

# Developing a Three-Dimensional Digital Cadastral System for New Zealand

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## Key words:

3D Cadastral System, 3D Cadastre, Rights Restrictions Responsibilities.

## SUMMARY

In the early 2000s Land Information New Zealand (LINZ) introduced an integrated automated survey and title system, known as Landonline, which enabled the electronic capture, lodgement, recording, and supply of cadastral survey data. A highlight of Landonline's success is that advancements in technology and changing expectations of society were embraced whilst ensuring that New Zealand's accurate, authoritative and assured land-based property system was preserved. Despite these achievements, it is apparent that the current cadastral system will not be optimal going forward. This observation is recognised in a strategy for developing the cadastral system published in 2014. A significant component of the strategy is to make provision for three-dimensional (3D) cadastral capabilities.

The present system caters for the third dimension through two-dimensional plan and elevation graphics supported by textual descriptions. This portrayal is no longer meeting current and emerging expectations of government, land professionals and the public and is inhibiting the efficient collection and presentation of 3D cadastral data offered by modern technologies.

The objective of the work being undertaken by LINZ is to progress from research to actual development and eventual implementation of a fully automated 3D cadastral system. This system will allow the capture, submission, validation, visualisation and recording of rights, restrictions and responsibilities in 3D. The government has recently given approval for LINZ to develop a business case to advance New Zealand's cadastral system to the next level, including early development of these 3D capabilities.