

NP2004

A ZERO CARBON PPP LIGHT RAIL TO GREATER CURTIN

Research Question

This research will develop a model for delivering public transit rail using a build, own, operate and finance public-private partnership, funded by land development. A proposed light rail route in Perth will be used as a case study, running from Curtin University, through the Perth CBD to Scarborough Beach.



Figure 1: Curtin-Stirling Light Rail

Methodology

The study will proceed as follows:

- Identify developable land parcels, using the best available data.
- Estimate the value uplift of the new line, and its potential profitability.
- Develop land use scenarios.
- Review international case studies of rail and land co-development, and development-funded private contributions to the cost of rail.
- Review the legislative framework and business model under which Western Australia's tramways and land grant railways were built.
- Investigate the powers of various government agencies to acquire

land and levy charges on property owners.

- Examine contemporary projects in which land development has benefitted the public finances as a result of rail.

Results

Numerous previous studies have shown that rail infrastructure increases the value of the land (see, for example, McIntosh et al. 2013). This study proposes a method for harnessing this value uplift to fund the infrastructure.

This value uplift was exploited in the first generation of railways around the world, and this approach to railway building is still practiced in East Asia, and is being revived in North America and Europe.

Surprisingly, this same form of entrepreneurial railway building was to be found in early twentieth century Perth, with the tramway company building hotels and recreational facilities at the end of its lines, in a business model strikingly similar to that of present-day railway companies in Japan.

The State and local governments, and a variety of statutory authorities, have the power to acquire land for the purpose of public works in Western Australia. This includes the power of compulsory acquisition, which is regularly used for the purpose of highway construction.

In Perth, a mechanism exists for raising funds for government land acquisition. The Metropolitan Region Improvement Tax is a land tax levied on investment properties within the metropolitan region. There is recent precedent for using the

MRIT for public transport-based developments, in that its funds were used to purchase the site above Perth Underground Station, built as part of the Mandurah Line development.

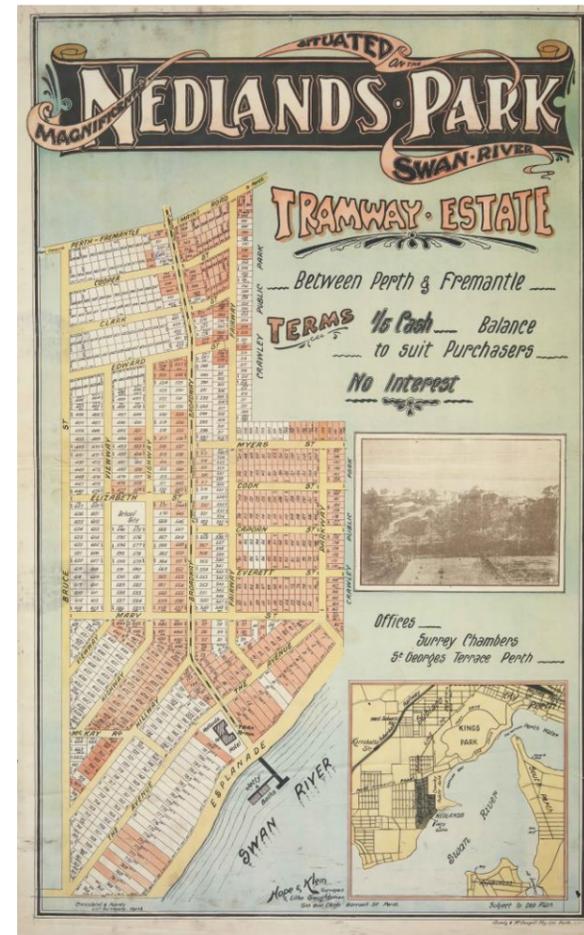


Figure 2: Nedlands Park: an early entrepreneurial rail project in Western Australia

Conclusions

Entrepreneurial railway building has a long history, but is no longer practiced in Australia. However, international case studies, historical precedents, large areas of under-developed urban land and estimates of rail construction costs all suggest that it is possible to re-introduce

this model of rail building.

Anticipated impacts

Developing a workable model for private rail delivery funded by land development would significantly increase the total funding available. This is essential at a time when there is growing demand for rail infrastructure but heavily constrained public finances.

Curtin University's Bentley campus is already at capacity for parking during the day and is serviced by slow and indirect public transport connections. The Greater Curtin vision cannot be achieved without a high capacity public transport link. Current government finances make it difficult for this project to be funded within the required timeframe.

Key statement

Results so far demonstrate that entrepreneurial rail building has a history in Australia, and can be done in Australian cities.

Further information

Download the *Entrepreneur Rail Model discussion paper* at:

<http://www.aph.gov.au/DocumentStore.aspx?id=5a60c847-f7d5-409b-9128-49d65a0bd2b0&subId=408950>

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