



Ground Penetrating Radar Advisory for Pan Decks

GPR or Ground-penetrating radar is a tool that uses radar pulses to image a subsurface. It is important to have a basic understanding of ground penetrating radar as the limitations are in direct correlation to the science and technology. To learn more about this technology, go to www.metroconcretescanning.com/

Pan deck slabs make conduit locating more difficult. In a pan deck, conduits may be harder or even impossible to see in a scan if they are in low lying trough of the pan. GPR cannot penetrate the pan decking, so steel beams, pipes and duct work below the metal pan can't be detected. Sheets of wire mesh and possibly rebar are present throughout the concrete slab – this makes it difficult to distinguish between the mesh and other targets. GPR will not be able to see conduits in the deep part of the pan due to a reflection of the metals on the bottom of the pan. Locating PVC pipes in a pan deck are also extremely difficult to detect since it's plastic and not steel. Our technicians will identify the high and shallow parts of the pan and recommend drilling in the thinnest ridge portion of the pan (ridge).

Metro offers at no additional charge electromagnetic sensors (EM) when scanning pan decks. EM sensors help to identify 50/60 Hz frequency which (single and triple phase high voltage) electric emanates when drawing current. Low voltage pipes/conduits cannot be identified with EM sensors..

Suggestions to Minimize Risk:

- Examine electrical rooms to identify (if possible) conduits turning into the slab.
- Ask building engineers what pipes or hazards may be in the deck.
- Review structural drawings if available.

ADVISORY: All findings and interpretations are based on the technician's best judgment using the latest and most up to date survey equipment available to private industry. This technology industry-wide does not have guarantees on our findings or marks left behind. The more we know about the deck before we image, the better job we can do.