



Pavement Investigation, Design and Construction Testing



Domestic Fees

\$945 +GST



Intakes

19/11/2025



Campus

Auckland



Duration

1 day



nziht.co.nz



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Best practice guidelines for investigation and design of pavements will be introduced. This includes flexible and rigid pavement for roads, industrial developments and subdivisions. Most cost effective and environmentally friendly design solutions will be covered for new and existing pavements. Calculation of pavement deflection and curvature function will be introduced in the course with examples using the design and analysis program Circly to meet Auckland Transport EPA technical requirements.

Mechanistic pavement design will be presented with applications using Circly software. Pavement design will cover flexible (structural asphalt, thin asphalt and granular pavement modification and stabilisation).

The course covers for new pavement design and introduce pavement rehabilitation options.

Pavement testing requirements during construction is essential and hence will be introduced as an integral part to ensure that the pavement has been constructed as per the design and specifications. Interactive discussions for case studies including pavement failures causes and solutions will be discussed towards the end of the course.

Topics include

- Best practice guidelines for pavement investigation and testing
- Pavement testing in the field and in the laboratory
- Pavement analysis using FWD back-calculation and Circly
- Pavement Failure types and causes
- Mechanistic-Empirical-pavement design and treatment options
- Surfacing types
- Flexible and rigid Pavement design
- Calculation of design deflection and curvature to

meet ATCOP EPA technical requirements

- Introduction of Circly 6 program with design examples
- Pavement layers Moduli
- Construction monitoring and testing requirements

On completion of this course participants will

- Specify best practice pavement geotechnical investigations for pavement design purposes
- Design pavement for various traffic types and volumes
- Select the correct material Moduli to be used for pavement design for asphalt and the other pavement layers
- Calculate pavement the deflection and curvature
- Knowledge of Circly design program
- Identify what testing and surveillance is required during and post pavement construction

Who should attend

Contractors, Consultants, NZTA, Councils and Land Developers staff involved in roads, industrial development, transport containers pavement investigation, design and construction.