Te Tāhuhu o te Mātauranga
Ministry of Education

Electrical Inspection Scope

Electrical Assessment Scope	
Alignment with AS/NZS 2019:2022 (Sections 3 & 4)	**Notes**
Existing Switchboards	
Location and accessibility are suitable for the environmental conditions and the enclosure is in working order.	Requires removal of switchboard cover to access switchboard internal.
Fire proofing of the switchboard is in working order.	Requires removal of switchboard cover to access switchboard internal.
Internal wiring shows no evidence of insulation or sheath deterioration or damage.	Requires removal of switchboard cover to access switchboard internal.
Main switches/protective devices are labelled in a legible manner and the function is identified.	
Current ratings of protective devices are appropriate for the current carrying capacity of the conductor(s) immediately connected to the device.	
Switchboard equipment including residual current devices (RCDs), miniature circuit breakers (MCBs), fuses, switches, earth neutral busbars and links show no obvious evidence of damage or deterioration.	Requires removal of switchboard cover to access switchboard internal.
Multiple earthed neutral (MEN) connection has been installed where required.	Requires removal of switchboard cover to access switchboard internal.
10mA RCD protection is provided for general socket outlets within teaching spaces accommodating pupils up to and including Year 8.	
30mA RCD protection is provided for general socket outlets within teaching spaces that only accommodate pupils of Year 9 and above.	
30mA RCD protection is provided for general socket outlets within non-teaching spaces in all schools (Years 1-13).	
Verify that the enclosure for revenue metering equipment is in working order, secure and is not damaged or deteriorated.	
Existing Wiring systems	

Check that exposed wiring systems do not show evidence of excessive insulation or sheath deterioration. Check that they are out of reach or have appropriate mechanical protection for the environment in which they are installed.	Key emphasis placed upon: Areas where wiring systems are exposed (non-enclosed) and may be accessed by people. Exposed (non-enclosed) wiring systems that are attached to the exterior of buildings.
The current carrying capacity consumer mains and sub mains cabling is adequate.	High level check only, no logging or current testing to be performed.
For aerial wiring and catenary systems, check that overhead lines and their entry points into buildings have no evidence of insulation deterioration or deterioration of fixing points.	Ministry of Education preference is that there is no aerial cabling. If identified, assess risk level, and include estimate to shift underground.
For aerial wiring and catenary systems, check that safety distance clearances have not been compromised by the introduction of, or modification to, any structures, vegetation or by raising of the ground level under overhead lines.	Assess available clearances against NZECP 34 and AS/NZS 3000.
For underground wiring systems check that these have not been disturbed and that they remain sufficiently buried.	Check only where underground wiring is evident and obvious.
Earthing Systems	
Main earth electrodes (where identified) show no evidence of corrosion, damage or poor connection of the main earthing conductor.	Includes electrodes installed at outbuildings.
Main earthing conductor connections are accessible, mechanically sound and are labelled: 1. At the main earth electrode; and 2. At the MEN switchboard (including outbuildings),	Include statements in reporting where earth electrodes or main earthing conductors cannot be identified.
Main earth electrode location is recorded at the switchboard.	Include statements in reporting where earth electrodes cannot be identified.
That metallic water piping used as an earth electrode has not been replaced with non-conductive piping.	Where metallic water pipe is being used or is suspected of being used as the main earth electrode, the 10YPP report should recommend that electrical testing is performed to confirm its integrity.
Exposed earth conductors show no excessive evidence of insulation or sheath deterioration and have appropriate mechanical protection for the environment in which they are installed.	
Electrical Equipment, Lighting and Fittings	
Check to ensure no obvious mechanical damage, deterioration, arcing or evidence of overheating.	
Covers are not broken, missing, or giving access to live parts or basic insulation.	

Electrical equipment in damp areas have the correct ingress protection (IP) rating and are appropriate for the zone and environment.	
Electrical equipment/appliances are: 1. In good working condition. 2. Adequately supported and fastened. 3. Appropriate for the given environment.	
Electrical fittings (switches, socket outlets and isolators) are in good working condition.	
Light fittings/Luminaires are in good working condition.	
Note any existing fluorescent or metal discharge lighting still in operation.	Note any existing fluorescent or external metal discharge lighting still in operation.
Lamps do not exceed the rating of the fittings in which they are installed; and fittings are undamaged and serviceable. If fittings show evidence of overheating, the condition of the wiring shall be checked.	High level check only as majority of lighting has shifted to LED
Electrical Testing	
Earth Fault Loop Impedance Testing (Sample testing)	Perform sample testing only on 2-3 socket outlets (on different circuits) that are supplied from each electrical switchboard. Provide tabulated results that identify the respective switchboard, respective circuit ID, tested impedance value (in ohms) and result i.e. pass/fail.
Any asset replacements required over the 10-year period of the plan must also be identified in the report.	