

# Persistent Town and Neighborhood Structure Problems Jeopardize NU Urban Centers, Regions and TOD Performance

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At the Green Council, Doug Farr presented on his important new book, *Sustainable Urbanism*, including two key diagrams discussed below. Troublingly, part of Doug's presentation seemed to represent, in my view, a *wider, persistent and fundamental problem* with much NU town and neighborhood structuring, which needlessly jeopardizes NU performance and feasibility. A significant debate ensued as a result of my comments, including Paul Murrain, Andres Duany and others, which has continued in personal emails and discussions, including with Shelley Poticha and Wendy Morris, since then<sup>1</sup>. There is no doubt among us about the laudable intentions of Doug and his book. However, the content and diagrams of a book that calls itself 'Sustainable Urbanism' need, in my view, to be *absolutely exemplary*<sup>2</sup>, and utterly credible in the eyes of all who may read it, or it risks falling short of its apparent goal of espousing and enabling 'Sustainable Urbanism'. Moreover, such a title, written by a prominent New Urbanist, reflects on all the movement, favorably or otherwise<sup>3</sup>.

The key problem stems from two sources, and has persisted since before the first CNU, when I initially commented on this same topic. Firstly, devotion persists on the part of some NU practitioners for the 1929 Clarence Perry diagram (see Doug Farr's adapted version in Figure 1, and the DPZ adaptation published in 1994 and subsequent *Architectural Graphic Standards*), which *separates* community facilities within a 'neighborhood center' from commerce along arterials outside the neighborhoods. The second source of the problem appears to be a lack of understanding of how differing public transport modes, and town and neighborhood structures, should relate (see my comments on Doug Farr's diagrams below).

This article first notes the necessary links between community, commerce, movement networks and public transport, as they relate to urban centers. It then explains functional problems in Doug's two diagrams, and their implications for NU. Then it clarifies my opinion of how NU centers should generally be structured (or re-structured when feasible in existing urbanism), to optimize urban performance at all levels.

## Assumptions

Urban centers have generally always located and thrived along, or at intersections of trade routes. Community and Commerce generally have always been compatible and attracted each other, and therefore co-located at urban centers, to their mutual benefits. When establishing public transport and movement networks, urban designers should ensure that these networks link and thereby 'feed' every urban center (including neighborhood centers), with efficient public transport coverage, which will in turn augment economic feasibility.

Except when they radially converge to a town or city center, public transport routes generally run straight and roughly parallel for maximum coverage and route efficiency between major destinations, generally spacing themselves no closer than

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<sup>1</sup> Doug is aware of this article, and he has agreed provisionally to join me in advancing this debate during the Austin CNU, if possible, as well as in other possible publications.

<sup>2</sup> I acknowledge there are and should be many ways to achieve Sustainable Urbanism, from an urban structuring standpoint, which should vary in response to their contexts. My point in this paper is that Doug's two diagrams are too far from 'absolutely exemplary' to be the primary diagrams to represent town and neighborhood structuring and TOD corridors in any book with this title.

<sup>3</sup> I acknowledge that I returned to Australia without a copy of Doug's book, and have not read it in full.



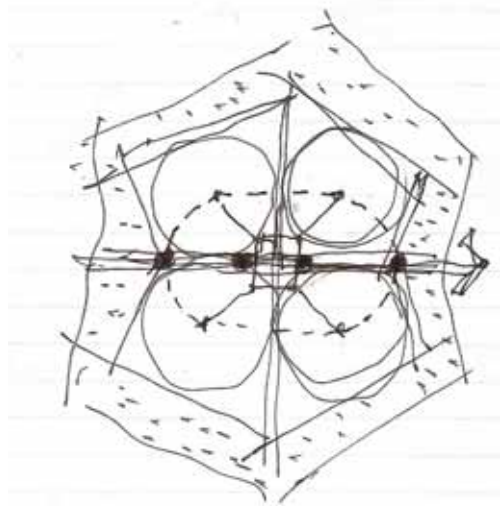


Figure 2. 'Sustainable Neighborhood' extrapolated as one of four quadrants

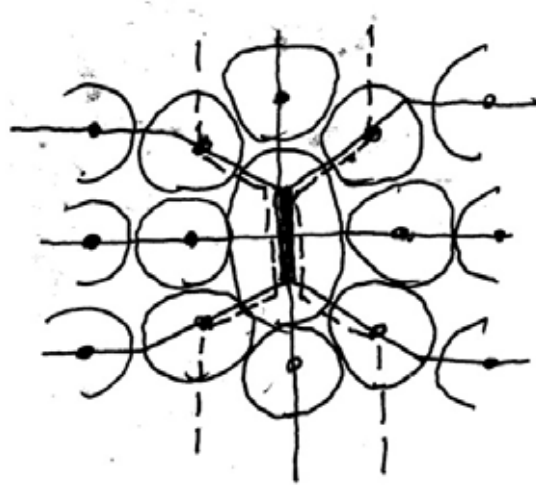


Figure 3. One of ESD's town & neighborhood diagrams, with transport feeding TC and all NCs

### ESD's Town and Neighbourhood Diagram

As an alternative, one of ESD's town and neighborhood diagrams (Figure 3) locates the NCs about a half-mile from their larger TC, giving each NC a more viable catchment of its own, from both a retail and community standpoint. The public transport and movement network of this diagram *encourages both community and commerce to co-locate at all the centers*. Moreover, the public transport routes can efficiently run parallel and spaced the ideal half-mile (800m) apart, running north/south and east/west, except where they appropriately converge through the TC (where it is easy to change routes and directions). This movement and public transport network (buses in this diagram), particularly in concert with an equally permeable network within each neighborhood, generally eliminates the need for problematic four and six-lane arterials (except for major through routes and valuable business boulevards, as shown in Figures 5 and 6). Such arterial gigantism afflicts much of North America and triggers corresponding retail gigantism at resulting giant and inhospitable intersections, killing off other retail in their equally giant retail catchments, and thereby inducing more travel demand.

### Doug Farr's 'Sustainable Corridor'

Doug's 'Sustainable Corridor' below has several problems. Most obviously, it has a 'Future Transit Alignment', implying that development should take place there without being served by public transport. Delayed provision of public transport infrastructure already causes far too many low-density places, which have trouble adapting to 'earn' public transport, and therefore often never get it. We should never again advocate 'transit-ready' greenfield developments; they must be transit-provided!

Because this 'Future Transit Alignment' runs between neighborhoods and not through them, I infer that this alignment would be for heavy rail. If the alignment were for bus or light rail, it should by all means run *through* neighborhoods, not *between* them as shown on the diagram. Different public transport modes demand different urban structuring around them (see Figures 5 and 6 explained later), and Doug's single 'one size fits all' diagram fails in this regard.



## Two More Viable 'Sustainable Corridor' Plans

Figures 5 and 6 below, for a largely greenfield site, show two distinct urban structures for the same area, which support the formation of town and regional centers with neighborhoods clustering around them. One structure is for heavy rail and the other for light rail. *Please note that the Western Australian Planning Commission has not taken a stand yet in response to these plans, in part because extensive environment constraints verification is yet to be completed.* ESD and Taylor Burrell Barnett of Perth designed these plans in 2007, on behalf of the WA Department of Planning and Infrastructure.



Figure 5. Heavy Rail Partial Plan for Perth's Southwest Growth Corridor.



Figure 6. Light Rail Partial Plan for Perth's Southwest Growth Corridor.

The heavy rail plan (Figure 5) takes the railway *between* neighbourhoods, except where it runs underground beneath major town and regional centers. The heavy rail plan spaces stations and resultant town centres at 2-4 miles apart, as determined by the land and major movement network, and technical requirements of heavy rail for efficient acceleration and deceleration distances. The light rail plan (Figure 6) runs *through* neighbourhood centers, binding them together. Light rail town centres space themselves in response to the land, major movement network, and far enough apart to enable neighbourhoods to cluster around them on all sides, to optimise complementary township populations.

These plans illustrate that a single 'one size fits all' diagram for regional corridors is not viable. They also illustrate how the movement network (with capillary bus networks supporting the light or heavy rail) can and should 'feed' all neighborhood and town centers (*and every centre with both community and commercial uses*), with quite direct public transport routes that are planned to be competitive with cars. The draft regulations require that the public transport infrastructure be constructed concurrently with each development stage. The townships support populations of 30-60,000, enabling relatively high capture of local jobs and services, with populations

for centers big enough to eclipse the need for the large stand-alone private shopping centers, which afflict much of Australia and North America.

In conclusion, thank Doug Farr for so graciously supporting the publication of this article with his diagrams. I hope that this article will help to advance understanding of neighborhood, town and transit corridor structuring within New Urbanists and beyond. I personally hope that this article will clarify why the Clarence Perry diagram, and its descendents, should no longer be seen as 'normative' for New Urbanism, and should be recognized instead as a chauvinist anachronism. Lastly, I exhort all New Urbanists to come to grips with this issue, and to recognize how fundamental it is to our achieving Urban Sustainability.

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