



**CANADIAN ROOFING CONTRACTORS' ASSOCIATION**  
**ASSOCIATION CANADIENNE DES ENTREPRENEURS EN COUVERTURE**



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**Advisory Bulletin**

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## **Electrical Conduit Hazards**

Roofing workers may encounter electrical conduit that is embedded within a roofing system or mounted directly to the underside of the roof deck, when completing roofing removals or mechanically fastening insulation or roofing membranes. The presence of electrical conduit is sometimes unforeseen and could be problematic and potentially dangerous to roofing workers and costly to building owners.

The most common dangers for roofing workers when they encounter electric conduit are electric shock and fire. These dangers may result when fasteners that are used for mechanically attaching insulation or roofing membrane components contact electrical conduit that is installed within the roofing assembly or directly below the roof deck. Also, removal of roof systems can damage embedded electrical conduit.

Prior to commencing any roof work, the roofing contractor should contact the building owner or building manager for information on the location of any electrical conduit that may interfere with any roof work. In addition, a visual inspection of the underside of the roof deck should be completed, where possible, to determine the location of any electrical conduit.

If the building owner or manager cannot accurately confirm the presence and/or location of any hidden electrical conduit, it is recommended that an electrical scan be completed prior to commencing any roof work. An electrical scan would be completed by a qualified contractor using radio detection equipment and areas of concern clearly marked. The scan would be completed prior to removal of the roofing system or installation of any fasteners. The electrical scan would be responsibility of the building owner including cost.

When electrical conduit are found to be located within the area of work either within the roofing assembly or directly beneath the roof deck, there are two options that need to be considered by the project manager or architect. The first option would be to relocate the electrical conduit which could include the complete removal of the conduit from within a roofing assembly or relocating conduit to be situated with adequate clearance below the roof deck. It is recommended that conduit be installed a minimum of 38 mm (1 ½ inches) below the underside of roof deck. The second option would be to investigate alternatives to mechanically fasteners for the insulation or roofing membrane which could include the use of adhesives.

**Any costs related to completing either of these options and changes to the scope/ method of work may not be part of the original project contract.**

CRCA does not recommend that electric conduit be installed within roofing assemblies or directly below the roof deck, however roofing contractors must be aware of these hidden electrical hazards and how to manage them when they are encountered.

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