

CAPABILITY STATEMENT 18—PAVEMENT INVESTIGATION AND DESIGN

Investigation, Analysis and Structural Design of Pavements

IMPORTANCE OF PAVEMENTS

Roads form a key part of the transportation network and contribute to the economic well-being of the nation.

Australia has one of the most extensive road networks in the world and the largest network of roads per head of population. It is therefore essential in this environment to optimize the design, construction, maintenance and rehabilitation of pavements to limit the cost of the road network.

Austrroads have for over the past 30 years developed a Guide to Technology based on extensive research and design and construction experience across Australia.

In 2017, Austrroads issued a revision to the guide for the structural design of pavements which included some major changes to the design of flexible pavements. In particular, the new model allows for reduced thicknesses of structural asphalt for heavy duty pavements compared to the previous guides which provides opportunities for significant cost savings.

Galt is well versed with the new design guide and offers pavement investigation and design services that complement the evolving design and construction methods used in the Australian pavement industry.



PAVEMENT DESIGN AND ANALYSES

Galt can provide pavement design and analyses for a variety of flexible and rigid pavements ranging from:

- Urban and rural minor roads, carparks, distributor roads, collector roads and other highways
- Unsealed roads and haul roads.
- Warehouse pavements and hardstands
- Container terminals and other similarly heavily loaded pavements.
- Airport pavements.

Some of our capabilities for design and analyses include:

- Mechanistic design and analyses using CIRCLY 7.0 and HIPAVE software by Mincad Systems
- FWD interpretation and back analyses for pavement rehabilitation or reconstruction.
- Specification of unbound and bound pavement materials in accordance with local and state road authorities where required
- Selection and design of bituminous sprayed seals and asphalt surfacings
- Selection of binders (cement, lime and chemical stabilisers) and development of stabilization mix designs for in-situ and imported pavement materials.

GALT GEOTECHNICS PTY LTD

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INVESTIGATION AND TESTING

Galt is experienced in the investigation and testing of flexible and rigid pavements and offers a variety of investigation methods including intrusive and non-destructive test methods which are appropriate for pavement design and analyses. Services include:

- Geotechnical investigation and evaluation of subgrades and borrow sources in accordance with Austroads and Main Roads Western Australia guidelines.
- Forensic assessment of defects on existing flexible and rigid pavements and establishing possible causes of pavement distress
- Investigation of existing pavements using a variety of coring and drilling methods for evaluation of pavement layers and subgrades and assessment of pavement performance.
- Sampling of materials and scheduling of appropriate laboratory testing programmes with an emphasis on recycling pavement materials
- Non-destructive test methods including Falling Weight Deflectometer testing and Laser Profilometer Surveys.
- Preliminary and detailed analyses of pavements and the likely causes of pavement distress, ranging from environmental, surfacing and structural issues.

Contact us today for more information

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