THE ANSWER IS: CORRIDOR DEVELOPMENT, BUT WHAT IS THE QUESTION?

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ABSTRACT

The City of Cape Town is faced with numerous spatial development challenges, for which various solutions have been proposed. One of the most significant proposals is the development of activity corridors.

This paper explores corridor development and its potential to address a range of spatial, social and economical urban problems faced by modern day cities. The emphasis is thus on determining the scope of positive interventions that a corridor can bring to bear. It is envisaged that this cursory inspection of the ramifications of corridor development will highlight the problem areas they could address, and therefore lead to an identification of the questions to which corridors may well provide the answer.

1. INTRODUCTION

In this paper the focus will fall on Cape Town, South Africa as a case study though reference will also being made to some international examples.

At the outset some understanding of the term “corridor” and related concepts is needed before its development potential can be determined. This constitutes the first part of the paper.

The second section deals with identifying the possible spatial, social and economical urban impacts and problems that can be addressed by introducing or developing corridors in the metropolitan areas.

As will be indicated, corridor development is proposed in various policy documents as the answer to the City of Cape Town's numerous spatial development challenges. These problems have partially emanated from the erstwhile policy of segregating of population groups by the previous Apartheid Government, where activities and opportunities were restricted to the CBD (central business district) whilst low-income residential areas were located on the periphery of the city.

A further challenge arose from rapid urbanisation, which involved mass emigration to the city, for the purpose of seeking employment. The individuals concerned, of which the majority were poor, were also and still are located distant from the city centre, and therefore have always had to confront a scarcity of economic opportunities and facilities (Carelse, 1997).

The development of Cape Town occurred, and according to Dewar *et al* controlled, by a structuring element. “In almost every case, this element was through road (later reinforced by a railway line) linking the initial settlement of Cape Town with its hinterland” (Dewar, Uitenbogaardt, Hutton-Squire, Levy & Menidis, *s.a.*: 17). These linear elements resulted in the development of the city that was in effect linear. The structure of Cape Town is inefficient and needs to be addressed.

In the light of the above-mentioned challenges, the development of metropolitan corridors, seemingly present a particularly powerful and effective planning strategy for the purpose of restructuring the spatial inequity of the city, as well as initiating economic growth points in close proximity to low-income communities.

2. WHAT IS A CORRIDOR?

The concept of corridor development is relatively old. With the advent of the densely populated concentric industrial city about a century ago, city models in a linear shape were presented as an alternative (Priemus and Zonneveld, 2003: 3). This can be seen as analogous in concept to the modern corridor in urban areas, though of course at another scale.

It can be said that corridor development originated in the actual occurrence or focus of development initiatives along a transport route. This almost invariably resulted in the simultaneous initiating of a variety of public transport facilities, mixed land uses and a concentration of people (Author unknown, *s.a.*). Priemus and Zonneveld refer to a corridor as consisting of "bundles of infrastructure that link two or more areas" which has a rather long history in spatial and urban planning (Priemus and Zonneveld, 2003: 1,2).

The aforementioned scenario is illustrated in the "string of beads" concept (see following figure). This concept suggests that nodes and sub-nodes occur along the main movement channel. The areas where higher densities occur around the nodes, suggest the different infrastructure that the corridor generates.

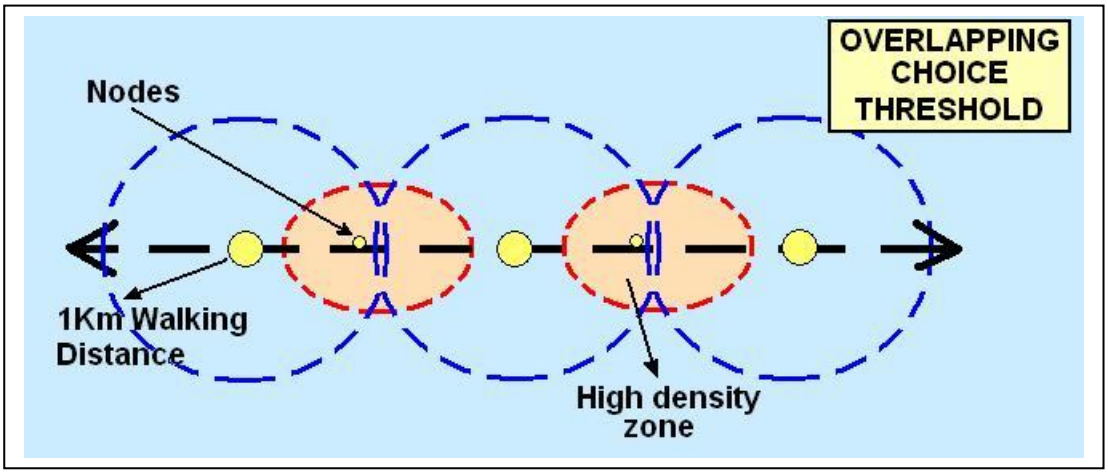

Figure 1: String of beads concept
(Cape Metropolitan Council, 1996: 43)

The foregoing is succinctly described in the following quote:

"Corridors directly support the principles of urban integration, intensification and containment of urban sprawl. Indirectly they are part of the strategy to ensure sustainable management and the creation of quality urban environments.

A corridor is not an elongated node. The primary and overriding characteristic of a corridor is that it is a continuous link between two metropolitan nodes that provides a focus for public transport services. This is the corridor reduced to its most basic and important elements" (Cape Metropolitan Council, 2000).

The following differing forms of corridors have so far emerged in the author's investigation of the topic:

2.1 Activity Corridor

The functioning of an activity corridor differs depending on the specific context such as at the metropolitan, city or local scale, its location in relation to the city, or the specific land use patterns around it. For this reason it is necessary on the one hand to investigate any corridor from different perspectives to arrive at a clear understanding as to the true nature of an activity corridor, generically speaking, and on the other, what it might constitute if viewed from a specific perspective. The related issue of how a specific activity corridor development could benefit the structure and function of the city, could thus be given more clarity.

An activity corridor is generically defined in the Blaauwberg Spatial Development Plan as follows:

"Activity corridors and streets provide a structure along which high density mixed use development can be promoted" (City of Cape Town. Planning and Environment Directorate, 2002: 72). The activity corridor thus provides various economic opportunities along itself, which opportunities ensure the existence of the necessary thresholds to sustain its operations. This range of opportunities results in the highest intensity levels of economic activities along an activity corridor.

A further aspect concerning this definition relates to the various elements that constitute an activity corridor. Bishop (1989) attempts to answer this in stating that it "… can include nearly anything that can be seen from, or has an impact on, the roadway." (Bishop, 1989: 3). This is unfortunately somewhat vague and hardly suggests what the important elements are. Although it is acknowledged that different activity corridors will be made up of different elements, it is contended by the author of this paper that certain "universal" elements should be identifiable by applying different definitions.

According to generally accepted sources in the literature, such as the MSDF, Priemus and Zonneveld and the CSIR, a number of elements are in fact suggested that should be present for an activity corridor to function optimally. These elements include a major transport route; public transport modes; linkages between nodes and sub-nodes; intense human interaction; availability of services; intensification of development, and lastly, public investment at least in the immediate vicinity of the activity corridor. The presence of all these elements, it is argued, ensure a more integrated city form as opposed to urban sprawl.

Based on the author's observations thus far, there in fact appear to be further characteristics relating to the operation and functioning of an activity corridor. This includes

the local scale of the activity corridor and the particular implications of that; that the high density residential areas are mostly occupied by at least middle-income residents; that the economic and commercial opportunities occur in the form of single shops in the area (not necessarily shopping centres); and that a variety of land uses such as residential and commercial occur.

The foregoing clearly suggests the importance of public transport as a catalyst for activity corridor development, and also underpins the importance of the activity corridor in promoting economic development and integration of the city.

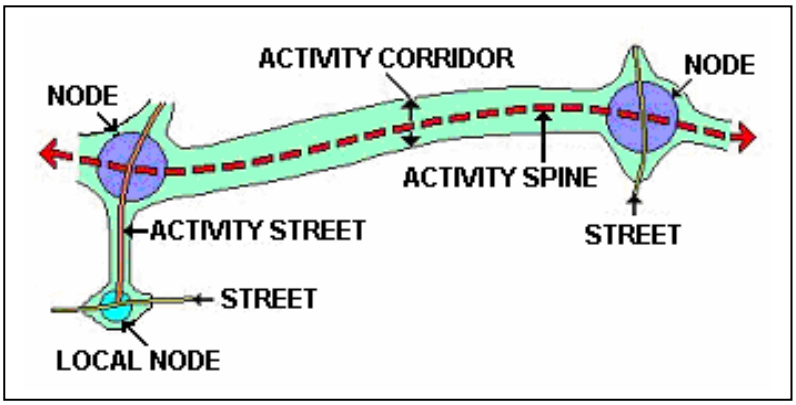

Figure 2: A graphic representation of the structuring elements of an activity corridor.
(Adapted from Cape Metropolitan Council, 2000: 13)

Thus far, we have described the nature of an activity corridor and mentioned some of the preconditions for its coming into being as well as the elements it consists of. It will be recalled that an important consequence of corridor development could be a better-integrated city. In this regard Lotz states that the "…development of activity corridors can create a strong, well-defined city structure which will address the current urban deficiencies experienced in metropolitan areas. Activity corridors offer a means to integrate those parts of the metropolitan area with no coherent and integrated structure into the larger urban environment" (1995: *s.p.*) The range of economic and social activities were thus identified as urban deficiencies, especially where there is a lack of these activities and facilities in the lower-income areas.

Lotz argues that the activity corridor has the capacity to address these deficiencies in the following ways:

- Increased densities,
- High concentrations of land-uses,
- Through traffic which will reinforce a range of activities.

Activity corridors can in other words bring about improved city conditions through providing the preconditions and necessary thresholds to sustain the economic and social facilities in a specific area (1995).
If adequate social activities are provided for and economic activities are generated in a city, the quality of life for its inhabitants will be enhanced. In order to realise this, it is argued that activity corridors serve as a particularly effective planning device for the purpose of integrating these economic and social activities. This integration clearly implies higher levels of accessibility for the population at large.

2.2 Growth Corridor

In contrast to the concept of an activity corridor, a growth corridor is commonly referred to in the planning and the related professions in a somewhat loose and undefined manner. Confusion surrounding the dispute in terminology is compounded by its interchangeable use with the term activity corridor. There is in fact a substantial difference between the two.

It is generally accepted that growth corridors refer to a far more extensive scale in the context of a metropolitan area and can exist in various forms of maturity. It is in fact the potential for further development that is an essential element of a growth corridor as for instance in the case of the Northern Growth Corridor of metropolitan Cape Town; is recognised as offering extensive scope for the full range of urban activities and land uses such as residential, commercial and industrial though there are only an incipient stage at the time of writing. A growth corridor would also be characterised by unique features such as regional shopping centres catering for the middle to higher income groups.

The basic elements of a growth corridor could include all the elements that would ultimately exist in an activity corridor, bearing in mind that the former is also far more extensive in geographical extent, range of activities and linkages with the rest of the metropolitan area. It is argued by some that a growth corridor could ultimately develop into an activity corridor. What should be remembered is that at a given point in time they are distinctly different concepts.

2.3 Other definitions

A number of South African and overseas planning related case studies are under investigation for the purposes of comparative evaluation. Tentative observations have revealed an interesting range of corridor types including, scenic corridors, green corridors, environmental corridors and mega/euro corridors, which are suggestive of more detailed investigation, though the doubts concerning their relevance to this study will have to be confirmed.

It is important to note what the role and relation of the activity spine is in an activity corridor. It is seen as the core of the activity street with a major road. “An activity spine includes the high-density development immediately adjacent to the central road (about one block on both sides). The activity spines are major routes that connect one or more metropolitan nodes, and support and give access to most of the mixed-use development and community activities within the activity corridor “(Cape Metropolitan Council, 2000: 15)

3. RELEVANT POLICY DOCUMENTS IN THE CAPE METROPOLITAN CONTEXT

In order to for the development of activity corridors to be facilitated, policy frameworks need to be in place. The following policy documents provide guidelines for the development and implementation of activity corridors in metropolitan Cape Town:

3.1 Moving Ahead

The “Moving Ahead” document, also known as the Cape Metropolitan Transport Plan, was prepared to “not only determine what may happen, but must prescribe what should happen” (Cape Metropolitan Council, 1998: 5). This document does not refer much to corridor development, but rather to the various policies, guidelines, strategies, visions and goals that need to be implemented. It mentions the different types of activity corridors which are identified in the MSDF and how they require different management and development responses (Cape Metropolitan Council, 1998).

The growth-, demand- and commuter patterns indicated by this document clearly indicate the movement pattern that needs to be investigated, thereby suggesting possible areas for corridor development. The number of people that travel the same route can provide the threshold to sustain the densities and economic activities along that route. Where these passengers interrupt their journey (rail stations, bus stops, major street crossings) opportunities for formal as well as informal economic activities exist.

3.2 Metropolitan Spatial Development Framework (MSDF)

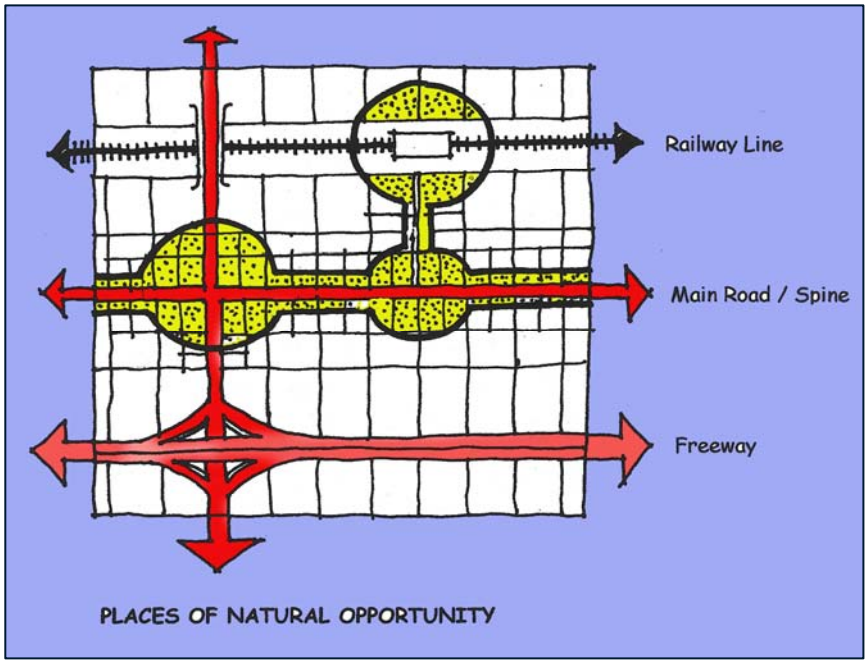

Figure 3: Places of natural opportunity along corridors.
(Source: City of Cape Town. CMA, 2002)

The MSDF proposes a concept previously described as the “string-of-beads” in the case of activity corridor development. This refers to the fact that activity corridors connect a series of metropolitan nodes. These nodes should have mixed land uses to support higher densities and should all be easily accessible by all transportation modes (Cape Metropolitan Council, 1996: 37). This document again emphasises the fact that activity corridor development is crucial in what they refer to as the "new planned regional structure" (Cape Metropolitan Council, 1996: 40), in that it can contribute to the realisation of intensification and integration in the Cape Metropolitan Area.

The MSDF identifies various elements in its conceptual activity corridor, one of which is densification of the immediate surroundings of the corridor. It is stipulated that the gross density of the corridor should be between forty to one hundred dwelling units per hectare. The most commonly known corridor in Cape Town, is the Voortrekker Road development. In the suburb Parow region, this corridor has a maximum density of sixteen (16) dwelling units per hectare. Possibly one could then argue that this low density does not represent the conditions that make for a mature activity corridor.

4. POSSIBLE IMPACTS OF ACTIVITY CORRIDORS ON THE URBAN ENVIRONMENT

Chapman, Pratt, Larkham and Dickens refer to the activity corridor as a “dynamic space” (Chapman *et al*, 2003) and conflict may arise between the various functions of such corridors. In the view of the author these conflicts would most likely be overshadowed by a number of positive consequences emanating from the development of an activity corridor.

4.1 Efficient movement systems

The first and foremost function which is associated with an activity corridor, is that of movement. This is explicit in the definition which refers to an activity corridor as a "linear zone of development flanking a public transport route" in the MSDF handbook (Cape Metropolitan Council, 2000: 13). Allopi (1998: iii) stated seven years ago that the South African Government had recognised transport as one of five main priority areas for socio-economic development.

The City of Cape Town accordingly perceives public transport as a vehicle to alleviate numerous socio-economic problems such as unemployment, lack of access to health care and educational opportunities, to name a few (City of Cape Town, 2001).

The point made here is that corridors promote sound public transport systems and the reverse is also true: efficient public transport further strengthens the forces underlying the development of corridors.

4.2 Local economic growth

With the development of corridors, higher densities are suggested in various planning proposals which indicate their capacity to facilitate economic activity. This will have positive spin-offs in that the high densities will provide thresholds for various formal and informal economic activities. This will be of obvious benefit to the local communities in terms of these economic activities and services. More money is spent in the local area than outside.

Therefore, it can be said that the problems surrounding economic development of middle to low-income communities could be addressed by implementing activity corridors (Lotz, 1995).

4.3 Optimal land use and effective development control

It is known that activity corridors provide high population densities because of their proven capacity for high intensity of land uses and high levels of access. Therefore, with the high intensity of land uses and the integration between them, they encourage the optimum use of land in an area.

As has been mentioned, the implementing of corridor development could address urban sprawl in the City of Cape Town. This will support effective development control in that it ensures that development takes place in a more manageable manner.

4.4 Promoting social opportunities

If the development of the activity corridor is successful with integration, this may result in a wide variety of social opportunities integrated with high-density residential activities in that numerous other activities and facilities will be accessible to residents thereby promoting social interaction in the area.

5. CONCLUSION

The promotion of and planning for activity corridor development, is a strategy that takes between the medium to long term to be realized, and the indicated time frame of development is approximately 20 years (Carelse, 1997: 55). It is important thus to be clear that the implementation of activity corridors happens over a period of time and in a number of phases, but nonetheless, and on the basis of the foregoing observations and arguments, should be seen as a powerful planning device to integrate land use and transport planning.

This brings one back to the title of this paper, namely to ask the right questions about cities in order to determine the potential and relevance of activity corridors. The stand taken in this paper is that numerous spatial development challenges and indeed quality of life, facing Cape Town, can be addressed by activity corridor development through a range of scales and contexts.

6. REFERENCES

[1] Allopi, D. 1998. Towards a more effective and efficient public transport system: a case study. Unpublished dissertation for Doctores Technologaie: Civil Engineering. Durban: ML Sultan.

[2] Cape Metropolitan Council, 1996. Metropolitan Spatial Development Framework - A Guide for Spatial Development in the Cape Metropolitan Functional Regional. Technical Report. Cape Town: s.n.

[3] Cape Metropolitan Council, 1998. Moving Ahead. Cape Metropolitan Transport Plan. Part 1: Contextual Framework. Discussion document. Cape Town: City of Cape Town, Creative Services.

[4] Cape Metropolitan Council, 2000. MSDF Handbook: guidelines for the local interpretation and application of the MSDF principles and spatial concepts. Cape Town: s.n.

[5] Carelse, R.L. 1997. An investigation into the feasibility of activity corridors as a solution to the spatial problems in Kuils River. Unpublished dissertation towards the degree of Master of Town and Regional Planning. Stellenbosch: University of Stellenbosch.

[6] Chapman, D., Pratt, D., Larkham, P. & Dickens, I, 2003. Concepts and definitions of corridors: evidence from England’s Midlands. Journal of Transport Geography, 11(3): 167 – 243. September.

[7] City of Cape Town, 2001. Moving Ahead. City of Cape Town Transport Plan. Part 2: Operational Component. Discussion document. Cape Town: City of Cape Town, Creative Services.

[8] City of Cape Town, Planning and Development Directorate, 1999. City of Cape Town: Municipal Spatial Development Framework. Draft. Cape Town: s.n.

[9] City of Cape Town, Planning and Environment Directorate, 2002. Blaauwberg Spatial Development Plan: final draft. Cape Town: s.n.

[10] City of Cape Town, Department of Urban Planning, 1999. Statutory MSDF. Cape Town: s.n.]

[11] CPRE / Friends of the Earth, 2000. Transport Corridors - Blessing or Blind Alley? A CPRE/Friends of the Earth briefing. ISBN: 1 902786 23 8. [s.l:s.n.]

[12] Dewar, D. & Uytenbogaardt, R.S. 1991. South African Cities: A manifesto for change. Urban Problems Research Unit, University of Cape Town. Cape Town: s.n.

[13] Dewar, Uitenbogaardt, Hutton-Squire, Levy & Menidis. s.a. Housing – A comparative evaluation of urbanism in Cape Town. Cape Town: s.n.

[14] Lotz, A, 1995. Activity corridors as an effective basis for the economic development and improvement of the standard of living of low-income communities. Unpublished dissertation towards the degree of Master of Town and Regional Planning. Stellenbosch: University of Stellenbosch.

[15] Priemus, H & Zonneveld, W, 2003. What are corridors and what are the issues? Introduction to special issue: the governance of corridors. Journal of Transport Geography, Volume 11, Issue 3, September 2003, Pages 167 - 177.

[16] Author unknown, s.a. Activity corridor [definition]. Available: http://parole.aporee.org/work/hier.php3?spec_id=12119&words_id=666 [23 November 2004]

[17] Cape Metropolitan Council, 2000. Metropolitan Spatial Development Framework. Available: http://www.cmc.gov.za/peh/msdf/msdfhome.asp [23 November 2004]