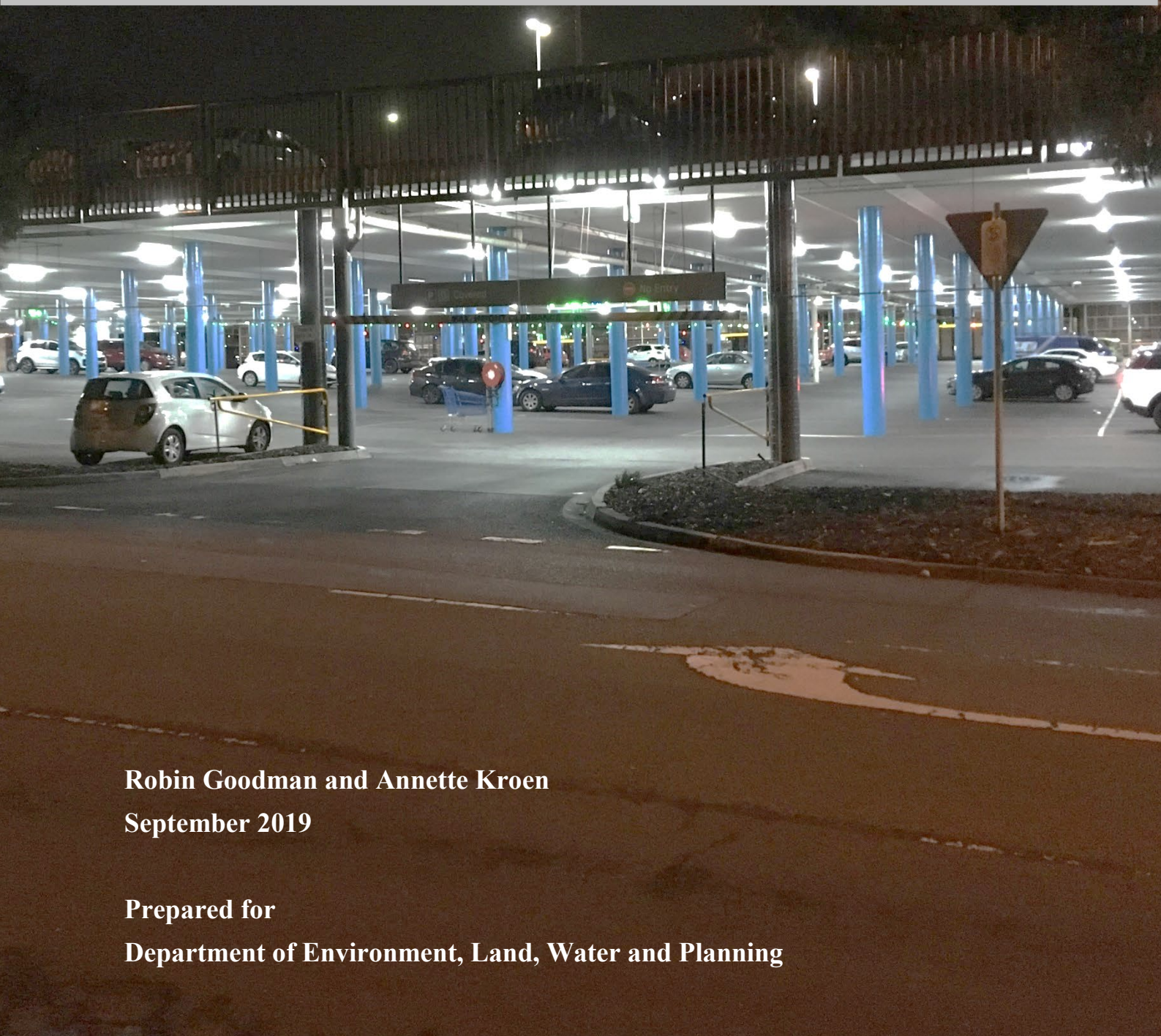


# Assessment of retail model in greenfield development settings:

## The social and health impacts of the form of shopping centres in new suburbs



**Robin Goodman and Annette Kroen**  
**September 2019**

**Prepared for**  
**Department of Environment, Land, Water and Planning**

## Table of Contents

1. Executive summary .....	1
2. Introduction .....	3
3. The current retail model in greenfield development settings .....	4
4. Planning for town centres in Melbourne’s greenfield areas.....	12
5. Critiques of the current retail model.....	14
6. The social and health impacts.....	18
7. Trends in retail - in Australia and internationally .....	22
8. International policy responses .....	24
9. Resident experiences and preferences in outer suburbs .....	26
10. Implications for the 20-minute neighbourhood.....	30
11. Conclusions and recommendations.....	31
References .....	35

## 1. Executive summary

Shopping centres play a key role in the life of any community. They are the public spaces where people can meet, purchase goods and access services. They provide employment and economic opportunity and are particularly important in greenfield suburbs where established areas with retail and community services are often not in proximity.

The introduction of the concept of the 20-minute neighbourhood in *Plan Melbourne 2017-2050* places new emphasis on the role that town centres inhabit in suburban life. The Precinct Structure Planning Guidelines provide some guidance for town centre design in greenfield areas, highlighting mixed uses and active street frontages, and accessibility for active transport. From available evidence and observation these guidelines do not appear to be having significant impact.

Shopping centres in new suburbs are generally built to a standard model. They are mostly enclosed malls; typically surrounded by car parking, with one or two anchor tenants, usually supermarkets, and an array of smaller specialty shops which are often franchised chain stores and they are owned and managed as a single centre.

This retail form has been criticised for range of reasons. The poor integration with surrounding areas and unattractive inward-facing box like design is also often noted. Economically they are seen to have a negative impact on pre-existing traditional strip centres, and to limit retail business opportunities due to long hours required and the standard format that favours franchises.

The design of shopping malls is considered to encourage car usage and make access by walking and cycling more difficult. This is seen as one of the most significant social and health impacts. There is also concern that the privatised nature of the shopping mall reduces community interaction to commercial transactions in a controlled environment. This means that those less able or willing to purchase goods, such as youth, elderly and the disadvantaged, may be unwelcome or unable to utilise the spaces for social interaction.

Additionally, the uniformity of the standard retail model fails to reflect the identity of the local community as it favours chain stores over individual local businesses. While there is some diversification and innovation in the design of new centres in Melbourne, most remain stubbornly car based and monotonous in their retail offerings.

Surveys conducted by RMIT show that residents highly value close proximity to shops and other services. This is an essential part of the vision of a city of inclusive, diverse and healthy 20-minute neighbourhoods, yet it seems clear that the standard retail mall must be altered in order to deliver on this vision.

### Conclusions and recommendations:

The characteristics of a retail form that will boost health benefits, social interactions and community participation in new suburbs include:

- better accessibility by active and public transport,
- a decreased focus on car accessibility and car parking,
- an open urban form,
- more opportunities for smaller businesses and start-ups which reflect the local community and therefore add to social inclusion.

The current retail model does not deliver these characteristics.

To achieve the vision of a 20-minute neighbourhood retail centres should:

- be located centrally to be a community anchor, within close walking distance for as many people as possible;
- have increased density of housing around retail centres to provide a larger catchment of people within walking distance, increasing viability for a range of businesses;
- include office accommodation for small business start-ups, community services and activities should be available;
- be broken up into differing precincts as the central control by one commercial manager may limit diversity of tenants and services offerings.

Importantly, consideration will also need to be given to the timing of retail provision in new neighbourhoods. Long delays cause significant dissatisfaction amongst new residents, reducing community cohesion and entrenching patterns of car dependency.

A rethinking of the planning and delivery of retail provisions to Melbourne's new suburbs is required. There is a need for more attention to fine grain detail in planning, the centralised and singular control, and the design, providing more permeable and accessible built forms.

## 2. Introduction

Shopping centres play a key role in the life of any community. They are not just part of the built form, but provide necessary services that almost every person, or at least every household, must access for food and other necessities. Retail centres are also the public spaces of our communities, where we meet the people we live amongst and have contact with strangers and friends alike. These neighbourhood meeting places create a focal point and sense of identity for a suburb. Retailing also provides significant levels of employment and is important to the economic and public life of a city. Local town centres are often considered (and named) as the ‘centre’ of many suburban environments projecting a sense of identity and character (Berglund, 2010). This is particularly important in greenfield suburbs which may provide little more than streets, houses and the occasional park or recreational area. The lack of a local shopping centre in the early days of a new suburb is of key concern to new residents (Maller & Nicholls, 2016), so clearly the existence of a centre is critical.

However, not all centres provide the same level of service and satisfaction as others. Clearly the form of shopping centres varies across the metropolitan area from the traditional town centre, based along a main street or around a transport node in the older inner and middle ring suburbs, to the mega shopping malls and smaller neighbourhood centres. For several decades however, new suburbs in Melbourne have been provided with a standard retail form of an enclosed shopping mall. These are typically surrounded by car parking, with one or two anchor tenants, usually supermarkets, and an array of smaller specialty shops which are often franchised chain stores. A key differentiator between this model and earlier forms is not only that it is an enclosed and inward facing but it is owned or managed as a single centre. With few exceptions, this common corporate model continues to be built in greenfield suburbs without a great deal of assessment as to its efficacy or impact.

The introduction of the concept of the 20-minute neighbourhood in *Plan Melbourne 2017-2050* places new emphasis on the role that town centres inhabit in suburban life. It is timely then to scrutinise the degree to which the standard retail model will be fit for purpose in this new policy environment.

In this context, DELWP requested RMIT researchers provide an assessment of the social and health impacts of the standard retail model as it is currently built in new suburbs.

The following report does this by:

- Describing the essential elements of the standard retail model and the current planning process for retail centres in Melbourne that deliver it
- Placing this local experience in an international context by looking at relevant trends in retail planning and provision
- Examining the major critiques of this form, particularly with regard to social and health impacts
- Assessing the contribution that the model makes to achieving the goals of the 20-minute neighbourhood and positive social and health impacts
- Providing some suggestions for improved practice

### **3. The current retail model in greenfield development settings**

Originally conceived by Victor Gruen, the shopping mall was meant to be a re-creation of a European town centre, designed to enable pedestrians to shop, with cars relegated to the outside (Cohen, 1996; Jackson, 1996; Rao, Dovey, & Pafka, 2018). By the end of his lifetime however, Gruen regretted his role in creating a form of shopping that encouraged car culture and dependency. While individual shops in traditional centres operate independently, within the mall they are centrally managed and usually corporately owned. Malls are an enclosed and inward-facing urban form, and when they incorporate shops which face directly on to the car parking area, these are usually reserved for take-away food shops. The standard model predominantly offers a mix of retail which is dominated by one or more anchor tenants (supermarkets and discount department stores) with a range of specialty shops, often chain stores, and cafés and food outlets (Rao et al., 2018). The business model means that these anchor tenants are charged much lower rents than the smaller shops, as they are the main attractors of customers. There are few additional businesses or services, however larger centres sometimes include medical centres and associated uses, and occasionally child care centres.

The centres are designed to be accessed by car, with ample parking space provided around the perimeter, and because of this they are often poorly integrated with their surrounding areas with lack of, or unclear, access routes for pedestrian. The shopping centres generally prefer locations on major arterial roads to attract passing as well as local trade. This desire for a highly visible location may be at odds with planning aims to locate at the heart of the residential community to enhance pedestrian access, or by a train station where one exists.

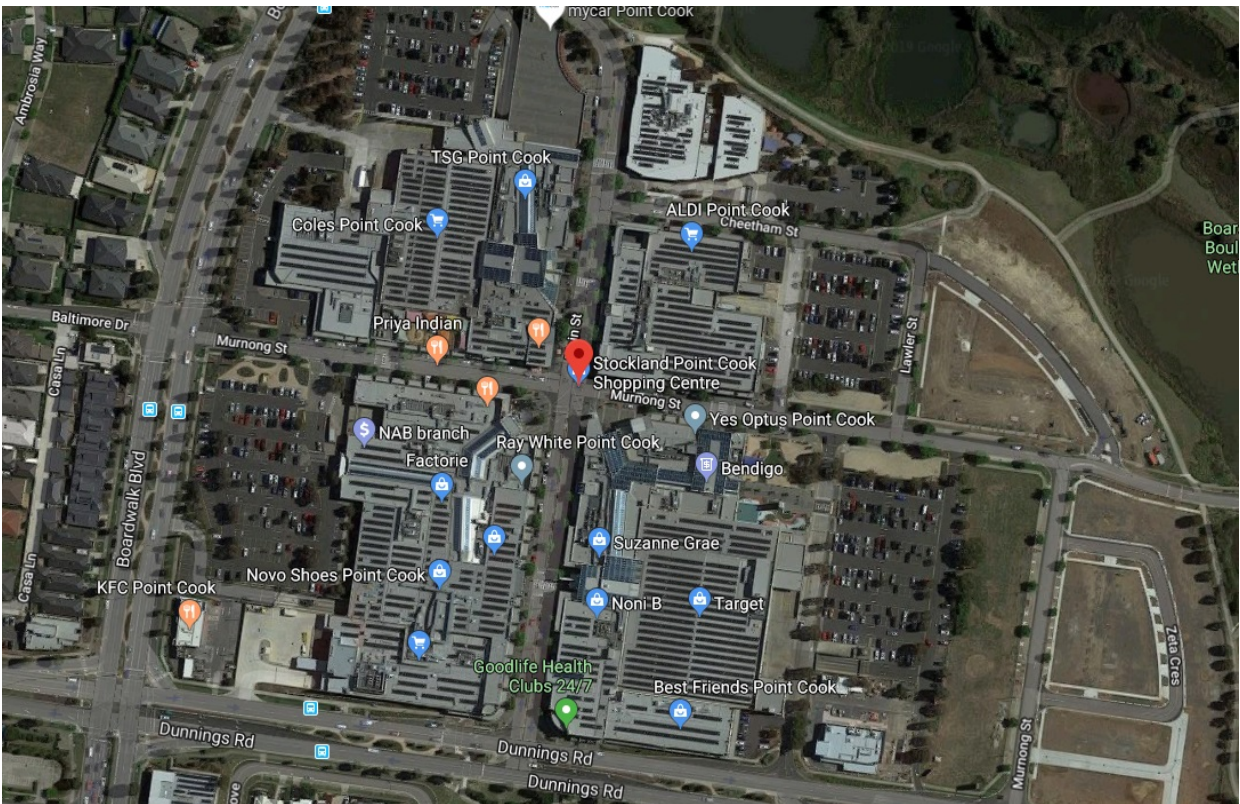
There have been some innovations in design of retail centres in recent years in Melbourne, however most of these are modest variations on the standard theme. A quick examination of the 36 shopping centres in the PCA Shopping Centre Directory built in Melbourne since 2000 categorised 26 of them (72%) as enclosed or semi-enclosed malls, 5 (14%) as open malls, and 3 as shopping strips (Property Council of Australia, 2018). Enclosed malls have limited entry and exit points, with an enclosed retail area, fully air-conditioned and are entered from a surrounding car park that forms part of the property, while open malls may be open along one side or have some shops fronting directly on to a car park or street.

The most interesting examples of variation to the standard model in a greenfield setting in Melbourne are perhaps the centres in Laurimar in the north and Point Cook in the west. Both have developed centres with active street frontages, many of which are fast food or cafés, some with outdoor seating. While Point Cook has two main streets crossing with parking behind the buildings (see figure 1), Laurimar has a boulevard with smaller shops and a larger building structure with a supermarket and a discount chemist with a larger parking lot (see figure 2). Both centres have shopping streets with smaller shops and accessible to pedestrians, where cars do not predominate (see figures 3-6). However, there are still some parking spaces alongside the road.

Plenty Valley shopping centre in South Morang is an example of a standard mall with ample parking around it, even though it is next to South Morang train station (figure 7 and 8). However, the changes happening in the model of the standard mall can be seen here with the example of an outside dining area with playground (figure 9).

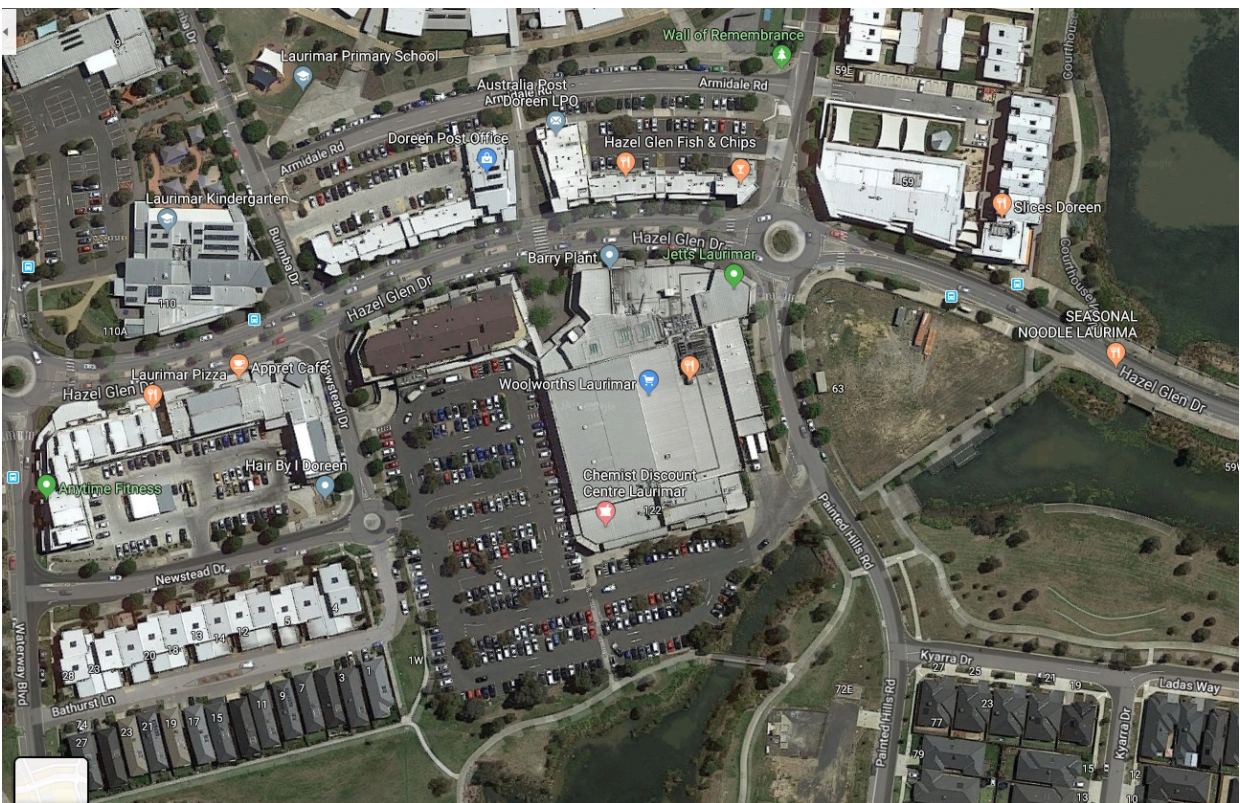
Another example of a standard mall is Tarneit shopping centre, which is also not too far from a train station, but not in walking distance (figure 10). Here, the shopping centre has not active frontages to the adjoining residential area (figure 11).

Figure 1: Aerial View of Point Cook Shopping Centre



Source: Google Maps

Figure 2: Aerial View of Laurimar Boulevard



Source: Google Maps



Figure 3: Point Cook Shopping Centre



Source: Wikimedia Commons, Author Girod1970; <https://commons.wikimedia.org>

Figure 4: Point Cook Shopping Centre



Source: Wikimedia Commons, Author Girod1970; <https://commons.wikimedia.org>

Figure 5: Laurimar Boulevard



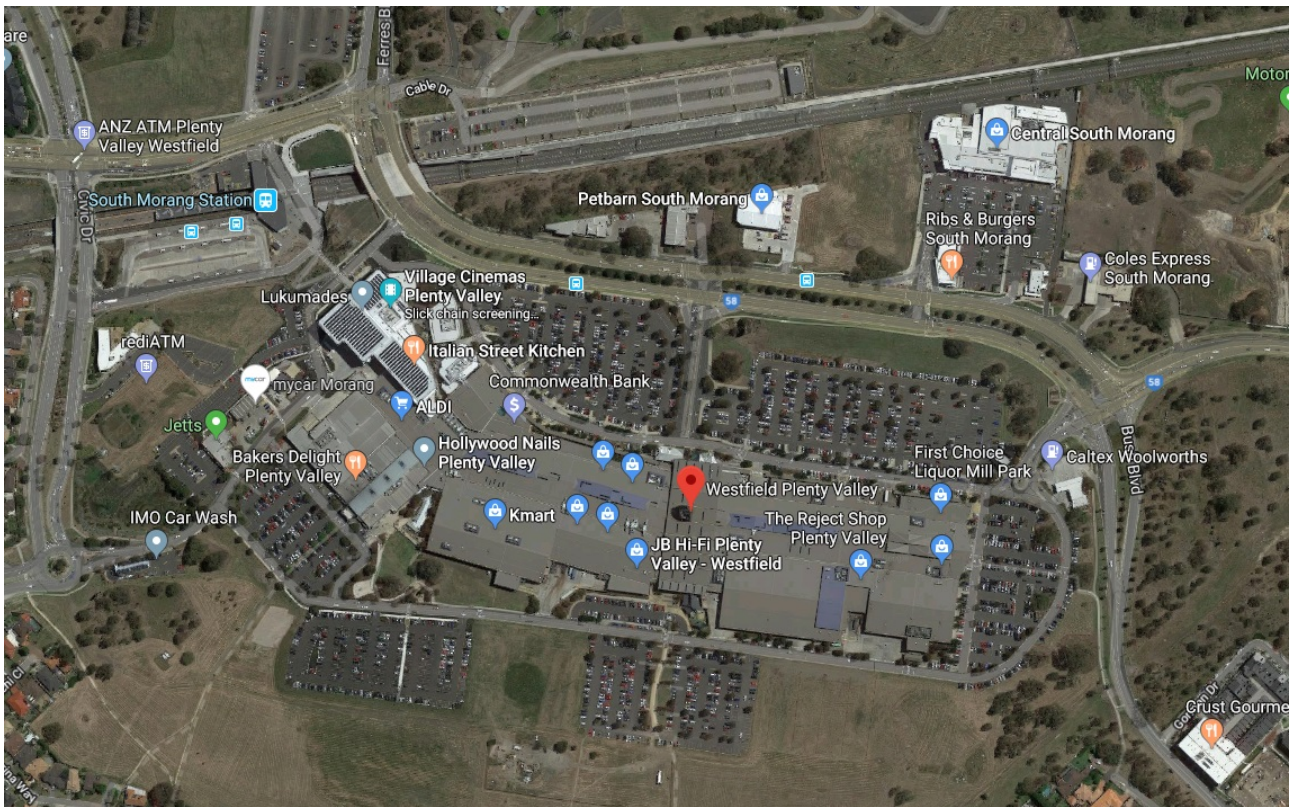
Source: Google Street View

Figure 6: Laurimar Boulevard



Source: Google Street View

Figure 7: Aerial view of Plenty Valley Shopping Centre



Source: Google Maps

Figure 8: Plenty Valley Shopping Centre



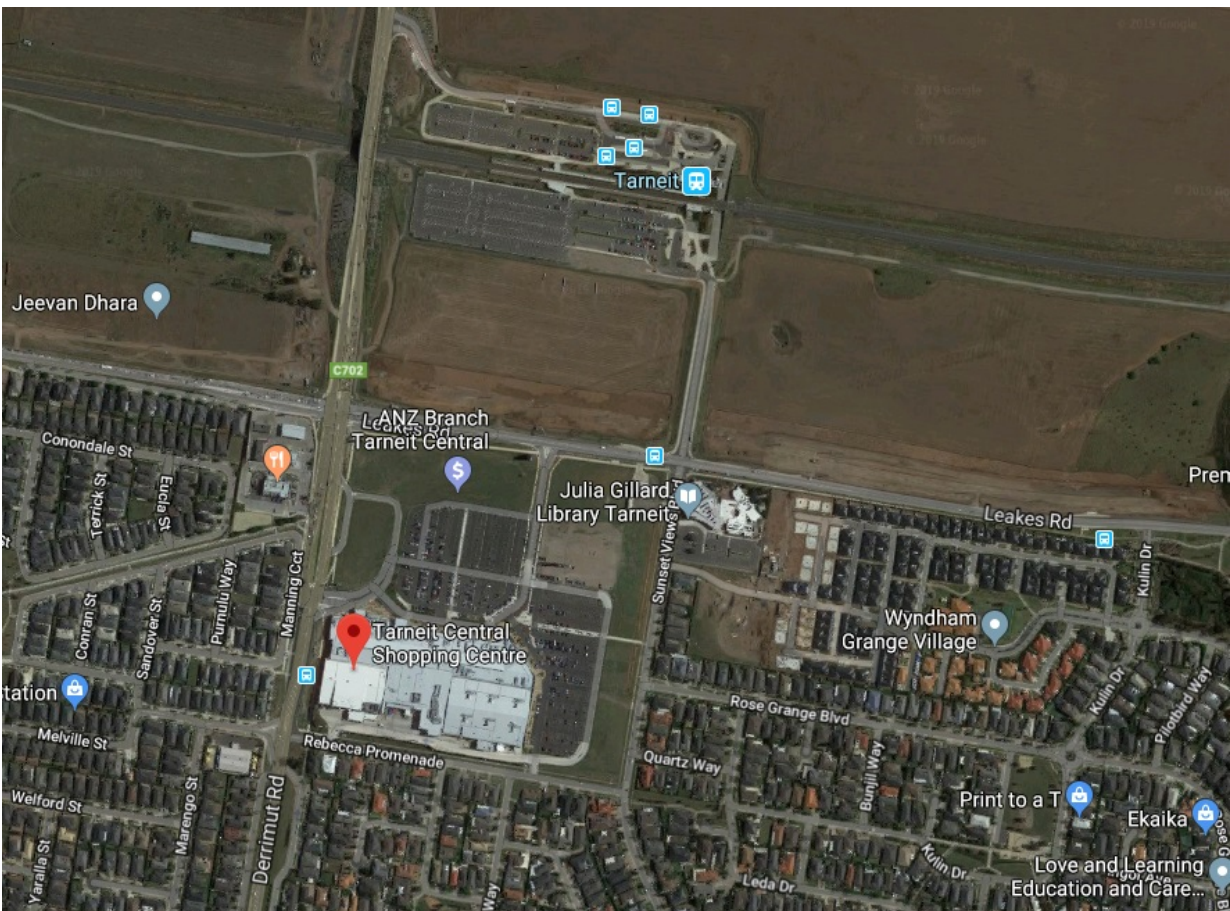
Source: Google Street View

Figure 9: Outdoor food area in Plenty Valley Shopping Centre



Source: Google Maps – Nick Toka

Figure 10: Aerial View of Tarneit Shopping Centre



Source: Google Maps

Figure 11: Tarneit Shopping Centre – back entrance



Source: Google Street View

Generally, it appears that retail developers and centre managers prefer enclosed malls to street malls, in part because of a wariness to deviate from a model that is tried and tested, and a belief that other options may not be as economically viable. This may be based on perceptions of the economic health of some of the older shopping strips facing decline and competition from the large regional malls. One developer recently interviewed expressed this: “The people that actually run shopping centres will tell you, they’re not commercial, they don’t work, the street strips. There’s very few street strips that are actually working.” (interview with developer, December 2018). This perception seems to stem from the struggles of some previously highly sought-after shopping strips, such as Chapel Street in South Yarra, Prahran and Windsor, and Lygon Street in Carlton. However, other shopping strips are quite successful, so that this perception cannot necessarily be generalised. Notably, these shopping streets are usually in the gentrified inner suburbs, such as Smith Street in Collingwood and Swan Street in Richmond, and are often filling vacancies with food and beverage retailers (Johanson, 2019). To understand how shopping strips do work in an outer suburban environment and what their challenges and strengths are, it would be useful to analyse the two highlighted examples of Point Cook and Laurimar.

Listing the challenges faced by independent retailers Bennison, Warnaby, and Pal (2010) contend that it is more difficult for small shops to satisfy new consumer demands than for larger outlets and

businesses; that they face competition through larger retailers moving into the convenience sector; that they have proportionately higher operating and other costs, lower investment capital availability and to some extent less management expertise. However, Bennison et al. (2010) still see an important role for small independent retailers and local shopping provision, such as providing economic linkages with other local businesses; the creation and maintenance of local employment; the variety they can bring to an otherwise monotonous retail landscape; and as providing the opportunity to test new retail and product ideas. Furthermore, they emphasise that this local offer can support sustainability by focusing on local resources and offering the opportunity to shop via more sustainable transport modes. This also supports people with limited mobility.

#### **4. Planning for town centres in Melbourne's greenfield areas**

The basis for planning in growth areas in Victoria is the Precinct Structure Planning (PSP) process, the master planning framework for new development areas, particularly greenfield suburbs. Introduced in 2006 by the Growth Areas Authority (GAA) which has become the current Victorian Planning Authority (VPA), the PSP process has been developed from past state and local government experience. PSP Guidelines have been developed to assist in the preparation of PSPs and to facilitate the creation of new communities. The current PSP guidelines are from 2009 and are currently under review.

The Guidelines set out the objectives, elements, design response and standards required in each PSP with the aim of ensuring that all relevant issues are properly considered and to increase consistency and certainty. Part One of the guidelines introduces the objectives of precinct structure planning, explains the planning context and gives an overview of the planning process for a PSP (GAA, 2009). The objectives include place, community, housing choice, activity centres, employment/business, transport choices, environmental sustainability, and community infrastructure. Part Two refers to the content, form and process for preparing and implementing a PSP (GAA, 2013). It sets out design responses, outputs, relevant standards and planning permit considerations for seven elements, such as housing, community facilities, open space, and transport and movement. PSP Notes complement the guidelines and set out more detailed processes for certain topics of particular interest.

The section “Element 3 Employment and Town Centres” states that a Precinct Structure Plan incorporates a town centre plan which shows the location of the proposed town centre/s within the

precinct and a town centre table sets out the type of centre, indicative floor space and role of the centre.

Standards for Element 3 relevant to the topic at hand are:

- S2 Town centres have a variety of land uses and a range of business sizes that have main street frontage. This includes a mix of retail, office (including home-office and other administration uses), housing, recreation and entertainment, community services and civic uses.
- S3 80-90% of households should be within 1km of a town centre of sufficient size to allow for provision of a supermarket.
- S6 Buildings within town centres address the street and public spaces and have 'active' ground floor uses.
- S7 Pedestrian movement is prioritised over vehicle movement within town centres, including along the main street.
- S9 Larger format restricted retail stores are located within town centres, but away from the highest intensity uses.

For the development of a town centre an Urban Design Framework needs to be developed by the proponent and approved by the responsible authority.

From a health perspective, the distance of one kilometre from “a town centre of sufficient size to allow for provision of a supermarket” (GAA, 2013, p. 26) could be a good incentive for walking and cycling to the town centre, as the distance is relatively short. However, a distance of 800 metres or 500 metres, would be more desirable, as research has found that these are distances where people are more likely to walk to the supermarket (Boulangue et al., 2017; Gunn et al., 2017).

Interestingly, the considerations for Planning Permit Applications do not mention the active street frontages that are mentioned in the Standards as well as in the Design Response. Despite the objective of active street frontages, most town centres in the greenfield areas are built as closed malls, as previously discussed, and do not appear to be consistent with the standards. There are few that provide many uses other than retail and none of the recently built centres found in the PCA Shopping Centre Directory have significant office space suitable for small businesses. Additionally, typically, there is a significant delay between the first residents moving in and the town centre being built and opened. The reason cited for this is the need for sufficient catchments to make the shops commercially viable, however for residents moving in early, this means that there are no accessible shops. As timing of residential development is often staged, the implementation of retail and other services on the ground can be late in the life of the suburb.

Figure 12: Advertising for a shopping centre



Source: Authors

## 5. Critiques of the current retail model

Despite its continued popularity with the retail industry and general acceptance by community the shopping mall model has been the subject of considerable global criticism in the academic literature for several decades. The major criticisms will be briefly summarised in this and the following section, looking first at design and economic issues, then in more detail at aspects which relate particularly to social and health impacts.

### Design Issues

The critiques of the design of shopping malls stem chiefly from their encouragement of car dependency and lack of access and encouragement of walking and cycling (covered later under health impacts), their poor integration with surrounding areas, unattractive inward-facing box like design (blank walls, few entry points) and considerable environmental footprint from air conditioning, lighting, food wastage etc. An investigation of new shopping centres in Melbourne's growth areas a decade ago found that most conformed to a basic template in terms of retail choice, aesthetics, and design (Goodman & Coote, 2007), and a recent review suggests this pattern has not significantly changed.

The poor aesthetics of the standard shopping mall have been a clear characteristic of the model, with many constructed of slab concrete to a limited budget, presenting blank walls to neighbouring streets or the parking lots (see figure 13). Melbourne's outer suburbs have many examples of this



design, which is intended to limit entrances and exits so as to better direct the shopper through the centre, past the range of specialty shops to maximise their exposure, to the anchor tenant. The uninspiring physical form has been described by Gosseye and Avermaete (2015, p. 7) as ‘an enclosed box surrounded by a large parking lot, which is characterized by comprehensive surveillance, [which] engenders social segregation and encourages unchecked urban sprawl’.

Figure 13: Car-focused access to a shopping centre with poor integration into the neighbourhood



Source: Authors

The placement of car parking at the front of shopping malls is considered essential by many retail developers and managers who believe that visible car parking is an attractor to shoppers and any perception of difficulty in car parking will repel them (see figure 14). There are some studies which confirm and others which dispute this finding. For example Reimers (2013) cites literature that suggests that car convenience influences consumers’ choice (Cairns, 2005; Kim, Sato, Kobayashi, Himeno, & Zhang, 2005; Rotem-Mindali & Salomon, 2007), and also that the availability of carparking is a reason shoppers prefer malls over high streets (Maronick, 2007). However other studies, from Austria, England and the Netherlands have shown that parking has little influence on the attractiveness of either form, (Mingardo & Van Meerkerk, 2012; Teller, 2008; Teller & Reutterer, 2008). Other investigations have shown either neutral or positive consequences for retailers following the reduction of on street car parking on traditional shopping streets for the implementation of bike lanes or bike parking (Lee & March, 2010; McCormick, 2012). A study in Toronto found no negative economic impacts associated with the replacement of street parking for

bike lanes and increased customer numbers and expenditure (Arancibia et al., 2019). The continued viability and in fact revival of some of Melbourne’s shopping strips suggests that car parking is not the only consideration, particularly for local (neighbourhood) shopping centres. The ability of centres to attract customers depends on a range of functions including a mix of offerings, accessibility, locality, safety and customer service.

Figure 14: Visible car parking at a shopping centre



Source: Authors

### **Economic issues**

The most common economic criticisms of retail malls are that they favour larger corporations over small business, perpetuate the dominance of anchor tenants – in Australia the two major supermarket chains –, have a negative effect on traditional town centres, and offer limited opportunity for small business start-ups. The tenancies in corporate shopping malls are tightly controlled and the particular mix of retail functions is designed to minimise the risk for the investor. The central design and control of the retail mix is regarded as an advantage of shopping malls, and the individual ownership of shops in a traditional street a distinct disadvantage, leading to uncoordinated approach to offerings and centre promotion (Parker, Ntounis, Millington, Quin, & Castillo-Villar, 2017). In these traditional centres responsibilities for management, maintenance, security and overall care is often dispersed or even neglected (Jones, Hillier, & Comfort, 2007).

However, the unified management model can be conservative and slow to adapt to external changes (Davies, 2011).

The threat to the economic viability of the traditional forms of retailing posed by corporate malls is a consistent theme of critique. “The mall-dominated economy destroys small businesses, integrating retail trade – once the last democratic bastion of the entrepreneurial spirit – into the world of large corporations” (Odenheimer, 2006, p. 63). The issue of economic opportunities for small businesses in retail malls are limited to standard shops considered by management to have broad appeal. This tends to mitigate against shops designed to cater for a particular cultural or interest group unless it has demonstrated market demand. Even a strong local community presence may not be enough to justify a presence as the malls are often aiming for a wider than local catchment. This means that many malls are dominated by ubiquitous chain stores and fail to represent local character.

Typically shopping malls operate longer trading hours than shops in many main streets and maintaining these hours is often a condition of occupancy. This works against many small family business start-ups which may have difficulty to cover the extended hours. Therefore, unless the business model of the standard mall changes, shopping streets offer better conditions for smaller businesses; also, because the rents are differentiated (rents may be cheaper away from the centre of the strip) so that new businesses less sure of their turnover can “try things out” without being overburdened by rent and other requirements. Thus, new suburbs with no other areas for retail and services than a shopping mall may be limiting their ability to generate small business activity and employment. The nature of local retailing thus significantly affects the employment opportunities for local communities (Jones et al., 2007; Ortuño Padilla, Alarcón Hermosilla, & Tomás Ozores, 2017; Yrjänä, Rashidfarokhi, Toivonen, & Viitanen, 2018).

There are concerns that the existence and continual expansion of malls has a negative impact on pre-existing and older forms of retailing (e.g. Korthals Altes, 2016; Lowe, 2005; Yrjänä et al., 2018). The attractiveness of many of Melbourne’s traditional shopping streets is in part due to the diversity and difference of their offering which simply do not occur in typical retail malls. This can be viewed as a cultural issue, as well as one of economic opportunity, with shopping malls arguably providing bland monoculture, and adding very little to the diversity or individual sense of place (Southworth, 2005). The richness of the social aspects of traditional main street shopping areas is acknowledged in some studies (Berglund, 2010).

## 6. The social and health impacts

The most significant social and health impacts of the shopping mall commonly identified stem from issues already acknowledged. The car-based design and location discourages walking and other active forms of transport which have implications for physical health as well as social connectedness. The privatised and commercial nature of the space tends to welcome some demographic groups and discourage others, and the lack of diversity of offerings fails to reflect the identities of many in the surrounding community, having a negative impact on social inclusion.

### Active Transport

The design of many retail malls encourages shoppers to arrive by car. This may be because the entrance is often not easily accessible along safe legible footpaths and the pedestrian would have to navigate a considerable distance through car parks feeling unsafe and unwelcome, or the location is a distance from many residents and/or in a non-pedestrian friendly environment. There have been a range of measures suggested to improve the pedestrian access of retail areas. These include shops having direct street frontages, reduced car parking and placement at the rear of shops, wide walkable footpaths and the location of civic spaces such as a square or plaza within each neighbourhood centre (Duany, Plater-Zyberk, & Speck, 2000). As has been shown above, the shopping centres in Point Cook and Laurimar have implemented these design ideas to a certain extent.

Many studies have highlighted the links between mobility/accessibility and health as well as quality of life. This supports that easy and good quality access by active transport to shopping centres is a central element to plan for. For example, a recent study by RMIT's Centre for Urban Research (Zapata-Diomedes et al., 2019) analysing two suburbs with higher and lower walkability and different qualities of access to shops, services and public transport, has found that better accessibility and walkability leads to substantial health and economic benefits associated with reduced incidence of physical inactivity related diseases and premature death. While the work does not differentiate between forms of retail provision, it comes to the conclusion that the proximity of amenities increases the likelihood for walking. In another recent study, Weijs-Perrée, van den Berg, Arentze, and Kemperman (2015) analysed the relationships between neighbourhood characteristics, travel behaviour, social satisfaction and loneliness. Amongst their many findings they concluded that people who walk more often have a higher social satisfaction and people who cycle more often have more social interactions, which in turn has a positive effect on social satisfaction. Another

study, focusing in particular on the walkability of suburbs as determined by street network design and the mix of land uses showed these attributes had a significant effect on feelings of safety (Wood et al., 2008). Moudon et al. (2006) found that the chief ‘attractor destinations’ for walkable neighbourhoods were centred on daily retail and food-related activities associated with necessary rather than discretionary spending.

With regard to active and public transport options, the urban fringe in Melbourne and other Australian cities has been identified as being particularly disadvantaged with poorer levels of public transport (Armstrong, Davison, de Vos Malan, Gleeson, & Godfrey, 2015; Awaworyi Churchill & Smyth, 2019). Additionally, in those areas there are generally more households with lower socio-demographic characteristics (Dodson & Sipe, 2008; Martin & Goodman, 2016). This combination of a lack of alternatives and socio-economic factors can lead to transport disadvantage, with people not able to travel when and where they need without difficulty (Denmark, 1998). One element of transport disadvantage in these areas can be the lack of access to a car (Currie et al., 2009). Car ownership rates on the urban fringe are high, yet there remain significant groups within the community who cannot drive such as young people below driver licensing age, the elderly and some people with a disability. Another element of transport disadvantage can be forced car ownership, which impacts primarily those on low incomes. These households were found to lack alternative transport options, face high transport costs relative to income, and make less trips than the average car owning household in the same city (Currie et al., 2009). This supports that the importance of the accessibility of retail outlets to the broadest range of people is obviously a matter of social equity and that this involves access by different modes of transport.

### **Social inclusion/exclusion**

The retail mall is often compared unfavourably to the traditional town centre, where community spaces are publicly owned and uncommercial in nature. Millington and Ntounis (2017, p. 368) point out that the traditional shopping street is a meeting place, with opportunities for socialising and leisure, “one of the few places where a local community might come together and produce a shared sense of identity, in ways which are conspicuously absent within the regulated environments of the shopping mall or retail park”.

The appreciation for public street life can be traced back to the early work of Jane Jacobs (1961) who recognised a positive role for retailing as a significant means of attracting people out in to public spaces. She noted that shopping gave people a reason to walk and use the footpaths,

spreading a sense of activity around, and in turn attracting others. More recently the promotion of street life to give a sense of community within a city has been promoted by Danish architect Jan Gehl, who has had a significant impact on planning for streets within the Melbourne CBD (Gehl, 2010, 2011). Others who have promoted the vibrancy of spaces achieved by mixing different uses and opportunities for public interaction include the new urbanists (e.g. Duany et al., 2000) and advocates of transit-oriented development (Cervero, 2004; Dittmar & Ohland, 2004).

The shopping mall is seen to diminish the freedom and easing mixing that occurs in public shopping streets, and Rogers (1997, pp. 9-10) warns against losing the best aspects of the public street: “as the vibrancy of public spaces diminishes we lose the habit of participating in street life ... the natural policing of streets that comes from the presence of people needs to be replaced with ‘security’ and the city itself becomes less hospitable and more alienating”.

This corporate control over access to, and behaviour within, shopping malls has been the focus of a number of studies, with concern being expressed over the limitation of opportunities for different groups of people to mix (Kohn, 2004; Southworth, 2005; Staeheli & Mitchell, 2006; Voyce, 2006; White & Sutton, 2001). Voyce (2006) is concerned that non-commercial and less consumer-focused activities such as busking, community gatherings and political protesting may be prevented from taking place. He points out that one mall owned by an international corporation accounted for 95% of retail spending in a particular suburb in Sydney. White, Toohey, and Asquith (2015) examined the experiences of older people across four shopping centres in two states. Some respondents in this study reported being asked by the management of one centre to move on if they stayed too long.

Many writers consider that retail planning affects the level of social inclusion and cohesion in various ways. Yrjänä et al. (2018) provide a good summary of much of this literature. The design of shopping malls, and their management policies, can affect the degree to which they welcome particular demographic groups, such as the mobility impaired, elderly, non-car owners and lower-income class (Garside, Hughes, & Lynch, 2003; Guy, 2007; Jones et al., 2007; Yan & Eckman, 2009). Young people, particularly if they are from identifiable ethnic minorities, can often be made to feel unwelcome, or actually ejected from shopping malls if their presence makes others feel uncomfortable (Malone, 2002; Mikola & Mansouri, 2015; Ruck, Harris, Fine, & Freudenberg, 2008).

In an immigrant nation such as Australia, the suburbs are home to a wide variety of communities – with the outer suburbs increasingly the main destination for new immigrants to Australia. This

diversity is often not reflected in the retail outlets found in suburban shopping malls despite such spaces constituting a focal point of suburban community life. In his ethnographic study of immigrant grocery shops in the city of Stuttgart, Everts (2015) has shown how consumption practices foster everyday interaction between members of the minority and majority population, increasing community harmony and cohesion. Peters and De Haan (2011) also write positively about the role of immigrant shops as places of multicultural contact, and Kasinitz, Zukin, and Chen (2015, p. 196) in their recent research on local shopping streets in different cities, point out that ‘at their best, the super-diversity of many local shopping streets eases the way towards civility and tolerance as normal conditions of urban public life’.

In Melbourne, a study of seven shopping centres of differing ages, ownership models, and designs in the City of Hume was conducted in 2017 to explore the role design, accessibility and ownership play in engendering (cultural) diversity within these centres (Goodman & Taylor, forthcoming). Craigieburn was selected as the focus of analysis as it has high numbers of recent immigrants, particularly from the Middle-East, India and the Pacific. The investigation sought to see if those ethnicities were clearly represented in the shopping centres, and whether this was more obvious in the traditional streets or the shopping malls.

Figure 15: Tarneit station with Tarneit Shopping Centre in about 800m distance



Source: Authors

Investigation for this study showed that the corporate mall lags far behind the traditional shopping centre when it comes to visible economic representation and participation of local immigrant

communities: bearing out concerns in the literature around the constraining effect of corporate management on business diversity. The three traditional strip shopping centres in the older parts of the study area were far more reflective of local migrant groups both in apparent business ownership and offerings, and in visual signage. By contrast, the corporate model presents a consistency of format which does not allow for a great deal of local variation.

This model or formula is both the reason for its economic success, and for its failure in being able to provide the true community meeting places or local economic opportunities of the (real or nostalgically remembered) traditional town centre. While aspects of design and access have shifted – due to both planning policy and to responses to ‘life style’ consumption preferences – the overriding standalone, centrally managed format of new shopping malls continues to be encouraged or at least supported by planning practice. The study concluded that the continued dominance of standalone corporate shopping malls limits certain opportunities in the suburbs of Australian cities.

## **7. Trends in retail - in Australia and internationally**

In the US, the home of the suburban mall, as well as in other countries, a number of malls have closed in recent years, suggesting that this model may be facing some challenges. The emergence of these so-called ‘dead malls’ (Guimaraes, 2019; Parlette & Cowen, 2011) are the result of a combination of factors including:

- (i) a lack of interest and demand in the face of financial downturns;
- (ii) increased competition from online retailing; and
- (iii) a resurgence in town centres and downtown areas (Hughes & Jackson, 2015; Parker et al., 2017; REAC, 2017; Southworth, 2005; Wertz, 2019).

Online shopping has presented a challenge to all forms of bricks and mortar shopping, and some of the ways in which retailing is responding is to enhance the pleasurable experience of shopping, for example by providing more cafés and other leisure facilities within the malls. This can take on the form of reinvented old malls (‘mall-overs’), new main street malls (townscape malls), malled main streets and hybrid forms that combine aspects of main street and mall (Guimaraes, 2019; Southworth, 2005).

The increasingly competitive retail landscape has prompted mall owners and financiers to rethink the shopping experience they offer (REAC, 2017; Sanburn, 2017; Uberti, 2014). Notably, as part of their retail survival strategy, shopping mall owners have looked to traditional high streets and online



retailing (i.e., the ‘virtual high street’) for inspiration (Parlette & Cowen, 2011; Southworth, 2005). And, in areas reliant on declining shopping malls, some local communities have mobilised in an effort to save them as retail spaces, while other malls which have closed as retail spaces have instead been successfully repurposed as non-profit community spaces (Parlette & Cowen, 2011).

A diversification and rethinking of the architectural design and offer can also be detected in Australian malls. For example, plans exist or have been implemented to incorporate hotel, residential and office spaces (Chadstone; M-City in Monash), launch a new Youth and Urban Precinct (Westfield Kotara), install a high ropes adventure course (Sunshine Plaza), as well as to add public spaces for the community (SCN, 2019). Furthermore, a number of malls have added “food precincts”, which are different to the traditional inside food court, as they are partly on the outside of the shopping centre with an appealing design and high amenity quality (e.g. Westfield’s Plenty Valley Shopping Centre, as shown above).

Even though malls feel the need to diversify and adapt to current trends, local shopping strips are still impacted by their development. In some small local neighbourhood shopping strips, shops are closing down due to competition from larger regional malls with large supermarket chains and a wider diversity of shops and with this, larger product range at often lower prices (Engels & Liu, 2011). And not only the small local shopping centres are impacted by the competition of larger regional shopping centres, “middle-sized” suburban shopping centres also experience effects through retailers “rightsizing” (closing underperforming stores) or “downsizing” (Brooks, 2019; Mortimer, 2019).

Another retail trend occurring in inner and middle suburbs in Australia is the so-called revival of the corner store (Mortimer & Grimmer, 2019). Old corner stores or milk bars are refurbished and re-opened, most often as a café, but occasionally as corner stores. This trend may not be so easily replicated in new growth area suburbs with lower residential populations to support them, but there could be opportunities in areas with higher densities (REAC, 2017). A somewhat similar trend has been noted in the UK with the rise of the importance of convenience store in smaller towns, being explained by changing consumer patterns and “top up” shopping rather than weekly shopping (Wrigley, Wood, Lambiri, & Lowe, 2019).

Different and somewhat contradicting trends can be made out in Australia as well as in other Western countries. While the notion of “dead malls” shows that the standalone shopping mall is struggling, the notion of the “death of the high street” expresses the struggles of the traditional

shopping strips. Both retail forms are strongly affected by the rise of e-commerce. However, both retail forms also record their successes. Shopping mall owners and designer start adapting to change and actually copy successful elements of shopping streets, whereas shopping streets rely to large extent on expanding food and beverage premises, and attempt to incorporate e-commerce with the existing shops offering online shopping.

## **8. International policy responses**

As a response to concerns about out-of-centre retail development in greenfield areas and the decreasing competitiveness of town centres, a number of mostly European countries have established retail policies. Even though retail patterns and planning approaches vary between the countries, one commonality is that these policies often seek to curb the development of out-of-centre shopping malls, i.e. stand-alone retail in greenfield areas that is not incorporated into greenfield residential development (Fernandes & Chamusca, 2014; Goodman & Coiacetto, 2012; Korthals Altes, 2016). Such policies aim to curb the negative economic, social and environmental effects of out-of-town centres, such as car dependency and poor accessibility, and to protect the viability of existing town centres (Doak, 2009; Gonçalves & Ferreira, 2015; Guy, 2007; Spilková & Perlín, 2010; Wiese, Zielke, & Toporowski, 2015). Some policies also attempt to protect small independent shop-owners (Korthals Altes, 2016; López-González, C. Lois-González, & Fernández-Casal, 2013). Retail development in greenfield areas as new town centres are not prominently discussed; most likely because population and urban growth pressure is not as strong as for example in Australia, so that not as many large residential greenfield developments occur in which new town centres would be needed. However, interpreting the existing decrees and policies it is likely that a spatial concentration of the supply of public and private services would be planned for in specified town centres in those areas.

Countries such as Britain, the Netherlands, Denmark, France, Germany and Belgium have all enacted legislation to in some way direct the location of new retailing in order to protect traditional centres (Goodman & Coiacetto, 2012). Examples of policies are the UK Planning Policy Guidance Note 6 (PPG6) from 1996, and the subsequent “Improving high streets and town centres” policy from 2010-2015 with the objective to sustain traditional streets and town centres (DCLG, 2012; Guy, 2007; Sadun, 2015). In the UK, the “death of the high street” (Hughes & Jackson, 2015) has been an ongoing topic for the last 25 years or even longer. The vitality and viability of high streets

is seen as endangered through competition of out-of-town development, but also other (retail) trends, such as increased e-commerce and the global financial crisis in 2008 (Parker et al., 2017).

Another example is the Dutch planning policy for retail spaces which seeks to protect existing retail structures (Van der Krabben, 2009; Yrjänä et al., 2018). This objective meant “that new functions on greenfield sites (were) only allowed where such an enlargement of the urban area can be shown to be justified because the function cannot be accommodated within existing built-up areas” (Korthals Altes, 2016, p. 174). However, recently this policy has been softened (Korthals Altes, 2016). In contrast, in Finland retail planning regulations to protect town centres and small local shops have been made more restrictive in 2011; although they have been softened to some extent again in 2016 (Yrjänä et al., 2018). In Catalonia in Spain new large shops were only allowed in some consolidated urban areas, and especially hypermarkets were only allowed in four of 41 districts. Applications for new retail also needed a market share report (Korthals Altes, 2016).

In Germany, the Federal Spatial Planning Act establishes principles of spatial planning which the federal States (Länder) have to implement as goals of spatial planning in their planning regulation and structure plans (ARL, 2008). With regard to retail planning the principles of the “provision of essential public services” and of the “preservation of town centres as central supply areas” are relevant. A number of Länder have published retail decrees in order to substantiate those principles with regard to large-scale retail (MIL, 2014; MRU, 1998; Staatskanzlei-NRW, 2013). Most of the policies or decrees do not necessarily differ between the urban form of a shopping centre or a shopping strip, but their focus is on keeping centre-relevant products in town and subordinate centres and avoiding their move to low-populated greenfield or industrial areas. Background to this is the importance of inner cities and local centres for the municipalities overall and in particular for less mobile population groups that are not able to drive to out of town locations. Especially in rural areas with low population densities and/or a declining population, it is seen as necessary to spatially concentrate the supply of public and private services so that accessibility to those services can be retained (MRU, 1998).

Although, some evaluations of these policies found a degree of success in stemming the trend towards increasing car dependency in their cities (Lowe, 1998; Ravenscroft, 2000; Schwanen, Dijst, & Dieleman, 2004; Thomas & Bromley, 2002), there is ongoing debate concerning appropriate policies and their effectiveness: “(a)lthough the literature recognises the importance of planning regulations, still relatively little is known about how these regulations actually affect retailing

(Nishida, 2014) and how the stakeholders of the retail planning process react to these changes” (Yrjänä et al., 2018, p. 191).

In addition to the regulatory approach there are many voluntary schemes aimed at strengthening and revitalising traditional town centres such as the EU-funded MANDIE (Managing District Centres in North West Europe) project involving eight participating cities across the Netherlands, Belgium, Germany and the UK (Kurth, Simon-Phillipp, & Brombach, 2010) or the High Streets Task Force and High Streets Fund in the UK (UK-Government, 2019).

Figure 16: Shopping street in Taiwan



Source: Authors

## 9. Resident experiences and preferences in outer suburbs

So, how do residents of new growth suburbs perceive their retail situation? As mentioned before, many of them are disappointed if shopping centres are provided at a much later time of the urban development (Maller & Nicholls, 2016). A recent survey undertaken in the context of an RMIT research project on the early delivery of transport options in new suburbs sheds some additional light on attitude and experiences with shopping centres in growth suburbs. While the survey focused on transport and health aspects, some questions captured shopping behaviours and attitudes.

The survey was conducted in two master-planned estates, in Allura in Wyndham and in Selandra Rise in Casey. It was administered between April and June 2019. Invitations and a survey web link were distributed via email, residents' Facebook pages, via the councils' websites and information at community centres. The survey could be undertaken as an online survey or as a paper-based version, which was hand delivered to homes in the two estates.

Overall, 352 valid responses were received, with 48% of respondents from Allura, 46% from Selandra Rise and 6% from "other" suburbs in proximity. 53% of respondents were female and 46% male and 56% of respondents were born overseas, supporting the previous statements about the need for diversity in growth suburbs.

Figure 17: Shopping Centre in Selandra Rise



Source: Authors

### **Satisfaction with access to fresh food shops**

Respondents were asked about their satisfaction with a number of items in their neighbourhood. In the context of this report the "access to fresh food shops in the neighbourhood (e.g. green grocer, supermarket, butcher)" is relevant. While more than half of the respondents are generally satisfied with their access to fresh food shops (62%), 32% are strongly or somewhat dissatisfied.

When looking at the different neighbourhoods a difference can be seen between the more recently built neighbourhood and the more established one. 54% of Allura residents are strongly or somewhat dissatisfied (31% strongly, 23% somewhat), compared to 12% in Selandra Rise. A likely

explanation for this is that the town centre in Allura has not been built yet, so that residents need to travel further for their grocery shopping. This shows the need to provide access to shops relatively early in a development.

When looking at different demographics, there are also some differences: While people aged 65 years and older are mostly satisfied with access to fresh food shops (83%), for recent migrants, 47% of the respondents are satisfied and 35% are dissatisfied. Parents with children under 18 years living with them show a relatively similar satisfaction to the entirety of respondents: 57% are satisfied while 38% are dissatisfied.

### **Proximity to shops**

Respondents were also asked how important different items were in their decision to move to their current suburb. Relevant to this report is the importance of “wanted to live close to shops”. For 64% of respondents it was important for their decision to move that they live close to shops. Only 5% said that the proximity to shops was not important in their decision to move. With this, the proximity to shops is obviously quite central, and the provision of shops or retail centres in close proximity to residential areas need to be incorporated into planning policies. Nevertheless, there were also items that were more important to respondents, such as safety from crime, affordability of land, housing or rent and access to transport (public and roads).

There were no large differences between residents in Allura and Selandra Rise, however, Allura residents assigned a bit more importance to the proximity of shops. Older people and parents with children also assign a similar importance to proximity to shops in their decision to move. For 69% of people older than 65 years, living close to shops was very or quite important, while for 9% it was not important, again supporting the need for shops in proximity to residential areas. For 62% of parents with children living close to shops was very or quite important, while only for 5% it was not important at all in their decision to move to their neighbourhood.

Only for recent migrants there was some difference, as the proximity to shops does not seem as important to them, with only 47% saying that living close to shops was very or quite important in their decision to move to their current neighbourhood. However, for none of them it was not important at all.

Of the people for whom it was very important to live close to shops 55% were satisfied with the access to fresh food shops in their neighbourhood. 42% were dissatisfied. This means that people

who assign more importance to the proximity of shops were also a bit more often dissatisfied with the actual access to shops. Reason for this might be higher expectations with regard to this access.

### **Transport restrictions and their impact on grocery shopping**

Respondents were asked whether their day to day travel has been limited or restricted in any way in the last 12 months, which 69% of respondents answered in the affirmative. The main reason given was traffic congestion (80% of those respondents) and other important reasons were no public transport in the area (44%); public transport did not go where respondents needed to go (39%) and public transport ran at the wrong time (25%).

For 35% of the respondents who reported transport restrictions, these restrictions meant that this impacted their ability to go shopping. This percentage is a bit higher for recent migrants (50%), older people (44%) and parents with children (39%).

### **Shops as an important destination**

35% of respondents reported that – apart from their main workplace – going to the shops was their main destination. With this, shops were the most important travel destination outside work, supporting the central role of shopping centres in a community. Other important destinations were children’s school or care (23%) and home of a family member (16%).

Of the respondents reporting shops as their “second most important” destination, 84% use the car (as a driver) as their main form of transport for travelling there. 6% travel as passenger in a car, 4% use mainly the train, 2% buses and 1% walked or cycled respectively. This can be due to different reasons: the car-focused design of most of the shopping centres in these areas; the need for carrying bulky or many items; or the poor public transport connection.

A bit more than a third (34%) go to the shops two times a week, others go four or five times a week (15% and 16% respectively), once a week (13%) and about 3% shop nearly every day. For more than half of the respondents it takes up to 20 minutes to go to the shops (24% up to 10 minutes; 37% between 11 and 20 minutes) (keeping in mind that most travel by car). For 19% it takes between 21 and 30 minutes and for 13% it takes between 31 and 60 minutes. About 8% of respondents take longer than 1 hour to go to the shops, with 3% reporting that it takes longer than 90 minutes.

Most people go to the shops within their Local Government Area. In Selandra Rise about 20% of respondents who selected shopping as their “second most important destination” shop in their own

suburb of Clyde North and 40% shop in either Cranbourne, Narre Warren or Berwick. Other destinations include Dandenong (10%), Springvale (5%) and St Kilda (5%). In Allura only 11% shop within their own suburb of Truganina and 54% shop in other destinations in Wyndham, such as Williams Landing, Tarneit and Werribee. A further 12% go to shops in the Melbourne CBD and Docklands. Again, this can be related to the fact that currently, there is no shopping or town centre in Allura.

Clearly, most people in new suburbs want to live close to shops and other services, but limited availability and car-focused design mean that 90% of residents drive to the shops, rather than walk or cycle, with implications for their health as elaborated above. Furthermore, 69% of people living in Allura and Selandra Rise report that they have experienced travel restrictions in the last 12 months and for a third of those this has impacted their ability to go shopping, showing the importance of accessibility of shopping centres. The frustration about delayed delivery of retail services can also clearly be seen with more than half of the residents of Allura being dissatisfied with access to fresh food shops in their neighbourhood and having to shop further away, as the local town centre still needs to be built.

## **10. Implications for the 20-minute neighbourhood**

As the 20-minute neighbourhood concept is about “giving people the ability to meet most of their daily needs within a 20-minute walk from home, with access to safe cycling and local transport options” (DELWP, 2019, p. 1), pedestrian and cycling as well as public transport access is important for local retail. As this report has shown, currently, residents of new suburbs do rarely use active or public transport for going shopping and the current retail model of enclosed malls usually does not provide this access, but rather favours access by car. Therefore, there is a need to improve the planning for retail and town centre design in new growth suburbs as well as the implementation of those plans so that active transport modes are better integrated. Retail areas can be made more pedestrian-friendly by locating them at the heart of residential areas and not on main roads. A safe legible pedestrian access and active street frontages also encourage walking, and bike facilities, such as cycle paths, bike hoops and other safe bike storage can encourage more cycling. Another aspect, which is at the core of the 20-minute neighbourhood already is the insight that people are only willing to walk for a certain distance. Generally, it is assumed that 800 metres is a good walking distance, which translates into about a 10 minute walk (and a 20 minute return journey). Some research suggests that 500m distances would be even better to encourage people to walk so



that the current Standard in the PSP Guidelines of 1,000m distance of 80-90% of households to a town centre in a new suburb should be adapted accordingly. However, this would either mean that densities also need to be adapted correspondingly so that it is possible to locate 80-90% of households in 500 metre (or 800 metre) distance to a town centre, or that there need to be more town centres planned for. Yet, these town centres still need to have a viable catchment so that the latter solution could prove difficult. As most town centres in the new suburbs will be more locally focused, it will also be necessary to take into account their relationship with larger regional malls.

The 20-minute neighbourhood concept also includes other daily needs and not only retail. Again, the report has shown that the current retail model does not support this principle, as most shopping centres only provide a standard offer of certain retail shops, but other services are only offered to a very limited extent. Therefore, it is necessary to think about how other services and smaller shops can be integrated into the new town centres. While there are plans to ease the opportunities for smaller business, it does not seem that this has been successfully implemented so far. This point also includes the diversity of shops and services in regard to the ethnicities of people living in the respective suburb. The new suburbs are in particular locations where recent migrants move to so that their diversity should be acknowledged and mirrored in the local retail offer. To offer opportunities for smaller businesses and individual business owners is therefore an important part of planning for new retail models. Similarly, space for non-for-profit organisation and community services also need to be offered. Planning for flexible uses or events can be a part of this.

## **11. Conclusions and recommendations**

The characteristics of a retail form that will boost health benefits, social interactions and community participation in new suburbs include:

- better accessibility by active and public transport,
- a decreased focus on car accessibility and car parking,
- an open urban form
- more opportunities for smaller businesses and start-ups which reflect the local community and therefore add to social inclusion.

This report has reviewed the current retail model in greenfield suburbs, which for the most part takes on the form of a standalone enclosed or semi-enclosed shopping mall, with a focus on its social and health impacts as well as other critiques. It has also provided a brief overview of trends

in retail in relation the different retail forms, international policy responses as well as resident experiences and preferences living in Melbourne's growth areas.

The review found that enclosed retail malls impact negatively on residents' health by encouraging and favouring car access. Better accessibility and walkability would lead to substantial health and economic benefits associated with higher physical activity and thus fewer inactivity related diseases and premature death. The car focus can also disadvantage social groups without access or limited access to cars, such as youth below driving age, the elderly, some people with disabilities and low-income households. Other negative social impacts are that, due to their generally single private ownership and management, malls are not public spaces and do not provide public meetings space or at least only to a limited extent. The privatised and commercial nature of the space tends to welcome some demographic groups and discourage others. It can happen and has happened that certain groups of the community, e.g. youth, elderly people or people from certain cultural backgrounds, are excluded, as they are asked to leave centres or at least looked upon suspiciously. Cultural diversity, which is usually high in greenfield suburbs is basically not reflected in the retail offer of malls, as mostly the tenants are chain stores and standard shops considered by management to have broad appeal. The extended opening hours and comparably high rents make it also difficult for small family businesses and start-ups to get a foot in the door. This reduces local economic opportunity and the lack of diversity of offerings has a negative impact on social inclusion.

While there are many critical voices about the enclosed mall and obviously some negative social and health impacts, retailers and developers might prefer this model, as it is successful and economically viable for them, and the community accepts this urban form or at least does not expect anything different. However, a diversification and rethinking of the architectural design and offer is occurring in Australian malls, with inclusion of other uses than retail, although still mostly commercial, and an opening up to the outside with alfresco dining and food areas combined with playgrounds. In the US, and partly in Australia, mall owners have looked to the traditional shopping street and town centre to improve the amenity values of the malls. Potentially these starting points can be used for larger changes.

Yet, there is no sign of rethinking in the car-based designs of centres, with very few exceptions, and this will be one of the crucial goals to achieve. While research has found that the ability of centres to attract customers depends on a range of functions including a mix of offerings, accessibility, locality, safety and customer service, the believe in the need for car parking is still high. And for some forms of retail there is no doubt a strong need for car access. However, there are also forms of

retail that do not depend on car access. Furthermore, car access does not mean that the retail area needs to be enclosed by car parks and that the high amount of parking lots provided currently is necessary. There are other urban design solutions and a lower number of car parks is in all likelihood sufficient.

The resident survey in growth areas in Melbourne supports that residents are highly diverse and value closeness of (food) shops highly. Furthermore, it highlights the need to provide access to shops early in the life of a development. For the majority of respondents, it was important to live close to shops and the respondents living in the more established area with a town centre and supermarket were mostly satisfied with their access to fresh food shops. The respondents in the more recent area where the town centre has not been established yet, were clearly more frustrated with over half of the respondents being dissatisfied with their access to fresh food shops. How a town centre or at least parts of a town centre could be feasible to be built earlier has not been researched so far. Sequencing of growth might provide some answers, but there may also be other solutions.

International experiences and policies show that retail development can be influenced by planning policies, but mostly the policies are concerned with out of centre development while retail development in residential greenfield areas do not seem to be prominently discussed in other countries. The reason for that is likely to be the lower population and urban growth pressure. Potentially, some approaches could be discovered by undertaking an in-depth-analysis of retail planning and policies in countries, such as the US or Canada, with partly similar growth patterns and planning policies. Interpreting the policies and discussion covered in this report, the spatial concentration of the supply of public and private services and their accessibility by different transport modes is seen as crucial in most countries.

With these results, the question for planning retail in greenfield suburbs is now how the described negative effects can be mitigated in a feasible manner and how positive outcomes can be achieved. Unfortunately, there is no clear and easy solution, but approaches will need to be trialled.

There are three approaches available:

- 1) Work with current retail developers and the retail industry to change the form of the current retail model (the enclosed mall) so that they become less car-focused, encourage access by public and active transport, allow for more diversity and become more public, by adding

public spaces and opportunities and spaces for smaller businesses as well as other community services.

- 2) Plan for and work with retail areas with individual ownership so that more diversity of retail and services occurs, places are automatically public and access to the retail area is more in the hand of public planning than in the hand of a private business.
- 3) A combination of single-ownership areas and individual-ownership areas.

Additionally, it seems that a more fine-grained planning of retail areas is needed, similar to planning for residential areas. This means to not only plot where a town centre or shopping area is planned, but to provide more detail as to what this centre could and should look like. The PSP Guidelines already mention active frontages and good access by public and active transport. This could be elaborated in more detail and added to the considerations for Planning Permission Applications so that planners can refer to them when assessing those applications. The PSP Guidelines should also be adapted to change the reference to the 1,000m distance of 80-90% of households to a town centre in a new suburb to at least 800m or 500m.

While ownership structures and types of retail cannot be influenced through planning, it can be arranged for areas where smaller businesses and start-ups as well as community services and other non-retail services can be located and integrated into the town centre. Planning for flexible uses or events can be a part of this. Also, locations of car parking can be influenced and the positioning of streets and access opportunities to town centres. Urban design will play an important part in this. If it is to be successful, planning for new greenfield retail needs to meet the needs of both shoppers and shopkeepers, as well as responding to environmental and social concerns.

Further research that can assist in achieving better retail models for greenfield suburbs includes:

- Research into retail models in outer suburbs that differ from the standard enclosed mall; an investigation into how they came about, their implementation and their situation. This will assist to understand whether and how they are economically viable and how to plan for shopping centres with better accessibility for active and public transport and active frontages. In Melbourne this could be the Point Cook and Laurimar shopping strips.
- Analysis of retail planning and policies in countries, such as the US or Canada, with partly similar growth patterns and planning policies.
- Research into how town centres or parts of it can be built earlier in a viable manner. Sequencing of growth might provide some answers, but there may also be other solutions.

## References

- Arancibia, D., Farber, S., Savan, B., Verlinden, Y., Smith Lea, N., Allen, J., & Vernich, L. (2019). Measuring the Local Economic Impacts of Replacing On-Street Parking With Bike Lanes. *Journal of the American Planning Association*, 1-19. doi:10.1080/01944363.2019.1638816
- ARL. (2008). *The Planning System and Planning Terms in Germany – A Glossary* (E. Pahl-Weber & D. Henckel Eds.). Hanover, Germany: ARL (Academy for Spatial Research and Planning).
- Armstrong, B., Davison, G., de Vos Malan, J., Gleeson, B., & Godfrey, B. (2015). *Delivering Sustainable Urban Mobility. Report for the Australian Council of Learned Academies*. Melbourne: Australian Council of Learned Academies.
- Awaworyi Churchill, S., & Smyth, R. (2019). Transport poverty and subjective wellbeing. *Transportation Research Part A*, 124, 40-54. doi:10.1016/j.tra.2019.03.004
- Bennison, D., Warnaby, G., & Pal, J. (2010). Local shopping in the UK: towards a synthesis of business and place. *International Journal of Retail & Distribution Management*, 38(11/12), 846-864. doi:10.1108/09590551011085948
- Berglund, E. (2010). *The British high street as a cultural institution: an anthropological critique of retail planning*. Paper presented at the Space is Luxury 24th AESOP Annual Conference, Helsinki.
- Boulangé, C., Gunn, L., Giles-Corti, B., Mavoa, S., Pettit, C., & Badland, H. (2017). Examining associations between urban design attributes and transport mode choice for walking, cycling, public transport and private motor vehicle trips. *Journal of Transport & Health*, 6, 155-166. doi:https://doi.org/10.1016/j.jth.2017.07.007
- Brooks, B. (2019). Smaller suburban centres could be in Big W firing line as discounter announces first of 30 store closures. Retrieved from <https://www.news.com.au/finance/business/retail/smaller-suburban-centres-could-be-in-big-w-firing-line-as-discounter-announces-first-of-30-store-closures/news-story/c398718c53e5155986bf029b82116df1>
- Cairns, S. (2005). Delivering supermarket shopping: more or less traffic? *Transport Reviews*, 25(1), 51-84. doi:10.1080/0144164042000218391
- Cervero, R. (2004). *Transit-Oriented Development in the United States: Experiences, Challenges and Prospects*. TCRP Report 102. Washington, DC: Transportation Research Board.
- Cohen, E. (1996). From Town Center to Shopping Center: The Reconfiguration of Community Marketplaces In Postwar America. *The American Historical Review*, 101(4), 1050-1081.
- Currie, G., Richardson, T., Smyth, P., Vella-Brodick, D., Hine, J., Lucas, K., . . . Stanley, J. (2009). Investigating links between transport disadvantage, social exclusion and well-being in Melbourne—Preliminary results. *Transport Policy*, 16(3), 97-105. doi:10.1016/j.tranpol.2009.02.002
- Davies, A. (2011). Activity Centres: Malls & strips: what's the difference? Retrieved from <https://blogs.crikey.com.au/theurbanist/2011/08/29/malls-strips-whats-the-difference/>
- DCLG. (2012). *Improving high streets and town centres*. DCLG Policy. Department for Communities & Local Government Retrieved from <https://www.gov.uk/government/publications/2010-to-2015-government-policy-high-streets-and-town-centres>
- DELWP. (2019). Living Locally - 20 Minute Neighbourhood Pilot Program. Fact Sheet. Retrieved from [https://www.planmelbourne.vic.gov.au/\\_data/assets/pdf\\_file/0010/515287/20-Minute-Neighbourhood-Fact-Sheet.pdf](https://www.planmelbourne.vic.gov.au/_data/assets/pdf_file/0010/515287/20-Minute-Neighbourhood-Fact-Sheet.pdf)

- Denmark, D. (1998). The Outsiders: Planning and Transport Disadvantage. *Journal of Planning Education and Research*, 17(3), 231-245. doi:10.1177/0739456X9801700304
- Dittmar, H., & Ohland, G. (2004). *The New Transit Town: Best Practices in Transit-Oriented Development*. Washington, DC: Long Island Press.
- Doak, J. (2009). An inspector calls: Looking at retail development through a sustainability lens. *Journal of Retail and Leisure Property*, 8(4), 299. doi:10.1057/rlp.2009.17
- Dodson, J., & Sipe, N. (2008). *Shocking the Suburbs: Oil Vulnerability in the Australian City*. Sydney: UNSW Press.
- Duany, A., Plater-Zyberk, E., & Speck, J. (2000). *Suburban Nation: The Rise of Sprawl and the Decline of the American Dream*. New York: North Point Press.
- Engels, B., & Liu, G.-J. (2011). Social exclusion, location and transport disadvantage amongst non-driving seniors in a Melbourne municipality, Australia. *Journal of Transport Geography*, 19(4), 984-996.
- Everts, J. (2015). *Consumption and multiculturalism in the district: a socio-geographical analysis of migrant-led grocery stores*. Bielefeld, Germany: transcript Verlag.
- Fernandes, J. R., & Chamusca, P. (2014). Urban policies, planning and retail resilience. *Cities*, 36, 170-177. doi:10.1016/j.cities.2012.11.006
- GAA. (2009). *Precinct Structure Planning Guidelines Part One – Overview of Growth Area Planning*. Melbourne: Growth Areas Authority
- GAA. (2013). *Precinct Structure Planning Guidelines Part Two – Preparing the Precinct Structure Plan*. Melbourne: Growth Areas Authority
- Garside, P., Hughes, A., & Lynch, K. (2003). Retailing and sustainability: Exploring connections using the example of a local town market. *Local Environmental Sustainability*, 114-137. doi:10.1016/B978-1-85573-685-6.50009-8
- Gehl, J. (2010). *Cities for people*. Washington, DC: Island Press.
- Gehl, J. (2011). *Life between buildings : using public space*. Washington, DC: Island Press.
- Gonçalves, J., & Ferreira, J. A. (2015). The planning of strategy: A contribution to the improvement of spatial planning. *Land Use Policy*, 45, 86-94. doi:10.1016/j.landusepol.2015.01.020
- Goodman, R., & Coiacetto, E. (2012). Shopping Streets or Malls: Changes in Retail Form in Melbourne and Brisbane. *Urban Policy and Research*, 30(3), 251-273. doi:10.1080/08111146.2012.667771
- Goodman, R., & Coote, M. (2007). Sustainable Urban Form and the Shopping Centre: An investigation of activity centres in Melbourne's growth Areas. *Urban Policy and Research*, 25(1), 39-61.
- Goodman, R., & Taylor, E. (forthcoming). Suburban Shopping Malls in Melbourne, Australia: Changing Roles and Impacts as New Town Centres for Diverse Communities. In.
- Gosseye, J., & Avermaete, T. (2015). Introduction: The Shopping Centre 1943-2013: The Rise and Demise of a Ubiquitous Collective Architecture. In *The Shopping Centre 1943-2013: The Rise and Demise of a Ubiquitous Collective Architecture*: TU Delft, Faculty of Architecture and the Built Environment.
- Guimaraes, P. (2019). Shopping centres in decline: analysis of demalling in Lisbon. *Cities*, 87, 21-29. doi:10.1016/j.cities.2018.12.021

- Gunn, L. D., King, T. L., Mavoia, S., Lamb, K. E., Giles-Corti, B., & Kavanagh, A. (2017). Identifying destination distances that support walking trips in local neighborhoods. *Journal of Transport & Health*, 5, 133-141. doi:10.1016/j.jth.2016.08.009
- Guy, C. (2007). *Planning for retail development: a critical view of the British experience*. London: Routledge.
- Hughes, C., & Jackson, C. (2015). Death of the high street: Identification, prevention, reinvention. *Regional Studies, Regional Science*, 2(1), 237-256.
- Jackson, K. T. (1996). All the World's a Mall: Reflections on the Social and Economic Consequences of the American Shopping Center. *The American Historical Review*, 101(4), 1111-1121. doi:10.1086/ahr/101.4.1111
- Jacobs, J. (1961). *The death and life of great American cities*. New York: Vintage Books.
- Johanson, S. (2019, 14/08/2019). Suburban shopping strips fight back. *Sydney Morning Herald*. Retrieved from <https://www.smh.com.au/business/companies/suburban-shopping-strips-fight-back-20190813-p52gly.html>
- Jones, P., Hillier, D., & Comfort, D. (2007). Changing times and changing places for market halls and covered markets. *International Journal of Retail & Distribution Management*, 35(3), 200-209. doi:10.1108/09590550710735059
- Kasinitz, P., Zukin, S., & Chen, X. (2015). Local Shops, Global Streets. In S. Zukin, P. Kasinitz, & X. Chen (Eds.), *Global cities, local streets: Everyday diversity from New York to Shanghai* (pp. 195 - 206): Routledge.
- Kim, K.-H., Sato, S., Kobayashi, Y., Himeno, Y., & Zhang, T.-A. (2005). Analysis of consumers' selective factor of central or suburban shopping centers. *Journal of Architecture and Planning (Transactions of AIJ)*(588), 95-102.
- Kohn, M. (2004). *Brave new neighborhoods : the privatization of public space*. New York: Routledge.
- Korthals Altes, W. K. (2016). Freedom of Establishment Versus Retail Planning: The European Case. *European Planning Studies*, 24(1), 163-180. doi:10.1080/09654313.2015.1029441
- Kurth, D., Simon-Phillipp, C., & Brombach, K. (2010). *An international perspective on district centre regeneration—between urban planning and promotion of economic development*. Paper presented at the Space is Luxury: 24th AESOP Annual Conference, Helsinki.
- Lee, A., & March, A. (2010). Recognising the economic role of bikes: sharing parking in Lygon Street, Carlton. *Australian Planner*, 47(2), 85-93. doi:10.1080/07293681003767785
- López-González, A., C. Lois-González, R., & Fernández-Casal, R. (2013). Mercadona (Spain): a retail model in expansion. *International Journal of Retail & Distribution Management*, 41(1), 6-26. doi:10.1108/09590551311288148
- Lowe, M. (1998). The Merry Hill Regional Shopping Centre Controversy: PPG6 and New Urban Geographies. *Built Environment*, 24(1), 57.
- Lowe, M. (2005). Revitalizing inner city retail? The impact of the West Quay development on Southampton. *International Journal of Retail & Distribution Management*, 33(8/9), 658-668.
- Maller, C., & Nicholls, L. (2016). *Planning and designing healthy new communities: Selandra Rise Research Summary*. Retrieved from [https://www.vichealth.vic.gov.au/-/media/ResourceCentre/PublicationsandResources/General/Selandra\\_Rise\\_Final\\_Summary\\_Report.pdf?la=en&hash=A58AAB5A27486863DBEA8B18D3B5188A407F50BE](https://www.vichealth.vic.gov.au/-/media/ResourceCentre/PublicationsandResources/General/Selandra_Rise_Final_Summary_Report.pdf?la=en&hash=A58AAB5A27486863DBEA8B18D3B5188A407F50BE)

- Malone, K. (2002). Street life: youth, culture and competing uses of public space. *Environment and urbanization*, 14(2), 157-168.
- Maronick, T. J. (2007). Specialty retail center's impact on downtown shopping, dining, and entertainment. *International Journal of Retail & Distribution Management*, 35(7), 556-568. doi:10.1108/09590550710755930
- Martin, S., & Goodman, R. (2016). Living on the edge: New forms of poverty and disadvantage on the urban fringe. In C. Williams (Ed.), *Social Work and the City: Themes, issues and interventions in the 21st Century urban context* (pp. 235-257). London: Palgrave Macmillan.
- McCormick, C. (2012). *York Boulevard: The economics of a road diet.*, Luskin School of Public Affairs, University of California., Los Angeles. Retrieved from [https://nacto.org/docs/usdg/yorkblvd\\_mccormick.pdf](https://nacto.org/docs/usdg/yorkblvd_mccormick.pdf)
- Mikola, M., & Mansouri, F. (2015). Race lines and spaces of political action among migrant youth. *Journal of Youth Studies*, 18(4), 500-514.
- MIL. (2014). *Einzelhandelserlass Brandenburg*. Potsdam, Germany: Land Brandenburg Retrieved from <https://mil.brandenburg.de/sixcms/detail.php/bb1.c.382439.de>
- Millington, S., & Ntounis, N. (2017). Repositioning the high street: evidence and reflection from the UK. *Journal of Place Management and Development*, 10(4), 364-379.
- Mingardo, G., & Van Meerkerk, J. (2012). Is parking supply related to turnover of shopping areas? The case of the Netherlands. *Journal of Retailing and Consumer Services*, 19(2), 195-201.
- Mortimer, G. (2019). Winds of change: Is Kaufland a cause for concern? *Inside Retail - Australia*. <https://www.insideretail.com.au/news/food-grocery/supermarkets-food-grocery/winds-of-change-is-kaufland-a-cause-for-concern-201902>
- Mortimer, G., & Grimmer, L. (2019). More than milk and bread: Corner store revival can rebuild neighbourhood ties. *The Conversation*.
- Moudon, A. V., Lee, C., Cheadle, A. D., Garvin, C., Johnson, D., Schmid, T. L., . . . Lin, L. (2006). Operational Definitions of Walkable Neighborhood: Theoretical and Empirical Insights. *Journal of physical activity & health*, 3(s1), S99. doi:10.1123/jpah.3.s1.s99
- MRU. (1998). *Richtlinie zur Beurteilung von geplanten Einzelhandelsgroßprojekten im Land Sachsen-Anhalt*. Dresden, Germany: Ministerium für Raumordnung und Umwelt Retrieved from <http://www.landesrecht.sachsen-anhalt.de/jportal/?quelle=jlink&query=VVST-230000-MU-19981022-SF&psml=bssahprod.psml&max=true>
- Nishida, M. (2014). The costs of zoning regulations in retail chains: the case of the City Planning Act of 1968 in Japan. *Journal of Regulatory Economics*, 45(3), 305-328. doi:10.1007/s11149-014-9247-x
- Odenheimer, M. (2006). The end of public space: Israel's new shopping malls.(ISRAEL/PALESTINE). *Tikkun*, 21(1), 29.
- Ortuño Padilla, A., Alarcón Hermosilla, A., & Tomás Ozores, O. (2017). The impact of out-of-town shopping centres on town-centre retailers and employment: The case of the Region of Murcia. *Land Use Policy*, 65, 277-286. doi:10.1016/j.landusepol.2017.04.014
- Parker, C., Ntounis, N., Millington, S., Quin, S., & Castillo-Villar, F. R. (2017). Improving the vitality and viability of the UK High Street by 2020: Identifying priorities and a framework for action. *Journal of Place Management and Development*, 10(4), 310-348.



- Parlette, V., & Cowen, D. (2011). Dead Malls: Suburban Activism, Local Spaces, Global Logistics. *International Journal of Urban and Regional Research*, 35(4), 794-811. doi:10.1111/j.1468-2427.2010.00992.x
- Peters, K., & De Haan, H. (2011). Everyday spaces of inter-ethnic interaction: the meaning of urban public spaces in the Netherlands. *Leisure/Loisir*, 35(2), 169-190.
- Property Council of Australia. (2018). *Directory of shopping centres. Victoria & Tasmania*. Melbourne: Property Council of Australia, Victorian Division
- Rao, F., Dovey, K., & Pafka, E. (2018). Towards a genealogy of urban shopping: types, adaptations and resilience. *Journal of Urban Design*, 23(4), 544-557. doi:10.1080/13574809.2017.1405726
- Ravenscroft, N. (2000). The Vitality and Viability of Town Centres. *Urban Studies*, 37(13), 2533-2549. doi:10.1080/00420980020080681
- REAC. (2017). *Independent Recommendations Report. June 2017*. Sydney: Retail Expert Advisory Committee
- Reimers, V. (2013). Convenience for the car-borne shopper: Are malls and shopping strips driving customers away? *Transportation Research Part A: Policy and Practice*, 49, 35-47.
- Rogers, R. G. (1997). *Cities for a small planet*. London: Faber.
- Rotem-Mindali, O., & Salomon, I. (2007). The impacts of E-retail on the choice of shopping trips and delivery: Some preliminary findings. *Transportation Research Part A*, 41(2), 176-189. doi:10.1016/j.tra.2006.02.007
- Ruck, M., Harris, A., Fine, M., & Freudenberg, N. (2008). Youth Experiences of Surveillance - A Cross-National Analysis. In M. Flynn & D. C. Brotherton (Eds.), *Globalizing the Streets* (pp. 15-30): Columbia University Press.
- Sadun, R. (2015). Does Planning Regulation Protect Independent Retailers? *The Review of Economics and Statistics*, 97(5), 983. doi:10.1162/REST\_a\_00492
- Sanburn, J. (2017). Why the Death of Malls Is About More Than Shopping. Retrieved from <http://time.com/4865957/death-and-life-shopping-mall/>
- Schwanen, T., Dijst, M., & Dieleman, F. M. (2004). Policies for Urban Form and their Impact on Travel: The Netherlands Experience. *Urban Studies*, 41(3), 579-603. doi:10.1080/0042098042000178690
- SCN. (2019). Shopping Centre News - Home. Retrieved from <https://www.shoppingcentrenews.com.au/>
- Southworth, M. (2005). Reinventing main street: From mall to townscape mall. *Journal of Urban Design*, 10(2), 151-170.
- Spilková, J., & Perlín, R. (2010). Czech Physical Planning at the Crossroads: Towards the Regulation of Large-Scale Retail Developments? *Environment and Planning C: Government and Policy*, 28(2), 290-303. doi:10.1068/c08116
- Staatskanzlei-NRW. (2013). *Landesentwicklungsplan Nordrhein-Westfalen Sachlicher Teilplan Großflächiger Einzelhandel*. Duesseldorf, Germany: Land NRW
- Staeheli, L. A., & Mitchell, D. (2006). USA's Destiny? Regulating Space and Creating Community in American Shopping Malls. *Urban Studies*, 43(5-6), 977-992. doi:10.1080/00420980600676493
- Teller, C. (2008). Shopping streets versus shopping malls - determinants of agglomeration format attractiveness from the consumers' point of view. *The International Review of Retail, Distribution and Consumer Research*, 18(4), 381-403. doi:10.1080/09593960802299452

- Teller, C., & Reutterer, T. (2008). The evolving concept of retail attractiveness: What makes retail agglomerations attractive when customers shop at them? *Journal of Retailing and Consumer Services*, 15(3), 127-143. doi:10.1016/j.jretconser.2007.03.003
- Thomas, C. J., & Bromley, R. D. F. (2002). The Changing Competitive Relationship between Small Town Centres and Out-of-town Retailing: Town Revival in South Wales. *Urban Studies*, 39(4), 791-817. doi:10.1080/00420980220119570
- Uberti, D. (2014). The Death of The American Mall. *The Guardian*. Retrieved from <https://www.theguardian.com/cities/2014/jun/19/-sp-death-of-the-american-shopping-mall>
- UK-Government. (2019). High streets and town centres. Retrieved from <https://www.gov.uk/housing-local-and-community/high-streets-and-town-centres>
- Van der Krabben, E. (2009). Retail Development in The Netherlands : Evaluating the Effects of Radical Changes in Planning Policy. *European Planning Studies*, 17, 1029-1048.
- Voyce, M. (2006). Shopping malls in Australia: The end of public space and the rise of ‘consumerist citizenship’? *Journal of Sociology*, 42(3), 269-286. doi:10.1177/1440783306066727
- Weijs-Perrée, M., van den Berg, P., Arentze, T., & Kemperman, A. (2015). Factors influencing social satisfaction and loneliness: a path analysis. *Journal of Transport Geography*, 45, 24-31. doi:<https://doi.org/10.1016/j.jtrangeo.2015.04.004>
- Wertz, J. (2019). 5 Trends That Will Redefine Retail In 2019. Retrieved from <https://www.forbes.com/sites/jiawertz/2018/11/28/5-trends-that-will-redefine-retail-in-2019/#6b5dd5836526>
- White, R., & Sutton, A. (2001). Social Planning for Mall Redevelopment: An Australian case-study. *Local Environment*, 6(1), 65-80. doi:10.1080/13549830120024251
- White, R., Toohey, J.-A., & Asquith, N. (2015). Seniors in shopping centres. *Journal of Sociology*, 51(3), 582-595. doi:10.1177/1440783313507494
- Wiese, A., Zielke, S., & Toporowski, W. (2015). Shopping travel behaviour. *International Journal of Retail & Distribution Management*, 43(4/5), 469-484. doi:10.1108/IJRDM-01-2015-0006
- Wood, L., Shannon, T., Bulsara, M., Pikora, T., McCormack, G., & Giles-Corti, B. (2008). The anatomy of the safe and social suburb: an exploratory study of the built environment, social capital and residents’ perceptions of safety. *Health & place*, 14(1), 15-31.
- Wrigley, N., Wood, S., Lambiri, D., & Lowe, M. (2019). Corporate convenience store development effects in small towns: Convenience culture during economic and digital storms. *Environment and Planning A: Economy and Space*, 51(1), 112-132. doi:10.1177/0308518X18796507
- Yan, R.-N., & Eckman, M. (2009). Are lifestyle centres unique? Consumers' perceptions across locations. *International Journal of Retail & Distribution Management*, 37(1), 24-42. doi:10.1108/09590550910927144
- Yrjänä, L., Rashidfarokhi, A., Toivonen, S., & Viitanen, K. (2018). Looking at retail planning policy through a sustainability lens: Evidence from policy discourse in Finland. *Land Use Policy*, 79, 190-198. doi:10.1016/j.landusepol.2018.08.013
- Zapata-Diomedí, B., Boulange, C., Giles-Corti, B., Phelan, K., Washington, S., Veerman, J., & Gunn, L. (2019). Physical activity-related health and economic benefits of building walkable neighbourhoods: A modelled comparison between brownfield and greenfield developments.