



Transit Oriented Development (TOD)

Number 16, 2nd edition, 2011

(For pre-2009 material on TOD please refer to [Tranzinfo Hot Topic 16, 2009](#))

1 A case study of transit-oriented transportation development and land use in China

Enhui, Y, Yanjun, Q and Ping, W

T&DI Congress 2011: Integrated transportation and development for a better tomorrow: proceedings of the first T&DI congress 2011

American Society of Civil Engineers (ASCE), USA

With rapid economic development and urbanization in China, TOD has become a leading urban planning model. This TOD study focuses on the city of Chengdu, the largest city in the southwest of China. The study was based on the TOD model and the genetic algorithm (GA) approach using the MATLAB software. It showed that the optimal solution significantly increased the density and consistency of land use when compared with the current construction plan. Traffic flow on the major road of this community was around 67% of its predicted traffic capacity. The feasibility and effectiveness of the TOD model was verified and recommendations are given for managing the transportation development and land use.

2 An evaluation of the effects of transit oriented development in a suburban environment

Lastrape, KM and Lewis, CA

Research Report SWUTC/10/476660-00048-1

Texas Southern University, Houston, Center for Transportation Training and Research, 2010, 64 pages

Online [accessed 5 July 2011] click [here](#) to view

This paper presents information about some vital aspects of TOD when viewed in suburban communities currently without TOD. The residents in three Houston, United States, area suburban communities were studied as to whether they use public transit for work trips via: (1) light rail (2) commuter bus and (3) express bus. The comparisons of the three work trip modes and the use of personal automobiles indicate that were

transit facilities more available in their community, transit systems would be an effective approach to absorb some growth in trips. Creation of better job location to housing balance would further improve the number of internal trips reducing the use of single-occupancy vehicles.

3 Analysis of transit oriented development transportation impacts in suburban areas

Ford, JW and Wasielewski, M

Institute of Transportation Engineers (ITE) Technical Conference and Exhibit, 2010

This paper evaluates a project analysing the largest transit oriented development (TOD) development effort underway in Connecticut, United States, rebuilding a former manufacturing centre that was now an area of vacant factories and temporarily used buildings. The paper describes the efforts undertaken by the authors over a number of years to review potential impacts and improvements of this TOD.

4 Eliminating barriers to transit-oriented development

Chatman, DG, DiPetrillo, SE and Nichnadowicz, VF

Final Report, FHWA-NJ-2010-002

Rutgers University, Voorhees Transportation Centre in cooperation with New Jersey Department of Transportation Bureau of Research and U. S. Department of Transportation Federal Highway Administration, 2010, 81 pages.

Online [accessed 7 July 2011] click [here](#) to view

This report from New Jersey, United States, compares the vehicle use and ownership, parking use, and school enrolment of residents of new housing near railway stations with those of households living in older housing near railway stations as well as households living farther away in both old and new housing. Data collection consisted of interviews, household survey, and a field audit of parking supply and occupancy.

5 Evaluating the impact of transit-oriented development

Clower, TL, Ruggiere, P, Bomba, M, Arndt, JC, Li, J, Edrington, S and Hendershot, P

Report No.FHWA/TX-10/0-6511-1

University of North Texas, Denton, Center for Economic Development and Research, Denton, United States, 2010

Online [accessed 7 July 2011] click [here](#) to view

The report examines TOD impacts using Texan data, finding an average decrease of 15% in vehicle miles travelled by those moving to a TOD, and noting the impact that behaviour change has on fuel tax revenues. Changes in road type route choice, and resident preferences for housing based on proximity to entertainment venues and work location, were also noted.

6 Green TODs: marrying transit-oriented development and green urbanism

Cervero, R and Sullivan, C

The International Journal of Sustainable Development and World Ecology, 2011

Volume 18, Number 3, pages 210-218

TOD and green urbanism are often dealt with separately, as distinct topics. This international comparison looks at the impacts when urban areas are designed as both green and transit-oriented, including projects in Sweden, Germany and Australia.

7 Kid-Friendly TODs

Cervero, R and Sullivan, C

IURD Working Paper Series, Institute of Urban and Regional Development, UC Berkeley, 2010, 22 pages

Online [Accessed 7 July 2011] click [here](#) to view

An international comparison, with a European focus, of TODs that aim to be attractive to families. Shared green spaces, playgrounds in lieu of surface parking and no-traffic zones, are some of initiatives highlighted.

8 Rail-based transit-oriented development: lessons from New York City and Hong Kong

Loo, BPY, Chen, C and Chan, ETH

Landscape and Urban Planning, 2010

Volume 97, Number 3, pages 202-212

This paper aims to expand on previous studies by using city-wide station-level data from high rail use locations of Hong Kong and New York City to examine factors that contribute to TOD rail patronage increases. Land use, station characteristics, socio-economic and demographic characteristics, and inter-modal competition are amongst the variables noted.

9 Rethinking urban land use and transport planning: opportunities for transit oriented development in Australian cities case study Perth

Falconer, R and Richardson, E

Australian Planner, 2010

Volume 47, Number 1, pages 1-13

This paper aims to set a context for a revised land use and transport planning approach in Australian cities, with a case study of Perth. Constraints to successful TOD, such as inflexible town planning schemes and inaccurate perceptions of market demand, are also discussed.

10 **The geography of advance transit-oriented development in metropolitan Phoenix, Arizona, 2000–2007**

Atkinson-Palombo, C and Kuby, MJ
Journal of Transport Geography, 2011
Volume 19, Number 2, pages 189-199

An examination of how overlay zoning regulations, such as those in force in Phoenix, Arizona, affect TOD.

11 **Transit oriented development: guide for practitioners in Queensland**
Department of Infrastructure and Planning, Queensland, 2010

Online [accessed 7 July 2011] click [here](#) to view

This guide aims to offer a Queensland context to TOD practices for urban planners, designers, transport professionals, local and state government officers and industry representatives and developers. It is intended to be part of a suite of guidelines and planning tools to influence TOD implementation in Queensland.

12 **Transit-oriented development in a high-density city: identifying its association with transit ridership in Seoul, Korea**

Sung, H and Oh, J-T
Cities, 2011
Volume 28, Number 1, pages 70-82

This study aims to determine whether transit-oriented development (TOD) planning factors, identified from western case studies, can be applied to the city of Seoul, Korea, which is characteristic of dense urban development. The multiple regression modelling suggests TOD planning factors can have a significant positive impact in forming a transit-oriented city, but careful application of TOD planning factors from low-density cities is required for Seoul.

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