SMT Lunch and Learn Presentations

About SMT

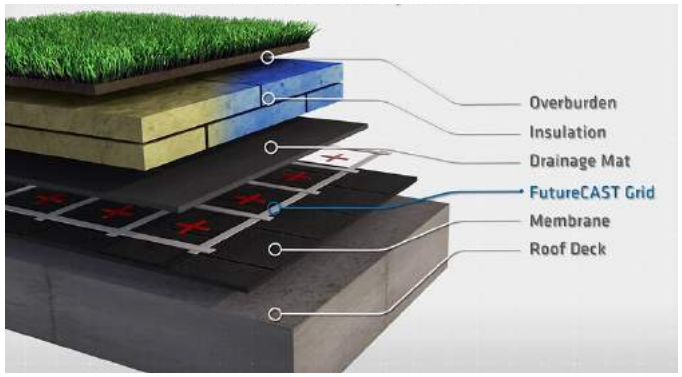
Structure Monitoring Technology Research Ltd, commonly referred to as SMT, creates solution sets that are used for electronic leak detection and building envelope monitoring. We utilize near real-time sensor analysis and remote data collection to allow Engineers, Architects, Building Owners and Researchers to validate designs, materials, and methods, producing more efficient and durable buildings. We assist in shrinking environmental impacts by reducing the frequency of unnecessary roof repairs, by providing quality assurance throughout the construction and restoration process. We have deployed our systems and services across the world, ranging from simple wood frame homes to: glass and steel skyscrapers, shopping centres, heritage buildings, art museums, data centres, and national research labs. SMT fosters award winning scientific excellence in our product lines and services, paired with superior customer care by tailoring each solution to fit every client's needs.

Inverted / Protected Membrane Roof Assemblies (PMR)

With PMR waterproofing, a comprehensive electronic leak detection scan can be used on membranes during installation, prior to covering with overburden or green roofs. Membrane monitoring is a continuous, permanently installed system that will report on the integrity of the waterproofing assembly over its entire functional life. A grid system and Digistars are installed so that live monitoring can indicate through cloud servers when, and where, a potential failure may have emerged. Fully automated membrane monitoring is a quality assurance package solution – for the life of the building.

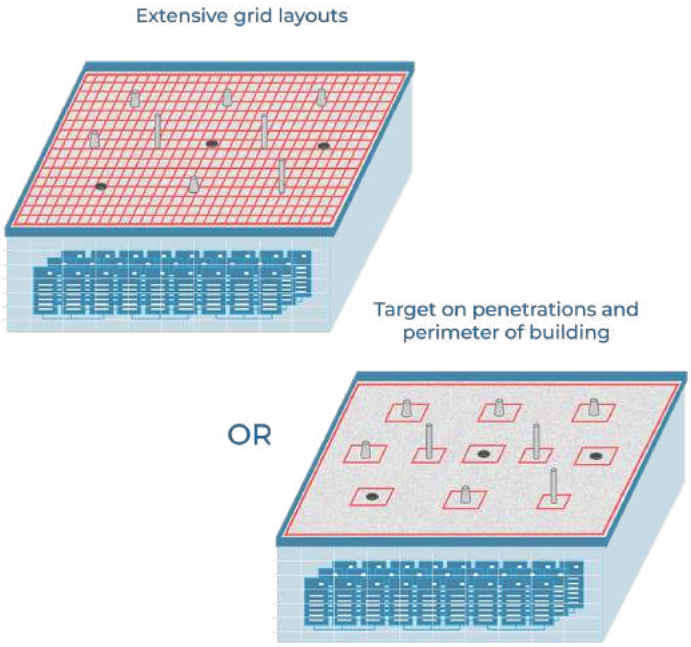
Conventional / Low-Slope Roof Assemblies

The application of Moisture Detection Sensor (MDS) Tape under conventional low slope waterproof membranes helps property management locate, and detect the presence of physical moisture to control its impact in real-time. Conventional Roof monitoring and reporting solutions are available to protect critical business assets and structures. Through early notification, changes in roof conditions can be monitored to reduce repair costs, and maintain vital structural components. The initial stream of data shall assist the installation contractor during construction and for assisting maintenance personnel during the service life of the roof. Trend data over time, with active alarms during construction all the way through to occupancy.



Investigation

Electronic sensors and monitoring technology are used to investigate existing building wall and roof systems; where automated reporting on monitoring moisture content, condensation, dew point, temperature, vapour pressure, thermal efficiency, differential air pressure and building component movement can provide key investigative information. From confirmation of initial commissioning and verification of design details in new construction, to warranty claims investigations and into building performance as the building ages. The presentation will cover real life practical applications, installation details, site condition assessment, and how monitoring changed the actions of the consultants, contractors and owners of the buildings.



Optional Topics

(Please select one or multiple topics that you would like us to include)

1 Heavy Timber Monitoring

- The use of CLT/DLT/NLT in projects is quickly being adopted
- Projects: UBC Brock Commons 18 Story Wood Building, Wood Innovation Design Centre (WIDC), MEC

2 Thermo Performance Monitoring

3 Measured Installed R-Value of Walls and Roofs

4 Historical Building Monitoring

5 Prefabricated Buildings & Modular Construction

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