	OSHA Electrical Safety	N/A
Lead exposure	Inadequate monitoring	Conduct air monitoring for lead during drilling in the pipe chase.	CDC Lead Monitoring	N/A
Noise exposure	Inadequate PPE specified	Mandate the use of hearing protection with a minimum NRR of 27 when drilling.	NIOSH Noise	N/A
Silica exposure	Not addressed	Use wet methods or HEPA vacuums to minimize silica dust generation during drilling.	OSHA Silica	N/A
Ladder safety	Not addressed	Ensure ladders are inspected before use and provide training on proper ladder usage.	OSHA Ladder Safety	N/A
Overhead work	Not addressed	Ensure proper fall protection measures are in place when working above head level.	OSHA Fall Protection	N/A
Confined space	Not addressed	Conduct a confined space assessment and ensure proper ventilation and monitoring.	OSHA Confined Spaces	N/A
Time pressures	Inadequate management	Establish realistic timelines for tasks to reduce pressure and increase safety awareness.	N/A	N/A
Distractive environment	Not addressed	Implement a “no distractions” policy during critical tasks such as drilling.	N/A	N/A
Vague guidance	Inadequate instructions	Provide detailed work instructions and ensure all workers understand their roles.	N/A	N/A

Failure mode analysis:

Current Control	Failure Mode of the Control	Effect of Failure	Cause of Failure	Recommended Action
Lockout/Tagout procedures	Permit not obtained or expired	Risk of electrical shock during work	Lack of awareness or oversight	Ensure all workers are trained on lockout/tagout procedures and verify permits are current.
PPE requirements	PPE not used or inadequate	Increased risk of exposure to lead, silica, and noise	Complacency or lack of enforcement	Conduct regular safety audits to ensure compliance with PPE requirements.
Work instructions	Instructions not followed	Increased risk of accidents and exposure	Poor communication or understanding	Review and clarify work instructions with all team members before starting work.
Communication processes	Miscommunication among team members	Increased likelihood of errors or accidents	Lack of structured communication	Implement a daily safety briefing to discuss tasks and potential hazards.
Emergency response procedures	Inadequate response to incidents	Delayed medical assistance or ineffective response	Lack of training or awareness	Conduct regular emergency response drills and training sessions.
Tool availability	Tools not available or inadequate	Delays in work and increased risk of using improper tools	Poor inventory management	Maintain an inventory checklist and ensure all necessary tools are available before work begins.

Current Control	Failure Mode of the Control	Effect of Failure	Cause of Failure	Recommended Action
Training and competency verification	Inadequate training for workers	Increased risk of accidents due to lack of knowledge	Insufficient training programs	Implement a comprehensive training program that includes hands-on practice and assessments.
Air monitoring	No air monitoring for lead and silica	Increased risk of health issues	Lack of awareness of exposure levels	Schedule regular air quality assessments during drilling operations.
Safety audits	Infrequent safety audits	Undetected hazards leading to accidents	Lack of resources for audits	Establish a regular schedule for safety audits and assign responsibility for follow-up actions.
Work area cleanliness	Work area not cleaned properly	Increased risk of slips, trips, and falls	Complacency or lack of oversight	Assign a specific team member to oversee cleanup and ensure the area is free of hazards before leaving.